

30 May 2018

Professor Flavio Menezes
Deputy Chair
Queensland Competition Authority

Dear Professor Menezes

DBCT Declaration Assessment

Enclosed with this letter is DBCTM's submission on the DBCT Declaration Review for the QCA's consideration.

The existing declaration of the coal handling service at DBCT (the **DBCT Service**) expires on 8 September 2020, pursuant to section 250 of the QCA Act. Only if the QCA is affirmatively satisfied of the declaration criteria in section 76 of the QCA Act can the QCA recommend that the DBCT Service be declared beyond 8 September 2020.

DBCTM's submission establishes that three of the four declaration criteria are not satisfied, and accordingly DBCTM submits that the QCA must recommend the DBCT Service not be declared. In this regard:

- DBCT is not a natural monopoly as it cannot meet total foreseeable demand in the market at least cost. Significantly, it is not reasonably possible for the capacity of DBCT to be expanded to the extent required to meet total foreseeable demand in the market. Further, the modelling commissioned by DBCTM establishes that even up to its reasonable expanded capacity, other terminals are both necessary for and provide a lower cost alternative to meeting at least some of the total foreseeable demand in the relevant market. Therefore, the DBCT Service does not satisfy criterion (b).
- Without declaration, DBCTM will continue to provide open access on substantially the same terms as are currently offered to access seekers, pursuant to a binding access framework. Accordingly, access on reasonable terms as a result of declaration will not promote a material increase in competition in any relevant dependent market. Therefore, the DBCT Service does not satisfy criterion (a).
- Access to the DBCT Service as a result of declaration is likely to result in significant public detriments that materially outweigh the limited benefits. Accordingly, access to the DBCT Service on reasonable terms and conditions as a result of declaration will not promote the public interest. Therefore, the DBCT Service does not satisfy criterion (d).

The issues raised by this Declaration Review are complex matters of law and economics. DBCTM understands it will be given a reasonable opportunity to address any questions to ensure the QCA fully understands the DBCTM submissions prior to issuing a draft decision.

Yours sincerely



Anthony Timbrell
Chief Executive Officer
DBCT Management

Attachment 1: DBCTM submission on the DBCT declaration review

DBCT MANAGEMENT



DBCT declaration review

DBCT Management submission to the QCA

30 May 2018

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1 Executive Summary

- 1 DBCT Management Pty Limited (**DBCTM**) provides this submission in respect of the Queensland Competition Authority's (**QCA's**) review of the declared service at Dalrymple Bay Coal Terminal (**DBCT**). The QCA's review is being conducted under Subdivision 4A of Division 2 of Part 5 of the *Queensland Competition Authority Act 1997 (QCA Act)*.
- 2 The service that is currently declared is the handling of coal at DBCT by the terminal operator (**DBCT service**).¹
- 3 The declaration of the DBCT service expires on 8 September 2020, pursuant to section 250 of the QCA Act. It is only if the QCA is affirmatively satisfied of the declaration criterion in section 76 of the QCA Act that the QCA can recommend the DBCT service be declared from 8 September 2020.
- 4 In order to recommend that the DBCT service be declared by the Minister, the QCA must be satisfied about all of the access criteria for the service.² Conversely, the QCA must recommend that the DBCT service not be declared if it is not satisfied about all of the access criteria for the service.³

Criterion (b)

- 5 The QCA must recommend that a service not be declared if it is not satisfied about criterion (b) in section 76(2)(b) of the QCA Act. Criterion (b) requires:
 - that the facility for the service could meet the total foreseeable demand in the market—
 - (i) over the period for which the service would be declared; and
 - (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service)
- 6 Criterion (b) is concerned with identifying natural monopoly facilities and avoiding the inefficient and unnecessary duplication of such facilities. The duplication of coal export terminals has already occurred in Queensland. DBCT is one of five coal export terminals which services mines connected to a highly integrated below-rail network. The existence of Hay Point Coal Terminal (**HPCT**), Adani Abbot Point Terminal (**AAPT**), RG Tanna Coal Terminal (**RGCT**) and Wiggins Island Export Coal Terminal (**WICET**) and the fact that mines in the Goonyella rail system and its vicinity (which are proximate to DBCT) use those terminals, evidences the existence of a competitive market for coal handling services.
- 7 The submission explores whether the DBCT service satisfies criterion (b) and concludes it does not, for the following reasons (*inter alia*):
 - 7.1 The evidence that customers of DBCT also use HPCT, AAPT and RGCT establishes that those coal export terminals serve demand in the market in which the DBCT service is supplied and are close substitutes for the DBCT service;
 - 7.2 Total foreseeable demand in the market is materially higher over the declaration period than DBCT has the capacity to meet; and
 - 7.3 Total foreseeable demand in the market over the declaration period is met at least cost by four coal export terminals, being DBCT, HPCT, AAPT and RGCT.

¹ Section 250(1)(c) of the QCA Act

² Section 76(1) and 87C(1) of the QCA Act

³ Section 87C(2) of the QCA Act

Criterion (a)

- 8 The QCA must recommend that a service not be declared if it is not satisfied about criterion (a) in section 76(2)(a) of the QCA Act. Criterion (a) requires:
- that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service
- 9 Access to coal handling services at DBCT *as a result of declaration* would not promote a material increase in competition in any dependent market as there will be no material change to how access is provided without declaration. In the future without declaration, Access Holders and Access Seekers will have recourse to a binding and effective negotiate/arbitrate access framework (**Access Framework**).
- 10 The submission explores whether the DBCT service satisfies criterion (a) and concludes it does not, for the following reasons (*inter alia*):
- 10.1 the binding access framework that DBCTM will adopt in the future without declaration means there will be no difference in the volume of coal throughput at DBCT or use of the DBCT service without declaration compared to a future with declaration;
 - 10.2 as there will be no difference in throughput at DBCT with or without declaration, the declaration of the DBCT service would not promote a material increase in competition in any market;
 - 10.3 the primary downstream markets (the coal export markets) are effectively competitive, and would remain so without declaration of the DBCT service; and
 - 10.4 any perceived ability or incentive for DBCTM to exercise market power to adversely affect competition in dependent markets would be constrained by competing coal export terminals, the significant countervailing power of users, the threat of heavy-handed regulation, and the terms of DBCTM's lease of DBCT. In addition, DBCTM's lack of vertical integration into the dependent markets means that it does not have any incentive to hinder third party access, nor does it have a related entity that it could seek to advantage through the operation of DBCT.

Criterion (d)

- 11 The QCA must recommend that a service not be declared if it is not satisfied of criterion (d) in section 76(2)(d) of the QCA Act. Criterion (d) requires:
- that access (or increased access) to the service, on reasonable terms and conditions as a result of declaration of the service would promote the public interest.
- 12 The submission explores whether the DBCT service satisfies criterion (d) and concludes it does not, for the following reasons (*inter alia*):
- 12.1 no public benefits would be likely to arise as a result of declaring a service provided by an infrastructure provider to large industrial users in the context of mutual dependence between the provider and the users; and
 - 12.2 declaring just one of five terminals available to the CQCN miners is likely to distort the inter-terminal pattern of incentives for the expansion of terminal capacity; and in the alternative, any public benefits that do result are not substantial and do not outweigh the significant detriments associated with declaration.
- 13 For the reasons summarised above and explored in detail in this submission, the DBCT service does not satisfy all of the access criteria. Accordingly, the QCA must recommend to the Minister that, with effect from the expiry date, the DBCT service not be declared.

2 Background

DBCT

- 14 DBCT is a multi-user coal export facility located 38 kilometres south of Mackay at the Port of Hay Point. There are two coal terminals at the Port of Hay Point – DBCT and Hay Point Coal Terminal (**HPCT**). DBCT's nameplate capacity is 85Mpta.
- 15 DBCT is owned by the Queensland Government through its wholly-owned entity DBCT Holdings Pty Ltd. DBCT is leased to DBCT Investor Services Pty Ltd (**DBCT Trustee**) as trustee for the DBCT Trust which sub-leases it to DBCTM.⁴
- 16 The day to day operation and maintenance of DBCT is subcontracted to DBCT Pty Ltd as the operator⁵ under the Operation and Maintenance Contract (**OMC**). The operator is owned by a majority of the existing users of DBCT. Existing users comprise Anglo American, BHP Mitsui Coal, Fitzroy Australia Resources, Glencore, Stanmore Coal, Middlemount South, Peabody Energy, and Rio Tinto.⁶ Neither Brookfield nor DBCTM has any ownership interest in DBCT Pty Ltd.

Declaration review

- 17 The QCA's review is being conducted under Subdivision 4A of Division 2 of Part 5 of the QCA Act. The object of Part 5 of the QCA Act is to 'promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets'.⁷
- 18 The service that is currently declared is the handling of coal at DBCT by the terminal operator.⁸ This service is referred to in this submission as 'the DBCT service'.
- 19 As the declaration of the DBCT service will expire on 8 September 2020⁹, the QCA is required to make a recommendation to the Minister (at least 6 months but not more than 12 months before that date) that the DBCT service be declared, or part of the service be declared, or the service not be declared.¹⁰
- 20 As the Queensland Parliament has clearly determined that the declaration of coal handling services at DBCT is to expire on 8 September 2020, there cannot be any express or implied presumption that declaration should continue. In fact the law is that coal handling services at DBCT are not declared beyond 8 September 2020. If the QCA were to view its obligation under section 87A as an assessment of whether declaration should continue, the adoption of such an approach would involve error.

⁴ DBCTM is 100 percent legally owned by its Australian parent, BPIH Pty Limited. BPIH Pty Limited is in turn 100 percent owned (through a number of interposed entities) by Brookfield Infrastructure Partners L.P. (BIP), with 29.8 percent of BIP held by Brookfield Asset Management Inc. (BAM) and 70.2 percent publicly listed on the New York and Toronto stock exchanges. BAM is 100 percent publicly listed on the New York and Toronto stock exchanges. This submission refers to the lessee entities of the terminal collectively as "DBCTM", and to DBCTM's ownership simply as "Brookfield"

⁵ Note that the terminal operator for the purposes of the Access Undertaking (DBCT Pty Ltd), is different to the terminal operator for the purposes of the QCA Act (DBCTM). In this submission any references to operator are to the user-owned DBCT Pty Ltd.

⁶ DBCT User Group's submission on QCA Amendment Bill 2018, 28 Feb 2018, p. 1

⁷ Section 69E of the QCA Act

⁸ Section 250(1)(c) of the QCA Act. As noted above, the QCA Act deems DBCTM the operator.

⁹ Section 250(2) of the QCA Act

¹⁰ Section 87A of the QCA Act

- 21 In order to recommend that the DBCT service be declared by the Minister, the QCA must be satisfied about all of the access criteria for the service.¹¹ Conversely, the QCA must recommend that the DBCT service not be declared if it is not satisfied about all of the access criteria for the service.¹²
- 22 The QCA must base its findings on material that has some probative value, in the sense that the material tends logically to show the existence of facts consistent with the finding, and the reasoning in support of the finding must not be logically self-contradictory.¹³
- 23 The access criteria in section 76 of the QCA Act were the subject of recent amendment, with the amendments commencing on 29 March 2018. The amendments to the access criteria in the QCA Act are intended to reflect the October 2017 changes to the declaration criteria in the National Access Regime in Part IIIA of the *Competition and Consumer Act 2010 (Cth)* (CCA).¹⁴
- 24 The access criteria are as follows:¹⁵
- (a) that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service;
 - (b) that the facility for the service could meet the total foreseeable demand in the market—
 - (i) over the period for which the service would be declared; and
 - (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service);
 - (c) that the facility for the service is significant, having regard to its size or its importance to the Queensland economy;
 - (d) that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest.

Background to declaration review

- 25 This is the first time the QCA has had the opportunity to assess whether the DBCT service satisfies the access criteria and should be declared under the access regime established by Part 5 of the QCA Act. Consequently, this is the first time DBCTM has had the opportunity to make submissions to the QCA on whether the DBCT service satisfies the access criteria.
- 26 The DBCT service was declared for third party access by Queensland Government regulation in 2001¹⁶ as part of the restructuring process leading up to the long term lease of the terminal by the Queensland

¹¹ Section 76(1) and 87C(1) of the QCA Act

¹² Section 87C(2) of the QCA Act

¹³ *Mahon v Air New Zealand* [1984] A.C. 808; [1984] 3 All ER 201 at 210; *Minister for Immigration and Ethnic Affairs v Wu Shan Liang* (1996) 185 CLR 259 at 282.

¹⁴ The Explanatory Notes to the *Queensland Competition Authority Amendment Bill 2018* states that the changes to the access criteria in the QCA Act are 'intended to reflect changes being made at a national level to the access principles in the COAG *Competition Principles Agreement 1995* (the CPA access principles) and the National Access Regime established under Part IIIA of the CCA', page 1.

¹⁵ Section 76(2) of the QCA Act

¹⁶ The Queensland Competition Authority Amendment Regulation (No. 1) 2001 (Qld) amended the Queensland Competition Authority Regulation 1997 (Qld). The Queensland Competition Authority Regulation 1997 (Qld) was made under section 97 of the QCA Act as in force at that time which enabled declaration of a service by regulation.

Government in 2001.¹⁷ The declaration was made to address industry concerns regarding the potential for the privatised entity to misuse its market power in the negotiation and provision of access to third parties.¹⁸

- 27 The DBCT service was initially declared by the *Queensland Competition Authority Amendment Regulation (No.1) 2001* (Qld) and then subsequently by the *Queensland Competition Authority Regulation 2007* (Qld). On 8 September 2010, the ability to declare a service by regulation was removed from the QCA Act. The DBCT declaration¹⁹ was made under a new Part 12 of the QCA Act.²⁰ The explanatory notes to the amending legislation stated:²¹

The Bill will provide increased certainty for stakeholders by ensuring that all decisions which affect the coverage of the Regime will be made with explicit reference to the legislated access criteria and with the express involvement of the Authority. This is achieved by the removal of the 'candidate service' requirement for declarations, and the removal of the ability for Government to declare services by regulation or to exclude services or facilities from coverage under the Regime by regulation.

- 28 The amending legislation also introduced the review process for the QCA to assess whether infrastructure that is covered by an expiring declaration should be declared again in Subdivision 4A of Division 2 of Part 5 of the QCA Act.²²
- 29 DBCT operates within a competitive market for the provision of coal handling services. DBCT is exposed to competition from Adani Abbot Point Terminal (**AAPT**) at the port of Abbot Point, RG Tanna Coal Terminal (**RGCT**) and Wiggins Island Coal Export Terminal (**WICET**) at the port of Gladstone, and HPCT at the Port of Hay Point. DBCTM notes that BHP-affiliated mines have the commercial flexibility to access HPCT, DBCT, AAPT and RGCT.
- 30 There has been significant development of coal chain infrastructure since DBCT was declared by regulation in 2001. In 2011 the Goonyella to Abbot Point rail extension (**GAPE**) was completed, linking Bowen Basin mines located on the Goonyella rail system to the Newlands rail system and AAPT. The Goonyella rail system is also connected to the Blackwater rail system, which links southern Bowen Basin mines to RGCT and WICET at the port of Gladstone.
- 31 The interconnectedness of the Central Queensland Coal Network (**CQCN**) allows mines within the vicinity of DBCT to use coal handling services at alternative terminals. For example, some mines owned by the BHP Mitsubishi Alliance (**BMA**) use HPCT, DBCT, AAPT and RGCT;²³ BHP Mitsui Coal's (**BMC's**) mines use HPCT, AAPT and DBCT;²⁴ Jellinbah's Lake Vermont mine uses AAPT and RGCT,²⁵ and has used DBCT in the past; Yancoal's Middlemount mine uses DBCT and AAPT;²⁶ Glencore's Oaky Creek mine uses RGCT and DBCT;²⁷

¹⁷ In September 2001, the Queensland Government, through a wholly owned entity DBCT Holdings, awarded a long-term lease for DBCT (50 term with a 49 year option) to a consortium led by international investment bank Babcock and Brown for approximately \$630 million. DBCT subsequently became the foundation asset of Prime Infrastructure when it was floated to the Australian Stock Exchange in June 2002, with the leasehold interest in DBCT being transferred to Prime Infrastructure upon listing. The lease arrangement involves a primary lessee, DBCT Trustee, and a secondary lessee, DBCTM. QCA, *Final decision, Dalrymple Bay Coal Terminal - Draft access undertaking*, April 2005, pages 1 to 2.

¹⁸ QCA, *Draft decision, Dalrymple Bay Coal Terminal - Draft access undertaking*, October 2004, page viii.

¹⁹ Section 250(1)(c) of the QCA Act

²⁰ Motor Accident Insurance and Other Legislation Amendment Act 2010 (Qld).

²¹ Explanatory notes to Motor Accident Insurance and Other Legislation Amendment Bill 2010, page 4.

²² Motor Accident Insurance and Other Legislation Amendment Act 2010 (Qld).

²³ BHP Annual Report 2017, page 237; RMI, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, page 34.

²⁴ Sydney Morning Herald *Asciano wins BHP haulage contract in Queensland* 15 June 2011; RMI, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, page 34.

²⁵ Aurizon QR National expands tonnages with Jellinbah 06 July 2012; Jellinbah Group website notes that 'Lake Vermont is able to rail to Gladstone Port and Dalrymple Bay and Abbott Point Coal Terminals', (accessed 7 May 2018)

²⁶ North Queensland Bulk Ports, *Port of Abbot Point Operations Manual*, Revised 2016, page 16,

²⁷ Glencore's Oaky Creek

Anglo American's German Creek mine uses RGTCT and DBCT²⁸ and BMA's Gregory and Norwich Park mines (now closed) previously exported coal through RGTCT and have used DBCT in the past.²⁹ Further, Rio Tinto's Kestrel mine in the Blackwater system, which is located closest to RGTCT and exports coal through that terminal, is sporadically exporting coal through DBCT.³⁰ This is further discussed in DBCTM's submission in the criterion (b) section.

- 32 DBCT faces competition from coal handling services at AAPT, HPCT, RGTCT and WICET. Of these coal terminals, DBCT is the only terminal that is declared and is therefore the only terminal subject to heavy-handed regulation. This is the case even though (unlike HPCT) DBCT is open access and (unlike HPCT, AAPT and WICET) DBCT is not vertically integrated into markets that depend on access to coal handling services at coal export terminals.

Context for declaration assessment

- 33 An assessment of whether a service satisfies the access criteria is necessarily specific to the context in which that service is provided. In DBCT's case, the DBCT service is supplied in the context of the central Queensland coal mines, the coal export terminals servicing those mines and the rail network connecting those mines to those coal terminals.

Coal terminals

- 34 DBCT is one of five coal terminals for export of coal from northern and central Queensland. The terminals comprise:

- 34.1 DBCT at Hay Point near Mackay;
- 34.2 HPCT also at Hay Point near Mackay;
- 34.3 AAPT at Abbot Point near Bowen;
- 34.4 RGTCT at Gladstone; and
- 34.5 WICET at Gladstone.

- 35 As noted above, of these five coal terminals, DBCT is the only facility that is declared. Further, DBCT is the only declared coal export terminal in Australia.

HPCT

- 36 HPCT is located adjacent to DBCT at the Port of Hay Point.
- 37 HPCT was established in 1971.³¹ HPCT is owned by BMA (a 50:50 joint venture between BHP and Mitsubishi Development) and operated by Hay Point Services.³² BMA provides coal handling services at HPCT to itself and to BMC (a 80:20 joint venture between BHP and Mitsui and Co).
- 38 In December 2015, works on HPCT's third expansion project (HPX3) were completed which increased HPCT's export capacity from 44Mtpa to 55Mtpa.³³

²⁸ See for example, [Mitsui Coal Holdings' projects](#). The Capcoal project is a joint venture between Anglo American and Mitsui Coal Holdings. See also: [The Australian Asciano poaches key QR coal contract](#). June 16, 2010

²⁹ DBCT PortVu system "Parcels Bill of Lading" report. Gregory Weak Coking Coal (MV Grand Festival) and Norwich Park Blend (MV Stalo)

³⁰ Rio Tinto's Kestrel Mine, Rio Tinto. *Submission to the QCA in relation to the Aurizon Network 2017 Electric Traction DAAU*, February 2018.

³¹ BHP News Release: [New BMA Hay Point Coal Terminal Boosts Queensland's Coal Exports](#), 16 December 2015

³² BHP Annual Report 2017, page 56

³³ BHP News Release, [New BMA Hay Point Coal Terminal Boosts Queensland's Coal Exports](#), 16 December 2015:

AAPT

- 39 On 1 June 2011, the Queensland Government entered into a 99-year lease of the Abbot Point Coal Terminal 1 to Mundra Port Pty Limited.³⁴ The terminal is now known as the Adani Abbot Point Terminal.³⁵ AAPT is located 25km north of Bowen Queensland.³⁶ The current export capacity of AAPT is 50Mtpa.³⁷ AAPT is linked to mines in the proximity of Hay Point through GAPE which connects the Newlands and Goonyella rail systems.
- 40 AAPT is operated by an entity owned by Adani. AAPT capacity is contracted to 9 mines, including 9.3Mtpa or 19% of terminal capacity to a related party, Adani Mining Pty Limited.³⁸
- 41 AAPT is currently seeking NAIF funding for a rail line from the Carmichael mine in the Galilee basin, owned by Adani.

WICET

- 42 WICET is located at the Port of Gladstone, to the west of RGTCT. It is owned by a consortium of Australian and international resources companies, comprising Aquila Resources, Glencore, New Hope Group, Coronado Curragh and Yancoal.³⁹ WICET commenced shipping coal in 2015.
- 43 The current export capacity of WICET is 27Mtpa.⁴⁰ WICET can expand to approximately 120Mtpa of capacity from the existing site when fully developed.⁴¹ Current environmental and planning approvals allow up to 84Mtpa throughput.⁴² WICET is operated by WICET Pty Limited.

RGTCT

- 44 RGTCT is located within the Port of Gladstone in central Queensland and is owned by the Gladstone Ports Corporation. The current export capacity of RGTCT is 75Mtpa.⁴³ Plans for a fifth berth in the future will take capacity to 90-100Mtpa.⁴⁴

³⁴ Port of Abbot Point Operations Manual 2016, page 8,

³⁵ Port of Abbot Point Operations Manual 2016, page 8

³⁶ North Queensland Bulk Ports Corporation, Port of Abbot Point

³⁷ North Queensland Bulk Ports Corporation, Port of Abbot Point

³⁸ Adani Mining Pty Ltd Special Purpose Financial Report 2017

³⁹ WICET, Company Overview

⁴⁰ WICET, Access

⁴¹ WICET, Company Overview

⁴² WICET, WICET Corporate Brochure, page 2.

⁴³ Gladstone Ports Corporation, 50 Year Strategic Plan, July 2012

⁴⁴ Gladstone Ports Corporation, 50 Year Strategic Plan, July 2012

Vertical integration

45 The table below illustrates the extent of vertical integration of the above-mentioned coal terminals and their respective owners.⁴⁵ DBCT is not vertically integrated into any other aspect of the coal supply chain, yet it is the only terminal which is subject to heavy handed economic regulation under the QCA Act.

46 It is well recognised that the economic problem that access regulation is designed to address is more pronounced where service providers are vertically integrated. In its 2013 report on its inquiry into the National Access Regime, the Productivity Commission stated that:⁴⁶

The only economic problem that access regulation should address is an enduring lack of effective competition, due to natural monopoly, in markets for infrastructure services where access is required for third parties to compete effectively in dependent markets. Access regulation should not be used to avoid the duplication of infrastructure per se, or to address wider social and economic issues such as income distribution or environmental concerns

47 The Productivity Commission further stated that:⁴⁷

Incentives to deny access to some or all access seekers **will be heightened** where infrastructure service providers are vertically integrated — that is, where service providers also operate in markets upstream or downstream of the facility. Under these circumstances, denial of access can be used to protect a monopoly position in an upstream or downstream market, in particular where that allows the service provider to increase total profits across its operations. (emphasis added)

Figure 1: Extent of vertical integration by terminal owner

Terminal		HPCT	AAPT	WICET	RGCT	DBCT	
Owner		BMA	Adani	WICET	GPC	DBCTM	
Coal chain components	Mine	Owner	Yes	Yes	Yes	No	No
		Operator	Yes	Yes	Yes	No	No
	Below rail	Owner	No	Yes	No	No	No
		Operator	No	Yes	No	No	No
	Above rail	Owner	Yes	Yes	No	No	No
		Operator	Yes	Yes	No	No	No
	Terminal	Operator	Yes	Yes	Yes	Yes	No
		Contracted capacity	Yes	Yes	Yes	No	No
	Tug	Owner	Yes	No	No	No	No
		Operator	Yes	No	No	Yes	No
	Port	Owner	No	No	No	Yes	No
		Operator	No	No	No	Yes	No
	Shipping	Operator	No	No	No	No	No
		Scheduler	Yes	No	Yes	No	No
End user		Yes	Yes	No	No	No	
Heavy handed economic regulation		No	No	No	No	Yes	

⁴⁵ Ownership indicates economic ownership or substantial control.

⁴⁶ Productivity Commission Inquiry Report, National Access Regime, No. 66, 25 October 2013, page 7.

⁴⁷ Productivity Commission Inquiry Report, National Access Regime, No. 66, 25 October 2013, page 84.

These coal handling terminals, together with Queensland coal mines, are illustrated below.

Figure 2: Central Queensland coal mines and terminals



4 Queensland coal – mines and advanced projects (July 2017) www.dnrm.qld.gov.au

Central Queensland coal network

- 48 The CQCN connects Queensland coal mines to the Queensland coal terminals. The CQCN is an interconnected set of rail systems that are leased and maintained by Aurizon Network.
- 49 The CQCN comprises the following five interconnected rail systems:
- 49.1 the Goonyella rail system, which links central Bowen basin mines to DBCT and HPCT;
 - 49.2 the Newlands rail system, which links northern Bowen basin mines to AAPT;
 - 49.3 GAPE, which provides a link between the Goonyella rail system at North Goonyella to Newlands at the southern extremity of the Newlands rail system;
 - 49.4 the Blackwater rail system, which is connected to the Goonyella rail system and links southern Bowen basin mines to RGTCT and WICET;
 - 49.5 the Moura rail system, which links mines from Moura to Gladstone to RGTCT and WICET. There is no interconnection between the Moura rail system and the other coal rail systems.
- 50 As a result of the interconnectedness between the Goonyella, Newlands and Blackwater rail systems, a mine in the Goonyella rail system has the potential to access all coal terminals at Abbot Point, Hay Point and Gladstone.
- 51 The GAPE project was completed in December 2011. The project consisted of a series of works to bridge the 69 km gap between the Goonyella and Newlands rail systems⁴⁸ to satisfy additional demand for coal export infrastructure from mines within the Goonyella rail system.
- 52 Since its completion, the GAPE extension has been of particular significance to mines in the Goonyella rail system. This connection has enabled those mines to connect to AAPT, in addition to the existing connection to RGTCT through the Blackwater rail system. This has enabled miners to plan their export terminal usage on a network wide basis. For example, BHP takes a whole of CQCN view in optimising the BHP Group's mine portfolio.⁴⁹ BMA has a functional group, the BMA Coal Chain, which manages BMA's and BMC's transport logistics business operations throughout the CQCN.⁵⁰
- 53 Since its completion, the GAPE has been used by mines proximate to the Port of Hay Point. Yancoal's Middlemount mine, Jellinbah's Lake Vermont mine, BMA's Peak Downs mine, Goonyella Riverside and Caval Ridge mines and BMC's South Walker Creek and Poitrel mines are all located proximate to the Port of Hay Point but have chosen to transport coal from their mines to AAPT for export.⁵¹
- 54 The Blackwater rail system (together with the Goonyella rail system) is also used by mines proximate to the Port of Hay Point. Jellinbah's Lake Vermont mine, Glencore's Oaky Creek mine, Anglo American's German Creek mine and BMA's Caval Ridge and Peak Downs mines have all chosen to transport coal from their mines to RGTCT for export.⁵² Rio Tinto's Kestrel mine in the Blackwater system, which is located closest to RGTCT and exports through that terminal, is also currently sporadically exporting coal through DBCT.⁵³

⁴⁸ QCA Draft Decision on GAPE Reference Tariff, July 2013 (page 2)

⁴⁹ For example, BHP, *Coal: The path to improve returns*, 21 June 2016 - at page 20 BHP states 'Capacity at four Queensland ports with matched rail flexibility allows us to optimise the supply chain'

⁵⁰ BMA submission to QCA on QR Network System Rules - Northern Bowen Basin System Rules, page 1:

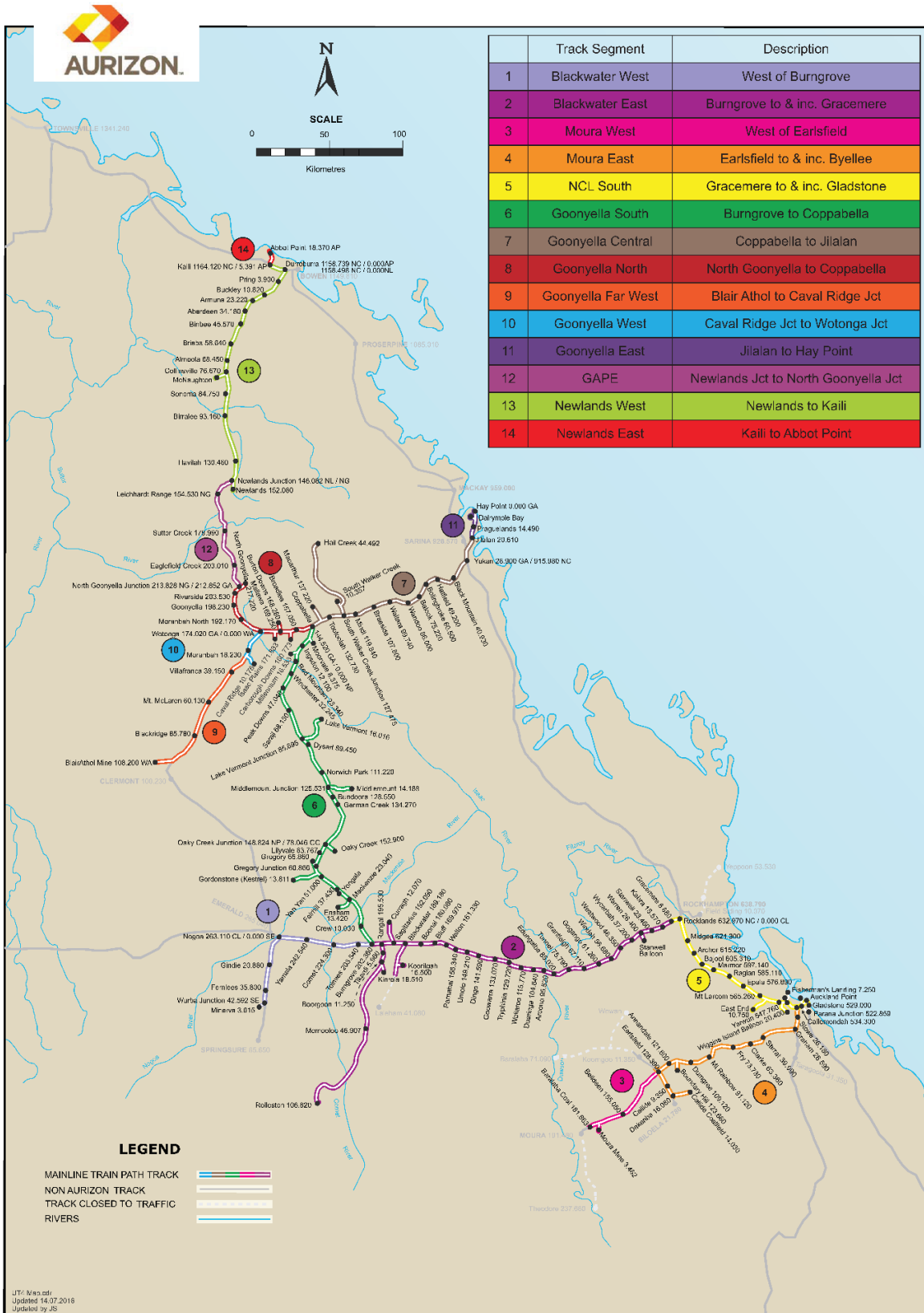
⁵¹ RMI, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, page 34; North Queensland Bulk Ports, *Port of Abbot Point Operations Manual*, Revised 2016, page 16; Sydney Morning Herald *Asciano wins BHP haulage contract in Queensland* 15 June 2011

⁵² RMI, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, page 34; Aurizon QR *National expands tonnages with Jellinbah* 6 July 2012; Jellinbah Group *Lake Vermont Mine* notes that 'Lake Vermont is able to rail to Gladstone Port and Dalrymple Bay and Abbott Point Coal Terminals'.

⁵³ Rio Tinto, *Kestrel Mine*; Rio Tinto *Submission to the QCA in relation to the Aurizon Network 2017 Electric Traction DAAU*, February 2018.

55 The following map prepared by Aurizon shows the CQCN and its highly integrated nature.⁵⁴

Figure 3: CQCN track segments map



⁵⁴ Aurizon CQCN Track Segments Map.

Submission on access criteria

- 56 DBCTM's submission on whether the DBCT service satisfies the access criteria is set out below. For the reasons explained below, the DBCT service does not satisfy the access criteria, and therefore the QCA cannot recommend declaration of the DBCT service.
- 57 Consistent with the QCA Staff Issues Paper (**Issues Paper**),⁵⁵ DBCTM has commenced with criterion (b) as it provides greater clarity to the analysis of relevant markets in criterion (a). In particular, it means that the market in which the service is provided is identified prior to considering the markets that are dependent on access to the service and the impact of declaration on those markets under criterion (a). DBCTM then concludes its submission with a discussion on criterion (d).

⁵⁵ QCA, Staff issues paper, Declaration reviews: applying the access criteria, April 2018, at 2.4 on page 5.

3 Criterion (b)

3.1 Summary

- 58 For the reasons set out in this submission, DBCT cannot meet the total foreseeable demand in the market over the period for which the DBCT service would be declared and at the least cost compared to any two or more facilities. Accordingly, access criterion (b) in section 76(2)(b) of the QCA Act is not satisfied and there is no reasonable basis on which the QCA can recommend that the DBCT service be declared.
- 59 Criterion (b) is concerned with identifying natural monopoly facilities and avoiding the inefficient and unnecessary duplication of such facilities. The duplication of coal export terminals has already occurred in Queensland. DBCT is one of five coal export terminals which service mines that are part of a highly integrated below-rail network. The existence of HPCT, AAPT, RGTCT and WICET and the fact that mines located in the Goonyella rail system and its vicinity (which are proximate to DBCT) use those terminals, evidences the existence of a market where multiple coal-export terminals are operating.
- 60 Criterion (b) will therefore be applied in a situation where duplicate facilities that can provide coal handling services already exist and have already incurred considerable sunk costs, and those facilities are together serving demand in the market in which DBCT operates.
- 61 In these circumstances, criterion (b) is concerned with whether it is least cost for DBCT to expand to meet total foreseeable demand in the market, or whether it is least cost to meet some of the demand using existing capacity at other terminals, together with DBCT. The relevant costs for the least cost assessment under criterion (b) are the incremental costs to society (or resource costs) that may be incurred in the coal supply network to meet foreseeable demand in the market. Resource costs are high when expansions to terminals are required and are low where existing capacity can be used.
- 62 As explained in this submission, total foreseeable market demand exceeds DBCT's existing nameplate capacity of 85Mtpa. In those circumstances, DBCT must be expanded to meet that demand. This would necessarily be more costly than first using the existing capacity at the other four terminals.
- 63 The DBCT service does not satisfy criterion (b) because:
- 63.1 Where a facility is not able to meet total foreseeable market demand for the service over the declaration period, it is not necessary to consider whether the service could meet that demand at least cost compared to any two or more facilities. As explained in this submission, the reasonably possible maximum coal handling capacity of DBCT in the declaration period is 102Mtpa. Foreseeable demand in the market in which the DBCT service is supplied over the declaration period is estimated to peak at between approximately 207Mtpa and 218Mtpa. Accordingly, the DBCT service does not satisfy criterion (b) because it cannot meet total foreseeable demand in the market over the period for which it would be declared.
- 63.2 We have also assessed whether the DBCT service can meet total foreseeable market demand over the declaration period at least cost, with the conclusion that it cannot. Rather, it is least cost for that demand to be met using coal handling services from DBCT and other existing coal terminals.
- 63.3 While any assessment of whether the DBCT service satisfies criterion (b) must be undertaken on the basis that users of the coal handling services at Hay Point Coal Terminal (**HPCT service**) are part of the foreseeable market demand, these conclusions hold whether the criterion (b) analysis is undertaken on that basis, or on the basis of a restrictive assumption that demand from those users is wholly excluded from market demand.
- 63.4 DBCTM provides evidence that the interconnectedness of coal terminals in Queensland provides a choice of coal handling services to miners. This choice is not simply theoretical, but is currently exercised as mines actively use a combination of coal terminals to handle their coal

in a variety of instances. This empirical evidence establishes that DBCT cannot meet total foreseeable market demand at least cost.

- 64 DBCTM engaged HoustonKemp to undertake a comprehensive quantitative assessment of whether the DBCT service satisfies criterion (b). HoustonKemp's expert opinion is that the DBCT service does not satisfy criterion (b). In this section, references to the 'HoustonKemp Report on (b)' and its associated findings are in relation to 'Appendix 10 HoustonKemp expert report on criterion (b)'.
- 65 Criterion (b) is not satisfied in the case of the DBCT service. In summary, this is because DBCT cannot meet the total foreseeable demand in the market over the period for which its coal handling service would be declared. Furthermore, it cannot meet that demand at least cost compared to any two or more facilities.

3.2 Application and interpretation of criterion (b)

- 66 To recommend declaration of the DBCT service, the QCA must be satisfied about all of the access criteria for the service, including access criterion (b) in section 76(2)(b).⁵⁶ The QCA must recommend that a service not be declared if it is not satisfied of criterion (b).⁵⁷
- 67 Access criterion (b) in section 76(2)(b) of the QCA Act is:
- that the facility for the service could meet the total foreseeable demand in the market—
- (i) over the period for which the service would be declared; and
- (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service)
- 68 In addition, sections 76(3) and (4) of the QCA Act provide:
- (3) For subsection (2)(b), if the facility for the service is currently at capacity, and it is reasonably possible to expand that capacity, the authority and the Minister may have regard to the facility as if it had that expanded capacity.
- (4) Without limiting subsection (2)(b), the cost referred to in subsection (2)(b)(ii) includes all costs associated with having multiple users of the facility for the service, including costs that would be incurred if the service were declared.
- 69 The access criteria in the QCA Act were the subject of recent amendment. Those amendments came into effect on 29 March 2018. They are intended to reflect the October 2017 changes to the declaration criteria in the National Access Regime in Part IIIA of the CCA.⁵⁸ The explanatory material relating to the changes to the declaration criteria under the CCA is therefore pertinent to the interpretation of criterion (b) under the QCA Act.
- 70 Section 76(2)(b) of the QCA Act was amended to restore a natural monopoly test for criterion (b).⁵⁹ Section 76(2)(b) is in substantially the same terms as declaration criterion (b) in section 44CA(1)(b) of the CCA. Prior to the amendment, criterion (b) in Part IIIA of the CCA had most recently been interpreted as a private profitability test.⁶⁰

⁵⁶ See section 76(1) and 87C(1) of the QCA Act

⁵⁷ Section 87C(2) of the QCA Act.

⁵⁸ The Explanatory Notes to the *Queensland Competition Authority Amendment Bill 2018* states that the changes to the access criteria in the QCA Act are 'intended to reflect changes being made at a national level to the access principles in the *COAG Competition Principles Agreement 1995* (the CPA access principles) and the National Access Regime established under Part IIIA of the CCA (page 1).

⁵⁹ Economics and Governance Committee, *Queensland Competition Authority Amendment Bill 2018*, Report No. 2, 56th Parliament, March 2018, page 5; Explanatory Notes, *Queensland Competition Authority Amendment Bill 2018*. See also, *Explanatory Memorandum, Competition and Consumer Amendment (Competition Policy Review) Bill 2017* at [12.22].

⁶⁰ *Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal* (2012) 246 CLR 379.

- 71 To be satisfied of criterion (b), the QCA must be satisfied both that: (1) the facility for the service could meet the total foreseeable demand in the market over the period for which the service would be declared; and (2) the facility could meet that demand at the least cost compared to any 2 or more facilities (which could include the facility for the service). Where the QCA cannot be satisfied of the matter in (1), criterion (b) will not be satisfied. In addition, criterion (b) will not be satisfied where the QCA cannot be satisfied of the matter in (2). This is clear from the use of the conjunction 'and' between the matters in subparagraph (i) of section 76(2)(b) and those in subparagraph (ii) of that section.
- 72 Accordingly, a service will fail criterion (b) in circumstances where the QCA cannot be satisfied that the facility for the service could meet total foreseeable market demand for the service over the declaration period. Where a facility is not able to meet total foreseeable market demand for the service over the declaration period, it is not necessary to consider whether the service could meet that demand at least cost compared to any two or more facilities.
- 73 For the criterion (b) analysis it is necessary to determine whether DBCT could support what could be expected to be maximum demand within the declaration period. The Explanatory Memorandum, Competition and Consumer Amendment (Competition Policy Review) Bill 2017, at [12.24] states:⁶¹
- Total foreseeable demand is considered over the declaration period the decision-maker is considering for declaration of the service. In assessing whether the facility could meet total foreseeable market demand at least cost, this calls for a consideration of whether what could be expected to be maximum demand could be supported by the facility.
- 74 Section 76(3) of the QCA Act provides that if the facility for the service is currently at capacity, and it is reasonably possible to expand that capacity, the QCA and the Minister may have regard to the facility as if it had that expanded capacity. This provision is concerned with a facility that is at capacity and clarifies that such a facility can still be declared if it is reasonably possible for the facility to be expanded and the matters in section 76(2)(b) are otherwise satisfied.⁶² Even though DBCT is not currently operating at its nameplate capacity, it would be necessary for DBCT to be expanded in order to attempt to accommodate total foreseeable demand in the market. For the purposes of assessing DBCT against criterion (b), the assessment of whether DBCT could be expanded should also be one of whether it is reasonably possible to expand DBCT's capacity over the period for which the service would be declared.
- 75 'Reasonably possible' is not defined in the QCA Act. Further, since this is a new provision in the QCA Act and corresponding CCA declaration criteria, there is no relevant case law on the meaning of 'reasonably possible' to expand the capacity of the facility in the context of criterion (b).
- 76 DBCTM submits that a capacity expansion for a particular facility may be reasonably possible if it is reasonably capable of occurring during the declaration period. We note in this regard that the relevant definition of 'possible' in the Macquarie Online Dictionary is 'capable of existing, happening, being done, being used'.⁶³
- 77 Determining whether a capacity expansion for a particular facility is reasonably possible or capable of occurring will depend on the circumstances of the particular facility and factors such as the work involved in the expansion, the legal and regulatory constraints or impediments to the expansion, the costs of the expansion and whether the ability to expand the facility is within the control of the service provider.
- 78 Given the significant consequences of a finding that a capacity expansion for a particular facility is reasonably possible, the capacity expansion must not be merely theoretical. Rather, a QCA determination

⁶¹ As noted above, in making the changes to the access criteria, the Queensland Government had regard to the changes made to the access criteria in Part IIIA of the CCA. The explanatory material relating to the changes to the declaration criteria under the CCA is therefore pertinent to the interpretation of criterion (b) under the QCA Act.

⁶² Explanatory Memorandum, Competition and Consumer Amendment (Competition Policy Review) Bill 2017, at [12.30].

⁶³ Macquarie Online Dictionary (accessed 1 May 2018).

that it is reasonably possible to expand the capacity of the facility over the declaration period must be based on material that has some probative value in the sense that it tends logically to show the existence of facts consistent with the finding.⁶⁴

- 79 In circumstances where the QCA is satisfied that a facility for a service could meet total foreseeable demand in the market for the service over the period in which the service would be declared, the service will fail criterion (b) where the QCA cannot be satisfied that the facility could meet that demand over the declaration period at least cost compared to two or more facilities. Where a facility must be expanded in order to service market demand, the costs of that expansion must be taken into account in assessing whether the facility could meet demand at least cost over the declaration period.⁶⁵
- 80 The requirement that the facility meet total foreseeable demand in the market *over the period for which the service would be declared* means that if the facility cannot meet total foreseeable demand in the market at any stage over the declaration period, then criterion (b) is not satisfied. Similarly, if the facility cannot meet total foreseeable demand in the market at the least cost at any stage of the declaration period, then criterion (b) is not satisfied.
- 81 Having regard to the text of section 76(2)(b) of the QCA Act, an assessment of access criterion (b) involves the following:
- 81.1 identifying the service to be assessed;
 - 81.2 identifying the facility for the service;
 - 81.3 considering the period for which the service would be declared if it were to satisfy all of the access criteria;
 - 81.4 identifying the market in which the infrastructure service is supplied. This is necessary because section 76(2)(b) refers to 'total foreseeable demand in the market';
 - 81.5 estimating total foreseeable demand in the market in which the infrastructure service is supplied over the declaration period the decision-maker is considering for declaration of the service;
 - 81.6 assessing whether the facility could meet total foreseeable market demand for the service over the declaration period. This involves an assessment of the capacity of the facility to meet foreseeable demand and whether it is reasonably possible to expand that capacity (section 76(3) of the QCA Act);
 - 81.7 where the facility could meet total foreseeable market demand over the declaration period, assessing whether the facility could meet that demand over the declaration period at the least cost compared to two or more facilities (which could include the first mentioned facility).
- 82 Criterion (b) is not satisfied in the case of the DBCT service. This is because DBCT cannot meet the total foreseeable demand in the market over the period for which its coal handling service would be declared, and nor can DBCT meet that demand at the least cost compared to any two or more facilities.

⁶⁴ Mahon v Air New Zealand [1984] A.C. 808; [1984] 3 All ER 201 at 210; Minister for Immigration and Ethnic Affairs v Wu Shan Liang (1996) 185 CLR 259 at 282.

⁶⁵ See the example of the application of criterion (b) (example 12.2) in the [Explanatory Memorandum, Competition and Consumer Amendment \(Competition Policy Review\) Bill 2017](#) pages 103 to 105, which notes the costs of expanding the relevant facility to increase its capacity to deal with higher demand as costs that could be included in the criterion (b) assessment.

3.3 Service

- 83 In DBCT's case, the service that is currently declared is the handling of coal at DBCT by the terminal operator (**DBCT service**) (section 250(1)(c) of the QCA Act).
- 84 For the purpose of the QCA's declaration review, DBCTM considers that the service is that described in section 250(1)(c) of the QCA Act.

3.4 Facility for the service

- 85 The facility for the DBCT service is the DBCT coal handling facility located at the Port of Hay Point. That facility is defined in section 250(5) of the QCA Act as:

Dalrymple Bay Coal Terminal means the port infrastructure located at the port of Hay Point owned by Ports Corporation of Queensland or the State, or a successor or assign of Ports Corporation of Queensland or the State, and known as Dalrymple Bay Coal Terminal and includes the following which form part of the terminal—

- (a) loading and unloading equipment;
 - (b) stacking, reclaiming, conveying and other handling equipment;
 - (c) wharfs and piers;
 - (d) deepwater berths;
 - (e) ship loaders.
- 86 This is also the relevant facility for the purpose of the QCA's declaration review.
- 87 The current nameplate capacity of DBCT is 85Mtpa. As explained below, the reasonably possible capacity of DBCT over the declaration period is 102Mtpa.
- 88 The issue for criterion (b) is therefore whether DBCT can meet the total foreseeable demand in the market over the period for which its coal handling service would be declared and at the least cost compared to any two or more facilities (which could include DBCT).

3.5 Duration of the declaration period

- 89 It is DBCTM's position that the DBCT service should not be declared for any further period because it does not satisfy the access criteria. Nonetheless, DBCTM acknowledges that in order to assess whether the DBCT service satisfies criterion (b), it is necessary to consider the period over which the service provided by DBCT would be declared, assuming it does satisfy the access criteria. This is because section 76(2)(b) involves an assessment of whether DBCT can meet the total foreseeable demand in the market in which it is supplied *over the period for which the service would be declared*.
- 90 The DBCT service has been declared since 2001. The service was initially declared by the *Queensland Competition Authority Amendment Regulation (No.1) 2001* (Qld) and then subsequently by the *Queensland Competition Authority Regulation 2007* (Qld). On 8 September 2010, the ability to declare a service by regulation was removed from the QCA Act and the DBCT declaration was made under a new Part 12 of the QCA Act (section 250, QCA Act).⁶⁶ The amendments to the QCA Act included a new section 248 which

⁶⁶ Motor Accident Insurance and Other Legislation Amendment Act 2010 (Qld).

provided that the DBCT declaration expires 10 years after the commencement of the section, i.e., on 8 September 2020.⁶⁷

- 91 The Issues Paper indicates that the following factors are potentially relevant to forming a view on the period of declaration:⁶⁸
- 91.1 the importance of long-term certainty to access seekers who may engage in significant investments as part of gaining access to a declared facility;
 - 91.2 the duration of time for which users may seek access to the facility (for example considering average mine lives);
 - 91.3 the foreseeable timing of potential changes in the market environment, including the likelihood that the service no longer satisfies the natural monopoly test in criterion (b); and
 - 91.4 the need for periodic reviews of declaration arrangements.
- 92 DBCTM notes that the first two of these factors are more relevant to facilities that would not be open access in the absence of declaration. As discussed in DBCTM's submission on criterion (a), DBCTM will continue to provide access to DBCT on reasonable terms and conditions in the absence of declaration. Accordingly, access seekers will have long-term certainty that access on reasonable terms and conditions will be available in the absence of declaration.
- 93 Nonetheless, having regard to those factors and the period for which DBCT was declared under Part 12 of the QCA Act, DBCTM has assumed for the purposes of its submission on criterion (b) that the period of any further declaration of DBCT would be 10 years from the time at which the current period of declaration expires. If the QCA were to assess DBCT against criterion (b) over a longer declaration period, this would not change the outcome of the assessment. The outcome would still be that criterion (b) is not satisfied.
- 94 This is because DBCT cannot meet foreseeable market demand over a 10 year declaration period and HoustonKemp's analysis demonstrates that it is not least cost for DBCT to meet foreseeable market demand over a 10 year declaration period. Extending the declaration period to 15 years, for example, would still result in the conclusion that DBCT does not satisfy criterion (b).

3.6 Market in which the service is provided

Market definition

- 95 Prior to the recent changes to criterion (b), defining the market has not been a formal step in assessing criterion (b) - instead, the focus had been on considering demand for the facility's service, rather than demand in the market in which the service is supplied.
- 96 Section 76(2)(b) of the QCA Act specifically requires a consideration of total foreseeable demand in the market in which the service is supplied. This is different to how the Tribunal and the NCC has approached criterion (b) in the past. The Productivity Commission made this clear in its 2013 report on its inquiry into the National Access Regime.⁶⁹ The Productivity Commission said:⁷⁰

⁶⁷ Section 248, QCA Act.

⁶⁸ QCA Staff Issues Paper, page 2.

⁶⁹ As already noted, the changes to the access criteria, in the QCA Act are intended to reflect the revised access criteria in Part IIIA of the CCA. In amending criterion (b) of the CCA, the Commonwealth Government had regard to the Productivity Commission's recommendations in respect of criterion (b) in its *Inquiry Report, National Access Regime*, 25 October 2013 (see *Australian Government response to the Productivity Commission and Competition Policy Review recommendations on the National Access Regime*, 24 November 2015 (pages 3-4) and Explanatory Notes, Queensland Competition Authority Amendment Bill 2018, page 2).

⁷⁰ Productivity Commission Inquiry Report, National Access Regime, No. 66, 25 October 2013, page 160.

Due to the shortcomings associated with the tests considered above, criterion (b) should be applied in a different manner than in the past. That said, the Commission's preferred approach to criterion (b) is focused on an assessment of the costs of providing the relevant infrastructure service, and is therefore based on the natural monopoly test. As set out below, the Commission's preferred approach to criterion (b) accounts for both the total demand in the market in which the infrastructure service is supplied, and the production costs incurred by infrastructure service providers from coordinating multiple users of infrastructure.

- 97 Earlier in its report, the Productivity Commission also indicated that the NCC had considered foreseeable demand too narrowly in its recommendation in the Duke case in the context of the national gas access regime:⁷¹

A recommendation made by the NCC under the national gas access regime is relevant to cases where competition already exists. In the Duke case, the NCC argued that the Eastern Gas Pipeline satisfied each of the declaration criteria — including the natural monopoly test — and therefore recommended coverage (NCC 2000a). However, this conclusion was reached despite the relevant dependent market being served by multiple pipelines. Allan Fels summarised the consequences of this approach.

[Criterion (b)] now goes toward almost exact replication of the facility, rather than considering the broader context of substitution from competing facilities. It consequently makes it far easier for the test set out in the criterion to be met. After all, it is significantly less likely that it would make economic or commercial sense to exactly replicate a particular piece of infrastructure than to construct an effective but not exact substitute ... (sub. 40, p. 51)

The above example suggests that by only considering the demand for the facility's own service — rather than total demand in the market in which the service is supplied — the natural monopoly test could be satisfied for any location-specific facility with its output defined sufficiently narrowly, with enough spare (or expandable) capacity to accommodate a third party.

- 98 'Market' is defined in section 71 of the QCA Act as:

- (1) A market is a market in Australia or a foreign country.
- (2) If market is used in relation to goods or services, it includes a market for—
 - (a) the goods or services; and
 - (b) other goods or services that are able to be substituted for, or are otherwise competitive with, the goods or services mentioned in paragraph (a).

- 99 The definition of market in section 71 of the QCA Act is not exhaustive. The section provides that a market 'includes' a market for the goods or services and other goods and services that are able to be substituted for, or are otherwise competitive with, those goods or services. As such, while a market is often defined by reference to substitution, the definition does not preclude other means of defining the market.

- 100 Market definition is purposive. That is, in defining the market it is necessary to consider the particular matter and ask what identification of market best assists in analysing the processes of competition, or lack

⁷¹ Productivity Commission Inquiry Report, National Access Regime, No. 66, 25 October 2013, page 155. At the time of the NCC's final recommendation in the Duke matter (NCC, Final Recommendation Application for Coverage of Eastern Gas Pipeline (Longford to Sydney), June 2000) criterion (b) of the national gas access regime was in the substantially same form as access criterion (b) in the QCA Act prior to the recent amendments — it provided that 'it would be uneconomic for anyone to develop another Pipeline to provide the Services provided by means of the Pipeline'.

of competition, with which the matter is concerned.⁷² In the case of DBCT, market definition will be directed to assessing whether DBCTM is a natural monopoly.⁷³

- 101 A market is commonly defined by reference to its dimensions. The dimensions of a market are generally described in terms of product (the types of services supplied), function (the level within a supply chain at which those services are supplied) and geography (the physical area within which those services are supplied). A market is sometimes also described as having a temporal dimension (referring to the period within which the supplies occur).⁷⁴
- 102 The authorities have recognised the difficulties with defining the parameters of a particular market and acknowledged that markets cannot be defined precisely.⁷⁵
- 103 Section 71(2)(b) of the QCA Act refers to services that are able to be substituted for the services in question and services that are 'otherwise competitive with' those services. The Federal Court has indicated that the words 'otherwise competitive with' in section 4E of the CCA (which is in the same terms as section 71 of the QCA Act) include degrees of 'substitutability'.⁷⁶ This may be less than close substitutability. The Court (Dowsett and Lander JJ, with whom Mansfield J agreed) concluded that the word 'substitutable' in section 4E is used in a narrow sense while the words 'otherwise competitive with' include degrees of 'substitutability'. The Court said:⁷⁷

In the present case the parties do not submit that the words “or otherwise competitive with” should be construed as significantly undermining the principle of substitutability. The better view is that s 4E addresses constraints upon the supply or acquisition of the relevant goods or services. In that context the word “substitutable” is used in a narrow sense whilst the words “or otherwise competitive with” include degrees of “substitutability”. We accept that the section addresses “close” competition and that “closeness” is a matter of degree.

- 104 In *Corones SG, Competition Law in Australia*, Stephen Corones observed that in the above passage the Federal Court did not express a view on what degree of 'closeness' is required for substitutability, other than it is less than the high degree necessary for the two goods or services to be close substitutes. Corones said:⁷⁸

This construction recognises that under the stage one analysis, not all incumbents have an equal constraining influence on the firm engaging in the conduct at issue. One considers first the most direct constraints from close substitutes; and then the less direct constraints from "less close" substitutes. Dowsett and Lander JJ in the *Seven Network* appeal did not express a view as to what degree of "closeness" is required, other than that it is less than the high degree necessary for the two goods or services to be close substitutes. It may be difficult to demonstrate as a matter of evidence that although two products are not close substitutes, they are nevertheless "otherwise competitive with" each other and should be included in the same market.

- 105 One approach that has been viewed by Courts and regulatory authorities as a guide or framework in defining the market is the hypothetical monopolist or SSNIP (Small but Significant Non-transitory Increase

⁷² *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd* (1989) 167 CLR 177 at 195 (Deane J); *Australian Competition and Consumer Commission v Metcash Trading Limited* [2011] FCAFC 151 at [311].

⁷³ Economics and Governance Committee, Queensland Competition Authority Amendment Bill 2018, Report No. 2, 56th Parliament, March 2018, page 5; Productivity Commission, Inquiry Report, National Access Regime, 25 October 2013 at pages 18 and 154; Competition and Consumer Amendment (Competition Policy Review) Bill 2017, Explanatory Memorandum, at [12.3].

⁷⁴ *Australian Competition and Consumer Commission v Flight Centre Travel Group Ltd* (2016) 339 ALR 242 at 257.

⁷⁵ *Australian Competition and Consumer Commission v Australia and New Zealand Banking Group Limited* [2015] FCAFC 103 at [135]; *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd* at 196 *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd* (1989) 167 CLR 177 at 187-188 (Deane J).

⁷⁶ *Seven Network Ltd v News Ltd* (2009) 182 FCR 160 at [621].

⁷⁷ *Seven Network Ltd v News Ltd* (2009) 182 FCR 160 at [621].

⁷⁸ Corones SG, *Competition Law in Australia* (6th ed, Lawbook Co, 2014) at [2.70], page 77.

in Price) framework. The SSNIP framework has been viewed by Courts and regulatory authorities as an aid in defining the market, rather than being determinative of the boundaries of the market.⁷⁹ It does not replace market evidence or common sense.⁸⁰

- 106 Evidence of what is actually happening in the market, or has the potential to occur, is highly relevant to the market definition.⁸¹ The following passage in J D Heydon, *Trade Practices Law*, has been referred to with approval in several Federal Court decisions:⁸²

The dimensions of a market are real, not theoretical. To define those dimensions the best evidence will come from the people who work in the market: the marketing managers and salesmen, the market analysts and researchers, the advertising account executives, the buyers or purchasing officers, the product designers and evaluators. Their records will establish the dimensions of the market; they will show the figures being kept of competitors' and customers' behaviour and the particular products being followed. They will show the potential customers whom salesmen are visiting, the suppliers whom purchasing officers regularly contact, products against which advertising is directed, the price movements of other suppliers which give rise to intra-corporate memoranda, the process by which products are bought, what buyers must seek in terms of quantities, delivery schedules, price flexibility, why accounts are won and lost.

Market definition having regard to 2017 AU

- 107 In DBCT's case, one approach to market definition would be to consider the mines DBCT is required to service under its 2017 Access Undertaking (**2017 AU**). The 2017 AU makes it clear that DBCTM is required to consider access applications from a wide range of potential access seekers. The 2017 AU notes that:⁸³

Access providers of declared services have an obligation under the QCA Act to negotiate with, and in certain circumstances provide access to, third parties seeking access to that service.

- 108 Schedule A of the 2017 AU indicates that to qualify for consideration as an access seeker, an entity must establish that:
- 108.1 it has sufficient coal to support its forecast access requirements;
 - 108.2 it has (or will apply for) access to below-rail infrastructure sufficient to deliver the coal to the terminal - including, by assignment; and
 - 108.3 it is financially viable.
- 109 This demonstrates that DBCT is required to be in the market for providing coal handling services to all coal mines that have coal available for export and the ability to transport that coal to DBCT. This will also be the case under the Access Framework DBCTM proposes will apply in the post-declaration world.

⁷⁹ In *Seven Network Ltd v News Ltd* (2009) 182 FCR 160 at [631], the Court could not apply the SSNIP test quantitatively because there was no evidence as to competitive price. Instead the Court used the test as an aid to focusing the enquiry into market definition. In *Australian Competition and Consumer Commission v Metcash Trading Limited* [2011] FCAFC 151, the SSNIP test was used as an aid to arrive at the appropriate market definition (see [313] where Yates J said: 'In the present case, the hypothetical monopolist test was no more than an aid to arrive at the appropriate market definition. It was not an end in itself.'). The ACCC notes in the ACCC, Merger Guidelines (November 2008) at [4.22] that '[w]hile the HMT is a useful tool for analysis, it is rarely strictly applied to factual circumstances in a merger review because of its onerous data requirement. Consequently, the ACCC will generally take a qualitative approach to market definition, using the HMT as an 'intellectual aid to focus the exercise'.

⁸⁰ OECD, Policy Roundtables Market Definition, 2012, pages 200 to 204.

⁸¹ J D Heydon, *Trade Practices Law* (Lawbook Co, Subscription Service), at [3.245]; *Seven Network Ltd v News Ltd* [2007] FCA 1062 at [1796]; *Australian Competition and Consumer Commission v Metcash Trading Limited* [2011] FCAFC 151 at [312].

⁸² *Seven Network Ltd v News Ltd* [2007] FCA 1062 at [1796]; *Australian Competition and Consumer Commission v Metcash Trading Limited* [2011] FCAFC 151 at [312]; *Australian Competition and Consumer Commission v PT Garuda Indonesia Ltd* (2016) 244 FCR 190 at [120].

⁸³ 2017 AU, page 1.

- 110 Accordingly, a starting point for market definition could be:
- 110.1 the mines that have exported coal through DBCT, together with mines that may export coal through DBCT in the future; and
 - 110.2 the mines that have rail links with DBCT, together with mines that are likely to seek to establish such links in the future, and would find it economic to use the DBCT service.
- 111 This approach would demonstrate that the geographic area within which these mines are located includes mines that currently utilise other terminals (notwithstanding they have rail links with DBCT) and will continue to do so in the future. As a result, the market in which the DBCT service is supplied would include other terminals. The coal handling services at those terminals must be regarded as 'able to be substituted for, or... otherwise competitive with' the services provided at DBCT.

Defining the relevant market

112 As noted above, DBCTM engaged HoustonKemp to undertake a comprehensive quantitative assessment of whether the DBCT service satisfies criterion (b). HoustonKemp's approach to market definition is described in sections 3 and 4 of the HoustonKemp Report on (b) and summarised below.

113 HoustonKemp observes that:⁸⁴

Defining a market involves the identification of the competitive constraints that are likely to have a material effect on a product or service (they are 'in the market'), and those that have a less immediate effect (they are 'out of the market'). However, such bright lines rarely exist in practice and firms selling products that are out of the market may act as a competitive constraint, albeit to a lesser degree.

114 In the case of the DBCT service, HoustonKemp considers that:⁸⁵

- 114.1 the product dimension of the market is likely to be the coal handling service, since there are no close substitutes for moving coal from rail to ships;
- 114.2 the functional dimension of the market is likely to be the coal handling service, which is separate from other port and transport services such as harbour towage, port security or dredging; and
- 114.3 the time dimension of the market is likely to be the period for which the declaration of DBCT would apply, i.e. 10 years, and is sufficiently long to allow competition for coal handling services through long term contracts.

115 HoustonKemp defines the geographic scope of the market in which the DBCT service is supplied by applying the following three step framework:⁸⁶

- 115.1 begin with the narrowest reasonable geographic dimension of the market;
- 115.2 evaluate whether it would be profitable for a hypothetical monopolist controlling all suppliers serving the geographic area of demand in the candidate market to impose a SSNIP; and
- 115.3 if the SSNIP is not profitable, the candidate geographic dimension of the market should be expanded to include the area from which the competitive constraint came to prevent the SSNIP being profitable, then repeat the previous step.

⁸⁴ HoustonKemp Report on (b), page 17.

⁸⁵ HoustonKemp Report on (b), page 17.

⁸⁶ HoustonKemp's approach to defining the market for the service is expanded on at pages 16 to 19 and 23 to 35 of the HoustonKemp Report on (b).

- 116 At step 1 of the framework, HoustonKemp estimates the scope of the narrowest reasonable geographic dimension of the market in which the DBCT service is provided.
- 117 HoustonKemp states, consistent with the ACCC Merger Guidelines, that the starting point for determining the geographic dimension of the market is the area over which the relevant service is currently being or will be supplied.⁸⁷ This is the geographic area that encompasses all of DBCT's existing and potential customers.
- 118 Recognising that for the purpose of the criterion (b) assessment, it is necessary to define a market for the period from 2021 for 10 years and that the geographic bounds of the market may change over time, HoustonKemp identifies the geographic boundary of current and potential customers of DBCT in each year from 2021 to 2030.⁸⁸
- 119 Over the period for which the service would be declared, HoustonKemp identifies this area as the region within which mines would prefer to use coal handling services provided at the Port of Hay Point. It describes this as the region from which future customers of DBCT may be drawn by reference to economic considerations.⁸⁹ HoustonKemp identifies those mines that would prefer to use coal handling services provided at the Port of Hay Point as compared with coal handling services provided at other locations, assuming there were no constraints from existing supply contracts. HoustonKemp describe this as 'the market for coal handling services for mines that are proximate to the Port of Hay Point'.⁹⁰
- 120 HoustonKemp considers that the expected production from a mine is in this market if:⁹¹
- 120.1 it is physically feasible for that mine to use coal handling services at the Port of Hay Point; and
 - 120.2 it is financially preferable for that mine to use coal handling services at the Port of Hay Point, given:
 - 120.2.1 the coal handling options available to that mine; and
 - 120.2.2 the rail and port charges involved with exercising each of these options.
- 121 On these considerations, a mine would prefer to use coal handling services provided at the Port of Hay Point, absent contractual constraints, when its total below rail, above rail and coal terminal charges associated with using these services are expected to be lower than those associated with any other option available to it.⁹²
- 122 HoustonKemp demonstrates that this approach to identifying the geographic dimension of the market, when applied in 2018, gives rise to broadly the same region as is defined by reference to the location of existing customers of DBCT.⁹³
- 123 This is the appropriate starting point for the market definition rather than approaches that define the market by reference to either:⁹⁴
- 123.1 the disparate geographic areas within which DBCT's current customers are located – an approach which excludes mines close to or between these areas which could reasonably be expected to be potential customers of DBCT; or

⁸⁷ HoustonKemp Report on (b), page 23

⁸⁸ HoustonKemp Report on (b), page 26

⁸⁹ HoustonKemp Report on (b), pages 26 to 32

⁹⁰ HoustonKemp Report on (b), page 26

⁹¹ HoustonKemp Report on (b), page 26 to 27

⁹² HoustonKemp Report on (b), page 27

⁹³ HoustonKemp Report on (b), pages 23 to 26, pages 29 to 30

⁹⁴ HoustonKemp Report on (b), pages 32 to 35

- 123.2 the constraint imposed by the capacity of the existing DBCT facility – an approach that would likely underestimate the size of the region from which potential customers of DBCT would be drawn and would not be consistent with the purpose for defining the market.
- 124 Step 2 of the framework involves testing whether a SSNIP applied to the starting geographic market would be profitable. HoustonKemp finds that a SSNIP would be profitable and so the market should not be expanded beyond these geographic boundaries.⁹⁵

- 125 HoustonKemp concludes that:⁹⁶

The analysis we set out above shows that the service at DBCT’s facility is provided in the market for coal handling services for mines that are proximate to the Port of Hay Point.

Over the period for which declaration is to be considered (which we assume to be 2021 to 2030) the geographic extent of this market can be best approximated as the region within which mines would prefer to use coal handling services provided at the Port of Hay Point.

The suppliers of coal handling services in this market are DBCT, HPCT, AAPT and RGTCT.

Market evidence

- 126 As set out above, evidence of what is happening in the market, or has the potential to occur, is highly relevant to the market definition.⁹⁷
- 127 Market evidence demonstrates that there are multiple existing facilities that are close substitutes for the DBCT service and which are together serving current demand in the market in which DBCT operates.
- 128 HoustonKemp's conclusions that the DBCT service is provided in the market for coal handling services for mines which are proximate to the Port of Hay Point, that mines which currently use other terminals are included in this market, and that DBCT, HPCT, AAPT and RGTCT provide coal handling services in this market are supported by what is currently happening and will continue to happen in the market in which DBCT operates.⁹⁸ Further, given its proximity to RGTCT at the Port of Gladstone, WICET has the potential to provide coal handling services in the market in which DBCT operates.
- 129 Market evidence demonstrates that some mines utilising DBCT also utilise coal handling services at AAPT, RGTCT and HPCT and vice versa. This evidence demonstrates that DBCT is perceived to be a close substitute for miners proximate to Hay Point which are currently using other terminals, and those terminals are perceived to be close substitutes to DBCT for miners currently using DBCT. The QCA must give this unequivocal market evidence significant weight – a failure to do so would constitute an error of law.
- 130 Mines in the Goonyella system are critical to the viability of AAPT and the GAPE. As noted in the background section of the submission, the GAPE was constructed for the purpose of allowing mines in the Goonyella system to access AAPT in order to:⁹⁹
- 130.1 alleviate capacity pressures on the Goonyella rail and port infrastructure; and
- 130.2 utilise the expansion of AAPT.

⁹⁵ HoustonKemp Report on (b), page 35

⁹⁶ HoustonKemp Report on (b), page 35

⁹⁷ J D Heydon, Trade Practices Law (Lawbook Co, Subscription Service), at [3.245]; Seven Network Ltd v News Ltd [2007] FCA 1062 at [1796]; Australian Competition and Consumer Commission v Metcash Trading Limited [2011] FCAFC 151 at [312].

⁹⁸ See also HoustonKemp Report on (b), pages 12 to 15

⁹⁹ QCA Draft decision on GAPE reference tariff July 2013 page 2

- 131 In addition to the existing connection to RGTCT through the Blackwater system, the GAPE has enabled miners to plan their export terminal usage on a system wide basis. AAPT has an incentive to retain Goonyella system mines as customers and is clearly in competition with DBCT.
- 132 The following mines, in the Goonyella system, which currently (or previously) used DBCT, are currently (or have previously) contracted with AAPT for access:¹⁰⁰
- 132.1 BMA's Peak Downs, Goonyella and Caval Ridge mines (which also export coal through DBCT);¹⁰¹
 - 132.2 BMC's South Walker Creek and Poitrel mines have contracted capacity of approximately 4Mtpa;¹⁰²
 - 132.3 Jellinbah's Lake Vermont mine (which has also exported coal through DBCT) has contracted capacity of 6Mtpa;¹⁰³ and
 - 132.4 Yancoal's Middlemount mine (which also exports coal through DBCT) has contracted capacity of 3Mtpa.¹⁰⁴
- 133 DBCT also notes that up until 2016, Queensland Coal (a subsidiary of Rio Tinto) had an access agreement with DBCT for 12Mtpa and AAPT for 9.3Mtpa for the Blair Athol (Clermont) mine in the Goonyella system. Glencore and Sumitomo Corporation acquired Rio Tinto's 50.1% shareholding in the mine in 2014 and that mine now utilises the DBCT service only.¹⁰⁵
- 134 In addition, BMA is proposing to export coal from its proposed Saraji East mine through AAPT (400km from the mine) and/or HPCT (250km from the mine).¹⁰⁶ BMA is also considering haulage along a new greenfield railway between Goonyella and AAPT.
- 135 This clearly and unequivocally establishes that AAPT provides services in the same market as the DBCT service, being the market for the coal handling services for mines which are proximate to the Port of Hay Point.
- 136 There is also evidence of mines on the southern end of Goonyella system line contracting for access at the Port of Gladstone's coal terminals, which demonstrates that RGTCT provides coal handling services in the same market as the DBCT service. For example:
- 136.1 Jellinbah's Lake Vermont mine (which has also exported coal through DBCT) has an agreement for 4Mtpa at RGTCT;¹⁰⁷
 - 136.2 Glencore's Oaky Creek mine (which also exports coal through DBCT) exports coal through Gladstone;¹⁰⁸
 - 136.3 Anglo American, has a contract with RGTCT to send coal from its German Creek mine (also known as Capcoal), in addition to its contract to send coal to DBCT from the same mine;¹⁰⁹

¹⁰⁰ North Queensland Bulk Ports, [Port of Abbot Point Operations Manual](#), Revised 2016, page 16.

¹⁰¹ North Queensland Bulk Ports, [Port of Abbot Point Operations Manual](#), Revised 2016, page 16,.

¹⁰² Sydney Morning Herald [Asciano wins BHP haulage contract in Queensland](#) 15 June 2011

¹⁰³ The Australian QR National signs 10-year contract with Jellinbah February 21, 2011

¹⁰⁴ The Middlemount website notes that it has contracted capacity at DBCT and AAPT,

¹⁰⁵ Glencore's Clermont

¹⁰⁶ BMA, Saraji East Mining Lease Project, Initial Advice Statement, 10 February 2017, Final, pages 20 to 21.

¹⁰⁷ Aurizon QR National expands tonnages with Jellinbah 6 July 2012; [Jellinbah Group website](#) notes that 'Lake Vermont is able to rail to Gladstone Port and Dalrymple Bay and Abbott Point Coal Terminals'.

¹⁰⁸ Glencore's Oaky Creek

¹⁰⁹ See for example, [Mitsui Coal Holdings' projects](#). The Capcoal project is a joint venture between Anglo American and Mitsui Coal Holdings. See also: [The Australian Asciano poaches key QR coal contract](#). June 16, 2010

- 136.4 the now-shut Gregory and Norwich Park mines previously exported coal through RGTCT¹¹⁰ and have exported coal through DBCT; and
- 136.5 some BMA mines also export coal through RGTCT (in addition to DBCT, HPCT and AAPT).¹¹¹
- 137 Further, Rio Tinto's Kestrel mine in the Blackwater system, which is located closest to RGTCT and exports through that terminal, is also sporadically exporting coal through DBCT.¹¹²
- 138 As noted below, BHP takes a 'whole of CQCN' view in optimising the BHP Group's mine portfolio¹¹³ and the BMACC manages BMA's and BMC's transport logistics business operations throughout the CQCN.¹¹⁴ The fact that BMACC takes a whole of CQCN view in managing the BHP Group's mine portfolio demonstrates that DBCT provides coal handling services in competition with other CQCN terminals. As described below, BMA and BMC mines also utilise both HPCT and DBCT, in addition to AAPT and RGTCT.¹¹⁵
- 139 As noted above, Middlemount mine exports coal through AAPT and Lake Vermont mine exports coal through AAPT and RGTCT. These are examples of mines in the Goonyella system which would have been captive to DBCT if AAPT and RGTCT were not close substitutes for DBCT. Further, the fact that Middlemount and Lake Vermont also approached DBCTM to export that coal through DBCT demonstrates that those volumes should be treated as part of foreseeable demand in the market in which the DBCT service is supplied.
- 140 Towards the end of the last decade, Lake Vermont and Middlemount mines, on the South Goonyella branch line, chose to sign long term take or pay agreements to export their coal via AAPT in circumstances where DBCT would have been the preferred terminal from a proximity perspective.¹¹⁶
- 141 Prior to signing those agreements Lake Vermont and Middlemount mines sought capacity from DBCT, however, at the time DBCT was fully contracted and would have required an expansion to its capacity to accommodate the miners' requirements. AAPT similarly needed to expand its capacity. However, this could occur within a shorter timeframe than any expansion to DBCT.
- 142 The miners had a choice between which terminal expansion would better suit their commercial requirements - either wait for DBCT to expand (the timing and approvals for which were uncertain) or utilise the GAPE and AAPT expansion (the timing and approvals for which were certain and aligned with the mines' commissioning plans). Rather than delaying their mine development processes to wait for DBCT to expand, the miners chose to use the coal handling services at AAPT. As noted above, Lake Vermont mine also exports coal through RGTCT. If there were no close substitutes to DBCT, Lake Vermont and Middlemount mines would have had to extend their mine development timeframes to align with the completion of a DBCT expansion beyond 85Mtpa.
- 143 Miners incur significant opportunity costs (e.g. deferred profits) if coal sales are delayed for any reason, including delays to availability of terminal capacity. In addition to demonstrating that miners perceive AAPT and RGTCT as close substitutes to DBCT, these examples demonstrate that miners are prepared to incur

¹¹⁰ BHP 2010 US Annual Report p. 49

¹¹¹ BHP Annual Report 2017, page 237; RMI, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, page 34.

¹¹² Rio Tinto Kestrel Mine; Rio Tinto. *Submission to the QCA in relation to the Aurizon Network 2017 Electric Traction DAAU*, February 2018.

¹¹³ For example, BHP Coal: *The path to improve returns* 21 June 2016 - at page 20 BHP states 'Capacity at four Queensland ports with matched rail flexibility allows us to optimise the supply chain'

¹¹⁴ BMA submission to QCA on *QR Network System Rules - Northern Bowen Basin System Rules*, page 1:

¹¹⁵ BHP Annual Report 2017, page 237; RMI, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, page 34.

¹¹⁶ Lake Vermont mine is located approximately 491km from AAPT and approximately 220km from DBCT. Middlemount mine is located approximately 435km from AAPT and 280km from DBCT.

higher rail transport charges to export coal because they are concerned with which terminal and rail network can provide the required services at the time that suits the mine's commercial requirements.

3.7 Total foreseeable demand in the market

- 144 To assess whether the DBCT service satisfies criterion (b) it is necessary to estimate total foreseeable demand in the market in which the DBCT service is supplied over the period for which the DBCT service would be declared. The requirement is not to estimate foreseeable demand for the service, but rather foreseeable demand in the market in which the DBCT service is supplied.¹¹⁷
- 145 The references to 'foreseeable demand' and 'over the period for which the service would be declared' indicates that the QCA cannot just consider current demand levels, but must consider possible demand levels over the entire declaration period. This forward looking approach to demand is also supported by the statement in the *Explanatory Memorandum to the Competition and Consumer Amendment (Competition Policy Review) Bill 2017* that assessing whether the facility could meet total foreseeable market demand at least cost 'calls for a consideration of whether what could be expected to be maximum demand could be supported by the facility' and that because 'the test uses the concept of foreseeability, it is not limited to looking at maximum demand based on current uses of the service'.¹¹⁸
- 146 Accordingly, in this declaration assessment the QCA must take a forward looking approach that accounts for potential demand for coal handling services from new mines and expansions to existing mines.

Determining total foreseeable demand

- 147 HoustonKemp observes that 'foreseeable demand' is not a term of art in economics, however:¹¹⁹
- 147.1 'foreseeable' suggests a value that could reasonably be expected, given information that is currently available; and
- 147.2 'demand' in an economic sense refers to the willingness of potential buyers to purchase a good or service at some point in time.
- 148 Further, the total foreseeable demand of interest is that 'in the market', rather than the foreseeable demand 'for the service'.¹²⁰ This means that total foreseeable demand should be estimated as the total requirement for coal handling services arising for coal that is being mined (or is expected to be mined) at locations that are within the geographic dimension of the market. Whether these volumes are, or will ultimately be, served by DBCT is not relevant to the calculation of foreseeable demand.
- 149 HoustonKemp calculates total foreseeable demand in the market for coal handling services for mines located proximately to the Port of Hay Point by reference to the expected production of mines located within the geographic dimension of the market using independent third party forecasts from AME.
- 150 Demand for coal handling services from mines that use HPCT are part of foreseeable market demand. A miner who would prefer to use the HPCT service is logically also a potential customer for DBCT. The terminals are immediately adjacent in their location at the Port of Hay Point. Although HPCT has only provided coal handling services to BMA or BMC mines to date, many of the mines that currently use HPCT have, at some stage, also used the DBCT service. For example:¹²¹

¹¹⁷ This is clear from the text of section 76(3) of the QCA Act. See also, *Productivity Commission Inquiry Report, National Access Regime*, No. 66, 25 October 2013, pages 155 and 160.

¹¹⁸ Explanatory Memorandum, Competition and Consumer Amendment (Competition Policy Review) Bill 2017 at [12.24].

¹¹⁹ HoustonKemp Report on (b), page 19

¹²⁰ HoustonKemp Report on (b), page 19

¹²¹ HoustonKemp Report on (b), page 28

- 150.1 BMC’s South Walker Creek and Poitrel hold contracts with DBCT and AAPT as well as exporting coal through HPCT;
- 150.2 BMA’s Goonyella/Riverside/Broadmeadow complex of mines exported █████ Mt of coal through DBCT between 2002 and 2018;
- 150.3 BMA’s Peak Downs mine exported █████ Mt of coal through DBCT between 2010 and April 2018;
- 150.4 BMA’s Saraji mine exported █████ Mt of coal through DBCT between 2010 and April 2018; and
- 150.5 BMA’s Caval Ridge mine exported █████ Mt of coal through DBCT between 2015 and April 2018.¹²²

151 The map below shows the geographic region within which BMA and BMC mines that currently use HPCT are located.¹²³ It demonstrates that the area from which HPCT’s customers are drawn is similar to but contained within the area from which DBCT’s customers are drawn. This is to be expected given the co-location of DBCT and HPCT at the Port of Hay Point.

Figure 4: Geographic region of BMA and BMC mines currently using HPCT



152 DBCTM makes further submissions as to why foreseeable market demand includes demand from mines that use the HPCT service below.

Foreseeable market demand includes demand from mines that use HPCT

153 Any consideration of whether the DBCT service satisfies criterion (b) must be undertaken on the basis that total foreseeable demand in the market includes demand from mines that use the HPCT service. To do otherwise would fail to take into account a relevant consideration.

154 The unequivocal market evidence is that BMA and BMC mines that utilise HPCT also utilise DBCT and therefore perceive DBCT to be a close substitute to HPCT. It follows that their entire foreseeable demand must logically be in the same market as the market in which the DBCT service is supplied.

¹²² DBCT PortVu System – Shipping History – Last Line

¹²³ HoustonKemp Report on (b), page 28.

HPCT

- 155 HPCT is also located at the Port of Hay Point immediately adjacent to DBCT (with a rail loop entry approximately 2km from DBCT's on Aurizon's network). HPCT is owned by BMA (a 50:50 joint venture between BHP and Mitsubishi Development Pty Limited)¹²⁴ and operated by Hay Point Services, a wholly-owned subsidiary of BHP. In December 2015, works on HPCT's third expansion project (HPX3) were completed which increased HPCT's export capacity from 44Mtpa to 55Mtpa.¹²⁵
- 156 The same integrated rail network links mines to each of DBCT and HPCT. This means mines which use the rail network to transport coal to DBCT can use the rail network to transport coal to HPCT. Coal handled by DBCT and HPCT is sold in the same product markets.
- 157 HPCT is not declared and BMA has made a commercial decision to provide third party access to HPCT's services only to BMC (owned 80:20 by BHP and Mitsui and Co respectively), in addition to providing access to itself.¹²⁶
- 158 BMA uses coal handling services at DBCT, RGTCT and AAPT, in addition to those at HPCT.
- 159 BMC uses coal handling facilities at DBCT and AAPT, in addition to those at HPCT.
- 160 BHP's Annual Report 2017 notes that Queensland Coal (comprising BMA and BMC):¹²⁷
- .. has access to key infrastructure in the Bowen Basin, including a modern, multi-user rail network and its own coal-loading terminal at Hay Point, located near the city of Mackay. Queensland Coal also has contracted capacity at three other multi-user port facilities, including the Port of Gladstone (RG Tanna Coal Terminal), Dalrymple Bay Coal Terminal and Abbot Point Coal Terminal.
- 161 BMA operates seven Bowen Basin mines - Goonyella Riverside, Broadmeadow, Daunia, Peak Downs, Saraji, Blackwater and Caval Ridge. BHP's Annual Report 2017 notes that the 'means of access' for these mines includes:¹²⁸
- Coal transported by rail to Hay Point, Gladstone, Dalrymple Bay and Abbot Point ports
- Distances between the mines and port are between 160 km and 315 km
- 162 BMC owns and operates the South Walker Creek Mine and Poitrel Mine in the Bowen Basin. BHP's Annual Report 2017 notes that the 'means of access' for these mines includes:¹²⁹
- Coal transported by rail to Hay Point and Dalrymple Bay ports
- Distances between the mines and port are between 135 km and 165 km
- 163 BHP takes a 'whole of CQCN' view in optimising the BHP Group's mine portfolio.¹³⁰ BMA has a functional group, the BMA Coal Chain, which manages BMA's and BMC's transport logistics business operations, throughout the CQCN.¹³¹ The coal chain managed by BMACC comprises all mines, ports and railways within the BMA and BMC asset portfolio, including multi-user export coal terminal contractual entitlements at RGTCT, DBCT and AAPT. BMACC integrates its coal chain logistics planning to optimally match coal

¹²⁴ BHP Annual Report 2017, page 56

¹²⁵ BHP News Release, [New BMA Hay Point Coal Terminal Boosts Queensland's Coal Exports](#), 16 December 2015

¹²⁶ BHP Annual Report 2017, pages 56 and 237.

¹²⁷ BHP Annual Report 2017, page 237.

¹²⁸ BHP Annual Report 2017, page 237.

¹²⁹ BHP Annual Report 2017, page 237.

¹³⁰ For example, BHP, [Coal: The path to improve returns](#), 21 June 2016 - at page 20 BHP states 'Capacity at four Queensland ports with matched rail flexibility allows us to optimise the supply chain'

¹³¹ BMA submission to QCA on QR Network System Rules - Northern Bowen Basin System Rules, page 1

production, riling and shipping resources with customer demand within the constraints of the CQCN. It manages bi-directional coal movements across the CQCN between the different ports, dependent on blending and market requirements and operates within a 'virtual' integrated supply chain to match coal logistics to its coal production and shipping and customer demand profiles.¹³²

164 Resource Management International's (RMI's) report to the QCA entitled 'Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking' of May 2017 contains the following table (at page 34) setting out the Queensland Ports utilised by BMA and BMC in FY2015 and FY 2016. The table was prepared by RMI based on statistics from the Department of Natural Resources, Mines and Energy. It shows that BMA and BMC utilised AAPT, DBCT, RGTCT, WICET and HPCT in FY2015 and FY2016.¹³³ DBCTM notes that, while it is not shown in this table, BMC's South Walker Creek Mine also used DBCT in 2016.

Figure 5: Terminals used by BMA and BMC in FY2015 and FY2016

Port	FY15	FY16	Mines
Abbot Point	7.1	6.0	Caval Ridge; Daunia, Goonyella Riverside; Peak Downs(FY2015 only)
DBCT	6.0	3.7	Caval Ridge; Daunia, Goonyella Riverside, Peak Downs, Saraji
Gladstone (RGTCT / WICET)	17.8	17.8	Blackwater (14.7Mt - all), Gregory complex; minor Caval Ridge & Peak Downs in FY2016
Hay Point	42.9	48.3	All mines except Blackwater in FY2016; All mines in FY2015
Total	73.9	75.9	

Source: DNRM statistics, RMI

Foreseeable market demand includes demand from mines that use the HPCT service

165 The question raised by criterion (b) is not whether HPCT will be an effective constraint on DBCT absent regulation of DBCT. Rather, criterion (b) asks whether it is lowest cost for DBCT to serve foreseeable demand in the market or for that demand to be served by more than one facility. In this context, the question is whether HPCT customers perceive DBCT to be a close substitute for HPCT (not whether/at what price HPCT would be willing to serve DBCT customers).

166 As set out above, the unequivocal market evidence is that BMA and BMC mines already use DBCT and therefore show considerable willingness to substitute tonnage between HPCT and all other terminals, including DBCT. Even if one were to conclude that HPCT is not a competitor for DBCT's non-BHP customers:

- 166.1 this is irrelevant to whether those customers are in the market in which the DBCT service is supplied - they clearly are with or without competition from HPCT; and
- 166.2 this does not affect the conclusion that DBCT is in fact a close substitute to HPCT for BMA and BMC.

167 Given that for BMA and BMC mines DBCT is a close substitute to HPCT, their entire coal volumes must logically be in the same market as the market in which the DBCT service is supplied.

¹³² BMA submission to QCA on QR Network System Rules - Northern Bowen Basin System Rules, pages 1 to 2

¹³³ RMI, Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking, May 2017, page 34

3.8 Least cost

- 168 After establishing the appropriate definition of the market in which the DBCT service is supplied and estimating foreseeable demand in that market, it is necessary to assess whether it would be least cost for this demand to be handled by DBCT alone or whether foreseeable demand can be met at least cost by a combination of DBCT and one or more other terminals.
- 169 As the QCA recognises in the Issues Paper, criterion (b) involves a consideration of how resources can be allocated in meeting demand optimally from a social economic welfare perspective, rather than whether it is in the private commercial interests of an entity to meet demand in an inefficient way.¹³⁴ The least-cost calculations should consider the incremental social costs of meeting total foreseeable demand by use of DBCT alone compared with foreseeable demand being met by DBCT and one or more alternative facilities, not the private costs to miners of accessing different coal-handling services. Returns to sunk capital investments are not incremental costs from society's point of view. Accordingly, they should be excluded from the least-cost calculations, even though they typically account for a large share of the charges that miners pay to access existing infrastructure.
- 170 The least cost assessment should recognise that:
- 170.1 the capital costs incurred to date of the existing terminal and rail infrastructure in central Queensland have already been incurred. They are sunk costs, which are unaffected by the level of demand, and are not relevant for the least-cost assessment; and
 - 170.2 only the incremental costs of meeting total foreseeable demand over the declaration period are relevant for the least cost assessment.
- 171 Excluding sunk costs from a natural monopoly approach to criterion (b) is consistent with the Tribunal's approach in its 2010 Pilbara rail decision. In that case, the Tribunal assessed whether society would bear a lower total cost by providing shared access to any existing rail line relative to a new rail line being constructed. The Tribunal said:¹³⁵

In the present context, the question comes down to this: Can each line provide society's reasonably foreseeable demand for the below rail service at a lower total cost than if provided by two or more lines? The relevant costs are, as we have said, the costs of producing the below rail service.

An important assumption of this enquiry is that an existing line can, if necessary, be expanded to meet the reasonable foreseeable demand for the service. This is consistent with the economic theory of a natural monopoly, which takes into account the ability of the facility (or, more classically, the firm) to expand the relevant output: see eg Carl Kaysen and Donald Turner, *Antitrust Policy – An Economic and Legal Analysis* (1959); Richard Posner, *Natural Monopoly and Its Regulation* (30th Anniversary ed, 1999). **In the case of an incumbent's line, the additional costs to be taken into account are of operating the line on a shared basis plus the capital cost of any expansion that is necessary to meet the demand. Those costs are to be contrasted with the sum of the costs of operating the incumbent's line (plus the cost of any expansion) for its own use and the cost of constructing and operating a new line(s) to meet third party demand.** (emphasis added)

- 172 The above extract from the Tribunal's decision demonstrates that the Tribunal did not include the capital costs of the incumbent's existing rail line in its comparison of the incumbent's costs with those of constructing and operating a new line. Rather, the Tribunal identified the operating costs of providing third-party access and the capital costs of any required expansions to the incumbent's line as being relevant to

¹³⁴ Issues Paper, page 10.

¹³⁵ In the matter of Fortescue Metals Group Limited [2010] ACompT 2 at [850] and [851].

its analysis. This shows that the Tribunal recognised the concept of sunk costs in its assessment and elected to consider only incremental costs as being relevant to the cost comparison.

- 173 In addition, DBCTM notes that paragraph 906 of the Tribunal’s decision sets out all the capital and operational costs that the Tribunal considered in comparing the cost of sharing a facility instead of duplicating it. Paragraph 907 goes on to acknowledge that the original costs of the incumbent’s rail line will be the same regardless whether there is one line with shared access or a new line is built as an alternative to shared access. DBCTM also notes that the Productivity Commission agreed with the Tribunal’s reasoning on this matter:¹³⁶

...any costs incurred in both scenarios (that is, costs that would be incurred both where the facility under application meets total foreseeable market demand and under the least costly alternative scenario) will cancel out and therefore do not need to be estimated. The Tribunal took this approach in its Pilbara rail determination (para. 907), where it noted that it was unnecessary to estimate the capital and operating costs that would be incurred in both scenarios that it considered.

- 174 Accordingly, there is sufficient evidence that sunk costs are not relevant in the least cost analysis for criterion (b); only incremental (or avoidable) costs are relevant.

Assessing what is least cost

- 175 HoustonKemp observes that in order to assess whether it is least cost for DBCT to meet total foreseeable demand in the market it is necessary to establish that it would not reduce costs to handle some or all foreseeable demand at one or more alternative terminals. Such an assessment must therefore consider alternative ways that foreseeable demand could be met, taking into account:¹³⁷
- 175.1 the availability of capacity at DBCT and other terminals to handle some or all foreseeable demand in the market over the declaration period and the costs associated with utilising this capacity; and
 - 175.2 the potential for DBCT and other terminals to be expanded or other terminals constructed so as to handle some or all foreseeable demand, and the costs associated with these expansions.
- 176 Where total foreseeable demand in the market exceeds DBCT’s current nameplate capacity of 85Mtpa and there is a spare capacity at other terminals, it is likely cheaper for the excess demand to be met at the other terminals because this would avoid the costs of expanding DBCT.
- 177 This assessment should also extend to the availability of capacity, and the potential and costs for expansion, of the rail networks that enable the coal handling services which are provided by DBCT and other terminals.¹³⁸
- 178 HoustonKemp explains in its report that the costs referred to in criterion (b) should not be limited to those incurred by the provider of the facility for the service.¹³⁹ To limit costs in this way would overlook the fact that coal handling services are part of a supply network and to meet foreseeable demand in the market requires costs to be incurred throughout that supply network.
- 179 It follows that the least cost assessment must consider all the costs that may be incurred in the coal supply network to meet the foreseeable demand.¹⁴⁰ This includes costs associated with both rail access and rail haulage, as well as the port terminal infrastructure and handling costs. DBCTM notes that the QCA’s Staff

¹³⁶ PC (2013), pp. 163-164

¹³⁷ HoustonKemp Report on (b), page 20

¹³⁸ HoustonKemp Report on (b), pages 20 to 21

¹³⁹ HoustonKemp Report on (b), page 20

¹⁴⁰ HoustonKemp Report on (b), page 20 to 21

Issues Paper seeks stakeholder feedback on whether the QCA should consider only the cost of using the facilities, or to also consider other costs necessarily incurred in accessing the service (e.g. additional transport costs).¹⁴¹ DBCTM considers that, for the reasons set out above, the latter view is appropriate.

- 180 HoustonKemp observes that, in principle, the costs to be considered should also include any other costs incurred in the supply network that may be affected by any decision as to whether foreseeable demand is met at DBCT or any two or more facilities. These may include, for example, the costs associated with the provision of other port services such as pilotage and port security, or the costs associated with dredging shipping channels, where incurred to meet foreseeable demand.
- 181 Further, the relevant costs for the least cost assessment are the incremental costs to society (or resource costs) that may be incurred in the coal supply network to meet the foreseeable demand.¹⁴²
- 182 HoustonKemp observes that having regard to incremental costs in the least cost assessment is appropriate because:¹⁴³
- 182.1 the sunk costs of existing rail and terminal infrastructure have already been incurred and will not be incurred again over the period for which the service would be declared; and
 - 182.2 even if the sunk costs of existing rail and terminal infrastructure were to be taken into account in an assessment of least cost, these costs would be captured under all scenarios in which total foreseeable demand in the market is met and are therefore not relevant to determining whether the facility for the service can meet that demand at least cost.
- 183 The focus of HoustonKemp's assessment of criterion (b) is on the resource costs associated with port terminal infrastructure and handling costs as well as rail access and rail haulage.¹⁴⁴ This choice reflects an understanding that not only are these cost elements the most likely to vary when different terminal facilities are used to meet foreseeable demand in the market but also that, for other resource costs, either:
- 183.1 it is reasonable to assume that the resource costs incurred to meet foreseeable demand are similar regardless of which facility is used to meet that demand; or
 - 183.2 there is insufficient information available on which to base an assessment that the resource costs incurred to meet foreseeable demand would differ significantly between terminals.
- 184 HoustonKemp considers that the evaluation of the resource costs of meeting foreseeable demand is likely to be significantly affected by the fact that the provision of rail and terminal infrastructure is capital intensive.¹⁴⁵ It follows that the resource costs of meeting foreseeable demand using existing infrastructure (which does not require new capital investment) are likely to be significantly lower than the resource costs associated with the construction and use of new infrastructure.
- 185 However, HoustonKemp observes that the resource cost of using existing infrastructure may be difficult to estimate.¹⁴⁶ One proxy for this cost may be the price of using that infrastructure, but this is likely to overestimate significantly the resource costs of using the infrastructure since the price will often reflect a return of and on the sunk capital costs of the assets used to provide the service – which are not part of the incremental cost of providing the service over the relevant period. For capital intensive services such as coal handling at port terminals, and below rail services, it would be reasonable to expect the resource costs of using existing infrastructure to be much lower than the price that is charged for infrastructure services.

¹⁴¹ QCA Staff Issues Paper on Declaration Reviews: applying the access criteria, page 15

¹⁴² HoustonKemp Report on (b), page 21

¹⁴³ HoustonKemp Report on (b), page 21

¹⁴⁴ HoustonKemp Report on (b), page 21

¹⁴⁵ HoustonKemp Report on (b), page 26

¹⁴⁶ HoustonKemp Report on (b), page 21

- 186 By contrast, the incremental cost of using new infrastructure will include the capital costs of the construction that is required to realise this investment.¹⁴⁷ It could also include any further costs associated with operating and maintaining the new infrastructure, even if these costs are fixed in nature, if they would be avoided had the infrastructure not been developed.
- 187 It follows that the resource costs of meeting foreseeable demand using existing capacity are likely to be substantially lower than the resource costs of meeting foreseeable demand using expanded capacity.¹⁴⁸ This suggests that, if total foreseeable demand in the market exceeds the existing capacity of DBCT, and there is existing capacity at other terminals, then it is very likely that it is least cost to meet some of this foreseeable demand using this existing capacity.
- 188 In the following sections of the submission, DBCTM demonstrates that the DBCT service does not satisfy criterion (b) because DBCT cannot meet total foreseeable demand in the market over the declaration period, and nor is it least cost for DBCT to service that demand alone.

3.9 DBCT cannot meet total foreseeable market demand over the declaration period

- 189 It is not necessary to demonstrate that DBCT cannot meet total foreseeable market at least cost in order for the QCA to conclude that the DBCT service does not satisfy criterion (b). This is because DBCT cannot meet foreseeable demand in the market for the coal handling services for mines located proximately to the port of Hay Point over the declaration period.
- 190 In summary:
- 190.1 the QCA cannot be satisfied of criterion (b) where DBCT could not meet the total foreseeable demand in the market over the period for which the service would be declared;
 - 190.2 where DBCT is not able to meet total foreseeable market demand for the service over the declaration period, it is not necessary for the QCA to consider whether DBCT could meet that demand at least cost compared to any two or more facilities;
 - 190.3 HoustonKemp estimates peak total foreseeable demand in the market over the declaration period to be approximately 207Mtpa. AME estimates peak total foreseeable demand in the market over the declaration period to be approximately 218Mtpa.
 - 190.4 the reasonably possible capacity of DBCT over the declaration period is no greater than 102Mtpa. Accordingly, DBCT cannot be regarded as if it had expanded capacity beyond 102Mtpa in assessing criterion (b);
 - 190.5 given total foreseeable market demand over the declaration period is greater than 102Mtpa (by at least 102Mtpa at its peak), the QCA cannot be satisfied that DBCT could meet the total foreseeable demand in the market over the period for which the DBCT service would be declared; and
 - 190.6 accordingly, the QCA cannot be satisfied of criterion (b) in the case of the DBCT service. To conclude otherwise the QCA must have a logical evidentiary basis that peak total foreseeable demand in the market is materially lower than 207Mtpa and that it is reasonably possible to expand DBCTM beyond 102Mtpa. It is not sufficient for the QCA to determine that the DBCTM estimates are not robust or not reliable. The QCA must be affirmatively satisfied that DBCTM can meet the total foreseeable demand in the market based on material of probative value.

¹⁴⁷ HoustonKemp Report on (b), page 21

¹⁴⁸ HoustonKemp Report on (b), page 21 to 22

Not reasonably possible to expand DBCT's capacity beyond 102Mtpa

- 191 It would not be reasonably possible to expand DBCT's capacity beyond 102Mtpa during the declaration period. Further, there is considerable uncertainty as to whether expanding DBCT beyond 102Mtpa will ever be viable. There is also considerable uncertainty as to whether it would be reasonably possible to expand DBCT's capacity up to 102Mtpa during the declaration period.
- 192 For the QCA to be satisfied that DBCT can be expanded beyond 102Mtpa during the declaration period, it must have a reasonable basis to conclude that land for the additional stockyard at Louisa Creek can be acquired and all of the necessary approvals, licences and permits can be obtained and do not impact the financial viability of the expansion, and that the expansion will occur within the declaration period. A conclusion that DBCT can be expanded beyond 102Mtpa cannot be merely theoretical. Rather, it must be based on material which tends logically to show the existence of facts consistent with that conclusion.¹⁴⁹
- 193 DBCT Holdings has recently approved DBCTM's 2018 Master Plan. The incremental expansion pathways identified in the 2018 Master Plan are as follows:¹⁵⁰
- 193.1 a capacity expansion up to 89Mtpa (Zone 4 expansion);
 - 193.2 a capacity expansion up to 94Mtpa (phase 1 of the 8X expansion);
 - 193.3 a capacity expansion up to 102Mtpa (phase 2 of the 8X expansion); and
 - 193.4 a capacity expansion up to 136Mtpa (9X expansion, including an additional stockyard at Louisa Creek).
- 194 Only the first stage, the Zone 4 expansion to 89Mtpa, is well understood because a feasibility study¹⁵¹ has been completed.
- 195 For each of the subsequent expansions (8X expansions Phase 1 and 2 to 102Mtpa and 9X expansion to 136Mtpa) the level of engineering definition is only at concept level. The exact scope of the 102Mtpa expansion project is uncertain. Delivering 102Mtpa depends on DBCT consistently operating at higher outloading rates than have traditionally been achieved at DBCT to date. This needs to occur with a smaller stockyard storage ratio than ever before. An expansion to 102Mtpa will also require rail track improvements.¹⁵² The rail track infrastructure in the vicinity of DBCT does not form part of the asset owned and managed by DBCT. Rather, that infrastructure is owned by Aurizon. This also contributes to the uncertainty of expanding to 102Mtpa.
- 196 The capacity of 102Mtpa under the expansion phases for 8X is the maximum reasonable capacity that DBCT could produce within its existing footprint of the land leased by DBCTM.¹⁵³ An expansion beyond 102Mtpa faces significant impediments and risks, which means that it could not be considered to be reasonably possible over the declaration period.
- 197 We note that DBCT's 2016 Master Plan also identified expansion pathways from 85Mtpa up to 136Mtpa, however, since approval of that Master Plan the feasibility and viability of expanding beyond 102Mtpa has diminished significantly. The 2018 Master Plan notes that the likelihood of conditions being favourable to underpin a 9X expansion project in the future has been diminished by significant contributing factors. These include, namely, the difficulty of securing permits to complete the dredging required for the berths required for 9X, and the introduction of differential pricing in the 2017 AU.¹⁵⁴ Further, the 2018 Master Plan notes

¹⁴⁹ Mahon v Air New Zealand [1984] A.C. 808; [1984] 3 All ER 201 at 210; Minister for Immigration and Ethnic Affairs v Wu Shan Liang (1996) 185 CLR 259 at 282.

¹⁵⁰ Appendix 19 2018 DBCT Master Plan Expansion Opportunities at the Dalrymple Bay Coal Terminal, pages 48 to 69.

¹⁵¹ A front end loading (FEL) 2 study has been completed.

¹⁵² Appendix 19 2018 DBCT Master Plan page 68.

¹⁵³ Appendix 19 2018 DBCT Master Plan pages 48 to 69.

¹⁵⁴ Appendix 19 2018 DBCT Master Plan page 48.

that significant delays are likely to be experienced during the environmental and planning approvals process for 9X and sets out a number of key issues requiring further investigation.¹⁵⁵

- 198 The impediments to expanding DBCT are described in Appendix 18 to this submission. In summary, the matters in Appendix 18 demonstrate that:
- 198.1 An expansion beyond 102Mtpa is beyond DBCTM's control. The existing footprint of DBCT is limited to 102Mtpa.¹⁵⁶ Any expansion beyond 102Mtpa would require an additional stockyard at Louisa Creek for which DBCTM has no legal rights. Louisa Creek is a residential area and the land required for the 9X stockyard is privately owned.
- 198.2 An expansion beyond 102Mtpa will require two new offshore berths to the north, which will necessitate capital dredging for both the berth pockets as well as extensions to the departure path and aprons. Land reclamation within the Great Barrier Reef World Heritage Area, in close proximity to the Great Barrier Reef Marine Park, will also be required.¹⁵⁷ Dredging activities are heavily regulated with capital dredging projects being subject to extensive approval requirements at both the Commonwealth and State level. Those approval requirements are described in GHD's Report on Approval and Permit Pathways at Appendix 17 to this submission. Due to DBCT's proximity to the Great Barrier Reef, capital dredging will require approval from the Great Barrier Reef Marine Park Authority (**GBRMPA**). There is significant uncertainty as to whether the required approvals will be forthcoming.¹⁵⁸ The *Sustainable Ports Development Act (2015) (Qld)* expressly prohibits offshore disposal of spoil from capital dredging. Instead, the spoil from capital dredging must be brought onshore or used for beneficial re-use by reclamation of land within the port. As described in Appendix 17, there has also been increased scrutiny from environmental groups on dredging in the Great Barrier Reef World Heritage Area.
- 198.3 In addition to dredging approval, an expansion beyond 102Mtpa will require environmental approvals. DBCT considers it unlikely that the required approvals could be obtained in sufficient time to allow commissioning of 9X within the proposed declaration period. In fact, it is not certain that the required approvals will be forthcoming at all. The 9X proposal would be a 'controlled action' under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) and will therefore trigger a full Environmental Impact Statement (**EIS**) through State and Commonwealth processes. Appendix 18 contains a table showing the difficulties 9X will encounter.¹⁵⁹
- 198.4 The potential for larger buffer zones to be introduced for coal terminals to protect Queensland communities from large point-source dust emissions further reduces the likelihood of 9X proceeding.¹⁶⁰ The close proximity of DBCT to neighbouring communities further increases the risk of DBCT not securing the necessary approvals.
- 198.5 A 9X expansion will require construction of a fourth rail loop as well as significant expansion to rail track infrastructure in the Goonyella system to accommodate the additional capacity.¹⁶¹ The rail infrastructure at the terminal does not form part of the asset owned and managed by DBCTM. The rail network is owned and operated by Aurizon. The required augmentation and expansion to rail track infrastructure is therefore outside DBCTM's control.

¹⁵⁵ Appendix 19 2018 DBCT Master Plan pages 76 to 77.

¹⁵⁶ Appendix 19 2018 DBCT Master Plan pages 48 to 69.

¹⁵⁷ Appendix 19 2018 DBCT Master Plan page 62.

¹⁵⁸ Appendix 19 2018 DBCT Master Plan page 62.

¹⁵⁹ Appendix 18 Impediments to 9X, page 3.

¹⁶⁰ Appendix 18 Impediments to 9X; Coal Workers' Pneumoconiosis Select Committee Report No. 4, [55th Parliament Inquiry into Occupational Respirable Dust Issues, Queensland Government Response](#), page 3; Coal Workers' Pneumoconiosis Select Committee Report No. 4, [55th Parliament Inquiry into Occupational Respirable Dust Issues](#), September 2017, pages 101 to 106.

¹⁶¹ Appendix 18 Impediments to 9X

- 198.6 The planning, approvals and development timeframes for a project of the nature of 9X are highly unpredictable and are likely to span over a decade.¹⁶² Access seekers would need to fund the pre-feasibility study and feasibility study plus the EIS and dredging approvals (expected to cost between \$50m to \$60m) with little certainty as to whether or not the project will proceed. If the project gained the necessary approvals, which is far from certain, the design and construction would take another 4-5 years. Given the cyclical nature of the global coal market and the heightened approvals risk, it is difficult to see 9X ever being viable.
- 199 The above impediments would apply to any expansion over 102Mtpa. In addition, expanding beyond 102Mtpa would be costly. The estimated capital cost of expanding to 136Mtpa is approximately \$5 billion, with the capital cost of each stage ranging between \$1.5 billion to \$2 billion.¹⁶³
- 200 Notwithstanding the above, if 9X does proceed, in addition to the likely significant delays arising from dredging and other environmental approvals processes, DBCTM estimates an expansion planning process for DBCT under the DBCT 2017 Access Undertaking (**current access undertaking**) would take eight years to be completed.¹⁶⁴

Total foreseeable market demand

- 201 To determine foreseeable market demand, DBCTM commissioned two reports from independent experts. The first is by economic experts HoustonKemp and the second is by industry experts AME. Both forecasts are robust and are the best available evidence for this purpose.
- 202 As set out below:
- 202.1 HoustonKemp estimates maximum total foreseeable demand in the market in which the DBCT service is supplied over a 10 year declaration period to be approximately 207Mtpa. Applying a restrictive assumption that foreseeable demand from BMA and BMC mines is excluded from total foreseeable demand in the market, HoustonKemp estimates maximum total foreseeable demand over a 10 year declaration period to be approximately 134Mtpa.
- 202.2 AME estimates maximum total foreseeable demand over a 10 year declaration period to be approximately 218Mtpa (including all BMA and BMC forecast production) and 157Mtpa (excluding 55Mtpa of BMA forecast production).

HoustonKemp

- 203 HoustonKemp's approach to market definition and total foreseeable demand in the market is summarised earlier in this submission and described in sections 3, 4 and 5 of the HoustonKemp Report on (b). HoustonKemp's conclusions on market definition and foreseeable demand are described below.
- 204 Applying its framework for analysis and modelling tools to the base case assumptions, HoustonKemp concludes that based on current rail and port charges, the geographic dimension of the market for coal handling services for mines which are proximate to the Port of Hay Point includes mines which currently use coal handling services provided at terminals other than DBCT, being HPCT, AAPT and RGTCT.¹⁶⁵
- 205 Over the period for which the service would be declared, the geographic dimension of this market is demonstrated by Figure 4.4 from the HoustonKemp Report on (b).¹⁶⁶ This area is defined by mines that

¹⁶² Appendix 18 Impediments to 9X

¹⁶³ Appendix 10 HoustonKemp Report on (b), page 40

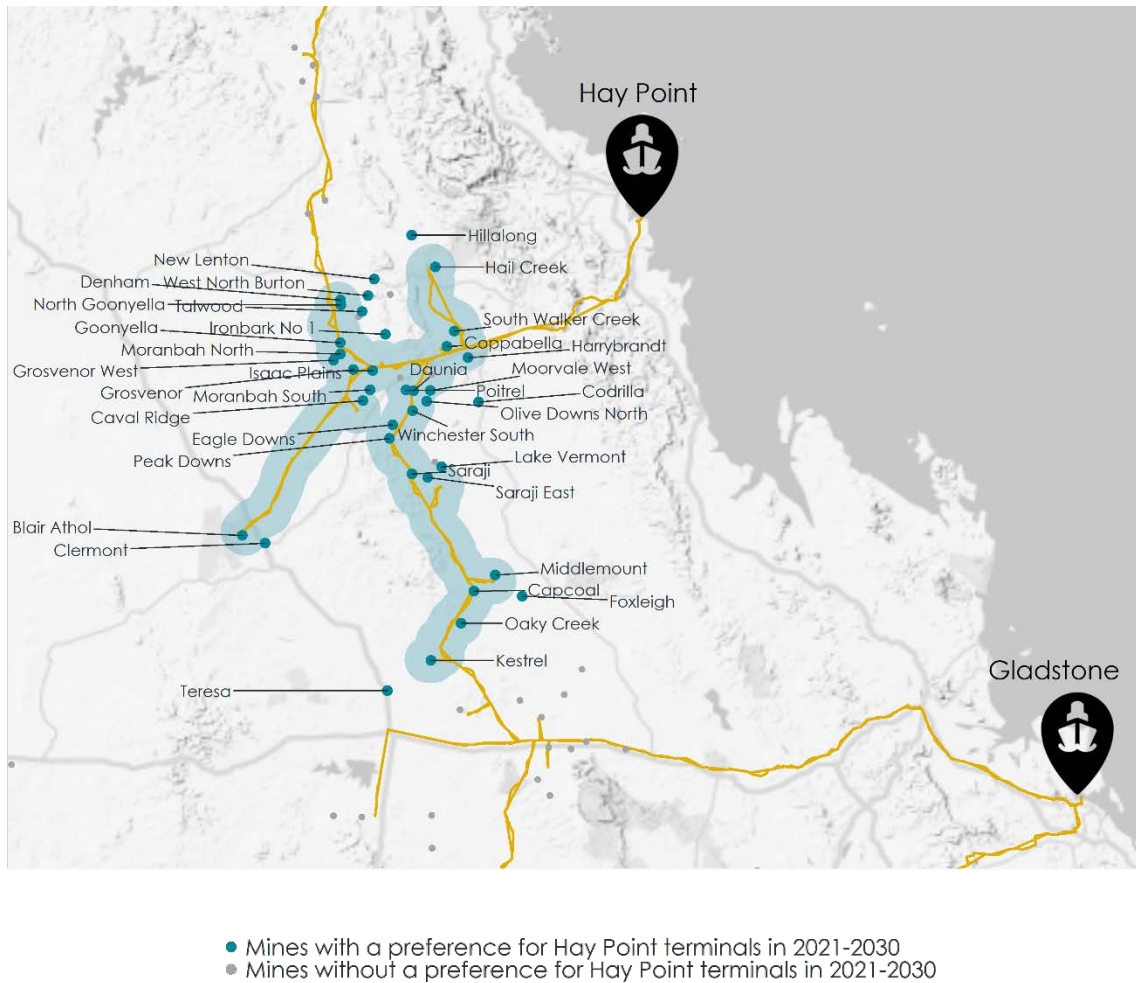
¹⁶⁴ The timing for expansion processes under the 2017 AU (pre-construction process) is set out in Appendix 15 Expansion flowcharts.

¹⁶⁵ HoustonKemp Report on (b), pages 25 to 26

¹⁶⁶ HoustonKemp Report on (b), page 31

would prefer to export coal at DBCT in any year or years during this period. This area is substantively similar to the geographic region defined by reference to the location of DBCT's current customers.

Figure 6: Mines with a preference for Hay Point Terminals in 2021-2030



206 The following table shows mines which are in the market in which the DBCT service is supplied:

Figure 7: Mines in the market for the DBCT service

Operator	Mine
Anglo American	Capcoal
	Grosvenor
	Moranbah North
	Moranbah South
Aquila	Eagle Downs
	Talwood
BHP Mitsubishi Alliance	Caval Ridge
	Daunia
	Goonyella Riverside
	Peak Downs
	Red Hill
	Saraji
	Saraji East

Operator	Mine
BHP Mitsui Coal	Poitrel
	South Walker Creek
Carabella Resources Limited	Grosvenor West
Fitzroy Resources	Broadlea North
	Carborough Downs
	Ironbark No. 1
Glencore	Clermont
	Oaky Creek
Jellinbah Group	Lake Vermont
Middlemount Coal	Middlemount
New Hope	Burton
	New Lenton
Peabody	Codrilla
	Coppabella
	Denham
	Millennium
	Moorvale
	Moorvale West
	North Goonyella
	West/North Burton
Pembroke Resources	Olive Downs North
	Vermont East/Willunga
Realm Resources	Foxleigh
Rio Tinto	Hail Creek
	Kestrel
	Valeria
	Winchester South
Shandong Energy Group	Hillalong
Stanmore Coal	Isaac Plains
Terracom	Blair Athol
Yanzhou	Harrybrandt

207 HoustonKemp expresses total foreseeable demand in the market in two (equivalent) terms:¹⁶⁷

207.1 demand for coal handling throughput, estimated as the total expected production of mines that are located within the market; and

207.2 demand for coal handling contract capacity, estimated from demand for coal handling throughput adjusting for an average of 90 per cent utilisation of contract capacity.

208 This is because, in practice, demand for coal terminal capacity is realised as take-or-pay contracts rather than volume of coal handled.¹⁶⁸ Under these arrangements, it is normal for contracted capacity to exceed the volumes of coal handled by a significant margin, even in a long run equilibrium. For example:

¹⁶⁷ HoustonKemp Report on (b), page 36

¹⁶⁸ See further explanation of this assumption on page 37 of the HoustonKemp Report on (b)

- 208.1 despite having contracts with miners of approximately 80Mtpa, during 2017 DBCT served volumes of 65.0 Mt – representing unserved contracted volumes of 19 per cent; and
- 208.2 despite having contracts with miners estimated at 72Mtpa, RGTCT served only 59.8 Mt of coal in 2016-17, representing unserved contracted volumes of 17 per cent.
- 209 Over the long term, HoustonKemp assumes that demand for contract capacity is derived from the demand for coal throughput, with demand for throughput being 90% of the demand for contract capacity.¹⁶⁹ This is equivalent to assuming that, on average, 10% of contracted capacity is not used.
- 210 HoustonKemp also calculates total foreseeable demand under a restrictive assumption that removes all forecast production volumes from BMA and BMC mines from its estimates of foreseeable demand. HoustonKemp was instructed to calculate total foreseeable demand under this approach to determine whether the DBCT service would satisfy criterion (b) in circumstances where (despite DBCT's submissions above) forecast throughput from BMA and BMC mines are not part of the estimate of total foreseeable demand.
- 211 HoustonKemp observes that, in their opinion, the removal of these volumes is likely to underestimate total foreseeable demand in the market, because:¹⁷⁰
- 211.1 in practice, as described above, BMA and BMC mines hold contracts with and export coal through DBCT, demonstrating that they are in fact (and potential) customers of terminals other than HPCT; and
- 211.2 even if it is assumed that BMA and BMC mines have a strong preference to use HPCT, that facility may not always have sufficient capacity to satisfy this demand – however, the removal of all production from BMA and BMC mines from foreseeable demand in the market assumes that the ability of HPCT to meet this demand is unconstrained.
- 212 HoustonKemp's estimates of total foreseeable demand in this market are shown in the following table of its report (Table 5.1).¹⁷¹

Figure 8: HoustonKemp estimate of total foreseeable demand

Year	Total foreseeable demand		Total foreseeable demand excluding BHP mines	
	Throughput (mtpa)	Capacity (mtpa)	Throughput (mtpa)	Capacity (mtpa)
2021	150.9	167.7	91.1	101.2
2022	156.1	173.4	95.2	105.7
2023	164.8	183.2	102.7	114.1
2024	172.7	191.9	109.6	121.8
2025	182.4	202.7	117.8	130.9
2026	186.7	207.4	120.6	133.9
2027	179.0	198.8	111.3	123.7
2028	181.9	202.1	112.7	125.2
2029	181.6	201.8	112.5	124.9
2030	182.1	202.3	113.0	125.5

¹⁶⁹ HoustonKemp Report on (b), page 37

¹⁷⁰ HoustonKemp Report on (b), page 37

¹⁷¹ HoustonKemp Report on (b), page 36

- 213 These estimates of total foreseeable demand in the market substantially exceed the capacity of DBCT to meet these volumes over the period for which the service would be declared. This is the case even if BMA and BMC mines are excluded from foreseeable demand.
- 214 HoustonKemp's estimates of total foreseeable market demand are likely to understate demand. HoustonKemp observes that its analysis employs a range of assumptions that are likely to have the result of underestimating total foreseeable demand in the market, including:¹⁷²
- 214.1 HoustonKemp's approach to defining the market limits the geographic dimension to the areas in which mines prefer to use coal handling services at the Port of Hay Point¹⁷³ – this is likely to understate the geographic extent of the market and so underestimate total foreseeable demand in the market since some mines outside this area may also be potential customers of the DBCT service;
 - 214.2 HoustonKemp's approach to taking into account physical constraints restricts the coal handling services that mines can access in competition to those provided by DBCT¹⁷⁴ – this is likely to understate foreseeable demand in the market since these constraints could be relaxed with investment at the coal mine to allow greater choice of services; and
 - 214.3 HoustonKemp's approach to estimating foreseeable demand for contract capacity assumes that only 10 per cent of contracted capacity is unused over time – this may understate foreseeable demand in the market since recent empirical evidence suggests the proportion of unused capacity is higher than this.¹⁷⁵

AME

- 215 HoustonKemp's forecast of total foreseeable demand in the market is broadly consistent with the forecast of DBCT throughput contained in AME's Coal Industry Report for DBCTM.¹⁷⁶ AME's forecast of foreseeable demand is on a throughput basis, rather than on the basis of demand for coal handling capacity. Further, since AME is forecasting throughput at DBCT, AME excludes 55Mtpa of forecast production by the BMA mines in the Goonyella-Hay Point rail system – an amount equal to the capacity of HPCT.
- 216 AME forecasts future throughput at DBCT having regard to:¹⁷⁷
- 216.1 the production profile of the current users of DBCT;
 - 216.2 potential sources - comprising mines in the central Bowen Basin who do not currently use DBCT as their primary terminal and future projects in the central Bowen Basin for which DBCT is the most likely terminal due to proximity; and
 - 216.3 forecast BMA production that is in excess of HPCT's capacity of 55Mtpa.
- 217 The following table shows a comparison of AME's and HoustonKemp's estimates of foreseeable demand. We note that since AME's estimates are on a throughput basis, we have only included HoustonKemp's estimates of demand on a throughput basis in this table. In order to specify AME's forecast on the basis that forecast BMA production forms part of foreseeable demand in the market, we have added the 55Mtpa of BMA forecast production to AME's forecast. We note that AME's forecast already includes BMC forecast

¹⁷² HoustonKemp Report on (b), page 58

¹⁷³ HoustonKemp Report on (b), section 4.

¹⁷⁴ HoustonKemp Report on (b), pages 26 and 70

¹⁷⁵ HoustonKemp Report on (b), page 37

¹⁷⁶ AME, Coal Industry Report - provided as Appendix 12 to this submission.

¹⁷⁷ AME, Coal Industry Report, page 19.

production on the basis that BMC has contracts for capacity at DBCT for the South Walker Creek and Poitrel mines¹⁷⁸.

Figure 9: Comparison of estimates of total foreseeable from HoustonKemp and AME

Year	Foreseeable demand including all BMA and BMC production (Mtpa)		Foreseeable demand excluding HPCT (Mtpa) ¹⁷⁹	
	HoustonKemp	AME	HoustonKemp	AME
2021	150.9	152.6	91.1	97.6
2022	156.1	156.4	95.2	101.4
2023	164.8	163.4	102.7	108.4
2024	172.7	175.5	109.6	120.5
2025	182.4	180.2	117.8	125.2
2026	186.7	189.7	120.6	134.7
2027	179.0	195.9	111.3	140.9
2028	181.9	181.9	112.7	126.9
2029	181.6	182.7	112.5	127.7
2030	182.1	182.1	113.0	127.1

218 The above table shows that while AME's and HoustonKemp's forecasts have been prepared on different bases, the resulting forecasts of demand for the coal handling service provided by DBCT (when all BMA and BMC production is included) are broadly consistent.

219 The table shows that on a throughput basis AME's peak forecast demand figures are 195.9Mtpa (including all BMA and BMC forecast production) and 140.9Mtpa (excluding 55Mtpa of BMA forecast production). Converted to a demand for coal handling contract capacity basis, those figures become 217.7Mtpa (including all BMA and BMC forecast production) and 156.6Mtpa (excluding 55Mtpa of BMA forecast production).

DBCT cannot meet foreseeable market demand

220 Having regard to the significant impediments and risks to expanding beyond 102Mtpa described above, it would be erroneous to conclude for the purposes of assessing whether criterion (b) is satisfied that it would be reasonably possible to expand the capacity of DBCT beyond 102Mtpa over the declaration period. This means that DBCT should not be regarded as if it had expanded capacity beyond 102Mtpa in assessing criterion (b).

221 When assessing whether DBCT can meet total foreseeable demand in the market, demand for contract capacity is the appropriate measure because we are assessing whether demand will exceed DBCT's capacity. DBCT can only contract to its capacity and, as discussed above, in practice, demand for throughput is less than contracted capacity.

222 On a contracted capacity basis, peak total foreseeable market demand is estimated to be between approximately 207Mtpa and 218Mtpa over the declaration period (including all BMA and BMC forecast production). This is well in excess of DBCT's reasonably possible expanded capacity over the declaration period (by at least 102Mtpa). Even on the basis that all BMA and BMC forecast production is excluded from

¹⁷⁸ RMI Review of the economic life of DBCT assets for the QCA regarding the DBCT 2015 DAU December 2015 p10

¹⁷⁹ As described above, HoustonKemp's figures exclude all BMC and BMA production whereas AME's figures exclude 55Mtpa of BMA forecast production.

market demand, peak total foreseeable market demand is estimated to be between approximately 134Mtpa and 157Mtpa, which is again well in excess of DBCT's reasonably possible expanded capacity.

223 Accordingly, DBCT cannot meet the total foreseeable demand in the market over the period for which the DBCT service would be declared (section 76(2)(b)(i)) and the QCA cannot be satisfied of criterion (b) in the case of the DBCT service.

224 Since DBCT cannot service total foreseeable market demand over the declaration period as determined by two expert forecasts, the DBCT service does not satisfy criterion (b). It is therefore not necessary for the QCA to consider whether DBCT could meet that demand at least cost compared to any two or more facilities. Despite this, as described below DBCTM has assessed whether DBCT could meet total foreseeable market demand over the declaration period at least cost.

3.10 DBCT cannot meet foreseeable demand at least cost

225 DBCT cannot meet total foreseeable demand at least cost. Accordingly, the DBCT service does not satisfy criterion (b).

226 As described in this submission, DBCT is one of five coal export terminals that service mines that are part of a highly integrated below-rail network. Each of those coal terminals already exist and have already incurred considerable sunk costs. In those circumstances, the principal consideration for criterion (b) is whether it is least cost for DBCT to expand to meet total foreseeable demand in the market, or whether it is least cost to meet some of the demand using existing capacity at other terminals, together with DBCT. As noted earlier, the relevant costs for the least cost assessment under criterion (b) are the incremental costs to society (or resource costs) that may be incurred in the coal supply network to meet foreseeable demand in the market.¹⁸⁰ Resource costs are high when expansions to terminals are required and are low where existing capacity can be used.¹⁸¹

227 Total foreseeable market demand exceeds DBCT's existing capacity of 85Mtpa. In those circumstances, DBCT must be expanded to meet that demand. This would necessarily be more costly than first using the existing capacity at the other four terminals.

228 In the following section DBCTM explains that the DBCT service does not satisfy criterion (b) having regard to:

228.1 HoustonKemp's comprehensive qualitative assessment of whether the DBCT service satisfies criterion (b); and

228.2 an illustrative example demonstrating that DBCT fails the least cost test because it is less costly to use existing capacity at another terminal (in the case of the example, AAPT) to service demand, than to expand DBCT to service that demand.

HoustonKemp's least cost assessment

229 In its assessment of whether criterion (b) is satisfied in the case of the DBCT service, HoustonKemp concludes that the DBCT service does not satisfy criterion (b). This is because total foreseeable demand in the market for the coal handling services proximate to the Port of Hay Point cannot be met at least cost by DBCT alone. HoustonKemp finds that it would be least cost to meet total foreseeable demand over a 10 year declaration period using coal handling services from DBCT, HPCT, AAPT and RGTCT.

230 While it is HoustonKemp's view that total foreseeable market demand includes demand from mines that use the HPCT service (i.e. BMA and BMC mines), HoustonKemp also conducted its analysis on the basis that

¹⁸⁰ HoustonKemp Report on (b), page 21

¹⁸¹ HoustonKemp Report on (b), page 21

the foreseeable demand from BMA and BMC mines is excluded from total foreseeable market demand. As noted above, HoustonKemp was instructed to calculate total foreseeable market demand under this approach to determine whether the DBCT service would satisfy criterion (b) in those circumstances, despite DBCTM's submissions above. HoustonKemp concludes that the DBCT service does not satisfy criterion (b) under this approach.

- 231 HoustonKemp's conclusion that the DBCT service does not satisfy criterion (b) derives from the following results established by HoustonKemp's analysis:¹⁸²
- 231.1 at current and forecast prices for coal terminal, rail access and rail haulage services, the forecast production of coal from mines proximate to the Port of Hay Point substantially exceeds the capacity of DBCT to serve these volumes;
 - 231.2 the finding that total foreseeable market demand substantially exceeds the current (and expanded) capacity of DBCT remains even if the entire production volumes of BMA and BMC mines are excluded from the market;
 - 231.3 total foreseeable demand in the market for coal handling services for mines proximate to the Port of Hay Point includes mines that are currently served by other terminals, including HPCT, AAPT and RGTCT; and
 - 231.4 an assessment of the resource costs of meeting total foreseeable market demand shows that it is least cost for at least some of the foreseeable demand in the market to be met at HPCT, AAPT and RGTCT, instead of being met in its entirety by DBCT.
- 232 HoustonKemp's findings are robust, such that they are not sensitive to reasonable changes to the assumptions adopted in the analysis.¹⁸³
- 233 HoustonKemp investigates a range of alternatives to the base case scenario to assess the sensitivity of its conclusion to changes in input assumptions. In each of the sensitivities, HoustonKemp concludes that DBCT does not satisfy criterion (b) because it is least cost for two or more terminals to meet total foreseeable market demand over the declaration period.

Methodology

- 234 The methodology HoustonKemp applies in its economic assessment of whether criterion (b) is satisfied is explained in detail in its report.¹⁸⁴ HoustonKemp's methodology is designed to:
- 234.1 identify the market in which the DBCT service is provided;
 - 234.2 identify foreseeable demand in the market in which the DBCT service is provided; and
 - 234.3 assess whether foreseeable market demand can be met at least cost by DBCT or by a combination of DBCT and one or more other terminals.
- 235 HoustonKemp's approach is summarised earlier in this submission under the sections 'market in which the service is supplied', 'foreseeable demand in the market' and 'least cost'.

Modelling of least cost assessment

- 236 In order to undertake its analysis, HoustonKemp developed an economic model of the mining and export of coal from central Queensland. It is a constrained optimisation model that simulates the mining and

¹⁸² HoustonKemp Report on (b), page 58

¹⁸³ HoustonKemp Report on (b), page 58

¹⁸⁴ HoustonKemp Report on (b), pages 17 to 35

transport of coal from mines in central Queensland along Aurizon's rail network to the five coal export terminals in the region, being AAPT, DBCT, HPCT, RGTCT and WICET.¹⁸⁵

- 237 HoustonKemp uses the model to determine whether foreseeable market demand can be met at least cost by DBCT or by a combination of DBCT and one or more other terminals. The model compares the costs of meeting foreseeable demand using a combination of:
- 237.1 existing capacity at DBCT;
 - 237.2 expanded capacity at DBCT, given information about its expansion options;
 - 237.3 existing capacity at other coal terminals; or
 - 237.4 expanded capacity at other coal terminals.
- 238 The input data and assumptions used in the model are described in section 6.2 of the HoustonKemp Report on (b) and the key input assumptions for the model that HoustonKemp was provided by DBCTM (sourced from independent industry experts AME and Wood Mackenzie, publicly available information and market data) are set out at Appendix A1 of the Report. Those key input assumptions are:
- 238.1 forecasts of coal handling charges at each coal export terminal in central Queensland;
 - 238.2 forecasts of rail access charges faced by each mine in central Queensland to transport coal to each coal export terminal for which this is physically feasible without new capital expenditure;
 - 238.3 forecasts of rail haulage charges faced by each mine in central Queensland to transport coal to each coal export terminal for which it is physically feasible without new capital expenditure;
 - 238.4 forecasts of prices in the seaborne market (or markets) for the coal produced by each mine in central Queensland, by coal type;
 - 238.5 forecasts of production (e.g. extraction) costs for each mine in central Queensland; and
 - 238.6 forecasts of coal production for each mine in central Queensland.
- 239 The input assumptions used in HoustonKemp's Report on (b) rely upon the best information available to the public. As noted above and described in Appendix 13 to this submission, these input assumptions have been sourced from independent industry analysts (AME and Wood Mackenzie), publicly available information and market data.
- 240 In particular, the forecasts of coal production utilised by HoustonKemp were provided by AME. AME's approach uses, among other things, market intelligence on access agreements, annual production rates and forecast market conditions for the global coal, steel and energy sectors to shape demand forecasts for each mine. AME's forecasts of coal production utilised by HoustonKemp are consistent with the data the QCA has used in its undertaking assessments. For example, AME's coal production forecasts are closely aligned with the forecasts of coal production prepared by RMI for the QCA in the context of Aurizon Network's draft access undertaking.¹⁸⁶ This is demonstrated by the following table in HoustonKemp's Report on (b) comparing AME's and RMI's forecasts of coal production.¹⁸⁷

¹⁸⁵ HoustonKemp Report on (b), pages 22, 38 and 63 to 64

¹⁸⁶ HoustonKemp Report on (b), page 7. RMI, Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking, May 2017.

¹⁸⁷ HoustonKemp Report on (b), page 7.

Figure 10: Comparison between AME and RMI production forecasts in Queensland (Mtpa)¹⁸⁸

Data provider	2018	2019	2020	2021
AME	228.8	239.9	242.3	258.6
RMI	236.4	250.2	259.3	264.3

241 DBCTM notes that the medium to long term hard coking coal price forecasts, set out in figure 2.1 of the HoustonKemp Report on (b), closely align to forecasts presented by KPMG in the March/ April 2018 'Coal Price and FX market forecast' report.¹⁸⁹ The forecasts in that report were sourced (by KPMG) from various databases and broker reports (sourced from 21 independent contributors).

Base case analysis

242 Applying its framework for analysis and modelling tools to the base case assumptions, HoustonKemp concludes that criterion (b) is not satisfied, since total foreseeable demand in the market cannot be met at least cost by DBCT and would instead be met by four facilities, being DBCT, HPCT, AAPT and RGTCT.

243 HoustonKemp's base case analysis of market definition and total foreseeable demand in the market is described in the preceding section of this submission.

244 Having regard to its conclusion on the geographic scope of the market for coal handling services for mines that are proximate to Hay Point and estimates of total foreseeable demand in that market, HoustonKemp assesses the least cost means by which that demand can be met by coal handling services supplied in that market.¹⁹⁰ HoustonKemp finds that:

244.1 total foreseeable demand in the market is materially higher over the entirety of the 2021 to 2030 period than DBCT has capacity to meet; and

244.2 total foreseeable demand in the market is met at least cost by four facilities, being DBCT, HPCT, AAPT and RGTCT.

245 Consistent with these findings, HoustonKemp concludes that the DBCT service does not satisfy criterion (b). Figure 6.1 from HoustonKemp's Report on (b) demonstrates how total foreseeable demand in the market is met at least cost by these facilities.¹⁹¹

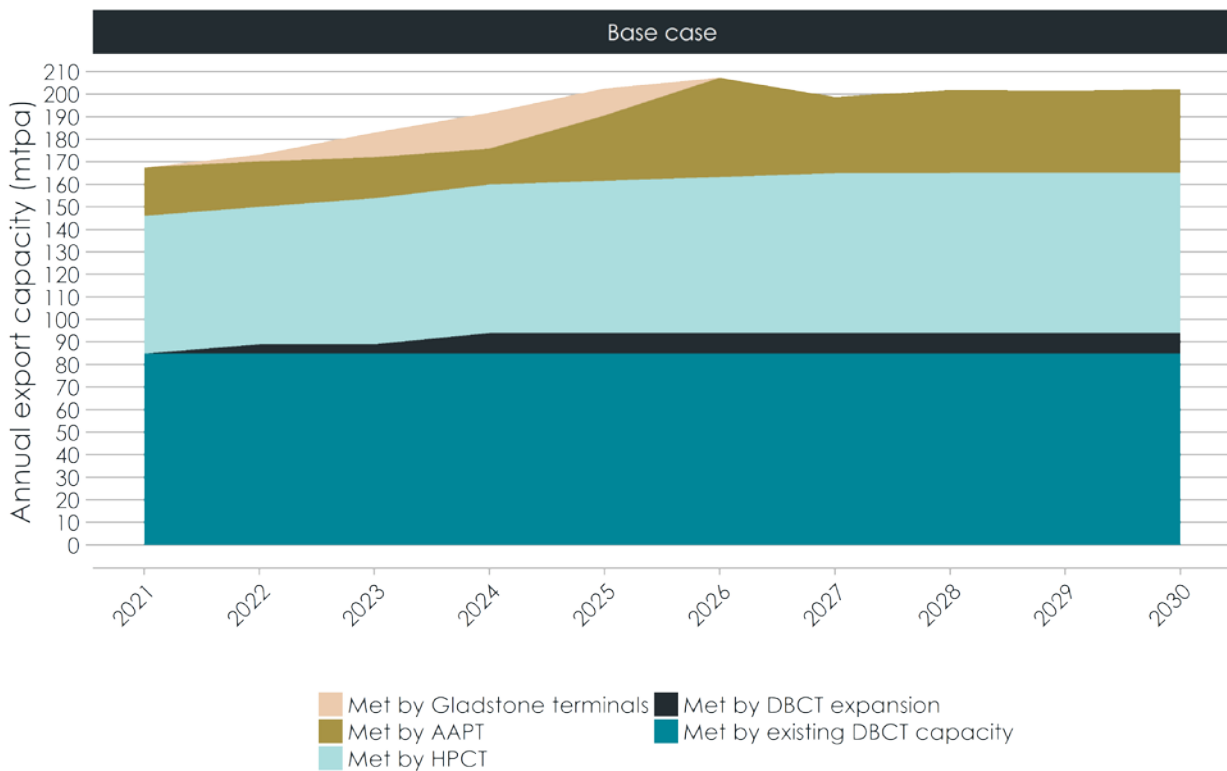
¹⁸⁸ Source: AME and RMI, Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking, May 2017, table 4.1.

¹⁸⁹ KPMG, *Coal Price and FX market forecasts*, March/April 2018

¹⁹⁰ HoustonKemp Report on (b), pages 41 to 42

¹⁹¹ HoustonKemp Report on (b), page 42

Figure 11: Meeting total foreseeable demand - base case



246 HoustonKemp also analyses how total foreseeable demand is met at least cost when it is calculated under the assumption that the production of BMA and BMC mines is excluded from the calculation of total foreseeable demand in the market. It finds that:¹⁹²

246.1 even with all production from BMA and BMC mines removed from the market, total foreseeable demand in the market substantially exceeds the capacity of DBCT over the period for which the service would be declared; and

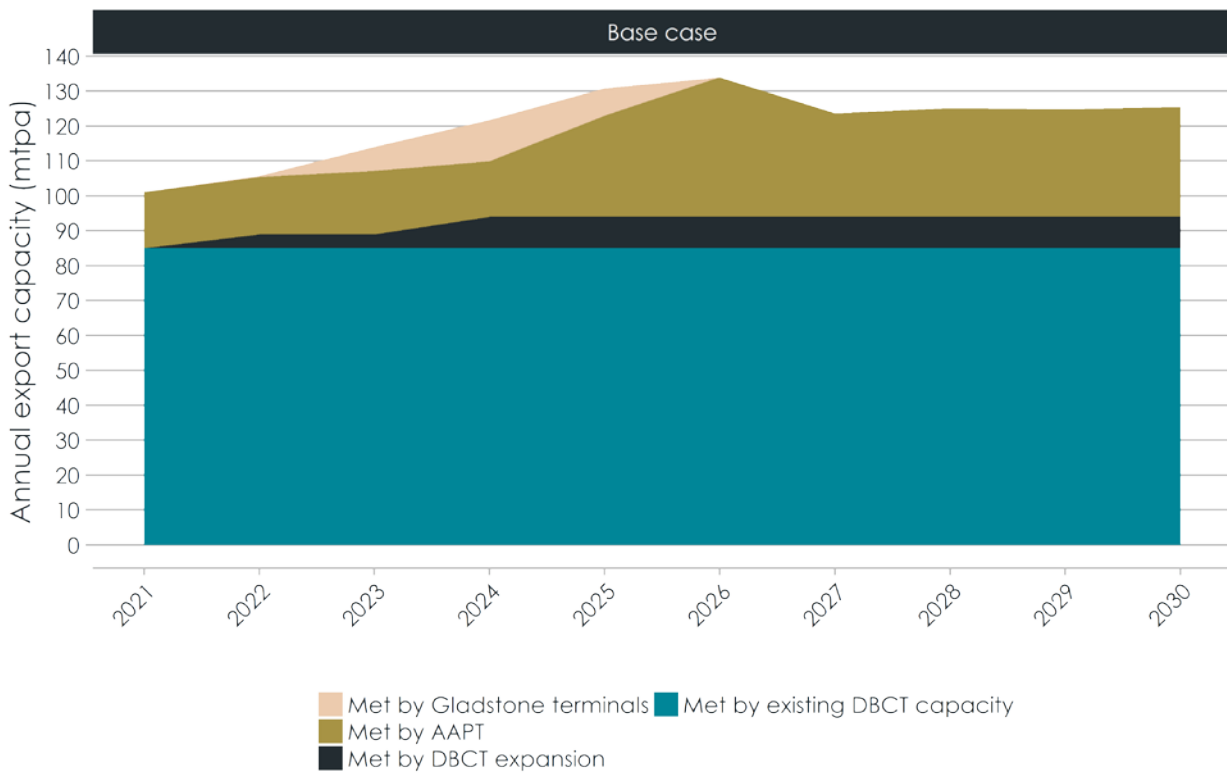
246.2 total foreseeable demand in the market is met at least cost by three facilities, being DBCT (including expansions of the facility), AAPT and RGTCT.

Consistent with these findings, HoustonKemp concludes that the DBCT service does not satisfy criterion (b). Figure 6.2 from HoustonKemp’s Report on (b) demonstrates how total foreseeable demand in the market (calculated under this assumption) is met at least cost by these facilities.¹⁹³

¹⁹² HoustonKemp Report on (b), pages 42 to 43

¹⁹³ HoustonKemp Report on (b), 43

Figure 12: Meeting total foreseeable demand (excluding mines served by HPCT) - base case



248 HoustonKemp examines alternative scenarios for calculating the resource costs of using port and rail services.¹⁹⁴ The rationale for different approaches to estimating resource costs is explained in more detail in the HoustonKemp Report on (b) and reflects the particular difficulties associated with estimating resource costs for rail services.¹⁹⁵ The scenarios modelled by HoustonKemp are set out at Table 6.2 of its report.¹⁹⁶ In summary:

248.1 The ‘base case’ scenario assumes that the resource costs of using existing and expanded rail capacity is equal to the current charges for this capacity. The resource costs of using existing terminal capacity is equal to current charges, and the resource costs of using expanded terminal capacity is equal to the variable component of current charges plus the capital costs of expansions. HoustonKemp observes that this assumption is likely to make HoustonKemp’s assessment more likely to satisfy criterion (b) because it overstates the incremental costs associated with meeting foreseeable demand using existing capacity at terminals other than DBCT.¹⁹⁷

248.2 The ‘variable costs’ scenario assumes that the resource costs of using existing and expanded rail capacity is equal to the variable charges for this capacity. The resource costs of using existing terminal capacity is equal to the variable component of current charges, and the resource costs of using expanded terminal capacity is equal to the variable component of current charges plus the capital costs of expansions.

¹⁹⁴ HoustonKemp Report on (b), pages 43 to 45

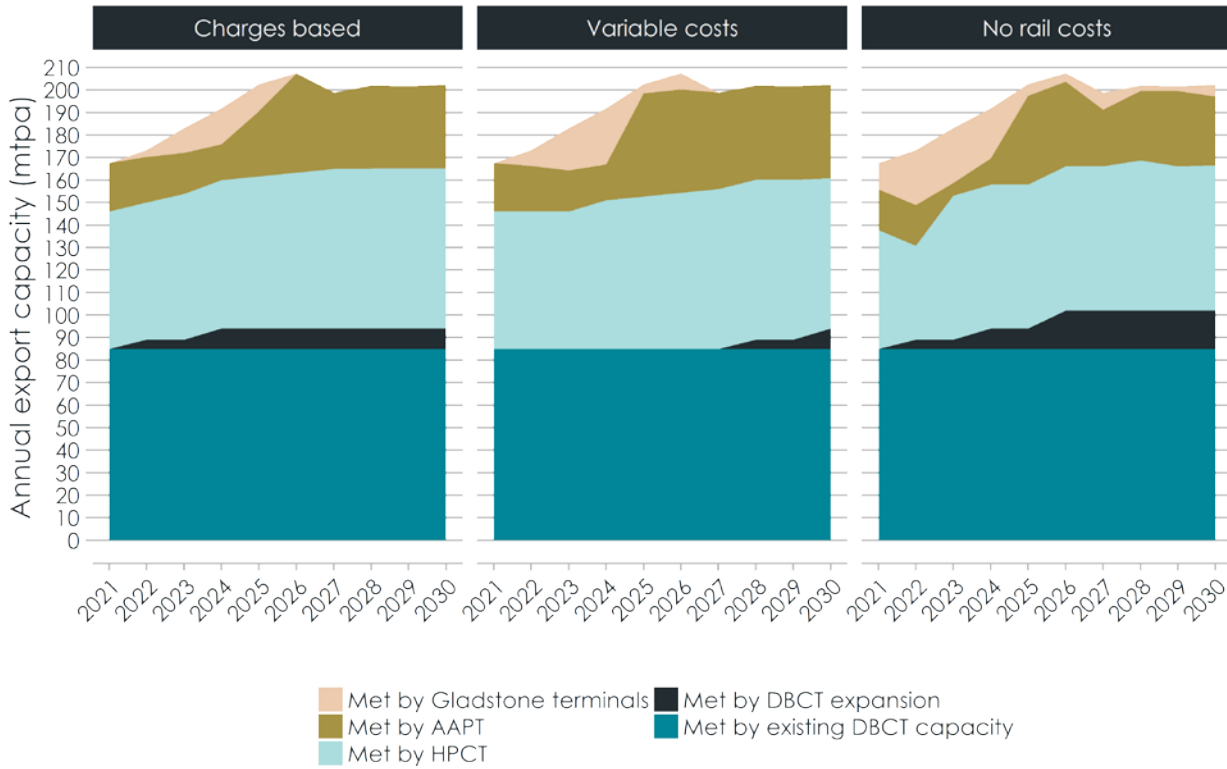
¹⁹⁵ HoustonKemp Report on (b), pages 39 to 41, 64 to 69

¹⁹⁶ HoustonKemp Report on (b), page 44

¹⁹⁷ HoustonKemp Report on (b), pages 41 and 68

248.3 The ‘no rail costs’ scenario includes only resource costs attributable to terminals, consistent with those set out in the ‘variable costs’ scenario, and assumes that resource costs associated with rail infrastructure are irrelevant for the purposes of assessing least provision.¹⁹⁸

Figure 13: Least cost alternative scenarios



249 HoustonKemp finds that under each of these cases, it would be least cost to meet foreseeable demand over the period for which the service would be declared using coal handling services from DBCT, AAPT, RGCT and HPCT as shown in the above figure. Accordingly, the DBCT service does not satisfy criterion (b).

Scenarios

250 HoustonKemp investigates a range of alternatives to the base case scenario to assess the sensitivity of its conclusion to changes in input assumptions.

251 In each of the sensitivities, HoustonKemp concludes that DBCT does not satisfy criterion (b) because it is least cost for two or more terminals to meet total foreseeable market demand over the declaration period.

252 The sensitivities investigated by HoustonKemp are:¹⁹⁹

252.1 low and high metallurgical coal prices – this sensitivity considers outcomes where the price for metallurgical coal increases (+33 per cent) or decreases (-33 per cent) relative to the base case;

252.2 low and high thermal coal prices – this sensitivity considers outcomes where the price for thermal coal increases (+33 per cent) or decreases (-33 per cent) relative to the base case;

¹⁹⁸ The example provided by the QCA in Appendix B of the Issues Paper did not include the costs of transportation between facilities.

¹⁹⁹ HoustonKemp Report on (b), pages 46 to 57

- 252.3 low and high DBCT expansion costs – this sensitivity considers outcomes across a range of potential expansion costs based on confidence intervals of the expansion costs estimates;
 - 252.4 low and high transport costs for Goonyella mines – this sensitivity considers outcomes where rail transportation costs for mines located within the Goonyella system to travel to DBCT are 25 per cent higher and lower than the base case;
 - 252.5 low and high prices for GAPE system – this sensitivity considers outcomes where costs to utilise the GAPE system are \$3 per tonne higher or lower than the current charges assumed in the data;
 - 252.6 inclusion of 9X expansion option – this sensitivity assumes the 9X option for expansion of DBCT is deemed to be viable within the proposed declaration period;
 - 252.7 mines in the Galilee Basin – this sensitivity assumes that mines in the Galilee Basin commence operations, reflecting the current uncertainty regarding future government support for these projects;
 - 252.8 a reasonable WICET charge – this sensitivity considers a scenario where the terminal charges at WICET are aligned to charges at other terminals, and therefore provides for more low priced coal handling capacity at Gladstone; and
 - 252.9 compounding assumptions - this case considers a combination of low metallurgical and thermal coal prices, low expansion costs and feasibility of the 9X expansion within the proposed declaration period.
- 253 The assumptions that were varied to investigate these sensitivities are described in section 7 of HoustonKemp's Report on (b). Save for those variations, the sensitivities were otherwise conducted on the basis of the assumptions utilised by HoustonKemp for its base case analysis. This means that, in addition to other base case assumptions, the sensitivities have been undertaken on the basis of the base case scenario which assumes that the resource costs of using existing and expanded rail capacity is equal to the current charges for this capacity, the resource costs of using existing terminal capacity is equal to current charges, and the resource costs of using expanded terminal capacity is equal to the variable component of current charges plus the capital costs of expansions. As noted above, this assumption is likely to make HoustonKemp's assessment more likely to satisfy criterion (b) because it overstates the incremental costs associated with meeting foreseeable demand using existing capacity at terminals other than DBCT.²⁰⁰

Least cost example

- 254 In Appendix 11, DBCTM provides an illustrative example to demonstrate that in circumstances where spare capacity exists at another coal terminal during the declaration period and total foreseeable demand exceeds 85Mtpa, it will be less costly for another terminal with spare capacity (in the example, AAPT) to service foreseeable demand than for that demand to be serviced by expanding DBCT.
- 255 In these circumstances an assessment of the least cost manner to serve the reasonably foreseeable demand in the market effectively comes down to a comparison of the capital and operating costs of:
- 255.1 expanding DBCT to accommodate the reasonably foreseeable demand of the market; against
 - 255.2 using existing surplus capacity at other terminals.
- 256 Logically, as there will be no incremental capital costs of using existing capacity at another terminal, it is only where the additional incremental operating costs exceed the incremental capital costs of expanding the facility can the existing facility meet the relevant demand at least cost.
- 257 Having regard to the capital costs for an expansion of DBCT to meet foreseeable demand, it is highly unlikely that the total incremental operating costs of using alternative terminals would exceed those costs.

²⁰⁰ HoustonKemp Report on (b), pages 41 and 68

Therefore, under circumstances where an expansion of DBCT is required to meet reasonably foreseeable demand in the market, and where surplus capacity exists at other terminals, DBCT is not the least cost solution and fails criterion (b).

258 The example contained in Appendix 11 clearly establishes that on conservative assumptions DBCT is not the least cost solution to serve the reasonably foreseeable demand in the market and accordingly fails criterion (b).

259 In addition, DBCTM observes that in circumstances where an expansion at a terminal is necessary to service foreseeable demand, it would be less costly, and likely quicker, to expand terminals other than DBCT. The expansion pathway at DBCT is compared to the planned expansions at the four competing terminals (HPCT, RGTCT, AAPT and WICET) in Appendix 14 *Comparison of planned coal export terminal expansions*. As explained in Appendix 14, DBCTM considers that both HPCT and RGTCT could expand tonnage at a lower cost than DBCT's Zone 4 and 8X expansions combined. The expansion options at each of HPCT, RGTCT, AAPT and WICET will be cheaper than the 9X expansion at DBCT. HPCT and WICET have approvals for expansions, although they may need an extension of time.

3.11 Conclusion on criterion (b)

260 The DBCT service cannot meet total foreseeable market demand over the declaration period. Further, the DBCT service cannot meet total foreseeable demand over the declaration period at least cost. Accordingly, the DBCT service does not satisfy criterion (b) and there is no reasonable basis on which the QCA can recommend that the DBCT service be declared.

4 Criterion (a)

4.1 Summary

- 261 In order for the QCA to recommend that the DBCT service be declared by the Minister, the QCA is required to be satisfied in regard to all access criteria, including criterion (a) in section 76(2)(a) of the QCA Act.
- 262 Criterion (a) requires that access (or increased access) to the DBCT service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least one market, other than the market for the service.
- 263 For the reasons set out in this submission, access to coal handling services at DBCT *as a result of declaration* would not promote a material increase in competition in any dependent market as there will be no material changes to access as compared to how access will be provided without declaration. Accordingly, criterion (a) is not satisfied and therefore the QCA cannot recommend that the DBCT service be declared.
- 264 If services at DBCT are not declared, DBCTM will continue to provide open access to terminal services on substantively the same terms as it does under the current access undertaking. To ensure this, in the future without declaration, access seekers will have recourse to a binding and effective negotiate/arbitrate access framework (the DBCT **Access Framework**), as set out in Appendix 1 and Appendix 7, as well as Appendix 3. The Access Framework meets the requirements for access undertakings under section 137 of the QCA Act and is consistent with the principles in section 138(2) of the QCA Act, and clause 6 of the Competition Principles Agreement (**CPA**)²⁰¹ (which are applied by the NCC and relevant Minister when assessing whether a State or Territory access regime should be certified as effective under the CCA).
- 265 In considering the future without declaration, consideration must be given to the terms that would apply if the service was not declared. As noted in the QCA Issues Paper at section 4.1.1, this may include existing contractual arrangements or other mechanisms such as the Access Framework which would ensure access to the services, on reasonable terms, in the absence of declaration. As the Access Framework will ensure that access will be available on reasonable terms and conditions without declaration, with no material changes to access with and without declaration, declaration could not promote a material increase in competition in a dependent market.
- 266 The Access Framework limits prices that DBCTM may seek to charge in the future without declaration and includes binding arbitration for any pricing disputes.
- 267 Significantly for the purposes of the QCA's assessment of criterion (a), the Access Framework means that there will be no difference in the volume of coal throughput at DBCT or use of the DBCT service without declaration, compared to the future with declaration. This is because the Access Framework ensures that:
- 267.1 Access would be available on reasonable terms and conditions without declaration.
- 267.2 DBCTM would have no unilateral ability to change the terms of access (including pricing) in a manner that would impact throughput or adversely affect competition in dependent markets. Specifically, DBCTM's pricing arbitration framework means that prices would be capped at a level such that coal volumes served at DBCT would be the same as if the floor price (calculated based on the approach taken by the QCA) applied. There would therefore be no effect on volumes or output, and hence competition, in any related market. In addition, as the non-price terms and conditions of access will be substantively the same with and without declaration,

²⁰¹ Between the Commonwealth of Australia and the States of New South Wales, Victoria, Queensland, Western Australia, South Australia and Tasmania, and the Australian Capital Territory and the Northern Territory, entered into on 11 April 1995 and as amended 13 April 2007

the quality of services in dependent markets will also remain the same with and without declaration.

- 268 As there will be no difference in throughput at DBCT with and without declaration, access as a result of the declaration of coal handling services at DBCT would not promote a material increase in competition in any market. In particular:
- 268.1 Access as a result of the declaration would not affect volumes produced by any mine, or the volumes supplied in the markets for the export of coking coal or thermal coal, and therefore would not promote a material increase in competition in the markets for the export of coking coal or thermal coal.
- 268.2 As the volumes supplied in the coal export markets would be the same with or without declaration, access as a result of declaration would also not promote a material increase in competition in any other upstream or downstream dependent market (given their relationship to, and dependence on, the volumes in coal export markets).
- 269 Further, as set out in this submission and established in previous NCC and Tribunal decisions, the primary downstream markets (the global coal export market) is effectively competitive (and not *due to* the declaration of the DBCT service), and would remain so without declaration of the DBCT service. Legal precedent clearly establishes that criterion (a) is not satisfied if dependent markets are already effectively competitive (as declaration could not promote a material increase in competition in such markets). Other dependent markets such as those relating to mining and shipping services are also effectively competitive and would remain so without declaration. Further, given access as a result of declaration would not promote a material increase in competition in the coal export markets, there would also not be any flow-on effects in other dependent markets.
- 270 DBCTM also notes a change in price that alters the distribution of rents or gains in the supply chain, but that does not affect the volume or quality of output, does not satisfy criterion (a).
- 271 Any perceived ability or incentive for DBCTM to exercise market power to adversely affect competition in dependent markets would also be constrained by:
- 271.1 competing coal export terminals;
- 271.2 the significant countervailing power of users in light of their ability to ship through other terminals;
- 271.3 the threat of more heavy handed economic regulation, such as through declaration;
- 271.4 the terms of DBCTM's lease of the Terminal from the Queensland Government; and
- 271.5 DBCTM's lack of vertical integration into the dependent markets, which means that it does not have any incentive to hinder third party access or have a related entity that it could seek to advantage through the operation of DBCT.
- 272 DBCTM engaged HoustonKemp to provide an expert opinion on whether the coal handling service at DBCT is likely to satisfy criterion (a). HoustonKemp concludes that declaration would not promote an increase in competition in any of the markets identified as depending on the coal handling service at DBCT and therefore that criterion (a) is not satisfied. In this section, references to the 'HoustonKemp Report on (a)' are in relation to 'Appendix 9 HoustonKemp expert report on criterion (a)' and its associated findings.

4.2 Application and interpretation of criterion (a)

273 Criterion (a) provides as follows:

that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service.

274 In order to recommend that a service be declared by the Minister under section 87A of the QCA Act, the QCA must be affirmatively satisfied that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least one market, other than the market for the service (sections 76(1) and 87C(1) of the QCA Act).²⁰²

275 Conversely, the QCA must recommend that a service not be declared if it is not affirmatively satisfied that access (or increased access) as a result of a declaration of the service would promote a material increase in competition in a market (section 87C(2) of the QCA Act).

276 As noted in the QCA Issues Paper, the focus of criterion (a) is on whether access (or increased access) on reasonable terms, as a result of declaration, would promote a material increase in competition in dependent markets. This requires a comparison of two future scenarios (the future with declaration and the future without declaration).

277 In particular, an assessment of whether criterion (a) is satisfied involves the following steps:²⁰³

277.1 Identification of the relevant upstream and downstream markets, that are separate from the market for the service;

277.2 An assessment of whether access (or increased access) to the service as a result of a declaration will promote a material increase in competition in at least one upstream or downstream market. This involves a comparison of two future scenarios - namely, one in which the service is declared (with access or increased access granted on reasonable terms and conditions) against one in which there is no declaration.

278 This approach is broadly consistent with the approach set out in section 4.3 of the QCA Issues Paper. DBCTM notes that the Issues Paper relies on an outdated (August 2009) version of the NCC Guide to Declaration.²⁰⁴ The NCC published a revised version of its Guide to Declaration in December 2017 (to reflect changes made to the access criteria in Part IIIA of the CCA), which has also been subsequently updated with minor amendments in April 2018. The summary of the approach to criterion (a) set out in section 4.3 of the Issues Paper appears to be based on the approach set out in the NCC's August 2009 Guide rather than the current guide. The reference in clause 4.3(c) to 'promote a materially more competitive environment' should instead be 'promote a material increase in competition' to reflect the correct test under the legislation and the approach set out in the NCC's current Guide.²⁰⁵

279 In this matter, the assessment under the step outlined in paragraph 277.2 above involves a comparison between the future in which coal handling services at DBCT are declared and the future in which they are not declared. In considering the future without declaration, consideration must be given to the terms that would apply if the service was not declared. As noted in the QCA Issues Paper at section 4.1.1, this may include existing contractual arrangements or other mechanisms which would operate to ensure access to the services, on reasonable terms and conditions, other than as a result of declaration. If such mechanisms

²⁰² For example, in NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.107], the NCC noted that the requirement is an 'affirmative test'.

²⁰³ NCC, [Declaration of Services - A guide to declaration under Part IIIA of the CCA](#), April 2018, page 28.

²⁰⁴ See, for example, footnotes 35 and 36 of the Issues Paper and the summary of the approach in section 4.3 of the Issues Paper, which is based on the August 2009 version of the NCC Guide.

²⁰⁵ NCC, [Declaration of Services - A guide to declaration under Part IIIA of the CCA](#), April 2018, page 28.

mean that access would be available on reasonable terms and conditions without declaration, there would be no material changes to access with and without declaration. Declaration could not therefore promote a material increase in competition in a dependent market.

- 280 As noted by the QCA, consideration must be given to the terms of access that would apply if the service was not declared. As the Access Framework is binding and enforceable, its terms of access are the terms that the QCA must apply for the future in which the relevant services are not declared.
- 281 Criterion (a) was amended in 2018 to reflect changes made to the access criteria at the national level under the CCA.²⁰⁶ The explanatory material relating to the changes to the access criteria under the CCA is therefore pertinent to the interpretation of criterion (a) under the QCA Act.
- 282 The Explanatory Memorandum noted that the amendments to criterion (a) 'focus the test on the effect of declaration, rather than merely assessing whether access (or increased access) would promote competition'.²⁰⁷ Further, the Explanatory Memorandum stated that, in comparing the two future scenarios:²⁰⁸

...it must be the case that it is the declaration resulting in access (or increased access) on reasonable terms and conditions that promotes the material increase in competition.

What are reasonable terms and conditions is not defined in the legislation. This is an objective test that may involve consideration of market conditions. It does not require that the Council or Minister come to a view on the outcomes of a Part IIIA negotiation or arbitration. The requirement that access is on reasonable terms and conditions is intended to minimise the detriment to competition in dependent markets that may otherwise be caused by the exploitation of monopoly power. Reasonable terms and conditions include those necessary to protect the legitimate interests of the owner of the facility.

Promotion of a material increase

- 283 The threshold for satisfying criterion (a) has increased through legislative amendments since criterion (a) was initially enacted. Significantly, in 2010, criterion (a) was amended to require that declaration must promote a 'material increase' in competition.²⁰⁹
- 284 The change to the QCA Act followed a review by the Productivity Commission and changes to criterion (a) under the *Trade Practices Act 1974* (Cth) (now the CCA) to address concerns that the Tribunal's decision in *Re Sydney Airports* set a threshold for criterion (a) that was too low.²¹⁰ The Productivity Commission's inquiry into the National Access Regime in 2001, for example, noted that:²¹¹

If as a result of mandated access there were only a minor improvement in competition, declaration would be of little practical benefit and, given the potential costs of intervention, could be damaging for the economy. It might seem unlikely that the regulator or the courts would regard a marginal increase in competition as sufficient for declaration. Yet the Sydney Airport case indicated that criterion (a) could be interpreted in this way. The Commission therefore felt that shifting the balance to require a material effect would be desirable.

²⁰⁶ As noted in the Explanatory Memorandum to the *Queensland Competition Authority Amendment Bill 2018*, the changes to the access criteria in the QCA Act are 'intended to reflect changes being made at the national level to the access principles in the COAG *Competition Principles Agreement 1995* (the CPA access principles) and the National Access Regime established under Part IIIA of the CCA' (page 1).

²⁰⁷ Explanatory Memorandum to the *Competition and Consumer Amendment (Competition Policy Review) Bill 2017* at 12.19.

²⁰⁸ Explanatory Memorandum to the *Competition and Consumer Amendment (Competition Policy Review) Bill 2017* at 12.20 to 12.21.

²⁰⁹ Motor Accident Insurance and Other Legislation Amendment Act 2010 (Qld).

²¹⁰ See also *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal and others* (2017) 346 ALR 669 at [121]; NCC, *Final recommendation - Declaration of the shipping channel service at the Port of Newcastle*, 2 November 2015 at [4.86].

²¹¹ Productivity Commission, *Review of the National Access Regime - Inquiry Report*, Report No. 17, 28 September 2001 at page 171.

- 285 The explanatory material and second reading speech relating to the amendments to the *Trade Practices Act* noted that the amendment to criterion (a) to require a 'material increase' was in response to the Productivity Commission's 2001 report, which 'identified that the current declaration criteria do not sufficiently address the situation where, irrespective of the significance of the infrastructure, a declaration would result in only marginal increases in competition', and that the amendment would 'ensure access declarations are only sought where increases in competition are not trivial'.²¹²
- 286 The materiality threshold means that the QCA must be satisfied that declaration will promote a material or significant increase in competition. As noted in the recent Full Federal Court's *Port of Newcastle* decision, '[t]here must be not only a promotion of competition, but a promotion of a material increase in competition'.²¹³ A change in competition that is not material (such as marginal or trivial increases) cannot satisfy the test.²¹⁴ This is supported by dictionary definitions of the term 'material' and case law. For example:
- 286.1 The relevant definition of 'material' in the Macquarie Online Dictionary is 'of substantial import or much consequence'.²¹⁵
- 286.2 Similarly, the Shorter Oxford Dictionary (Fifth Edition) defines 'material' as 'serious, important; of consequence'.
- 286.3 In the Tribunal's decision relating to the Port of Newcastle in 2016, the Tribunal noted that the amendment to criterion (a) 'may require a more robust, rather than technical, measure of whether access (or increased access) would promote competition in a dependent market'.²¹⁶
- 287 Prior to the introduction of the 'material increase' threshold, the Tribunal in *Re Sydney Airports* observed that it did not consider that the notion of 'promoting' competition in criterion (a) requires it to be satisfied that there would be 'an advance in competition in the sense that competition would be increased', and that it considered that the notion 'involves the idea of creating the conditions or environment for improving competition from what it would be otherwise'.²¹⁷ Clearly this observation cannot be applied to the interpretation of the current criterion (a), given it was made in circumstances where the legislation only referred to 'would promote competition' rather than explicitly requiring the promotion of an *increase* in competition that is *material*. The QCA would therefore err if it sought to solely apply the *Re Sydney Airports* interpretation of criterion (a) and considered only whether declaration would create an enhanced competitive environment, without having regard to the actual words of the legislation and the requirement that it must be positively satisfied that declaration would promote a material increase in competition in a market.

²¹² Trade Practices Amendment (National Access Regime) Bill 2005 - [Explanatory Memorandum](#); Second reading speech - Trade Practices Amendment (National Access Regime) Bill 2005. Similarly, the Explanatory Notes to the *Motor Accident Insurance and Other Legislation Amendment Bill 2010* (Qld), which introduced the phrase 'material increase in' to criterion (a) in the QCA Act, noted that '[t]his will prevent the declaration of services where only a trivial increase in competition is expected to result': *Motor Accident Insurance and Other Legislation Amendment Bill 2010 - Explanatory Notes* at page 16. See also *Application by Glencore Coal Pty Ltd* [2016] ACompT 6 at [85].

²¹³ *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal and others* (2017) 346 ALR 669 at [144].

²¹⁴ Trade Practices Amendment (National Access Regime) Bill 2005 - [Explanatory Memorandum](#); Second reading speech - Trade Practices Amendment (National Access Regime) Bill 2005; [Productivity Commission Inquiry Report, National Access Regime](#), No. 66, 25 October 2013, page 170.

²¹⁵ Consistent with the explanatory material from the legislative changes that introduced the materiality threshold described above, case law has referred to 'material' as meaning 'non-trivial': see, for example, *Application by Glencore Coal Pty Ltd* [2016] ACompT 6 at [106] and *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal and others* (2017) 346 ALR 669 at [144]. 'Non-trivial' is defined in the Macquarie Online Dictionary as '*significant and problematic*'.

²¹⁶ *Application by Glencore Coal Pty Ltd* [2016] ACompT 6 at [86]. The Tribunal similarly noted at [106] that '[w]hile the counterfactual character of the exercise to be undertaken may not have changed, the qualitative assessment involved has plainly changed'.

²¹⁷ *Re Sydney Airports Corp Ltd* [2000] ACompT 1 at [106].

Competition

- 288 The reference to 'competition' in criterion (a) is a reference to workable or effective competition.²¹⁸
- 289 As observed by the Australian Competition Tribunal in the *Fortescue* case, if a dependent market is already workably or effectively competitive, improved access is unlikely to promote a material increase in competition and thus criterion (a) will not be satisfied.²¹⁹ The Productivity Commission's 2013 inquiry into the National Access Regime similarly observed that '[t]he test should not be satisfied where there is already effective competition in dependent markets because declaration would be unlikely to promote a material increase in competition'.²²⁰
- 290 A market has been said to be effectively or sufficiently competitive if it 'experiences at least a reasonable degree of rivalry between firms each of which suffers some constraint on their use of market power from competitors (actual and potential) and from customers.'²²¹ Further detail as to the meaning of concept of effective competition is set out in section 2.2.6 of the HoustonKemp Report on (a).
- 291 It is well established that a key factor in assessing whether declaration would promote a material increase in competition in a dependent market is whether the access provider has market power that could be used to adversely affect competition in the dependent market(s).²²² If a service provider is unable to exercise market power in a dependent market, then declaring the service so as to provide an enforceable mechanism to determine the terms and conditions of access to the service would not promote competition or efficiency in that market.²²³ This is consistent with the QCA Issues Paper, which indicates that a determination of whether criterion (a) is satisfied requires an assessment of the extent to which the service provider would have the ability and incentive to exercise market power so as to adversely affect competition in a dependent market, and the constraints on such ability or incentive.²²⁴
- 292 The NCC Guide to Declaration states that there are a number of ways the use of market power in the provision of the service for which declaration is sought by a service provider may adversely affect competition in a dependent market, and provides the following examples:²²⁵
- a service provider with a vertically related affiliate may engage in behaviour designed to leverage its market power into a dependent market to advantage the competitive position of its affiliate
 - where a service provider charges monopoly prices for the provision of the service, those monopoly prices may suppress demand or restrict entry or participation in a dependent market, and/or
 - explicit or implicit price collusion in a dependent market may be facilitated by the use of a service provider's market power. For example a service provider's actions may prevent new market entry that would lead to the breakdown of a collusive arrangement or understanding or a service provider's

²¹⁸ Section 69E of the QCA Act (object of Part 5), which refers to promoting effective competition; NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018, page 32.

²¹⁹ *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 at [1068], where the Tribunal stated that 'if a dependent market is already effectively competitive, intervention is not called for. That is, we read criterion (a) as having no application to a market which is effectively competitive'.

²²⁰ *Productivity Commission Inquiry Report, National Access Regime*, No. 66, 25 October 2013, page 172.

²²¹ Application by Chime Communications Pty Ltd (No 2) [2009] ACompT 2 at [48], cited in *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 at [1051].

²²² *Virgin Blue Airlines Pty Limited* [2005] ACompT 5 at [156]; *Re Duke Eastern Gas Pipeline Pty Ltd* (2001) 162 FLR 1; [2001] ACompT 2 at [116]; NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018, pages 33-34.

²²³ NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018, page 33.

²²⁴ QCA Issues Paper at [4.2.1]. DBCTM notes that the factors set out in section 4.2.1 of the Issues Paper are not the only factors relevant to this assessment. For example, in addition to competition faced as a result of substitute terminals, the countervailing power of participants in the dependent markets and the lack of vertical integration, other factors that are relevant (as set out in this submission) include the access framework that would apply in the future without declaration, the threat of regulation and DBCTM's lease arrangements with the Queensland Government.

²²⁵ See NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018, pages 33-34.

market power might be used to 'discipline' a market participant that sought to operate independently.

- 293 The NCC has also observed that 'while access or increased access may change the distribution of gains between parties to a vertical production process, this is not what is required to satisfy criterion (a)'.²²⁶ That is, a change in price which changes the distribution of gains, but does not affect the volume or quality of output, does not satisfy criterion (a).
- 294 Based on the above, key ways in which access as a result of declaration may promote competition in a dependent market are:
- 294.1 By constraining the ability of a service provider with a vertically related affiliate from engaging in behaviour designed to leverage its market power into a dependent market to advantage the competitive position of its affiliate;
 - 294.2 By preventing collusion in a dependent market if it encourages entry in that market; and/or
 - 294.3 By preventing the charging of monopoly prices that suppress demand or restrict entry or participation in a dependent market.
- 295 Further, economic principles and previous NCC and Tribunal declaration decisions establish that an increase in competition in a market leads to higher volumes and/or increased quality being supplied in that market, and therefore the volume and/or quality of output supplied in a dependent market must be expected to increase in order for access to a service to promote a material increase in competition in that dependent market.²²⁷ In this regard, significantly:

In the *Port of Newcastle* case, the Tribunal assessed whether there would be an impact on competition in the primary dependent market based on whether there would be a reduction in coal production, concluding that 'either a price rise would have an impact on coal export volumes ... or it would not, in which case the claim of any competitive impact is seen to be empty'.²²⁸

4.3 Access available on reasonable terms without declaration

- 296 An assessment of whether access to the DBCT service as a result of a declaration would promote a material increase in competition in a dependent market requires a comparison between the future with the DBCT service declared, and the future without the DBCT service declared (with access to the service on the terms that would apply if the service was not declared). The terms of access that would apply if the DBCT service is not declared are therefore a fundamental factor that must be taken into account in considering the likely future without declaration. If there are no material changes to access or use of the DBCT service (and therefore throughput and/or the quality of the service provided) with and without declaration, declaration could not promote a material increase in competition in a dependent market.
- 297 DBCTM has developed an open access framework to apply in the future without declaration that provides access on reasonable terms without declaration. The access arrangements that will apply without declaration, as set out in the Access Framework attached at Appendix 1 and Appendix 3 and pricing framework attached at Appendix 7, mean that there will be no difference in the level of throughput at DBCT with and without declaration.
- 298 As evidenced in the HoustonKemp Report on (a), the pricing framework that DBCTM will apply in the future without declaration will mean that:

²²⁶ NCC, *Final recommendation - Declaration of the shipping channel service at the Port of Newcastle*, 2 November 2015 at [4.78].

²²⁷ Sections 2 and 3 of HoustonKemp Report on (a)

²²⁸ *Application by Glencore Coal Pty Ltd* [2016] ACompT 6 at [137] and [155].

- 298.1 Declaration of the DBCT service would not give rise to increases in output from any mine as compared to the output that would arise if the DBCT service was not declared, and would also not give rise to changes in the use of any coal terminal or railway facility.²²⁹
- 298.2 The promotion of a material increase in competition in a dependent market requires that the structure of the market or conduct of firms is changed in a way that can be expected to bring about a material enhancement of the competitive process, and the volume and/or quality in that market to increase.²³⁰ Given declaration will not affect the volumes of coal produced or sold into the coal export market (or markets), declaration will not promote a material increase in competition in that market. As the volumes supplied in each of the other dependent markets depend on the volumes in the coal export market, it follows that they will also not change as a result of declaration and that declaration will therefore also not promote a material increase in competition in those markets.

Mechanisms to ensure access

- 299 The QCA Issues Paper notes (at section 4.1.1) that:

Part of staff's proposed approach is to examine whether there are any mechanisms or contractual arrangements which would operate to ensure access to the services, on reasonable terms, other than as a result of declaration, and the nature of those arrangements. Such mechanisms or arrangements could be relevant in any comparison of the future state of competition in a dependent market with and without the declaration.

... Staff's preliminary view is that such access agreements would be relevant to the QCA's assessment if they would result in access being provided on reasonable terms, even if the declaration had expired

- 300 The Access Framework that DBCTM will apply in the future without declaration, and DBCTM's existing user agreements, must form the basis of the QCA's assessment of criterion (a).
- 301 DBCTM's existing user agreements set out the terms of access for existing users and are often described as 'evergreen' as they are able to be extended at the option of the user. Accordingly, existing users will have the option to extend their agreements and continue to access the Terminal based on the terms of access and volumes set out in those agreements.
- 302 The agreements also provide for regular reviews of the method of calculating charges based on negotiation between DBCTM and the user, and a dispute resolution mechanism for the determination of charges. Existing user agreements provide a process for negotiation of charges (as well as good faith negotiations for any other amendments as a result of changed circumstances following an agreement revision date) and, in the event agreement cannot be reached, arbitration. The Access Framework will also provide an access framework that is consistent with the current access undertaking, which will assist in ensuring the continuation of existing user agreements and providing certainty for users and access seekers.
- 303 Contracted tonnages under existing user agreements currently make up approximately 80Mtpa or 94% of DBCT's current capacity of 85Mtpa. Based on the potential ability to expand DBCT capacity to up to 102Mtpa (as set out in DBCTM's Master Plan²³¹ and discussed in the criterion (b) section of this submission) and DBCTM's current contract profile, this means that 22Mtpa (being the additional expanded capacity of 17Mtpa plus DBCT's current uncontracted tonnage of 5Mtpa) would not be covered by existing arrangements if existing users choose to extend existing agreements.

²²⁹ HoustonKemp Report on (a), Section 4

²³⁰ HoustonKemp Report on (a), Section 3.3

²³¹ Appendix 19 2018 DBCT Master Plan

- 304 For access seekers, the Access Framework, attached at Appendix 1 and Appendix 3, provides a binding and enforceable framework for the negotiation and provision of access. The Access Framework will be binding and enforceable through an irrevocable deed poll mechanism (described further below) and therefore constitutes the terms of access that the QCA must apply for the future without declaration. A summary of the pricing framework to be incorporated into the Access Framework and Standard Access Agreement is attached at Appendix 7. The drafting to give effect to the pricing framework is being developed, and DBCTM will provide the QCA with a revised version of the Access Framework and Standard Access Agreement that incorporates that drafting shortly. However, DBCTM considers that the material provided with this submission provides sufficient detail for the purposes of assessing criterion (a).
- 305 The Access Framework provides a balanced approach to the provision of access and a framework (based on a negotiate/arbitrate model) to manage access negotiations in an efficient and transparent manner. To provide certainty for access seekers and access holders, the Access Framework is based on the current DBCTM access undertaking and Standard Access Agreement, with changes necessary to reflect the different circumstances if the DBCT service is not declared (such as that the QCA's role in access disputes under Part 5 of the QCA Act only applies to declared services). The objective of the Access Framework has also been specified to be consistent with the object of Part 5 of the QCA Act.
- 306 A summary of the Access Framework is set out in Box 1 below. A version of the Access Framework (comparing the new Access Framework with the version of the current access undertaking submitted to the QCA as part of the 2018 Modification DAAU) is attached at Appendix 2. A version of the DBCT Access Agreement (comparing the new Standard Access Agreement with the current standard user agreement) is attached at Appendix 4. As demonstrated in Appendix 2, minimal changes have been made to the current access undertaking in the Access Framework. A table setting out the rationale for all of the changes is set out in Appendix 6 in order to assist stakeholders to understand the basis for the changes.

Box 1 - Summary of the DBCT Access Framework

The Access Framework is proposed to take effect from 9 September 2020, when the current DBCT access undertaking expires (**Current Undertaking**).

The Access Framework is based on the Current Undertaking, with changes having been made to the Current Undertaking in order to reflect that DBCT will, from 9 September 2020, no longer be declared under the QCA Act. However, the Access Framework is substantively the same as the Current Undertaking and access seekers and users will continue to have the substantive rights they have under the Current Undertaking. The most significant change from the Current Undertaking is how an arbitrator will determine the terminal infrastructure charge (TIC) in the event of a dispute. Otherwise access seekers retain all existing rights to access. Effectively following the expiry of declaration, DBCT will continue to be 'regulated' in substantively the same way as under the Current Undertaking.

A number of consequential amendments are made to the Current Undertaking to reflect that the services provided by DBCT are no longer declared and therefore the QCA has no ongoing role in the regulation of access at the Terminal. These consequential changes include:

- *Objectives of Framework* - An overriding objective for the Access Framework has been introduced. The objective is to "promote the economically efficient operation of, use of and investment in, the Terminal, with the effect of promoting effective competition in upstream and downstream markets" (and is taken from section 69E of the QCA Act).
- *Review and amendment mechanisms* - All review and amendment mechanisms relating to the Access Framework have been relocated to the deed poll under which the Access Framework is to be applied. This is a consequence of the mechanism which ensures the Access Framework is enforceable against DBCTM.
- *Determinations of the QCA* - All references to the QCA being the oversight body of the services that DBCT provides to access holders, access seekers and others have been removed. Under the Current Undertaking, the QCA operates both as an adjudicator of disputes and as an independent expert in certain situations. Under the Access Framework, those roles will be performed instead by an independent arbitrator or an independent expert appointed under, and in accordance with, the Access Framework.

Terms of the DBCT Access Framework

- 307 The Access Framework maintains the open access approach contained under the current access undertaking. A Framework Objective has been included in the Access Framework that is consistent with the object of Part 5 of the QCA Act, being to promote the economically efficient operation of, use of and investment in, the Terminal, with the effect of promoting effective competition in upstream and downstream markets.
- 308 To ensure consistency and continuity, the Access Framework also maintains:
- 308.1 **Negotiate/arbitrate model:** A negotiate/arbitrate model, which provides a right for access seekers to negotiate access and a binding dispute resolution mechanism if a dispute arises in relation to such negotiations.
 - 308.2 **Operation and maintenance provisions:** Terms relating to the Operator and Operation & Maintenance Contract contained in section 3 of the current access undertaking.
 - 308.3 **Services:** The obligation for DBCTM to provide the Services at the Terminal in accordance with the Access Framework consistent with section 4 of the current access undertaking.
 - 308.4 **Negotiation framework:** The process under section 5 of the current access undertaking for access negotiations, including detailed access request and negotiation processes and reasonable timeframes for such processes (subject to amendments necessary to reflect that the service would not be declared so the QCA will not have an approval, determination or dispute resolution role and price rulings and disputes will be determined by an independent expert or arbitrator, and consequential changes based on changes relating to pricing discussed below). The Access Framework also maintains the general requirement for DBCTM to take all reasonable steps to progress each access application and any negotiations to develop an access agreement with an access seeker in a timely manner and will complete each relevant step as soon as is practicable.
 - 308.5 **Terminal Regulations:** The current requirements relating to compliance with the Terminal Regulations and process for amending the Terminal Regulations under section 6 of the current access undertaking (save that an independent expert will perform the functions that the QCA previously performed).
 - 308.6 **Confidentiality:** The current requirements relating to confidentiality of information under section 8 of the current access undertaking (with amendments to reflect that an independent expert or arbitrator will perform the functions that the QCA previously performed).
 - 308.7 **Ring-fencing:** The ring-fencing arrangements in section 9 of the current access undertaking, other than that Trading SCB (the supply chain business in the Brookfield Group that engages in the trading of secondary capacity at DBCT) is no longer specifically referred to as DBCTM will close that business prior to the expiry of declaration to address any potential perceived vertical integration concerns relating to that business. The ring-fencing arrangements include restrictions on DBCTM and its related bodies corporate owning or operating a supply chain business in a market related to the Terminal, and require that DBCTM will not engage in conduct for the purpose of preventing or hindering an access holder's or access seeker's access or unfairly differentiate between access seekers, access holders or rail operators.
 - 308.8 **Reporting:** Requirements for DBCTM to report on matters relating to compliance with the Access Framework and service quality key performance indicators for the Terminal consistent with section 10 of the current access undertaking.
 - 308.9 **Expansions:** An arbitrator will be appointed (rather than the QCA) to determine whether an expansion will result in socialised or differentiated pricing. The principles to be applied in such a determination will be similar to the expansion pricing principles in the current access undertaking, but it will be clarified that the arbitrator will also be required to give consideration to the financeability of any proposed expansion pricing arrangement (including, in particular,

by reason of the risk of differentially priced access holders switching between high- and low-priced terminal capacity that otherwise has identical functionality). The retained provisions include general obligations to accommodate capacity and Terminal capacity expansions, consistent with the current access undertaking.

- 308.10 **Standard Access Agreement:** The requirement for a Standard Access Agreement as a guide for negotiations in section 13 of the current access undertaking, and the ability for an access seeker to require that the access agreement be in all material respects consistent with the Standard Access Agreement. The form of the Standard Access Agreement in the Access Framework is materially consistent with the current Standard Access Agreement that is included as Schedule B to the current access undertaking, with necessary changes made to reflect the fact that the services provided by DBCT would no longer be declared and therefore that the QCA would have no ongoing role in the regulation of access at the Terminal.
- 308.11 **Whole of supply chain efficiency:** The requirement for DBCTM to engage with other stakeholders to develop and implement mechanisms to improve the overall efficiency of the Dalrymple Bay Coal Chain under section 14 of the current access undertaking. The Deed Poll also provides that, if DBCTM and each Access Holder reach agreement on mechanisms to improve the overall efficiency of the Dalrymple Bay Coal Chain and subject to clause 8 of the Deed Poll, DBCTM will consult with the access holders regarding the amendment(s) to the Access Framework reasonably required to implement the agreed mechanisms (to the extent relevant to the Services, the Terminal or the Access Framework) and will amend the Access Framework accordingly, consistent with section 14.2 of the current access undertaking.
- 308.12 **Master plans:** Provisions relating to Terminal and System master planning under section 15 of the current access undertaking (with amendments to reflect that an independent expert or arbitrator will perform the functions that the QCA previously performed).
- 308.13 **Dispute resolution:** The ability for disputes under the Access Framework to be referred to an independent expert and provisions relating to such expert determination under section 17 of the current access undertaking. The Access Framework also provides for some disputes to be referred to arbitration in accordance with the Resolution Institute Arbitration Rules and *Commercial Arbitration Act 2013* (Qld), rather than disputes being referred to the QCA. The dispute resolution provisions in the Access Framework are consistent with standard commercial practice and principles under the current access undertaking and QCA Act, which will ensure that any disputes are effectively and fairly resolved.
- 309 In relation to pricing, the Access Framework will provide for the terminal infrastructure charge (**TIC**) to be agreed between DBCTM and each user. For example, pricing can be agreed as DBCTM and the user see fit and for as long as they see fit.
- 310 Failing agreement, access will be provided pursuant to a Standard Access Agreement that forms part of the Access Framework.
- 311 As set out in the pricing framework paper in Appendix 7, if an access seeker or access holder and DBCTM cannot agree the TIC to apply in a 5 yearly period ('the **Pricing Period**'), the Access Framework and Standard Access Agreement will provide for either party to refer the dispute to arbitration. The Access Framework and Standard Access Agreement will provide that the arbitrator must determine a TIC that, in all circumstances:
- 311.1 reflects the price that would be agreed between a willing but not anxious buyer and a willing but not anxious seller of coal handling services for mines that are proximate to the Port of Hay Point;
- 311.2 is not less than the floor price, being that which would have prevailed had a QCA-administered regime continued to be applied; and
- 311.3 is not greater than the ceiling price, being the highest price at which coal volumes served at DBCT would be the same as if the floor price applied – with this assessment being made without

reference to any contractual limitations on volumes that are able to be delivered to DBCT or any other coal terminal.²³²

- 312 The Access Framework and Standard Access Agreement will also provide for the following pricing arrangements:
- 312.1 **5 year pricing period:** The TIC to be set for a five yearly Pricing Period that has the same timetable across all users. This effectively replaces the current arrangement, whereby the TIC is determined for a series of five yearly periods, by means of the QCA-approved access undertaking.
 - 312.2 **Regular reviews:** The TIC is able to be reviewed with effect from the start of each Pricing Period, with this review triggered at the absolute discretion of either party.
 - 312.3 **Review Event adjustments:** Consistent with the current approach to pricing at DBCT, the Standard Access Agreement will provide for the TIC to be adjusted if a 'Review Event' occurs. For example, the TIC will be adjusted in relation to changes in tonnage, non-expansion capex and in the event of a socialised expansion.
 - 312.4 **Review Event adjustments subject to a floor and ceiling:** Notwithstanding the application of any of the above potential Review Event adjustments to the TIC and the annual non-expansion capex adjustment, in no circumstances shall the combined application of these adjustment factors cause:
 - 312.4.1 the TIC to exceed the ceiling price applicable for that year; or
 - 312.4.2 the TIC to fall below the floor price applicable for that year.
 - 312.5 **Annual CPI escalation:** The TIC applicable in a Pricing Period will increase at the start of each financial year by the change in the consumer price index in the previous year (or nearest period of one year for which the change in the consumer price index is available).
- 313 The ceiling price (**Ceiling TIC**) will ensure that the TIC will be no higher than the highest price at which the volume of coal throughput at DBCT would be the same as it would be at the floor price (**Floor TIC**). This will be achieved in the Access Framework by specifying that the ceiling price must be derived as follows:
- 313.1 The Ceiling TIC is the highest TIC for which:
 - 313.1.1 the forecast annual production from mines that prefer to handle their coal at DBCT where that TIC applies;
 is no less than:
 - 313.1.2 the forecast annual production from mines that prefer to handle their coal at DBCT where the Floor TIC applies.
 - 313.2 A mine will prefer to handle its coal at a coal terminal if:
 - 313.2.1 the mine's production is technically capable of being delivered to the coal terminal in that the mine is connected to that terminal by rail;
 - 313.2.2 this maximises its profits; and
 - 313.2.3 this delivers a profit of at least zero;
 where:
 - 313.2.4 profits are calculated on a per tonne basis as:
 - (a) the FOB coal price;

²³² For the avoidance of doubt, the ceiling price may not be less than the floor price

less

- (b) mine costs, being the sum of operating costs, royalty payments, depreciation and a reasonable return on the capital costs of developing and operating the mine;
- (c) rail transport charges for delivering coal to the coal terminal; and
- (d) applicable infrastructure and handling charges for using port infrastructure including the coal terminal;

313.2.5 miners make terminal usage decisions without reference to any contractual limitations on volumes able to be delivered to DBCT or any other coal terminal; and

313.2.6 the volumes of coal that miners prefer to deliver to any other coal terminal must not, when aggregated, exceed the capacity expected to be available at that terminal.

314 As set out in the HoustonKemp Report on (a), the pricing terms in the Access Framework ensure that:

314.1 the TIC can be no lower than would apply if DBCT was to be declared; and

314.2 the TIC can be no higher than the highest price at which the utilisation of DBCT is the same as it would be at the floor price.

315 HoustonKemp therefore concludes that the direct effect of the pricing framework is that use of DBCT is the same at all values of the TIC within this floor and ceiling range.²³³

316 Further, any changes in the charges that might follow the expiry of declaration will not affect economic efficiency but rather just the distribution of coal-export rents between users and DBCTM. The mutual dependency between DBCTM and users, and the provision for the TIC not to exceed the maximum price that would be agreed to by a willing but not anxious buyer, ensures that outcomes under the pricing framework will be consistent with those of commercial bargaining in the absence of regulation. As set out in section 4.2 of the HoustonKemp Report on (a):

316.1 The pricing framework ensures that price is constrained such that the use of DBCT remains the same with or without declaration

316.2 If the use of the DBCT service is allocatively efficient under declaration, then the mines that use DBCT will be the same with and without declaration.

316.3 Consistent with the specifications of allocative efficiency set out in the HoustonKemp Report on (a), HoustonKemp assumes that the regulatory regime applied by the QCA under declaration gives effect (and would give effect, if declaration continued to be applied) to the object of Part 5 of the QCA Act and acts to promote the use of the DBCT service by mines that place the highest value on its use.

316.4 It follows that, if the TIC applied at DBCT were to increase under the terms of DBCTM's proposed access framework – potentially as high as the ceiling price – then the mines that utilise the DBCT service would be the same as those that would do so under declaration. HoustonKemp explains that this must be the case because:

316.4.1 the access framework restricts the price ceiling so that the volumes served at DBCT would be the same as if the floor price applied; and

316.4.2 if any mine were to cease its use of the DBCT service in response to higher prices and be replaced by alternative volumes from another miner, this would imply that the second miner placed a higher value on the DBCT service than the first – an

²³³ HoustonKemp Report on (a), Section 4.1

outcome inconsistent with HoustonKemp's assumption that the administered regime under declaration promotes allocative efficiency.

317 The DBCT Access Framework will therefore ensure that:

- 317.1 Access on reasonable terms and conditions would be available in the future without declaration.
- 317.2 DBCTM would have no unilateral ability to change the terms of access (including pricing) in a manner that would impact throughput at DBCT or adversely affect competition in dependent markets.

Enforceability of DBCT Access Framework

318 To ensure that the Access Framework will be binding and enforceable, DBCTM has prepared an irrevocable deed poll (**Deed Poll**) that confirms, for the benefit of the covenantees, that DBCTM will comply with the terms of the Access Framework and prescribes how the Access Framework may be amended.

319 A summary of the Deed Poll is set out in Box 2 below. The full version of the Deed Poll is also attached to this submission at Appendix 8.

Box 2 - Summary of Deed Poll

The Deed Poll will be signed by DBCTM in favour of the following third parties:

- Access Seekers who have signed an Access Application Form or Access Renewal Form as set out at Schedule A to the Access Framework or is a party to a Conditional Access Agreement (**Confirmed Access Seekers**);
- Access Applicants;
- Access Holders, including Access Holders as at the date of the Deed Poll and entities who become Access Holders in the future;
- DBCT Holdings; and
- The State,

(together, **Covenantees**).

Pursuant to the terms of the Deed Poll, DBCTM covenants in favour of the Covenantees that, inter alia:

- it will not revoke or amend the Deed Poll during its Term;
- subject to certain rights relating to the amendment of the Access Framework, the Framework will remain in effect for the Term;
- it will not amend the Framework Objective (which objective aligns with section 69E of the QCA Act), except with the prior written consent of the State; and
- it can amend the Access Framework so long as the amendments promote the Framework Objective and that when making any amendments it will have regard to the matters set out in sections 138(2) and 168A of the QCA Act.

The Deed Poll is governed by the laws of the State of Queensland. Access Seekers and Access Holders may enforce the terms of the Deed Poll against DBCT Management by bringing proceedings in the courts of Queensland (who have exclusive jurisdiction to determine any disputes arising under the Deed Poll).

The nature of the Disputes which may arise under the Deed Poll will relate to:

- a purported revocation of the Deed Poll or the Access Framework; and / or
- any amendment(s) that DBCTM may make to the Access Framework pursuant to the terms of the Deed Poll.

The covenants that DBCTM provides in Deed Poll in favour of the Covenantees are conditional upon:

- damages not being a remedy for any breach of the Deed Poll; specific performance is the only appropriate remedy; and
- the Access Seeker and/or Access Holders filing and serving any proceedings for an alleged breach of the Deed Poll within 90 days of the date that the relevant amendments to the Access Framework were first published on DBCT Management's website.

- 320 The Deed Poll provides that DBCTM covenants in favour of specified covenantees that the Access Framework will remain in effect for its Term (subject to the provisions of the Deed Poll) and that DBCTM will not revoke or amend the Deed Poll during its Term. The specified covenantees are Access Seekers who have signed an Access Application Form or Access Renewal Form as set out at Schedule A to the Access Framework or is a party to a Conditional Access Agreement ('Confirmed Access Seekers'), Access Applicants, Access Holders, DBCT Holdings and the State.
- 321 The Deed Poll restricts amendments that may be made to the Access Framework by:
- 321.1 Requiring that amendments promote the Framework Objective (which is specified to be to promote the economically efficient operation of, use of and investment in, the Terminal, with the effect of promoting effective competition in upstream and downstream markets).
 - 321.2 Including that DBCTM covenants in favour of the covenantees that it will not amend the Framework Objective, except with the prior written consent of the State.
 - 321.3 Requiring that DBCTM consult with Confirmed Access Seekers, Access Applicants and Access Holders regarding any proposed amendments.
 - 321.4 Requiring DBCTM to have regard to specified matters when considering amendments to the Access Framework, which are consistent with the matters that the QCA is required to have regard to when assessing a draft access undertaking under section 138 and 168A of the QCA Act, namely:
 - 321.4.1 the legitimate business interests of DBCT Holdings in its capacity as the owner of the Terminal;
 - 321.4.2 the legitimate business interests of DBCTM in its capacity as the operator of the Terminal;
 - 321.4.3 the public interest, including the public interest in having competition in markets (whether or not in Australia);
 - 321.4.4 the interests of Confirmed Access Seekers and Access Applicants, including whether adequate provision has been made for compensation if the rights of Access Holders are adversely affected;
 - 321.4.5 the effect of excluding existing assets for pricing purposes;
 - 321.4.6 the following pricing principles in relation to the price of access to the Terminal:
 - (a) the price should generate expected revenue for the Terminal that is at least enough to meet the efficient costs of providing access to the Terminal and include a return on investment commensurate with the regulatory and commercial risks involved;
 - the price should allow for multi-part pricing and price discrimination when it aids efficiency;
 - the price should not allow DBCTM to set terms and conditions that discriminate in favour of the downstream operations of DBCTM or a related body corporate of DBCTM, except to the extent the cost of providing access to other operators is higher; and
 - the price should provide incentives to reduce costs or otherwise improve productivity.
- 322 The Deed Poll provides for disputes arising in relation to the Deed Poll to be determined by the courts of Queensland, and for specific performance as a remedy.
- 323 The Deed Poll also provides for a situation in which the ownership of the Terminal is transferred, by providing that, if the legal or equitable ownership of the Terminal is to be transferred to another person

after the date of the Deed Poll, DBCTM will require the transferee (as a condition of the transfer) to make a Deed Poll in identical terms to the Deed Poll.

Reasonableness of terms and conditions

- 324 Criterion (a) refers to access being available on 'reasonable terms and conditions' as a result of declaration. The Access Framework ensures that access would also be available on reasonable terms and conditions without declaration, so that there is no relevant difference with and without declaration.
- 325 The reasonableness of the terms and conditions is demonstrated by the consistency of the Access Framework with all material aspects of the current access undertaking. Although the QCA's role in considering whether the DBCT service should be declared is not to undertake a detailed or clause by clause assessment of the Access Framework as it would in reviewing and approving access undertakings under the QCA Act, the consistency of the Access Framework with the current access undertaking demonstrates the reasonableness of the terms.
- 326 In addition, as summarised in the table in Appendix 5, the Access Framework conforms with the principles set out in clause 6 of the CPA (which are applied by the NCC and relevant Minister when assessing whether a State or Territory access regime should be certified as effective under the CCA). Although the Access Framework would not be a 'State or Territory access regime' for the purposes of the certification provisions, Appendix 5 demonstrates that the Access Framework conforms with the CPA principles, which reinforces the effectiveness and reasonableness of the Access Framework.
- 327 The approach taken by the NCC in deciding whether to recommend that an access regime be certified as an effective access regime is to treat each principle as a guideline rather than a binding rule (pursuant to section 44DA of the CCA) and not apply a 'binary test of compliance'.²³⁴ The NCC recognises that 'a range of regulatory arrangements are capable of delivering efficient outcomes'.²³⁵ For example, in its assessment of whether the DBCT access regime should be certified in 2011, the NCC observed:²³⁶
- the process of certification does not involve an assessment of whether the access regime is 'optimal' and ... certification does not require that the particular regime provides the most effective means of achieving efficient access outcomes. Rather, certification requires assessment only that the particular regime satisfactorily addresses the clause 6 principles and accords with the objects of Part IIIA.
- 328 A similar approach is appropriate in assessing whether access would be available on reasonable terms without declaration. As noted above, the reasonableness and effectiveness of the Access Framework is highlighted by its conformity with the CPA principles, as set out in more detail in Appendix 5.
- 329 For example, the negotiate/arbitrate model in the Access Framework is consistent with the principles in the CPA that:
- 329.1 Wherever possible third party access to a service provided by means of a facility should be on the basis of terms and conditions agreed between the owner of the facility and the person seeking access (clause 6(4)(a));
 - 329.2 Where such agreement cannot be reached, Governments should establish a right for persons to negotiate access to a service provided by means of a facility (clause 6(b));
 - 329.3 Any right to negotiate access should provide for an enforcement process (clause 6(4)(c)); and

²³⁴ NCC, Certification of State and Territory Access Regimes: A guide to Certification under Part IIIA of the CCA, December 2017, at [3.3].

²³⁵ NCC, Certification of State and Territory Access Regimes: A guide to Certification under Part IIIA of the CCA, December 2017, at [3.3].

²³⁶ NCC, Final recommendation - DBCT Access Regime Application for certification under s 44M of the Trade Practices Act 1974 (Cth), 10 May 2011 at [4.12].

- 329.4 Where the owner and a person seeking access cannot agree on terms and conditions for access to the service, they should be required to appoint and fund an independent body to resolve the dispute, if they have not already done so (clause 6(4)(g)).
- 330 The Access Framework also provides for pricing to be determined by an arbitrator, in circumstances where parties are unable to reach an agreed price. The pricing decisions of an arbitrator are subject to a price ceiling. As evidenced in the HoustonKemp Report on (a), such a ceiling ensures that price would be capped at a level such that declaration of the DBCT service would not result in a change in throughput at DBCT, relative to the outcome that would apply without declaration.
- 331 More generally, the guidance given to the arbitrator in determining a price will ensure outcomes that are consistent with the pricing principles specified in the CPA, which require that access prices be set so as to:
- 331.1 generate expected revenue for a regulated service or services that is at least sufficient to meet the efficient costs of providing access to the regulated service or services and include a return on investment commensurate with the regulatory and commercial risks involved;
 - 331.2 allow multi-part pricing and price discrimination when it aids efficiency;
 - 331.3 not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher; and
 - 331.4 provide incentives to reduce costs or otherwise improve productivity.
- 332 The pricing framework under the Access Framework will ensure that access prices comply with these objectives because:
- 332.1 pricing decisions are subject to a price floor that accords with the approach that would otherwise have been adopted by the QCA, which itself operates by reference to a near identical 'expected revenue' pricing objective;
 - 332.2 multi-part pricing and price discrimination will not be prevented, although application of the 'willing but not anxious' buyer/seller principle is likely to mean that arbitrated price outcomes will have close regard to the price paid in arms' length transactions for similar services;
 - 332.3 since DBCT is not a vertically integrated access provider, the third CPA pricing principle set out above is not applicable; and
 - 332.4 since prices will only be set by reference to DBCT's costs if they are set at the price floor, DBCT's incentives to reduce costs and or otherwise improve productivity will be even stronger than is presently the case.
- 333 The constraints on DBCTM outlined further below, including competition with other terminals and the threat of the reinstatement of heavy handed regulation, will also ensure that DBCTM would not have the ability or incentive to hinder access or offer access on terms that are not reasonable.
- 334 Therefore, the Access Framework will ensure that there could be no promotion of a material increase in competition in a dependent market in the future with declaration compared to the future without declaration.

4.4 Competition in dependent markets

- 335 As set out above, there will be no difference in the volume of coal throughput or the quality of services provided at DBCT in the future with declaration and the future without declaration, and therefore access as a result of the continued declaration of the DBCT service would not promote a material increase in competition in any market.
- 336 Although DBCTM considers that this establishes that criterion (a) is not satisfied regardless of how dependent markets are defined, DBCTM has also identified the relevant upstream and downstream markets in this section of the submission and demonstrates why declaration will not promote a material increase in competition in any of those markets. DBCTM also engaged HoustonKemp to identify the relevant dependent markets and assess whether access to the DBCT service as a result of the declaration of the service would promote a material increase in competition in any of those markets (refer HoustonKemp Report on (a)).

Relevant dependent markets

- 337 Criterion (a) requires consideration of markets other than the market for the service, which are commonly referred to as dependent markets.²³⁷
- 338 For the purposes of criterion (a), a market is a market in Australia or a foreign country. A market for goods or services includes the goods or services and other goods or services that are able to be substituted for, or are otherwise competitive with, those first-mentioned goods or services (section 71 of the QCA Act). The concept of a market is described in the case of *Re Queensland Co-Operative Milling Association Ltd (1976) 8 ALR 481* as:²³⁸
- ... the area of close competition between firms or, putting it a little differently, the field of rivalry between them ... Within the bounds of a market there is substitution — substitution between one product and another, and between one source of supply and another, in response to changing prices.
- 339 Dependent markets in the coal export supply chain have recently been considered by the NCC and the Tribunal in the *Port of Newcastle* matter. The *Port of Newcastle* matter and the conclusions of the NCC and the Australian Competition Tribunal are highly probative due to the fact that both that matter and this matter are in relation to bulk coal export supply chains. In its final recommendation regarding the declaration of the shipping channel service at the Port of Newcastle in 2015, although the NCC did not consider it necessary to precisely define the relevant markets, the NCC considered the following dependent markets proposed by the applicant for declaration (Glencore):²³⁹
- 339.1 a coal export market;
 - 339.2 markets for the provision of shipping services, involving shipping agents and vessel operators;
 - 339.3 markets for the acquisition and disposal of exploration and/or mining authorities;
 - 339.4 markets for the provision of infrastructure connected with mining operations, including rail, road, power and water; and
 - 339.5 a market for specialist services such as geological and drilling services, construction, operation and maintenance.

²³⁷ Section 76(2)(a) of the QCA Act; NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.47].

²³⁸ *Re Queensland Co-Operative Milling Association Ltd (1976) 8 ALR 481* at 517. See also *In the matter of Fortescue Metals Group Limited [2010] ACompT 2* at [1015].

²³⁹ NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.53]-[4.71].

- 340 The NCC also considered whether there was a separate market for the financing of coal projects in the Hunter Valley, but was not satisfied that there is such a separate market or that the evidence enabled it to conclude that the market is as narrowly defined as contended by the applicant.²⁴⁰
- 341 Consistent with the NCC's position in the *Port of Newcastle* case, DBCTM does not consider that it is necessary to precisely define the relevant markets or geographic boundaries of the relevant market to establish that declaration will not promote a material increase in competition in any of the dependent markets. Based on the precedent in the *Port of Newcastle* matter and the expert opinion of HoustonKemp regarding the relevant dependent markets set out in the HoustonKemp Report on (a), DBCTM submits that the relevant dependent markets for the purposes of the criterion (a) assessment in respect of DBCT are the markets for:
- 341.1 Export of coking coal (the geographic dimension of which DBCTM considers is at least as wide as the Asia-Pacific region and more likely wider);
 - 341.2 Export of thermal coal (the geographic dimension of which DBCTM considers is at least as wide as the Asia-Pacific region and more likely wider);
 - 341.3 Specialist mining services, such as exploration services, equipment services, mining safety services, mining technology services, construction services, project management and machinery manufacturing;
 - 341.4 Mining authorities;
 - 341.5 Below rail services;
 - 341.6 Coal haulage services;
 - 341.7 Port services such as waste services, pilotage and towage;
 - 341.8 Shipping agency services; and
 - 341.9 Bulk shipping services.
- 342 The above markets are separate from the relevant market for the service (the market for coal handling services for mines that are proximate to the Port of Hay Point).
- 343 DBCTM has set out above the markets that could be affected by declaration of the DBCT service. However, the primary markets that are relevant are the coal export markets. As established in the HoustonKemp Report on (a), the volumes supplied and/or quality of services provided in each of the other dependent markets depend on the volumes in the coal export markets (which, as discussed above, will be the same with or without declaration). This is also consistent with findings of the NCC and Tribunal in the *Port of Newcastle* case. For example:
- 343.1 The Tribunal noted that '[i]f the impact of increased access on the coal export market is not such as to satisfy the Tribunal that it would promote a material increase in competition in that market, it is difficult to see how there would be the flow-on effects on the derivative markets'.²⁴¹
 - 343.2 Similarly, the NCC's recommendation concluded that given the NCC's view that changes in the charges for the service are unlikely to impact the primary activity of the production and sale of coal, the NCC 'also considers that there would not be any flow-through effects in any related market'.²⁴²
- 344 To the extent that any submission seeks to establish that competition in a market that is not significant or substantial will be affected (e.g. incidental markets or markets of secondary importance), the NCC's

²⁴⁰ NCC, *Final recommendation - Declaration of the shipping channel service at the Port of Newcastle*, 2 November 2015 at [4.63]-[4.64].

²⁴¹ Application by Glencore Coal Pty Ltd [2016] ACompT 6 at [139].

²⁴² NCC, *Final recommendation - Declaration of the shipping channel service at the Port of Newcastle*, 2 November 2015 at [4.106].

remarks in the context of the Productivity Commission's 2013 review of the national access regime are pertinent. The NCC acknowledged concerns that criterion (a) may be satisfied where the market in which competition will be materially promoted is of limited size and importance, but considered that there is minimal risk that a service would be declared where the only promotion of competition is in a trivial market. The NCC noted that, in such a situation, criterion (f) [now criterion (d)] 'is unlikely to be satisfied because the competitive benefits of access are likely to be outweighed by the costs of regulation'.²⁴³

- 345 The Productivity Commission also noted that, consistent with this, the Federal Court in the Pilbara rail case indicated that the importance of the dependent market, relative to the costs of declaration, would likely be considered under the public interest test in criterion (f) [now criterion (d)].²⁴⁴ The Federal Court stated that:²⁴⁵

It cannot be the case, for example, that a declaration of access must be made by the tribunal where only a modest improvement in competition in a minor downstream or upstream market is likely to ensue from access at great cost in the way of disruption to an incumbent's operations...

No impact on competition in dependent markets

- 346 As outlined above, for criterion (a) to be satisfied, access as a result of declaration must promote a 'material increase' in competition. A change in competition that is not material or significant cannot satisfy the test.²⁴⁶ It is important to note that, although the DBCT service is currently declared, the test is not whether declaration expiring would lessen or decrease competition. In order to recommend declaration of the service, the QCA must be affirmatively satisfied that declaration would promote a material increase in competition compared to the future without declaration.
- 347 To assess whether access (or increased access) to the DBCT service as a result of a declaration would promote a material increase in competition in a dependent market, consideration must be given to whether dependent markets are workably or effectively competitive and whether they would be so regardless of declaration. It is well established that if a dependent market is already workably or effectively competitive, improved access is unlikely to promote a material increase in competition and thus criterion (a) will not be satisfied.²⁴⁷ The Tribunal has found, for example, that 'a market in which there is effective competition is not one in which, relevantly, there can be the material increase in competition contemplated by criterion (a)'.²⁴⁸
- 348 Further, as outlined in the section on the application and interpretation of criterion (a) above, key ways in which access as a result of declaration may promote competition in a dependent market are:²⁴⁹
- 348.1 By constraining the ability of a service provider with a vertically related affiliate from engaging in behaviour designed to leverage its market power into a dependent market to advantage the competitive position of its affiliate;
 - 348.2 By preventing collusion in a dependent market if it encourages entry in that market; and/or

²⁴³ NCC, *Submission to Productivity Commission inquiry*, 8 February 2013, page 21.

²⁴⁴ *Productivity Commission Inquiry Report, National Access Regime*, No. 66, 25 October 2013, pages 169-170.

²⁴⁵ *Pilbara Infrastructure Pty Ltd and another v Australian Competition Tribunal* (2011) 277 ALR 282 at [111].

²⁴⁶ Trade Practices Amendment (National Access Regime) Bill 2005 - *Explanatory Memorandum*; Second reading speech - Trade Practices Amendment (National Access Regime) Bill 2005; *Productivity Commission Inquiry Report, National Access Regime*, No. 66, 25 October 2013, page 170.

²⁴⁷ *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 at [1068] ('if a dependent market is already effectively competitive, intervention is not called for. That is, we read criterion (a) as having no application to a market which is effectively competitive'; *Productivity Commission Inquiry Report, National Access Regime*, No. 66, 25 October 2013, page 172 ('The test should not be satisfied where there is already effective competition in dependent markets because declaration would be unlikely to promote a material increase in competition'); NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018 at [3.25].

²⁴⁸ *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 at [1084].

²⁴⁹ See, for example, NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018, pages 33-34.

- 348.3 By preventing the charging of monopoly prices that suppress demand or restrict entry or participation in a dependent market.
- 349 In this case, the key issue is whether declaration could lead to increased output or volumes supplied (or any change in quality) in a dependent market (through, for example, a reduction in barriers to entry or an increase in participants in a dependent market). Economic principles and previous NCC and Tribunal declaration decisions establish that an increase in competition in a market leads to higher volumes being supplied and/or increased quality in that market, and therefore the volume supplied and/or quality in a dependent market must be expected to increase in order for access to a service to promote a material increase in competition in that dependent market.²⁵⁰
- 350 In the *Port of Newcastle* case, for example, the Tribunal assessed whether there would be an impact on competition in the primary dependent market based on whether there would be an impact on volumes in the dependent market. In particular, the Tribunal assessed whether there would be a reduction in coal production that would impact competition, concluding that 'either a price rise would have an impact on coal export volumes ... or it would not, in which case the claim of any competitive impact is seen to be empty'.²⁵¹ Both the NCC and the Tribunal also observed that it does not necessarily follow from an ability to increase prices that there will be a reduction in coal production that impacts competition in a market.²⁵²
- 351 The constraints on DBCTM's ability or incentive to exercise any market power (as detailed in section 4.5 below) further demonstrate that access as a result of declaration would not promote a material increase in competition in any of the dependent markets.

Coal export markets

- 352 The markets for the export of coking coal and thermal coal to the Asia-Pacific region involve an internationally-traded commodity with prices set by reference to international spot prices, and a significant number of participants.²⁵³
- 353 Both the NCC and Tribunal have found that the coal export markets are effectively competitive.²⁵⁴ In its final recommendation regarding declaration of the shipping channel service at the Port of Newcastle in 2015, the NCC concluded:²⁵⁵

The Council also notes the comments by the Tribunal in *Pilbara Tribunal* that criterion (a) is not concerned with markets that are already effectively competitive, and that if a dependent market is already effectively competitive, then intervention is not called for (at [1068]). In this matter the Council considers that a number of the dependent markets proposed are likely to be effectively competitive—those described earlier involving coal export, bulk commodity shipping, and financing. Adopting the Tribunal's approach from *Pilbara Tribunal*, a finding that these markets are effectively competitive would be sufficient to end the inquiry in relation to those markets. Even with further consideration, the Council considers that the markets described above involving coal export, shipping services and financing are likely to have a geographic scope beyond Australia, not

²⁵⁰ As detailed in Sections 2 and 3 of the HoustonKemp Report on (a)

²⁵¹ *Application by Glencore Coal Pty Ltd* [2016] ACompT 6 at [137] and [155].

²⁵² *Application by Glencore Coal Pty Ltd* [2016] ACompT 6 at [155]; NCC, Final recommendation - Declaration of the shipping channel service at the Port of Newcastle, 2 November 2015 at [4.93]

²⁵³ NCC, Final recommendation - Declaration of the shipping channel service at the Port of Newcastle, 2 November 2015 at [4.57] and [4.60]; Section 5.2 of HoustonKemp Report on (a)

²⁵⁴ NCC, Final recommendation - Declaration of the shipping channel service at the Port of Newcastle, 2 November 2015 at [4.105]; *Application by Glencore Coal Pty Ltd* [2016] ACompT 6 at [153]. Similarly, in *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 at [1083] the Tribunal accepted that the seaborne iron ore market was effectively competitive based on its findings that any attempt to give less or charge more by a major supplier would be constrained by the other major suppliers or by a combination of the smaller firms (demand side substitution), and that action may lead to marginal mines coming online or additional ore being produced by existing mines (supply side substitution)..

²⁵⁵ NCC, Final recommendation - Declaration of the shipping channel service at the Port of Newcastle, 2 November 2015 at [4.105].

necessarily be limited to coal, and to include large numbers of supply and demand side participants. Given this, on a future with and without basis, increased access to the service will not promote a material increase in competition in any of these markets.

- 354 The relevant Minister in the *Port of Newcastle* case agreed with the NCC's view regarding the dependent markets being effectively competitive, concluding that all of the recognised dependent markets are at least workably competitive at present.²⁵⁶ The Tribunal's subsequent review of the Minister's decision noted the Minister's approach started with the finding that the dependent markets are 'workably competitive' at present and agreed with that finding.²⁵⁷
- 355 The Port of Newcastle case is significant precedent that supports DBCTM's view that the coal export markets are effectively competitive and that access as a result of declaration will not promote a material increase in competition in those markets. The QCA could only depart from such precedent if it had unambiguous and substantial evidence that indicates that the NCC and Tribunal conclusions no longer apply. In addition, there is no rational basis on which it could be said that the coal export markets are effectively competitive only because the DBCT service is currently declared.
- 356 Further, the cost of coal terminal charges is a very small proportion of the price of coal exported from Queensland. Therefore, even if there were changes to terminal charges, there would be no material impact on competition in the coal export markets.²⁵⁸
- 357 This is acknowledged in question 7 of the criterion (a) questions in the QCA Issues Paper, which notes that the proportion of the total product price that is reflected by the existing access price may be indicative of the likely effect of declaration or lack thereof in dependent markets. The fact that coal terminal charges are a small proportion of the price of coal was also recognised by the QCA in its Discussion Paper on Capacity Expansion and Access Pricing for Rail and Ports in 2013, in which the QCA noted that:²⁵⁹

A further reason why, even prior to contracting, the behaviour of access buyers is in many cases unlikely to differ significantly is that the cost of the access service makes up a small portion of the price of coal. This is true whether an average cost-based price structure or a more complex price structure such as a two-part tariff applies. For quite some time it appears that coal has been providing high returns to coal miners. This being the case the access quantities demanded by access buyers are unlikely to be greatly affected by the access price. In addition, where access buyers earn substantial economic rents their demand for rail access is likely to be inelastic with respect to rail and port access prices⁸. In these circumstances it is quite likely that the quantities of access purchased would change little whether access was priced according to, say, a two-part tariff or an average cost price. This suggests that there would be minimal adverse allocative efficiency effects from different price structures that might be applied to long-term capacity contracts for rail and port capacity in Queensland.

²⁵⁶ Mathias Cormann, Acting Treasurer, *Decision and statement of reasons concerning Glencore Coal Pty Ltd's application for declaration of the shipping channel at the Port of Newcastle*, 8 January 2016.

²⁵⁷ Application by Glencore Coal Pty Ltd [2016] ACompT 6 at [153].

²⁵⁸ For example, in the NCC's *Final recommendation - Declaration of the shipping channel service at the Port of Newcastle*, 2 November 2015 at [4.96], the NCC noted that charges for the service in that case represented only a very small component of the overall cost of the production and sale of coal for export from the Hunter Valley and that '[w]hile producers are undoubtedly sensitive to the charges, it is difficult to conclude that changes to those charges (even changes materially above those that have been imposed to date) would have a material impact on decisions that would affect competition in any relevant market, thus limiting the ability of PNO to adversely affect competition in a dependent market'. Further, the NCC noted that 'it is difficult to see how such a small proportion of total costs would make a material difference to the cost profile of a producer such as to have an effect on competition in any of the dependent markets (at [4.98]). This factor was also considered by the Tribunal and Full Federal Court. For example, the Full Federal Court observed that 'Glencore had submitted that PNO's ability to increase prices in the future created uncertainty in the coal export market which was not conducive to the promotion of competition. In response to that argument, the Tribunal said that that "uncertainty" was insignificant compared with the other uncertainties facing coal producers. It seems to us that that conclusion was open to the Tribunal.'. *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal and others* (2017) 346 ALR 669 at [167].

²⁵⁹ QCA, Discussion Paper - Capacity Expansion and Access Pricing for Rail and Ports, April 2013 at page 9.

- ⁸ For coal miners, for example: the total railing price of thermal coal from mine to port is thought to be less than \$10 per metric tonne. Below rail costs are approximately \$3 to \$4 per metric tonne. The port handling charge at DBCT is \$2.90 per metric tonne. Thermal coal prices were between \$US40 and \$US192 a tonne between 2004 and 2012, and between approximately \$US24 and \$US41 a metric tonne in the 20 years preceding this. Thus rail and port costs are a relatively small proportion of total revenues.

358 Based on the current TIC of approximately A\$2.50/tonne and coking coal prices of between A\$167/tonne and A\$256/tonne between 2017 and 2035, the TIC represents approximately only 1.0% to 1.5% of the total product price.²⁶⁰ Similarly, based on coal prices of between A\$106/tonne and A\$111/tonne between 2017 and 2035 for thermal coal, the TIC represents approximately only 2.3% to 2.4% of the total product price. If fixed and variable handling charges are included, the combined Terminal Infrastructure Charges and handling charges at DBCT are approximately A\$5/tonne, which represents approximately 2.0% to 3.0% of the coking coal prices and 4.5% to 4.7% of the thermal coal prices.

359 As outlined in section 4.3 above, DBCTM's binding commitment to the Access Framework means that declaration will not promote a material increase in competition in the coal export markets, because declaration would not affect the volumes of coal produced or sold (or any dimension of quality) into those markets. For example, as set out in section 4 of HoustonKemp's Report on (a), DBCTM's pricing arbitration framework (which DBCTM will make a binding and enforceable commitment to) requires that prices be capped at a level such that declaration would not result in an increase in throughput at DBCT. Therefore there would be no effect on the volumes or output in any related market as a result of declaration. HoustonKemp concludes at section 5.2.3 that:

Declaration will not lead to any change in the volumes of coal produced by any mine, as we set out in section 4. Volumes sold into the markets for coal exported to the Asia Pacific region (or wider) will therefore not be affected by declaration.

The quality of the service provided to coal miners will be the same with and without declaration of the DBCT service because:

- the nature of the underlying coal is the same;
- the mix of coal at DBCT and other terminals, which can affect the quality of the mixed coal product, will be the same, because volumes of coal sent to each terminal will not change; and
- other dimensions of the coal supply service that could be affected by the use of the terminal – such as the timing at which coal is available to be shipped – will remain the same because the non-price terms and conditions of access will be substantially the same with and without declaration.

Declaration would not change the structure or conduct of mines in any coal export market because:

- prices will still be determined in the same way by reference to international spot prices; and
- the volume transported by each miner will not be affected so there is no change in the structure of the market or likelihood of entry.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any coal export market, given that it would not affect:

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

²⁶⁰ AME forecasts are in US\$ incorporating an exchange rate forecast for Australia-based costs of US\$1.00 = A\$1.30

360 Therefore, declaration of the DBCT service would not promote a material increase in competition in the coal export markets. Although the relevant test is whether declaration would promote a material increase in competition in a dependent market (not whether the expiry of declaration would decrease competition), the above factors and evidence also mean that the expiry of declaration would not be detrimental to the competitive environment in the coal export markets.

Other dependent markets

361 As noted above, in its final recommendation regarding declaration of the shipping channel service at the Port of Newcastle in 2015, the NCC concluded that a number of the dependent markets proposed in that case (such as bulk commodity shipping and financing, in addition to the coal export markets) are likely to be effectively competitive and that a finding that those markets are effectively competitive would be sufficient to end the inquiry in relation to those markets. The NCC also observed that, even with further consideration, those markets are likely to have a geographic scope beyond Australia, not necessarily be limited to coal, and to include large numbers of supply and demand side participants, and therefore that increased access to the service would not promote a material increase in competition in any of these markets.²⁶¹

362 As with the coal export markets, this is significant precedent and the QCA would need unambiguous and substantial evidence to determine otherwise. In this case, as set out further below, the NCC's findings apply to the markets for specialist mining services, mining authorities, shipping agency services and bulk shipping services. Such markets cannot be said to be effectively competitive only because the DBCT service is currently declared. The limited ability for competition in the other dependent markets also means that declaration would not promote a material increase in competition in those markets (relating to below rail services, coal haulage services and port services).

363 The NCC and Tribunal decisions in the *Port of Newcastle* case also provide clear precedent that if the impact of access as a result of declaration on the coal export markets is not such as to promote a material increase in competition in those markets, declaration would also not promote a material increase in competition in other derivative markets.²⁶²

364 In addition, as the level of throughput at DBCT will be the same with or without declaration, access as a result of declaration will not promote a material increase in competition in any other upstream or downstream dependent markets (given their relationship to, and dependence on, the level of throughput at DBCT). This is evidenced in the HoustonKemp Report on (a), which concludes (in summary) that declaration would not promote a material increase in competition in any of the dependent markets because declaration would not affect the structure of each market or conduct of firms in a way that enhances the competitive process or the volume of output in each market.

365 By way of further detail:

365.1 **Specialist mining services** - There are a large number of mines in the central Queensland area and across Australia that require specialist mining services and in respect of which a large number of providers of specialist mining services compete to provide services.²⁶³ In light of this degree of rivalry between providers,²⁶⁴ the specialist mining services markets would be effectively competitive in both a future with and a future without declaration. The NCC has also found that providers of specialist services may be able to work in different mining regions

²⁶¹ NCC, Final recommendation - Declaration of the shipping channel service at the Port of Newcastle, 2 November 2015 at [4.105].

²⁶² Application by Glencore Coal Pty Ltd [2016] ACompT 6 at [139]; NCC, Final recommendation - Declaration of the shipping channel service at the Port of Newcastle, 2 November 2015 at [4.106].

²⁶³ NCC, Final recommendation - Declaration of the shipping channel service at the Port of Newcastle, 2 November 2015 at [4.69]; Section 5.3 of HoustonKemp Report on (a).

²⁶⁴ Application by Chime Communications Pty Ltd (No 2) [2009] ACompT 2 at [48], cited in In the matter of Fortescue Metals Group Limited [2010] ACompT 2 at [1051].

around Australia, thus expanding the field of substitutes.²⁶⁵ Further, as declaration will not impact the primary coal export markets, it would also not have flow-on effects for the specialist mining services market.²⁶⁶ In particular, as the volume of specialist mining services depends on the volume of coal and other products that are mined, and declaration will not (as established above) affect the quantity of coal that is exported, the level of mining activity or the quality of specialist mining services, declaration would also not promote a material increase in competition in the markets for specialist mining services.²⁶⁷

- 365.2 **Mining authorities** - The mining authorities market is an example of a potential market previously considered by the NCC that derives from the core activities of the production and sale of coal.²⁶⁸ In the *Port of Newcastle* case, the NCC noted that parties seeking coal mining authorities may be able to consider different locations, thus expanding the field of substitutes.²⁶⁹ As declaration will not affect the quantity of coal that is exported or the level of mining activity, declaration would also not promote a material increase in competition in the mining authorities market.²⁷⁰
- 365.3 **Below rail services** - Below rail services in the Goonyella rail corridor are provided by Aurizon and regulated as a declared service under the QCA Act. The provider of the services does not face competition and is unlikely to face competition in the future. Accordingly, declaration of the DBCT service would have no impact on the structure of any below rail market or the conduct of Aurizon in a way that enhances the competitive process.²⁷¹ Further, as declaration will not impact the primary coal export markets, it would also not have flow-on effects for infrastructure markets.²⁷² As outlined above, there will be no difference in volume shipped through DBCT in the future with declaration and the future without declaration. This means that volumes served through the Goonyella rail corridor would also remain the same with and without declaration.²⁷³ Given the same below rail services will be required with and without declaration, there is also no reason for the quality of below rail services to change as result of the declaration of the DBCT service.²⁷⁴
- 365.4 **Coal haulage services** - There are currently three rail operators on the Goonyella System that provide coal haulage services in central Queensland: Aurizon Operations, BMA Rail and Pacific National. These operators operate on the rail network under access agreements with Aurizon and provide competition in coal haulage services. Further, as declaration will not impact the primary coal export markets, it would also not have flow-on effects for infrastructure markets such as rail.²⁷⁵ Given there will be no difference in volume shipped through DBCT in the future with declaration and the future without declaration, the structure and conduct of firms in the coal haulage services market would also not be affected by declaration and declaration would not promote a material increase in competition in the market.²⁷⁶ Given the same coal haulage services will be required with and without declaration, there is also no reason for the quality of coal haulage services to change as result of the declaration of the DBCT service.²⁷⁷

²⁶⁵ NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.69].

²⁶⁶ [Application by Glencore Coal Pty Ltd \[2016\] ACompT 6 at \[139\]](#); NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.106].

²⁶⁷ Section 5.3 of HoustonKemp Report on (a).

²⁶⁸ NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.67]-[4.71].

²⁶⁹ NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.69].

²⁷⁰ Section 5.9 of HoustonKemp Report on (a).

²⁷¹ Section 5.4 of HoustonKemp Report on (a).

²⁷² [Application by Glencore Coal Pty Ltd \[2016\] ACompT 6 at \[139\]](#); NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.106].

²⁷³ Section 5.4 of HoustonKemp Report on (a)

²⁷⁴ Section 5.4 of HoustonKemp Report on (a)

²⁷⁵ [Application by Glencore Coal Pty Ltd \[2016\] ACompT 6 at \[139\]](#); NCC, [Final recommendation - Declaration of the shipping channel service at the Port of Newcastle](#), 2 November 2015 at [4.106].

²⁷⁶ Section 5.5 of HoustonKemp Report on (a)

²⁷⁷ Section 5.5 of HoustonKemp Report on (a)

- 365.5 **Port services** - Waste and pilotage services at the Port of Hay Point are provided solely by North Queensland Bulk Ports Corporation (a Government owned port authority), with waste services outsourced to a large waste management company. Towing services at the Port of Hay Point are provided by one operator, with periodic competition to provide towing services as the sole operator for a period of time. The demand for port services at the Port of Hay Point depends on the volume of coal throughput at the Port. Given declaration will not result in any change in the volume of coal exported from coal terminals at the Port and the same port services will be required with and without declaration, declaration will also not promote a material increase in competition in any market for port services.²⁷⁸
- 365.6 **Shipping services** - The markets for shipping agency services and bulk shipping services are effectively competitive, and would continue to be effectively competitive in a future without declaration.²⁷⁹ Shipping agency services at DBCT are provided by eight companies that operate on a local and national basis. Bulk shipping services are provided by bulk carriers, with the ownership and operation of bulk carriers widely dispersed on a global level between many ship owners and operators, and there are a large number of participants on both the supply and demand sides. The NCC found in the *Port of Newcastle* case that the market for bulk commodity shipping is effectively competitive, and that it is likely to have a geographic scope that extends well beyond Australia and is not limited to *coal* bulk shipping services.²⁸⁰ Given there will be no difference in the volume of coal throughput at DBCT in the future with declaration and the future without declaration, there would not be any difference in the demand for shipping agency services or bulk shipping services in the future with declaration and the future without declaration.²⁸¹ Even if there was a change in demand for shipping services at DBCT, this would not have a material effect on the shipping services markets given the size and broad geographic dimensions of the markets. Further, given the same shipping services will be required with and without declaration, there is no reason for the quality of shipping services to change as a result of the declaration of the DBCT service.²⁸²

4.5 Constraints on using market power to adversely affect competition in dependent markets

- 366 DBCTM's ability and incentive to exercise market power in the future without declaration will also be significantly constrained by the factors set out in this section of the submission.
- 367 In considering the application of criterion (a) in the past, the Tribunal has observed that whether competition will be promoted depends on the extent to which a service provider has the ability, in the absence of declaration, to use market power to adversely affect competition in the dependent market.²⁸³ Although this observation was made when the test under criterion (a) was whether access would promote competition, rather than promote a *material increase* in competition, factors that constrain the ability of an infrastructure provider to use market power must also be assessed in considering whether declaration would promote a material increase in competition.
- 368 The following factors establish that, absent declaration, DBCTM could not exercise market power to hinder competition in any dependent market:²⁸⁴

²⁷⁸ Section 5.6 of HoustonKemp Report on (a)

²⁷⁹ NCC, *Final recommendation - Declaration of the shipping channel service at the Port of Newcastle*, 2 November 2015 at [4.105].

²⁸⁰ NCC, *Final recommendation - Declaration of the shipping channel service at the Port of Newcastle*, 2 November 2015 at [4.65]-[4.66] and [4.105].

²⁸¹ Sections 5.7 and 5.8 of HoustonKemp Report on (a)

²⁸² Sections 5.7 and 5.8 of HoustonKemp Report on (a)

²⁸³ *Virgin Blue Airlines Pty Limited* [2005] ACompT 5 at [156]; *Re Duke Eastern Gas Pipeline Pty Ltd* (2001) 162 FLR 1; [2001] ACompT 2 at [116]. In *Virgin Blue*, the Tribunal also noted that it considers that the focus should be on *ability* to exercise market power, not *incentive* to exercise market power: *Virgin Blue Airlines Pty Limited* [2005] ACompT 5 at [297].

²⁸⁴ NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018, pages 33-34; *Re Duke Eastern Gas Pipeline Pty Ltd* (2001) 162 FLR 1; [2001] ACompT 2 at [116]-[124]; *Virgin Blue Airlines Pty Limited* [2005] ACompT 5 at [164] and [478]-[515].

- 368.1 The DBCT Access Framework;
 - 368.2 Competition faced by DBCTM from alternative coal terminals.
 - 368.3 The countervailing power of participants in the dependent markets.
 - 368.4 The threat of regulation and DBCTM's lease arrangements with the Queensland Government.
 - 368.5 The fact that DBCTM is not vertically integrated and thus has no ability to leverage any market power into a dependent market to advantage a vertically related affiliate or harm competition in a dependent market.
- 369 For the reasons set out below, these constraints further establish that there is no credible basis on which it could be argued that access to the DBCT service as a result of a declaration would promote a material increase in competition in any market.

DBCT Access Framework

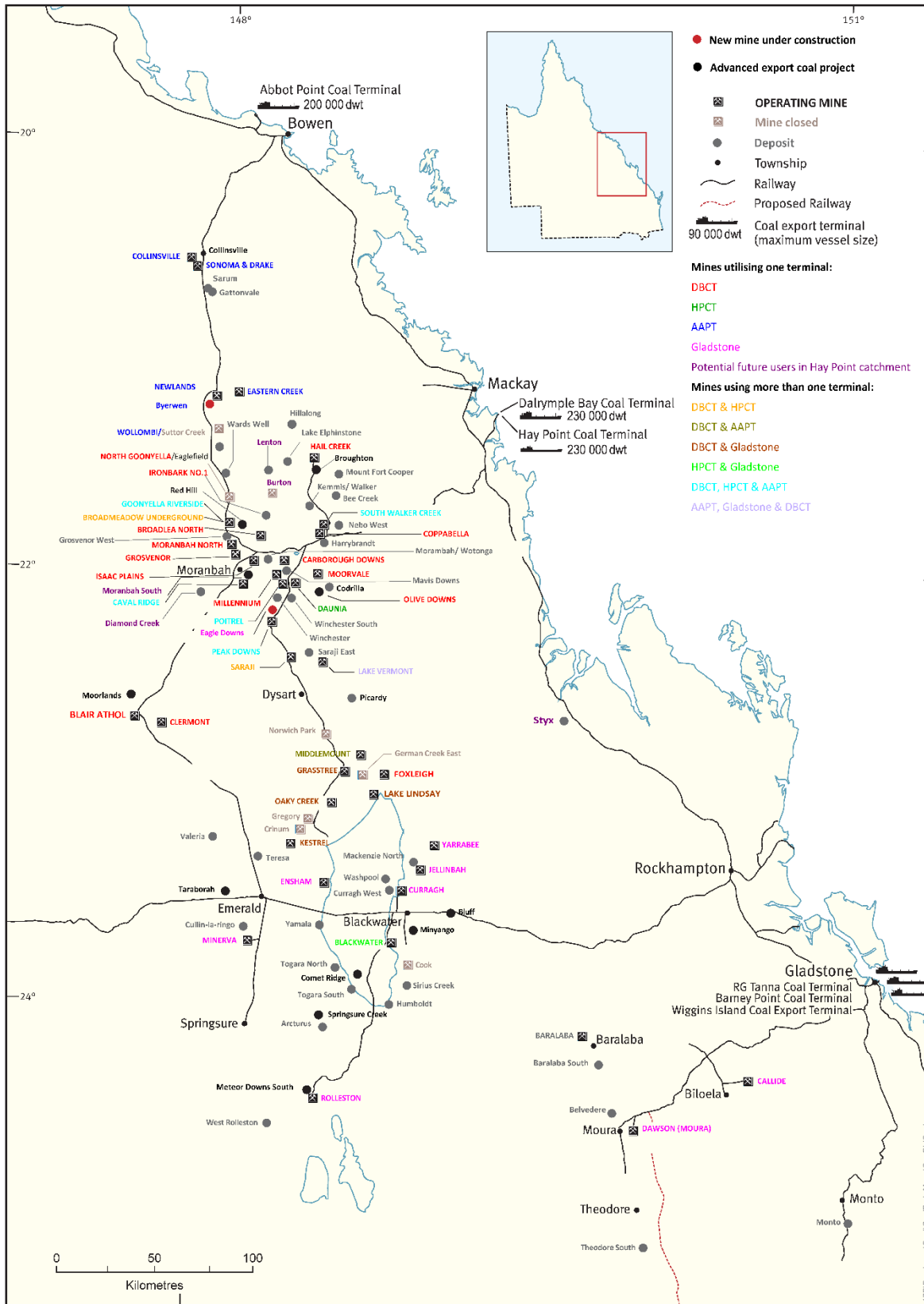
- 370 As outlined above, the Access Framework will ensure that access on reasonable terms would be available in the future without declaration, other than as a result of declaration. The Access Framework includes provisions that circumscribe what DBCTM can and cannot do in providing access to access seekers, including in respect of pricing and operating vertically integrated entities.

Constraints imposed by other terminals

- 371 DBCTM would be constrained by competing coal terminals in Queensland that miners could seek to access. As conclusively demonstrated in the submission on criterion (b) above, other coal terminals (such as HPCT, AAPT and RGTCT) are viable alternative facilities for miners.
- 372 In particular, as detailed in the Market Evidence discussion in the criterion (b) section of this submission, and in the HoustonKemp expert report on criterion (b), market evidence demonstrates that some mines utilising DBCT also utilise coal handling services at AAPT, RGTCT and HPCT, and that mines that typically use RGTCT also sometimes send coal to DBCT. Figure 14 below (and Appendix 16) provides an overview of the mines in Central Queensland that use more than one terminal.

Figure 14: Overview of the mines in Central Queensland that use more than one terminal 285

Queensland coal – Terminals that mines currently use, have used in the past or might use in future



Sources:
 • Queensland coal – mines and advanced projects (July 2017) - www.dnrm.qld.gov.au
 • DBCTM Internal

Notes:
 • Eagle Downs is currently under construction and once operational, is expected to ship through Gladstone (contracted at WICET) and DBCT
 • Blackwater mine assumed to ship through Gladstone (RGCT) and HPCT

285 Refer Appendix 16 for mine maps which demonstrate that the interconnectedness of coal terminals in Queensland provides a choice of coal handling services to miners

- 373 As highlighted in the above map and evidenced in the criterion (b) section of this submission, there are numerous examples of mines utilising alternative coal terminals. For example:
- 373.1 HPCT is utilised by BMA and BMC mines that also utilise DBCT. Those miners treat DBCT and HPCT as substitutes and competitive alternatives. BMA also utilises RGTCT and AAPT, and BMC also uses AAPT. As discussed in the submission on criterion (b) above, BMA and BMC mines show considerable willingness to substitute tonnage between HPCT and other coal terminals.
- 373.2 The GAPE connecting the Goonyella and Newlands rail systems has made it technically and commercially feasible for Goonyella mines to access AAPT. As evidenced in the submission on criterion (b) above, the following mines in the Goonyella system are currently or have previously contracted with AAPT for access:²⁸⁶
- 373.2.1 BMA's Peak Downs, Goonyella and Caval Ridge mines (which also export coal through DBCT) had an access agreement with AAPT for 3Mtpa (expired FY16);
- 373.2.2 BMC's South Walker Creek and Poitrel mines (which also export coal through DBCT) have an access agreement with AAPT for 4Mtpa;
- 373.2.3 Jellinbah's Lake Vermont mine (which has also exported coal through DBCT) has an access agreement with AAPT for 6Mtpa; and
- 373.2.4 Yancoal's Middlemount mine (which also exports coal through DBCT) has an access agreement with AAPT for 3Mtpa.
- 373.2.5 Until 2016, Queensland Coal (a subsidiary of Rio Tinto) had an access agreement with DBCT for 12Mtpa and AAPT for 9.3Mtpa for the Blair Athol (Clermont) mine in the Goonyella system. Glencore and Sumitomo Corp. acquired Rio Tinto 50.1% shareholding in the mine in 2014 and that mine now utilises the DBCT service only.
- 373.3 There is also evidence of mines on the southern end of the Goonyella system contracting for access at the Port of Gladstone's coal terminals and a mine in the Blackwater system located closest to RGTCT that uses both RGTCT and DBCT. This which demonstrates that RGTCT and WICET both impose a competitive constraint on DBCTM.
- 373.4 The Eagle Downs mine, located in the Goonyella system, is also contracted to use WICET upon the mine's commissioning in 2021.
- 374 DBCTM acknowledges that the QCA has previously concluded that there is limited potential *in the present regulatory period* for DBCT to face significant competition from other terminals due to costs of switching (such as differences in port charges, below-rail costs and above-rail haulage costs), infrastructure capacity constraints and the long-term take or pay commitments.²⁸⁷ However, the evidence in this submission demonstrates that switching between terminals is viable, and has occurred in the past. Further, given DBCTM's user agreements provide users with the option as to whether to extend or not and approximately 91% of DBCTM's contracted tonnage is the subject of agreements that are due to expire within less than 3.5 years of the expiry of declaration if not extended, the long-term take or pay commitments are not a significant barrier to switching.
- 375 The constraints imposed by other coal terminals have been recognised by the Australian Competition and Consumer Commission (ACCC). For example, in the ACCC's merger clearance decision regarding Brookfield's proposed acquisition of Abbot Point Coal Terminal in 2011 (which involved horizontal issues, in contrast to vertical issues considered by the ACCC in the previously proposed acquisition of Asciano by a Brookfield consortium in 2015), the ACCC found that Brookfield's ability to increase prices or reduce service levels in the provision of coal loading facilities would be constrained over the long term by the likely future presence

²⁸⁶ North Queensland Bulk Ports, *Port of Abbot Point Operations Manual*, Revised 2016, page 16.

²⁸⁷ QCA, Final Decision - DBCT Management's 2015 draft access undertaking, November 2016.

of competing coal terminals. The ACCC also found that Brookfield would not have an incentive to foreclose terminal access for coal producers in the upstream market and its ability to do so would be constrained over the long term by the likely availability of alternative coal terminals.²⁸⁸ Similarly, in the ACCC's merger clearance decision regarding the proposed acquisition of the Abbot Point Coal Terminal by a company in the Adani Group, the ACCC found that in the long term, following the expiry of the user agreements, the company would not have an incentive to foreclose terminal access for coal producers as it would be constrained by the likely future presence of competing coal terminals.²⁸⁹

Countervailing power of users

- 376 The ability to ship through other terminals provides users (which are well resourced companies) a significant degree of countervailing power. As noted in the QCA's Issues Paper at section 4.2.1, factors relevant to the incentive for a regulated entity to exercise market power may include the market power of other participants in the relevant market, which 'reflects, at least in part, the extent to which other market participants can access substitutable services from alternative service providers'.
- 377 The presence of viable alternative coal facilities (as discussed above and further demonstrated in DBCTM's submissions on criterion (b)) means that users could switch (or threaten to switch) if DBCTM does not offer access on reasonable terms. Users also have the ability to support the expansion of other facilities such as HPCT, AAPT, RGTCT and WICET. These factors are particularly pertinent in light of the fact that, as outlined above, DBCTM faces a significant potential drop-off in contracted capacity from 2019 onwards and the option to extend a contract for capacity is at a user's discretion. Therefore, users could make credible threats to withdraw from negotiations with DBCTM and utilise other coal terminals, and such bargaining power will constrain DBCTM's conduct in the future without declaration.²⁹⁰

Constraints imposed by threat of declaration and regulation

- 378 DBCTM would also be constrained by the threat of declaration and regulation. In particular, the threat of declaration under Part 3 or Part 5 of the QCA Act (or under the CCA when the certified DBCT access regime ends) would constrain DBCTM from using any market power to affect competition in dependent markets.
- 379 The threat of regulation has been accepted to provide some constraint in Tribunal and NCC decisions. For example, in *Duke*, the Tribunal had regard to the threat of regulation as an application for coverage could be made at any time and noted that '[t]he threat of regulation appears to have been effectively used as a means of moderating the behaviour of pipeline owners in New Zealand according to one of the first round public submissions to the NCC'.²⁹¹ Similarly, the NCC in its final recommendation on the revocation of coverage of the Moomba to Adelaide Pipeline System in 2005 referred to *Duke* and found that 'the threat of re-regulation is likely to partially constrain Epic Energy from monopoly pricing...'.²⁹²
- 380 Further, competition law obligations impose a legal constraint on the activities of infrastructure providers such as DBCTM. For example, section 46 of the CCA (as amended in 2017) prohibits a corporation with a substantial degree of power in a market from engaging in conduct that has the purpose, effect or likely effect of substantially lessening competition in that market or any other market in which the corporation supplies or acquires, or is likely to supply or acquire, goods or services.²⁹³ The objective of section 46 is to

²⁸⁸ ACCC, *Brookfield Infrastructure Group - proposed acquisition of Abbot Point Coal Terminal*, 8 March 2011.

²⁸⁹ ACCC, *Adani Enterprises - possible acquisition of interests in the Abbot Point Coal Terminal*, 8 March 2011.

²⁹⁰ Virgin Blue Airlines Pty Limited [2005] ACompT 5 at [484].

²⁹¹ *Re Duke Eastern Gas Pipeline Pty Ltd* (2001) 162 FLR 1; [2001] ACompT 2 at [130].

²⁹² NCC, Final recommendation - *Application for revocation of coverage of the Moomba to Adelaide Pipeline System under the National Gas Access Regime*, 14 December 2005 at [6.122].

²⁹³ The Tribunal in *Services Sydney* noted that section 46 might have some relevant effect, but that there was no real examination of the potential impact of section 46 in that case: *Application by Services Sydney Pty Limited* [2005] ACompT 7 at [142]. While the Tribunal observed that section 46 is a blunt instrument and not comparable in operation to the opportunity for access pursuant to Part IIIA, the *Services Sydney* case was determined before section 46 of the CCA was significantly amended in 2017 to introduce an effects test in place of a purpose test.

prevent firms from engaging in unilateral conduct that harms the competitive process.²⁹⁴ Therefore, if DBCTM had a substantial degree of market power, section 46 would apply to prohibit it from engaging in conduct that substantially lessens competition in a market. Other provisions of the CCA also limit the ability of corporations to enter into anti-competitive arrangements, such as the prohibition on contracts, arrangements or understandings that have the likely effect of substantially lessening competition in a market under section 45.

Constraints imposed by Terminal lease arrangements with the State

381 Another constraint on DBCTM's ability or incentive to exercise market power to adversely affect competition in dependent markets is DBCTM's arrangements with the Queensland Government relating to the lease of the Terminal. While the arrangements are contractual arrangements between the Queensland Government (State) and DBCTM (and DBCTM acknowledges that the QCA has previously expressed the view that the QCA is not bound to treat the terms of DBCTM's arrangements with the State as determinative), DBCTM considers that being a lessee of the Terminal and its relationship with the State operate to constrain its behaviour and mean that DBCTM cannot operate in an unfettered manner. Further, the Access Framework that DBCTM will apply in the future without declaration will ensure that access will continue to be available on reasonable terms in a future without declaration.

DBCTM is not vertically integrated in the dependent markets

382 As noted in the NCC's Guide to Declaration, criterion (a) will more likely be satisfied where the service provider is vertically integrated into the dependent market(s).²⁹⁵ Similarly, in the Tribunal's *Port of Newcastle* decision, the Tribunal noted that 'unless there is vertical integration the position is that competition in upstream and downstream markets is not necessarily affected'.²⁹⁶

383 DBCTM does not have any vertically related entity in dependent markets that it could seek to advantage through the operation of DBCT, and therefore does not have any incentive to hinder third party access or have a related entity that it could seek to advantage through the operation of DBCT. Further, the Access Framework outlined above ensures that DBCTM will not engage in conduct to prevent or hinder access and that appropriate ring-fencing arrangements (equivalent to the arrangements currently in place under DBCTM's current access undertaking) will be in place. As noted earlier in this submission, DBCTM will close the Trading SCB (the supply chain business in the Brookfield Group that engages in the trading of secondary capacity at DBCT) prior to the expiry of declaration to address any potential perceived vertical integration concerns relating to that business.

384 Given the constraints outlined above on DBCTM's ability to exercise market power in a dependent market, declaring the service so as to provide an enforceable mechanism to determine the terms and conditions of access to the service would not promote competition or efficiency.²⁹⁷

4.6 Conclusion on criterion (a)

385 As established in this submission, access (or increased access) to the DBCT service, on reasonable terms and conditions, as a result of a declaration of the service would not promote a material increase in competition in any market. Accordingly, criterion (a) is not satisfied and there is no reasonable basis on which the QCA can recommend that the DBCT service be declared.

²⁹⁴ *Competition And Consumer Amendment (Misuse Of Market Power) Bill 2016 - Explanatory Memorandum* at page 7.

²⁹⁵ NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018, page 30.

²⁹⁶ Application by Glencore Coal Pty Ltd [2016] ACompT 6 at [133].

²⁹⁷ NCC, *Declaration of Services - A guide to declaration under Part IIIA of the CCA*, April 2018, page 33.

5 Criterion (c)

- 386 While DBCTM does not make any submissions on access criterion (c), DBCTM observes that in order to recommend the DBCT service be declared, the QCA must also be satisfied about that criterion. This requires the QCA to be satisfied that the DBCT service is significant, having regard to its size or importance to the Queensland economy.

6 Criterion (d)

6.1 Summary

- 387 The QCA can recommend that the coal handling service at DBCT (**DBCT service**) be declared by the Minister only if access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration would promote the public interest.²⁹⁸
- 388 For the reasons set out in this submission, there is no reasonable basis on which the QCA can be satisfied that declaration of the DBCT service will promote the public interest. Accordingly, criterion (d) in section 76(2)(d) of the QCA Act is not satisfied.

6.2 Interpretation

Introduction

- 389 Criterion (d) requires that:
- ... access (or increased access) to the service, on reasonable terms and conditions as a result of declaration of the service would promote the public interest.²⁹⁹
- 390 Further, the QCA Act requires the QCA to have regard to the following matters when assessing whether criterion (d) is satisfied:³⁰⁰
- (a) if the facility for the service extends outside Queensland—
 - (i) whether access to the service provided outside Queensland by means of the facility is regulated by another jurisdiction; and
 - (ii) the desirability of consistency in regulating access of the service;
 - (b) the effect that declaring the service would have on investment in—
 - (i) facilities; and
 - (ii) markets that depend on access to the service;
 - (c) the administrative and compliance costs that would be incurred by the provider of the service if the service were declared
 - (d) any other matter the authority or Minister considers relevant.
- 391 Recent legislative changes have substantially increased the threshold required for the QCA to be satisfied that declaration of a facility³⁰¹ positively 'promotes' the public interest.
- 392 In interpreting criterion (d), DBCTM has been guided by the object of Part 5 of the QCA Act, which states that the object of the access regime is:³⁰²

²⁹⁸ Sections 76(2)(d) and 87C(2) of QCA Act.

²⁹⁹ Section 76(2)(d) of the QCA Act.

³⁰⁰ Section 76(5)(b)-(d) of the QCA Act

³⁰¹ DBCTM notes that it is the *service* provided by the use of a facility that is declared, rather than the facility itself. However, for readability, DBCTM has referred to declaration as being applicable to the facility.

³⁰² Section 69E of the QCA Act.

... to promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets...³⁰³

393 DBCTM considers that anything inhibiting these objectives should not be regarded as promoting the public interest. Consistent with the objects clause, the public interest is promoted by the realisation of socially efficient outcomes for the Queensland community.

394 The QCA Issues Paper (**the Paper**) notes that:

Staff's preliminary view is that criterion (d) accepts the findings of the application of the other criteria, but it enquires whether, on balance, declaration would promote the public interest.³⁰⁴

395 In order to understand the significant recent amendments to this criterion, it is necessary to compare the former test with the current test in the QCA Act, as summarised in the table below.

396 The recent amendments have made three significant changes to the public interest criterion:

- 396.1 The test is now an affirmative test requiring a positive finding that declaration 'promotes' the public interest
- 396.2 The test relates to declaration, not access
- 396.3 The test contains a different 'having regard to clause', requiring the decision-maker to specifically consider mandatory factors as well as other relevant matters.

Criterion	QCA Act
Former public interest criterion (QCA Act as at June 2017)	<p>s76(2)(e): Access (or increased access) to the service would not be contrary to the public interest.</p> <p>s76(3): In considering the access criterion mentioned in subsection (2)(e), the authority and the Minister must have regard to the following matters— (a) the object of this part; (b) legislation and government policies relating to ecologically sustainable development; (c) social welfare and equity considerations including community service obligations and the availability of goods and services to consumers; (d) legislation and government policies relating to occupational health and safety and industrial relations; (e) economic and regional development issues, including employment and investment growth; (f) the interests of consumers or any class of consumers; (g) the need to promote competition; (h) the efficient allocation of resources; (i) if the facility for the service extends outside Queensland—whether access to the service provided outside Queensland by means of the facility is regulated.</p>
Public interest criterion to be applied	<p>s76(2)(d): Access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest.</p> <p>s76(5): (Relevant extract) In considering whether the criterion is met the relevant decision maker must have regard to the effect that declaring the service would have on investment in facilities; markets that depend on access to the service; and the administrative and compliance costs that would be incurred by the provider of the service if the service were declared; and any other matter the decision-maker considers relevant.</p>

397 Together, these amendments significantly increase the threshold required of the test. This is consistent with both the Queensland and National Parliaments' intention to increase the threshold in accordance with

³⁰³ DBCTM also notes that the previous public interest declaration criterion stated that the 'object' of Part 5 of the QCA act was a specifically a 'relevant factor' under s76(3)(a) of the previous version of the QCA Act.

³⁰⁴ QCA Staff Issues Paper, p. 23.

recommendations made by the Productivity Commission and the Harper review. In recommending the above amendments to criterion (d), the Productivity Commission stated that:

- 397.1 The purpose of criterion (d) "should be to require that the community as a whole is *likely to be better off* as a result of declaration" (emphasis added).³⁰⁵
- 397.2 Criterion (d) "provides the only opportunity for a decision maker to consider the overall consequences of declaration. The purpose of criterion [(d)] should be to require that the community as a whole is better off as a result of declaration".³⁰⁶
- 397.3 Criterion (d) "should be a rigorous test, which only enables declaration of infrastructure services where the decision maker is satisfied that the declaration is likely to generate *overall gains to the community*" (emphasis added).³⁰⁷
- 397.4 Recognising the "costs associated with access regulation, the package of declaration criteria should work together to deny declaration applications that would produce only trivial or ambiguous gains if successful".³⁰⁸

398 In accepting the recommendations of the Productivity Commission and Harper Review to implement the above changes to criterion (d), the Government noted that the previous test for criterion (d) had been set at too low a level.³⁰⁹ The Government also commented as follows:³¹⁰

"Given that access is an imposition on infrastructure service providers, all tests should be framed from the perspective of protecting their property rights unless there are persuasive reasons not to."

- 399 Further, this is consistent with the Queensland Department of Treasury and Trade's views, who have stated that 'the declaration criteria should collectively set a threshold for declaration that is stringent enough so that it minimises the potential for regulatory overreach'.³¹¹
- 400 Given the amendments to the public interest criterion noted above, DBCTM makes the following observations on each significant change below.

Affirmative requirement

- 401 Criterion (d) is now a criterion about which the QCA must be positively satisfied. That is, in order to recommend that a service be declared by the Minister under section 87A of the QCA Act, the QCA must be affirmatively satisfied that access (or increased access), as a result of declaration, would promote the public interest.³¹²
- 402 Conversely, the QCA must recommend that a service not be declared if it is not affirmatively satisfied that access (or increased access), as a result of declaration, would promote the public interest.³¹³

³⁰⁵ Productivity Commission, *National Access Regime*, Report No. 66 (25 October 2013), page 176.

³⁰⁶ Productivity Commission, *National Access Regime*, Report No. 66 (25 October 2013), page 176. Also see *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2; 271 ALR 256 (**Re Fortescue**) at [1161].

³⁰⁷ Productivity Commission, *National Access Regime*, Report No. 66 (25 October 2013), page 181.

³⁰⁸ Productivity Commission, *National Access Regime*, Report No. 66 (25 October 2013), page 175.

³⁰⁹ Department of the Treasury, Australian Government Response on the National Access Regime, March 2015, page 6.

³¹⁰ Department of the Treasury, Australian Government Response on the National Access Regime, March 2015, page 6.

³¹¹ Queensland Department of Treasury and Trade, Submission to Productivity Commission inquiry into the National Access Regime, March 2013, page 7.

³¹² Sections 87A(1), 87C(2) and 76(2)(d) of the QCA Act.

³¹³ Sections 87C(2) and 76(2)(d) of the QCA Act.

- 403 This fundamentally changes the nature of the test by reversing the onus of proof. Accordingly, if there is any ambiguity as to the meaningful and substantial *net* public benefits resulting from declaration, DBCT fails criterion (d).

Declaration, not access

- 404 The previous framing of the criterion did not allow for an assessment of whether *declaration* affected the public interest. As discussed in the criterion (a) submission, courts have historically interpreted and applied a distinction in terminology between 'access' and 'declaration'.³¹⁴
- 405 Thus, to apply criterion (d) correctly, caution is required to ensure that claimed benefits are attributable to *declaration*, and are not merely theoretical benefits of *access or increased access per se*. This is a critical point, as DBCTM already provides access on reasonable terms and conditions and, even if its declaration is not renewed, will continue to provide access on reasonable terms and conditions under the binding and enforceable Access Framework for the negotiation and provision of access, as discussed extensively in the criterion (a) section of the submission.³¹⁵ Put another way, the claimed benefits *from declaration* must be independent of, and in addition to, the benefits that would be promoted without declaration by access provided under the binding Access Framework.
- 406 This 'with/without' prospective test focusing on the benefits attributable to *declaration*, is commonly applied in competition law analysis and is analogous to the test required under criterion (a). Critically, the assessment of the future 'without' declaration must take into account both existing access arrangements and any future access arrangements to correctly apply the test.³¹⁶

The mandatory public interest considerations

- 407 The test requires the decision-maker to have specific regard to *investment effects*; and *compliance costs* when considering the effect of declaration.³¹⁷ The Queensland Department of Treasury and Trade (QTT) considered that mandatory factors were required to ensure that the 'economic benefits and costs of access' were adequately considered under criterion (d).³¹⁸
- 408 As DBCTM explains further below, declaration would have significant detrimental effects on both of these specific factors.

Standalone criterion

- 409 In addition to the significant amendments to the criterion set out above, it is important to consider the aspects of criterion (d) that, though unchanged, still affect the application of the test.
- 410 Principally, criterion (d) remains as a separate, standalone criterion, which may not be satisfied even if criteria (a), (b) and (c) have been met. Satisfaction of those three criteria does not necessarily imply that (d) will also be satisfied.³¹⁹ The QCA must be specifically satisfied of this criterion (as well as each of the other three access criteria) in order to recommend declaration of the DBCT service.³²⁰

³¹⁴ See *Virgin Blue Airlines Pty Limited* [2005] ACompT 5; 195 FLR 242 at [148]-[153]; c.f. *Sydney Airport Corporation Limited v Australian Competition Tribunal* [2006] FCAFC 146; 155 FCR 124 at [81].

³¹⁵ Refer to criterion (a) submission section and associated Appendices for a detailed explanation of the binding Access Framework.

³¹⁶ As discussed, albeit in the criterion (a) context, in the assessment of the existing access arrangements in the QCA Staff Issues Paper, page 17-18.

³¹⁷ Section 76(5) of the QCA Act.

³¹⁸ Queensland Department of Treasury and Trade, Submission to the Productivity Commission Inquiry into National Access Regime, March 2013, page 7.

³¹⁹ Explanatory Memorandum to the Competition and Consumer Amendment (Competition Policy Reform) Bill 2017 at [12.39].

³²⁰ Section 87C(2) of the QCA Act.

411 This view is supported in the QCA Issues Paper:

Staff's preliminary view is that criterion (d) accepts the findings of the application of the other criteria, but it enquires whether, on balance, declaration would promote the public interest.³²¹

Increased threshold

412 In amending criterion (d), the Queensland (and national) parliament chose to include the word 'promote', which differentiates it from other public interest tests used in the QCA Act (and CCA). For example, other provisions of the QCA Act require the QCA to 'have regard to' the public interest or to determine if an action is 'in the public interest'.³²² These tests have a lower threshold, requiring just that the action is consistent with the public interest, rather than requiring the decision-maker to be positively satisfied that an action promotes the public interest. Under the amended version of criterion (d) it is not sufficient for the QCA to find that declaration is consistent with, or not contrary to, the public interest.

413 The QCA must be satisfied not only that increased access on reasonable terms and conditions as a result of declaration would promote the public interest, but also that it will do so in a way that is not merely trivial or ambiguous. Put another way, it is necessary for the QCA to find that significant net public benefits will result from declaration.

414 In aggregate, these amendments to criterion (d) increase the threshold required for a decision-maker to conclude that declaration of DBCT promotes the public interest.³²³

Conclusion on application of the new test

415 As outlined above, DBCTM submits that recent legislative amendments have substantially increased the threshold required for a service to be declared.

416 The test requires an affirmative finding that declaration will 'promote' the public interest, having specific regard to mandatory factors, and other relevant matters.

417 Having examined the significant amendments to criterion (d), DBCTM submits that declaration of the DBCT coal handling service does not positively promote the public interest.

³²¹ QCA Staff Issues Paper, p. 23; see also Explanatory Memorandum to the Competition and Consumer Amendment (Competition Policy Reform) Bill 2017 at [12.40]. The Explanatory Notes to the Queensland Competition Authority Amendment Bill 2018 specifically notes the relevance of the explanatory materials to the national legislative amendments, stating at page 2:

"While Queensland's access regime is separate from the National Access Regime, the amendments to the access criteria in the Bill are intended to reflect the revised criteria being introduced at national level."

Also see Queensland Competition Authority, Declaration reviews: applying the access criteria, Staff Issues Paper (April 2018), page 23 (QCA Staff Issues Paper); In the matter of Fortescue Metals Group Limited [2010] ACompT 2; 271 ALR 256 (Re Fortescue) at [1162]; Virgin Blue Airlines Pty Limited [2005] ACompT 5; 195 FLR 242 (Re Virgin Blue) at [587]-[588].

³²² For example, see the QCA Act, sections 109(2)(b), 120(1)(d), 138(2)(d) and the CCA s44X(1)(b), s44ZW(2)(a), s44ZZA(3)(b), s44ZZAA(3)(b), s152BDN, s152BCW, s152BEBD, or s152BEBG, which require the relevant competition authority to have regard to the 'public interest, including the public interest of having competition in markets' when dealing with access determinations, agreements or codes. Also see the QCA Act sections 163(4)(a), 187(3)(a), 207(5) and 239(1)(b)(ii) and the CCA sections 51ADA, 95ZC and 95ZN, which require the relevant competition authority to determine if updating a register, publishing separate accounting records or withholding information subject to a confidentiality claim disclosure of which would not be in the public interest.

³²³ Section 76(2)(d) of the QCA Act.

6.3 Application

- 418 The application of the public interest criterion to the DBCT coal handling service is structured according to the following positions:
- 418.1 Declaration does not promote significant economic benefits
 - 418.2 Declaration will result in significant public detriments
 - 418.3 Declaration reduces the incentive to invest in DBCT
 - 418.4 There are significant administrative and compliance costs associated with declaration
 - 418.5 Other relevant matters

6.4 Declaration does not promote significant economic benefits

- 419 Declaration of DBCT is not likely to promote any significant economic benefits. If a decision-maker decides that criteria (a) and (b) are satisfied, any benefits from the promotion of competition in dependent markets must be sufficiently large to be able to outweigh the costs of regulation. Criterion (d) requires the QCA and the Minister to weigh these benefits (and any other public interest benefits that have been identified) against any detriments of declaration that do not promote the public interest.
- 420 The NCC acknowledged concerns that criterion (a) may be satisfied where the market in which competition will be materially promoted is of limited size and importance, but considered that there is minimal risk that a service would be declared where the only promotion of competition is in a trivial market. The NCC noted that, in such a situation, criterion (d) 'is unlikely to be satisfied because the competitive benefits of access are likely to be outweighed by the costs of regulation'.³²⁴ Further, the NCC has previously recognised that the costs of regulation may outweigh the benefits, including criterion (a) and criterion (b) benefits, of declaration in previous matters.³²⁵
- 421 As noted in the criterion (a) submission, the effect of declaration on competition in dependent markets is limited by significant constraints on DBCT which preserve the nature and degree of competition in dependent markets without declaration. Further, regarding any alleged satisfaction of criterion (b), it is far from clear that declaration in the past has prevented 'socially inefficient' duplication of natural monopoly infrastructure,³²⁶ thus the perceived benefits from satisfying criterion (b) are at best uncertain.
- 422 It follows that if these economic benefits from declaration are limited, then the imposition of heavy-handed access regulation unduly increases regulatory burden, and such a weighing exercise is central to the assessment of whether declaration promotes the public interest.
- 423 The commercial factors that diminish the benefits of declaration will be briefly explored to demonstrate that any economic benefits from declaration are marginal at best.

Any economic benefit from declaration is limited

- 424 The commercial environment faced by DBCTM significantly constrains any ability or incentive for it to exert market power, thereby diminishing any perceived economic benefit pursued by declaration. Broadly, the

³²⁴ NCC, Submission to Productivity Commission inquiry, 8 February 2013, page 21.

³²⁵ NCC, Coverage, revocation and classification of pipelines: A guide to the function and powers of the National Competition Council under the National Gas Law Part B - Coverage, revocation of coverage and classification of pipelines, [5.158]; NCC, No coverage determination for the proposed QLNG Pipeline: Application for a 15 year no coverage determination for the proposed QLNG Pipeline, (2010), [6.94]-[6.97]; NCC, APLNG no-coverage application: Application for a 15-year no-coverage determination for the proposed APLNG Pipeline, (2012), [9.8]-[9.13]; NCC, Herbert River cane railway, (2010), page 69 at [10.50].

³²⁶ This is very difficult to ascertain. However DBCTM notes that substantial expansions have occurred, and are thus empirically 'economically feasible', due to expansions in adjacent and nearby coal terminals servicing CQCN miners.

following factors are critical in assessing whether declaration is necessary and establish that the public interest is more likely to be promoted without declaration in the future, under the binding Access Framework. These factors include:

- 424.1 the effectively competitive nature of the seaborne coal market;
- 424.2 the mutual dependence between participants in coal value chains which create strong incentives to reach agreement;
- 424.3 the fact that changes in access pricing reflect transfers of economic rents between participants in the coal chain and are neutral in public interest terms;
- 424.4 the fact that the vast majority of capacity is contracted;
- 424.5 competitive constraints imposed by other terminals;
- 424.6 competitive constraints imposed by the countervailing power of terminal users;
- 424.7 constraints imposed by DBCT's Access Framework;
- 424.8 constraints imposed by the threat of regulation/declaration; and
- 424.9 constraints imposed by Terminal lease arrangements with the State.

The seaborne coal market is effectively competitive

425 To an extent, participants in the CQC supply chain are price takers in a highly competitive world market. Significantly, the price is set on a global supply/demand balance, meaning that the demand curve is effectively flat for Queensland suppliers.³²⁷ The markets for the export of coking coal and thermal coal to the Asia-Pacific region involve an internationally-traded commodity with prices set by reference to international spot prices, and a significant number of participants.³²⁸ As has been found in previous declaration matters, the coal export markets are effectively competitive.³²⁹ This implies that the entry or exit of Queensland suppliers has no effect upon the amount of coal that existing mines can export globally, or for the prices that they receive for their exports.³³⁰

426 In economic terms, the demand curve for seaborne coal is relatively elastic, and this constrains any market power any entity may have in the CQC supply chain irrespective of declaration. The powerful constraint from supplying highly competitive world commodity markets was addressed by the Tribunal in the Port of Newcastle case:³³¹

'There is a practical constraint on PNO of ensuring that coal producers continue to supply into a highly competitive market. That is, if price rises imposed by PNO made some coal producers uncompetitive globally, and led to some operations ceasing in the Hunter Valley, this could reduce volumes and revenues for PNO...PNO would have an incentive to maximise the flow of coal through the Port so as to capture as much of the benefits from this coal export market as possible.'

427 In assessing the overall merits of declaration as required by criterion (d), the fact that DBCTM is not vertically integrated with other participants in the seaborne coal supply chain is critical as this limits the

³²⁷ BHP, 'Regulation for the future of Australia's Natural Resources Sector', White Paper, April 2008, page 13.

³²⁸ HoustonKemp Report on (a), Section 5

³²⁹ NCC, Declaration of the shipping channel service at the Port of Newcastle – Final recommendation, 2 November 2015 at [4.105]; Application by Glencore Coal Pty Ltd [2016] ACompT 6 at [153]. Similarly, in the matter of Fortescue Metals Group Limited [2010] ACompT 2 at [1083] the Tribunal accepted that the seaborne iron ore market was effectively competitive based on its findings that any attempt to give less or charge more by a major supplier would be constrained by the other major suppliers or by a combination of the smaller firms (demand side substitution), and that action may lead to marginal mines coming online or additional ore being produced by existing mines (supply side substitution)..

³³⁰ DBCTM elaborates on this point further in its discussion of criterion (a) above; See also *Application by Glencore Coal Pty Ltd* [2016] ACompT 6 description of the seaborne coal market as 'highly competitive' at [155].

³³¹ Application by Glencore Coal Pty Ltd [2016] ACompT 6 at [155].

number of markets in which it could exercise market power. The vertically separated entity has a strong commercial motivation to ensure that its coal handling service supports the ongoing coal export market and its expansion.³³² As the Tribunal put it, this 'practical constraint', is important in finding that the overall economic benefits of *declaration* are limited

Mutual dependence creates strong incentives to reach agreement

- 428 The mutual dependence between coal terminal operators and miners ensures that DBCTM and CQCN miners have powerful commercial incentives to reach an efficient commercial outcome without declaration. This dependence is entrenched, as CQCN miners cannot export unless they can secure access to an export terminal, and there are no alternative uses for DBCT other than to provide coal handling services to Bowen-Basin coal miners. Both the terminal and the mines have sunk large amounts of capital into their existing facilities. Even if DBCT were the only export terminal available to mines on the CQCN, it would nonetheless have powerful commercial incentives to reach commercial agreements with the miners to provide access on terms and conditions that preserve the incentive for each party to remain in business. Agreements that preserves economic incentives in this way are economically efficient.
- 429 Accordingly, declaration is unlikely to promote additional or significant benefits that would not otherwise be promoted due to DBCTM's strong incentives to maximise utilisation of its facility.

Countervailing power of users

- 430 The DBCT customer group is made up of large, commercially sophisticated multinational corporations that exert significant countervailing power. This bargaining power ensures that reasonable terms and conditions would be arrived at in an unregulated environment, let alone an environment in which future negotiations are governed by the binding and privately administered Access Framework, discussed extensively in this submission under criterion (a) and the associated Appendices.
- 431 In fact, DBCT is not the only export terminal available to mines on the CQCN. It is one of five coal terminals servicing CQCN miners. As outlined in the criterion (b) section of this submission, the ability to ship through other terminals strengthens users' countervailing power. As noted in the QCA's Issues Paper, factors relevant to the incentive for a regulated entity to exercise market power may include the market power of other participants in the relevant market, which 'reflects, at least in part, the extent to which other market participants can access substitutable services from alternative service providers'.³³³ Most of DBCTM's customers can, and in fact have, used alternative terminals. This augments their bargaining power, ensuring that reasonable terms and conditions of access would be arrived at commercially without the need for declaration.

DBCTM is constrained by nearby terminals

- 432 DBCT is one of five coal terminals servicing the CQCN. Any extent to which there is inter-terminal competition materially constrains any ability or incentive to use market power, thereby diminishing any claimed economic efficiency benefit that may result from declaration. Further, the extent to which expansions have been undertaken at DBCT and nearby terminals is relevant to assessing any perceived benefits from the avoidance of the inefficient duplication of infrastructure.
- 433 As outlined in the criterion (b) section of this submission, there is empirical market evidence that some mines utilising DBCT also utilise coal handling services at AAPT and HPCT. Similarly, mines that typically use RGTCT sometimes send coal to DBCT. There is also evidence of mines on the southern end of Goonyella system line contracting for access at the Port of Gladstone's coal terminals, which demonstrates that RGTCT and WICET provide coal handling services in the same market as the DBCT service. For example:

³³² Application by Glencore Coal Pty Ltd [2016] ACompT 6 at [155].

³³³ QCA Issues Paper, page 19.

- 433.1 Jellinbah's Lake Vermont mine (which has also exported coal through DBCT) has an agreement for 4Mtpa at RGTCT;³³⁴
- 433.2 Glencore's Oaky Creek mine (which exports coal through DBCT) also exports (or has exported) through Gladstone;³³⁵
- 433.3 Anglo American has a contract with RGTCT to send coal from its German Creek mine (also known as Capcoal), in addition to its contract to send coal to DBCT from the same mine;³³⁶
- 433.4 the now-shut Gregory and Norwich Park mines previously exported coal through RGTCT; and
- 433.5 some BMA mines also export coal through RGTCT (in addition to DBCT, HPCT and AAPT).³³⁷
- 434 Demonstrating that there is also substitution the other way, Rio Tinto's Kestrel mine in the Blackwater system, which is located closest to RGTCT and ships through that terminal³³⁸, is currently using DBCT for some of its throughput requirements.
- 435 Notwithstanding any conclusions resulting from the technical market definition analysis required under criterion (b), the empirical market evidence of a degree of inter-terminal competition is highly relevant for the 'overall assessment of the effect of declaration' required under criterion (d). Accordingly, it is pertinent that DBCTM is likely to be constrained by other unregulated coal terminals, which further diminishes any perceived economic 'benefit' derived from declaration to be weighed against the significant detriments associated with declaration.

Changes in access pricing do not affect the public interest

- 436 The Bowen-Basin mines that utilise DBCT are low-cost producers compared with global competitors. This implies that there are substantial economic rents to be earned from the mines continuing to supply coal to the market. In this context, a mine's unit 'rent' refers to the margin between the FOB (free on-board) price of coal; and the sum of the mines' extraction costs and the costs of providing rail and port infrastructure services. Whilst not explicitly addressing the distributional point, the QCA has previously noted that in circumstances where substantial economic rents are available in a commodity export value chain, volume acquired from infrastructure service providers will not be sensitive to changes in price, implying that the allocative efficiency effects of changes in access prices are likely to be 'minimal'.³³⁹
- 437 The setting of access charges for essential infrastructure largely concerns the distribution of economic rents between participants in the value chain. This distribution does not affect total economic welfare (defined as the sum of consumer and producer surplus). Hence, mere changes in the access price as a result of a commercially negotiated outcome are neutral from a public interest perspective.
- 438 In previous considerations on the overall economic impact of declaration, the NCC has emphasised mere '*pricing disputes*' are not the proper subject of access regulation, and reflect mere 'transfers' in the supply chain which do not represent a net public benefit.

³³⁴ Aurizon website, [QR National expands tonnages with Jellinbah](#) 6 July 2012; [Jellinbah Group website](#), Lake Vermont, notes that 'Lake Vermont is able to rail to Gladstone Port and Dalrymple Bay and Abbott Point Coal Terminals',.

³³⁵ Glencore's Oaky Creek

³³⁶ See for example, [Mitsui Coal Holdings' projects](#), *Capcoal project*, accessed 18 May 2018, notes that the Capcoal project is a joint venture between Anglo American and Mitsui Coal Holdings

³³⁷ BHP Annual Report 2017, page 237; RMI, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, page 34.

³³⁸ Rio Tinto's Kestrel mine

³³⁹ QCA, Discussion Paper - Capacity Expansion and Access Pricing for Rail and Ports, April 2013 at page 9.

438.1 For example, in addressing this issue in the recent Port of Newcastle declaration application, the NCC stated that access regulation is not concerned with the arbitration of pricing disputes; in particular:³⁴⁰

'"Excessive", "monopolistic" or "gouging" pricing per se is not the focus of Part IIIA. Where such pricing in one market merely transfers income or value from one party in a supply chain to another without materially impacting competition.'

438.2 Further, in the Herbert River cane railway recommendation the NCC considered that transfers of income from participants in the supply chain do not affect economic welfare or the public interest. The NCC provided as follows:³⁴¹

'The principal effect of an increase in competition in the relevant dependent markets, being higher cane prices flowing to growers, appears, at least in the short to medium term, to be largely derived from a transfer of income from millers to growers rather than significantly increased output. Such transfers do not represent a net benefit to the public.'

439 DBCTM submits that any change in access pricing, negotiated in the commercial environment it faces, merely reflects potential transfers of economic rent between infrastructure service providers to upstream miners, and such transfers do not increase or decrease economic welfare, rather they result in a different *distribution* of consumer and producer surplus.

440 This is significant in the assessment of criterion (d), as economic transfers dividing up an amount of economic rents between infrastructure service providers and users do not impact upon economic welfare and are thus neutral or ambiguous from a public interest perspective. Put another way, it is far from clear that an increase in consumer surplus (rents flowing to mining companies from a decrease in access prices), is necessarily more efficient or socially desirable when compared to an increase in producer surplus (rents flowing to DBCTM) if a commercially negotiated outcome resulted in a change to the access price.

The binding Access Framework

441 DBCTM will provide access on reasonable terms and conditions in accordance with the binding Access Framework in the future without declaration. The future Access Framework includes caps on access prices that prevent DBCTM from attempting to impose prices that would undermine the commercial viability of its customers. This Access Framework is far more robust and constrains DBCTM far more comprehensively than prevailing access processes administered by the other unregulated coal terminals servicing the CQCN.

The majority of capacity is already contracted

442 Approximately 94% of the current capacity at DBCT is contracted, and the existing user agreements set out the terms of access and can be extended at the option of the user. These agreements will continue should the users exercise the option to extend them irrespective of whether declaration occurs. Thus, a declaration of the coal handling service at DBCT would affect access arrangements for only a very small proportion of the remaining uncontracted capacity at DBCT, diminishing the economic benefits resulting from declaration.

³⁴⁰ NCC, Declaration of the shipping channel service at the Port of Newcastle: Final Recommendation, November 2015, page 13 and 14 at [3.15].

³⁴¹ NCC, 'Application for declaration of a service under section 44F of the Trade Practices Act 1974 (Cth): Herbert River cane railway', July 2010, page 63 at [10.23].

Competitive constraints imposed by the threat of regulation or declaration

- 443 DBCTM would be constrained by the threat of regulation and declaration. In particular, the threat of declaration under Part 3 or Part 5 of the QCA Act would constrain DBCTM from using any market power to adversely affect competition in dependent markets.
- 444 Further, as discussed in the criterion (a) section of this submission, DBCTM will be constrained by the requirement to comply with Australian competition laws. In particular, DBCTM will need to comply with the recently amended 'misuse of market power' prohibition irrespective of declaration.³⁴²

Competitive constraints imposed by Terminal lease arrangement with the State

- 445 DBCTM is constrained by contractual obligations owed under the lease arrangements with the Queensland Government. The Queensland Government can and does use this contractual relationship to impose various obligations on DBCTM and to constrain DBCTM's behaviour, including to protect the interests of the Queensland public. The Queensland government has the ability and incentive to continue to use its position in this contractual relationship in this manner, with or without declaration.

Conclusion

- 446 Even if a decision maker decides that the service at DBCT satisfies criteria (a) and (b), declaration will not promote economic efficiency benefits that are sufficiently large to outweigh the significant detriments associated with declaration (explored below). Any economic benefits from *declaration* are diminished by the fact that DBCTM faces significant constraints which apply irrespective of declaration.
- 447 These constraints establish that non-declaration and a movement away from prescriptive access regulation to a privately administered access regime prioritising commercial negotiations may better serve the public interest, and demonstrate that declaration does not promote 'public benefits' sufficiently large to outweigh the costs of declaration (explored below).

6.5 Declaration results in significant public detriments

- 448 To accurately assess if declaration promotes significant net public benefits, the QCA is required to consider what detriments or 'social costs'³⁴³ are associated with declaration of the DBCT service and whether these detriments or costs, weighed against the benefits, lead to the conclusion that declaration promotes the public interest.³⁴⁴ DBCTM submits that declaration results in the following detriments:
- 448.1 Regulating one of five terminals may reflect inconsistent regulation; and
- 448.2 Declaration unduly increases regulatory burden.

Regulating one of five terminals may reflect inconsistent regulation

- 449 There is a clear public interest in consistent decision making, and clear public detriment in having inconsistent decision making where there is no justifiable basis for this inconsistency.³⁴⁵ Such inconsistent

³⁴² Section 46 of the CCA prohibits a firm with a substantial degree of power in a market from engaging in conduct that has the purpose, or has or is likely to have the effect, of substantially lessening competition in that market: or any other market in which it acquires or supplies goods or services.

³⁴³ *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal* [2012] HCA 36, at [111] noted that "many if not all of those matters which can be described as "social costs" could be relevant to the assessment".

³⁴⁴ *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal* [2012] HCA 36, [187].

³⁴⁵ *Re Drake and Minister for Immigration and Ethnic Affairs (No 2)* (1979) 2 ALD 634, 639; *Nevistic v Minister for Immigration and Ethnic Affairs (No 2)* (1981) 51 FLR 325, 334 (Deane J).

decision making breaches the principles of equality and predictability, which are fundamental to the rule of law and the concept of justice.³⁴⁶

- 450 DBCT is one of five terminals physically accessible by a number of mines on the Goonyella system. DBCTM considers that it could not be shown that declaring just one of these five terminals promotes the public interest or reflects a consistent application of the Part 5 declaration criteria.
- 451 As lessee of the only port currently subject to regulation, the commercial reality for DBCTM is that this regulation places it on an inferior competitive footing to other ports, and will continue to do so if the DBCT service is declared again following the QCA's assessment. DBCTM's competitors have considerably more flexibility in how they set prices and manage the terms and conditions of access. Having flexibility to respond to its competitive environment is essential for DBCTM's ability to maintain a competitive position in that dynamic environment and to maximise the competitiveness of its supply chain.
- 452 There is clear public detriment in the inconsistent application of the declaration criteria to significant infrastructure facilities in Queensland. In particular, there is significant public detriment if there is inconsistent access regulation being applied to coal terminals servicing the CQCN. Accordingly it is critical that policy with regard to declaration applications recognises the fact that DBCTM is one of five coal terminals servicing CQCN miners.
- 453 In relation to consistency in the application of the declaration criteria, DBCTM believes that any process that concluded that DBCT satisfied criteria (a) and (b) would also conclude that other terminals would meet these criteria. DBCTM notes that:
- 453.1 AAPT faces less inter-terminal competitive pressure than DBCT, because the Newlands and Galilee-basin mines (assuming they use the proposed North Galilee Basin Rail) are unable to access terminals further south. Further, AAPT is vertically integrated with commercial operations with the North Galilee Basin Rail and Adani's proposed Carmichael mine. This indicates that there may be a stronger economic efficiency rationale to declare the vertically integrated terminal which, unlike DBCT, has a commercial incentive to hinder access and favour affiliated entities in dependent markets.
- 453.2 Third party access to DBCT will be provided in the absence of declaration of DBCT including access by BMA, BMC and other miners. It would be perverse to declare DBCT in circumstances where it is an open-access facility (and will remain open-access in the absence of declaration) when there is an immediately adjacent facility that is not presently open-access and is not subject to access regulation under the QCA Act. HPCT is part of BHP's vertically integrated coal production value chain, where BHP affiliated mines utilise BHP affiliated above-rail operations to exclusively access HPCT. This indicates that HPCT can and does foreclose access in dependent markets, and reaps the operational efficiency benefits of optimising its supply chain. A vertically integrated coal terminal has strong incentives to foreclose, hinder or frustrate access in order to favour upstream operations, and establishes that declaring DBCT, a non-vertically integrated, competitively constrained terminal, is wholly inconsistent with the regulatory treatment of HPCT.
- 453.3 The two Gladstone terminals (RGCT and WICET) are less exposed to competition than is DBCT because Moura-system mines and proposed Surat-Basin-Railway mines³⁴⁷ (e.g. Wandoan mine) cannot access terminals further north, whereas some of the mines that use DBCT can access the Gladstone terminals. Conversely, the two Gladstone terminals could compete closely with each other for access from Blackwater-system mines and some Goonyella mines. The Goonyella rail system is also connected to the Blackwater rail system, which links southern Bowen Basin mines to RGCT and WICET at the port of Gladstone.

³⁴⁶ *Nestic v Minister for Immigration and Ethnic Affairs (No 2)* (1981) 51 FLR 325, 334 (Deane J).

³⁴⁷ Queensland Government Department of State Development, Manufacturing, Infrastructure and Planning, [Surat Basin Rail Project - Project overview](#), Last updated December 2017

- 454 Hence, arguments that would establish that DBCT satisfies criteria (a) and (b) would also establish a prima facie case that at least some of the other four terminals also satisfy the criteria. This implies that the QCA must carefully consider the consistency of declaring DBCT, when other vertically integrated terminals are not subject to access regulation.
- 455 For at least some of the other terminals, the case for declaration is stronger than the case for declaring DBCT. DBCTM notes that despite this governments have deemed it unnecessary to declare AAPT (including when it was privatised) or WICET (which was built after the declaration of DBCT). Moreover, when Brookfield considered purchasing AAPT, it received merger clearance from the ACCC.³⁴⁸ Hence, several government decisions have indicated that with the existence of a number of potentially competing terminals, the declaration of individual terminals is unnecessary.

Declaration would unduly increase regulatory burden

- 456 As outlined above, declaration of the DBCT service would not promote the public interest. Accordingly, declaring the DBCT service would result in more regulation than is necessary. Excessive and superfluous regulation is a clear public detriment³⁴⁹ which should be considered by the QCA when assessing criterion (d).
- 457 In contrast, the move from regulation under the QCA Act to a commercially negotiated access regime, as would occur in the future without declaration, would be of clear benefit to the public in its own right as there are strong commercial incentives which indicate that commercial negotiations will result in economically efficient and socially desirable outcomes. These incentives would be reinforced by DBCTM's proposed binding Access Framework.

6.6 Investment effects

- 458 Section 76(5)(b)(i) of the QCA Act specifically requires that the QCA have regard to the effect that declaring the service would have on investment in the facility.³⁵⁰
- 459 The specific and compulsory direction to consider the effects of declaration on investment in the facility demonstrates the centrality of this matter to whether declaration promotes the public interest.³⁵¹ This centrality is affirmed in the object of Part 5 of the QCA Act which seeks to 'promote the economically efficient use of, and investment in, significant infrastructure'.³⁵²
- 460 The QCA Staff Issues Paper proposes that in assessing whether declaration of the facility would promote the public interest, regard should be given to how declaration may impact on the incentive to invest for the regulated facility, and in dependent markets, 'including facilities in upstream or downstream markets'.³⁵³ Further, the NCC states that access regulation may lead to efficiency losses relevant for the assessment of criterion (d) due to regulatory action distorting price signals and incentives to undertake long-term, irreversible investments. This includes the following losses:³⁵⁴
- 460.1 allocative efficiency losses in the short term through price signal distortions;

³⁴⁸ ACCC, Mergers Register, 'Brookfield infrastructure group - proposed acquisition of Abbot Point Coal Terminal', March 2011, accessed [online here](#).

³⁴⁹ Department of the Treasury, *The Socio-Economic Consequences of the National Competition Policy*, November 1998, page 53.

³⁵⁰ Section 76(5)(b)(i) of the QCA Act.

³⁵¹ National Competition Council, *Declaration of Services: A guide to Part IIIA of the CCA* (April 2018) at [6.10].

³⁵² Section 69E of the QCA Act.

³⁵³ Queensland Competition Authority, *Staff Issues Paper*, page 23.

³⁵⁴ NCC, *Declaration of Services - A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, April 2018 at [6.21].

460.2 dynamic efficiency losses in the long term by dampening incentives for innovation; and

460.3 productive efficiency losses in the long term through the deterrence of investment.

461 The Productivity Commission considered that investment effects, including the 'possibility of deterred, delayed or otherwise insufficient investment in infrastructure services' are a key consideration that will be important to all declaration decisions.³⁵⁵ The importance of incentives to invest in significant infrastructure was emphasised in the Hilmer report, providing that:

...any assessments of the public interest would need to place special emphasis on the need to ensure access rights did not undermine the viability of long-term investment decisions, and hence risk deterring future investment in important infrastructure projects.³⁵⁶

462 The National Competition Council has stated that 'the prospect of declaration creates some additional risk for investors' and that such 'regulatory risk' is attendant with the establishment of access regimes.³⁵⁷ Similarly, the Harper Panel considered that there are 'high costs' associated with declaration materially increasing regulatory risk by introducing the prospect of regulatory error if access prices are inefficiently low,³⁵⁸ and the Productivity Commission has stated that the 'possibility of regulatory error is quite high' because 'decisions on access are complex and technical' and require significant judgment.³⁵⁹

463 In addressing this issue in the Airport context, the Productivity Commission stated that access regulation introduces:³⁶⁰

...the ever-present risk of regulatory failure, given the severe information problems confronting any regulator. Setting price caps inevitably entails detailed regulatory assessment of, and involvement in, airport operations and investment decisions. It should therefore be used only where the potential efficiency costs of abuse of market power are significant. Even then there is a risk that regulation will cause its own distortions to production and investment decisions.

Investment in DBCT

464 Coal port terminal expansions are substantial irreversible investments with lead times of 3-5 years.³⁶¹ Declaration reduces investment incentives for DBCT because the regulated rate of return is below the market requirement.³⁶² If regulated returns offered to the infrastructure investor are too low, investment in new infrastructure is discouraged, delayed, deferred or otherwise insufficient.³⁶³

465 This issue is particularly acute for export oriented bulk commodity industries. Since capacity expansions are sought only during periods of high global demand, the upside to the investor is diminished, while the downside implies that it is very risky for the infrastructure investor to hold latent capacity. Further, as access contracts extend for terms shorter than the life of the sunk investment, access seekers benefit from a 'free' option not to renew access at the expense of the infrastructure investor. This option value asymmetrically allocates risk to the infrastructure investor, and is not considered for regulated rate of return calculations

³⁵⁵ Productivity Commission, *National Access Regime*, Report No. 66 (25 October 2013), page 179-181.

³⁵⁶ *National Competition Policy Review Report* (Hilmer Report) (25 August 1993), page 251.

³⁵⁷ NCC, *Declaration of Services - A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, April 2018 at [6.11].

³⁵⁸ Harper et al. *Competition Policy Review* (Final Report), page 439.

³⁵⁹ Productivity Commission, *National Access Regime*, Report No. 66 (25 October 2013), page 28

³⁶⁰ Productivity Commission, *Productivity Commission Inquiry Report, Price Regulation of Airport Services*, No.19, 23 January 2002, p.355.

³⁶¹ BHP, 'Regulation for the future of Australia's Natural Resources Sector', White Paper, April 2008, page 12.

³⁶² Instead, regulated returns are based on the building block approach based on Net Present Value and the weighted average cost of capital (WACC).

³⁶³ BHP, 'Regulation for the future of Australia's Natural Resources Sector', White Paper, April 2008

for sunk capital. As a result, the 'market-based' returns required to attract investment capital are considerably higher than the regulated return.

- 466 Access regulation as a result of declaration introduces the risk of price distortions which may result in delayed investments or insufficient investment in expansions. If such expansions were to be socially optimal but for declaration, this reduces economic welfare, as underinvestment in significant infrastructure imposes efficiency losses which are greater than the efficiency loss imposed by inefficiently high prices and over-investment in infrastructure.³⁶⁴ Further, any delay or insufficiency in the level of investment in export infrastructure imposes costs on Queensland, due to the perishable and contestable opportunity to gain global market share and capture the benefits of Queensland's resource endowment.³⁶⁵
- 467 The asymmetric welfare losses associated with regulatory error³⁶⁶ has been recognised by the Federal Court of Australia in *Telstra Corporation Limited v Australian Competition and Consumer Commission* (2009), stating that social welfare losses associated with underestimating the WACC greatly exceed the social welfare loss associated with overestimating the WACC.³⁶⁷
- 468 The 'asymmetry' of regulatory error accords with every-day experience. Inefficiently low regulated prices reduce investment in infrastructure which leads to delayed investment in expansions, insufficient capacity, and bottlenecks, which impose large opportunity costs on upstream miners due to foregone revenue attributed to supply chain bottlenecks.³⁶⁸ Whereas inefficiently high regulated prices, whilst imposing efficiency losses upon access seekers and over-recovery of costs from access holders, do not result in the same magnitude of social welfare losses. DBCTM submits that this asymmetry is relevant when applying the social welfare standard required for the economic assessment of the benefits and costs of declaration under criterion (d).
- 469 The investment-dampening effect of regulation is particularly acute for DBCT because:
- 469.1 Regulation of DBCTM in the absence of regulation for the other terminals distorts the inter-terminal pattern of investment;
 - 469.2 The QCA has previously set the WACC below the required market return to attract investment;
 - 469.3 QCA access regulation has previously contributed to costly delays in expansions;
 - 469.4 The absence of a merits review mechanism increases regulatory risk.

Declaration distorts the inter-terminal pattern of investment

- 470 Regulating just one of five existing, accessible terminals distorts the inter-terminal pattern of investment. DBCT is materially disadvantaged compared with nearby terminals in attracting investment capital. Regulation is likely to dampen the incentive for the regulated terminal to invest in capacity expansions relative to the incentives facing unregulated terminals because it restricts access-pricing negotiation options.
- 471 Efficient investment in infrastructure requires that when an expansion of system capacity is required, the terminal at which the social cost of expansion of capacity is lowest should be the one that provides the necessary expansion in system capacity. This may not occur if the terminal with the lowest expansion costs is regulated when other terminals are not. This would be inconsistent with the object of Part 5 of the QCA Act.

³⁶⁴ Productivity Commission, *Productivity Commission Inquiry Report, Price Regulation of Airport Services*, No.19, 23 January 2002, p. 355.

³⁶⁵ BHP, 'Regulation for the future of Australia's Natural Resources Sector', White Paper, April 2008, page 25.

³⁶⁶ Melbourne Airport, Submission to the Productivity Commission Price Regulation of Airport Services Inquiry Report (2002), page 49.

³⁶⁷ *Telstra Corporation Limited v Australian Competition and Consumer Commission* [2009] FCA 757; 179 FCR 437 at [202]-[204].

³⁶⁸ Melbourne Airport, *Submission to the Productivity Commission Review of Price Regulation of Airport Services*, March 2001, page 49; See also BHP, 'Regulation for the future of Australia's Natural Resources Sector', White Paper, April 2008

- 472 The capacity-expansion process is more protracted for a regulated terminal than for unregulated terminals. Expansion processes for DBCT under the current access undertaking would take eight years to complete,³⁶⁹ when it may take five years or less, were DBCT not subject to economic regulation and able to negotiate the terms of its expansion. This too has the effect of distorting the inter-terminal pattern of investments, as the number and extent of regulatory hurdles for expansion approvals could deter an investor from investing in regulated terminals relative to non-regulated terminals.
- 473 Delays in the expansion process generally mean that users lose export sales during the period in which they are waiting for increased terminal access. Even if this means that they export more in the long term than they otherwise would have, the delay in profits from export sales constitutes an opportunity cost to users.³⁷⁰ Modelling by BHP from 2008 estimates that delayed expansions have cost CQCN miners in excess of \$1.0bn in opportunity cost from foregone revenue.³⁷¹
- 474 Empirically, DBCTM has been far less able to quickly and efficiently invest in expansions compared with the more dynamic, flexible and responsive expansions undertaken by the unregulated terminals.

Empirical evidence of delayed investment in DBCT since declaration

- 475 DBCTM submits that declaration of DBCT has historically undermined incentives to invest in the facility. This includes empirical evidence of deterred, delayed or otherwise insufficient investment in DBCT since it was declared in 2001, and this is particularly acute when compared with significant investment in nearby unregulated terminals.
- 476 DBCTM has been slow to commission expansions demanded by miners since 2002.
- 476.1 **The 56 to 60Mtpa expansion:** This was partly caused by uncertainty surrounding development approval processes which determines how much revenue DBCTM are permitted to earn from expansions. DBCTM only committed to the expansion after this process was complete, amounting to a significant and costly delay.
- 476.2 **The 60 to 68Mtpa expansion:** DBCTM refers to a comparison between the expansion of DBCT and HPCT³⁷², which identified regulatory delays as causing more than \$1.5bn in associated costs (taking into account demurrage and the opportunity cost of lost sales).
- 476.3 **The 68 to 85Mtpa expansion:** This expansion was 7X Phases 2 and 3. The execution of these phases was delayed by the commencement of 7X Phase 1 (60 to 68Mtpa) which included the approvals and design phases for Phases 2 and 3.
- 476.4 **The 85 to 102Mtpa expansions:** Regulation imposes additional processes which will significantly delay future expansions, as demonstrated in Appendix 15.

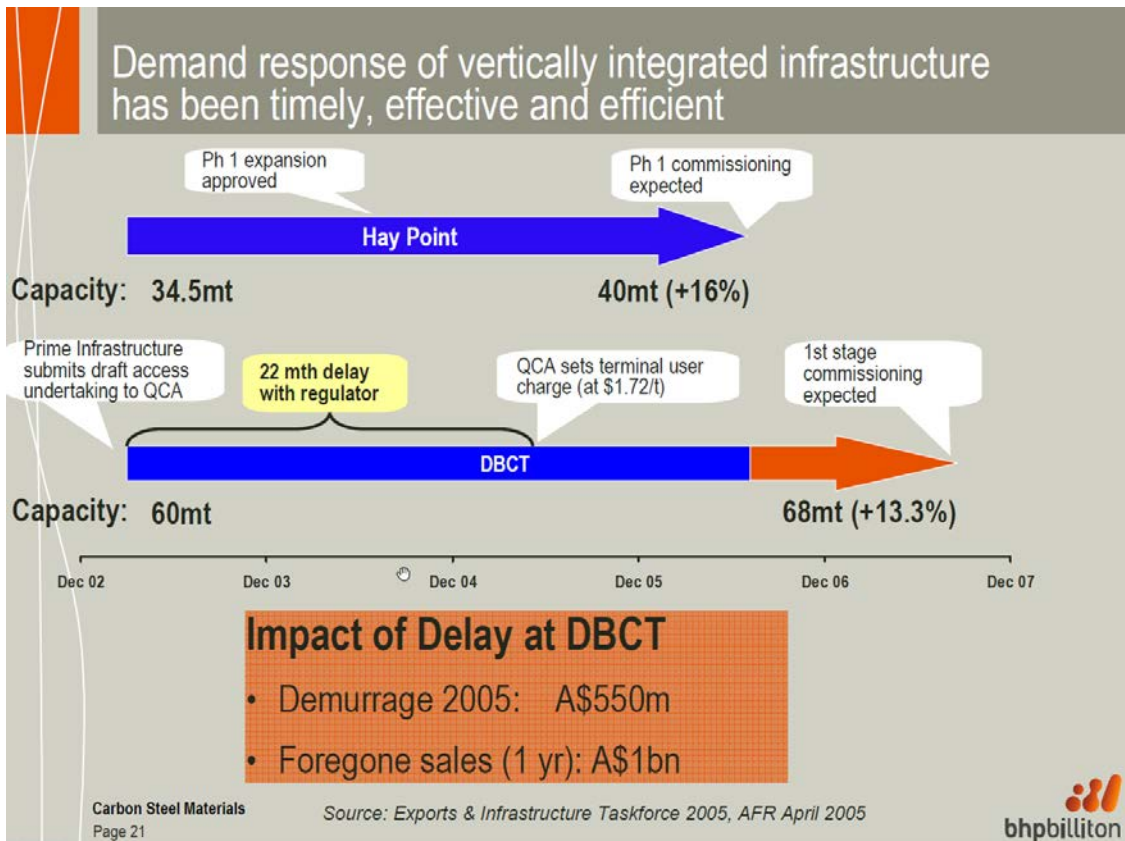
³⁶⁹ Refer Appendix 15 which illustrates DBCTM's regulated expansion processes (pre-construction)

³⁷⁰ Xstrata submission May 2005 on *Inquiry into integration of regional rail and road networks and their interface with ports* "...In the case of DBCT, the direct impact of constrained capacity on Xstrata's business, based on its latest 2005 forecast, is the loss of planned coking coal sales from Oaky Creek of some 700,000 tonnes, worth A\$110 million at current prices."

³⁷¹ BHP, *'Regulation for the future of Australia's Natural Resources Sector'*, White Paper, April 2008, page 19.

³⁷² BHP, "Market Production Outlook: The Battle for Growth", UBS Conference June 2005

Figure 15: BHP — impact of delay at DBCT



477 Xstrata noted in 2007³⁷³ that “severe congestion at the Dalrymple Bay Coal Terminal also had a negative effect on profitability for the Coal Business as it led to a significant increase in demurrage charges for using this port from US\$1.47 per tonne in 2004 to US\$3.54 per tonne in 2005, prompting Oaky Creek to ship larger quantities of coal through Gladstone at a higher transportation charge.”

478 Rod Sims, the current Chairman of the ACCC, has previously commented specifically on the deterrence of investment incentives for DBCT caused by QCA access regulation. In this he agreed with the RBA and the Commonwealth Treasurer that QCA access regulation is contributing to underinvestment at DBCT.³⁷⁴ Further, the report comments that:

the QCA allowed a post-tax nominal rate of return of 8.2% which makes very little allowance for any risk that the business might be exposed to (such as the demand for its services falling away). Further, if the company’s true weighed average cost of capital (WACC) is indeed 8.2% then it has no incentive to invest as there is no value creation in the form of a return above its WACC. Even the Queensland Premier and Treasurer have felt forced to write to the QCA stating that they believe the allowed asset beta was too low. They stated that “The [Queensland] Government is ... concerned the ... approach to estimating the asset beta may be susceptible to statistical error.” They went on to outline a minimum asset beta, the effect of which would raise the WACC from 8.2% to around 9.0%.

479 Finalisation of the DBCT regulatory arrangements took 22 months and significantly delayed capacity expansion as investment payoffs were uncertain prior to the determination of allowable charges. While there are likely to be a range of factors influencing these delays, the expansion of approximately 25Mtpa

³⁷³ Xstrata Finance Offering Memorandum, November 13, 2007

³⁷⁴ Rod Sims, Port Jackson Partners Limited, Reforming and Restoring Australia's Infrastructure: Report prepared for the Business Council of Australia, Economic and Social Outlook Conference, March 2005, page 45-46.

at DBCT took five years from planning to implementation (in contrast, at the unregulated Gladstone Port, a 28Mtpa expansion only took 2-3 years).³⁷⁵

Regulatory risk and the absence of merits review

- 480 The risk of regulated returns remaining lower than the required market return is pronounced given the Queensland regime denies both DBCTM and access seekers merits review to challenge WACC determinations. This departs from Part IIIA of the CCA, which provides for merits review of declaration decisions and decisions affecting terms and conditions of access.
- 481 The absence of merits review denies access holders and seekers the opportunity to seek redress for decisions made on the basis of incorrect facts; restricts the availability of review to matters of law; and adversely affects regulatory incentives as errors are likely to be left unaddressed. DBCTM considers it uncontroversial that the absence of merits review increases regulatory risk and dampens incentives to invest.

Declaration does not necessarily promote certainty

- 482 Declaration does not increase certainty for coal producers, as they would continue to face significant uncertainty due to operating in a global, highly volatile and competitive commodity market that is impacted by changing economic circumstances, market interventions by governments in destination countries (often to support domestic industry and further emission reduction initiatives), fluctuations in the coal price, currency movements, changing freight costs and changing mine operating costs.³⁷⁶
- 483 Further, for investors seeking less volatile regulated returns, infrastructure owners could negotiate commercial access arrangements that result in low-volatility returns to attract such investment.

Conclusion on investment effects

- 484 DBCTM submits that access regulation has reduced incentives to invest in DBCT in the past, and will continue to dampen incentives to invest in the future as well as impose significant delays due to mandated regulatory processes, should investment in expansions occur. This significant detrimental impact associated with declaration is required to be taken into account when considering if declaration 'promotes' the public interest.³⁷⁷

³⁷⁵ BHP, *'Regulation for the future of Australia's Natural Resources Sector'*, White Paper, April 2008, page 20.

³⁷⁶ Port of Newcastle Operations, Submission in response to Glencore's application to the National Competition Council, June 2015, page 2.

³⁷⁷ Section 76(2)(d) and 76(5)(c) of the QCA Act

6.7 Compliance costs

DBCTM's significant administrative and compliance costs

- 485 Section 76(5)(c) of the QCA Act requires that, in assessing whether to recommend declaration of a service, the QCA must have regard to the administrative and compliance costs that would be incurred by the provider of the service if the service were declared. These administrative and compliance costs include the costs of negotiating access, meeting the conditions of declaration and arbitrating access disputes.³⁷⁸
- 486 The specific and compulsory direction to consider the administrative and compliance costs that would be incurred by DBCTM if the DBCT service is declared demonstrates the centrality of this matter to whether declaration of the service will be in the public interest.
- 487 The administrative and compliance costs associated with economic regulation for both DBCTM and its customers could be avoided. The costs of complying with regulatory obligations is provided in the table below, for the period of 2015 to 2022 (including forecast costs). This illustrative 8-year period of regulation is demonstrated to impose administrative and compliance costs in the order of \$46.7m in real terms.

Figure 16: Costs of compliance with regulatory obligations

Item	Description ³⁷⁹	2015	2016	2017	2018	2019	2020	2021	2022
A	QCA fees - reset	0.45	1.01	1.30			1.00	1.00	
B	QCA fees - usual business	0.40	0.40	0.40	0.50	0.50	0.50	0.50	0.50
C	QCA fees - declaration review			0.25	0.50	1.00	0.50		
D	DBCTM costs - reset	1.00	1.00	0.50		0.50	1.00	1.00	1.00
E	DBCTM costs - usual business	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40
F	DBCTM costs – declaration review			2.50	2.50	1.00	1.00		
G	DBCTM costs - NECAP program	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Total		4.65	5.21	7.85	6.40	5.90	6.90	5.40	4.40

488 Table notes:

- 488.1 Figures do not include lost revenue or costs incurred due to alignment with non-commercial regulatory reset deadlines
- 488.2 QCA fees are a pass-through to users, except for the declaration assessment costs which DBCTM understands is borne by the QCA
- 488.3 Cost to Users for submissions are not included
- 488.4 DBCTM costs include staff labour & related costs, consultants etc
- 488.5 Site office and staff are required to deliver capex in accordance with PSA & AU
- 488.6 Excludes regulatory-imposed expansion related costs which are much higher than normal commercial requirements:
- 488.6.1 mandated FEL2 & FEL3 programs (+\$5m to \$10m)
- 488.6.2 on-project independent auditors (+\$2m)

³⁷⁸ NCC, *Declaration of Services: A guide to Part IIIA of the CCA* (April 2018) at [6.13]; Productivity Commission, *National Access Regime*, Report No. 66 (25 October 2013), pages 236 and 238.

³⁷⁹ Figures are provided in real terms, in AUD millions

- 488.6.3 multiple submissions per expansion phase (before, during and after expansion) (+\$3m)
- 488.6.4 TCMP development (+\$1.5m)
- 488.6.5 QCA probity consultants (+\$1m)

489 As illustrated above, DBCTM has historically incurred, and would continue to incur, significant administrative and compliance costs as a result of regulation. The estimated administrative and compliance costs DBCTM will incur over the likely period of declaration (assumed to be ten years) will be approximately \$58m, based on the figures provided above. DBCTM notes that in the future without declaration, the majority of these costs are avoidable.

No material difference in compliance costs for access seekers

490 DBCTM notes that the QCA issues paper sets out a preliminary view that in considering compliance and administrative costs that would be incurred by the regulated service provider regard '*could be had to the extent to which, if any, there are countervailing benefits to access seekers, including in terms of reduced compliance and administration costs associated with seeking access to a declared facility*' as a result of declaration.³⁸⁰ To this, DBCTM submits that:

- 490.1 this could only be considered as a 'relevant factor' under s76(5)(d), as s76(5)(c) explicitly refers to compliance costs incurred by the service provider of the regulated service, i.e. DBCTM's compliance costs;
- 490.2 if considered as a 'relevant factor', DBCTM notes that this factor is not specified in the former list of relevant factors in s76(3), in the previous QCA declaration criteria;
- 490.3 DBCTM is not aware of this factor being considered in previous matters, as compliance costs in this context usually refer to the direct regulatory costs of declaration borne by the infrastructure service provider;
- 490.4 the quantum is inherently speculative, involving conjecture about what an access seeker is 'likely to spend' on access negotiations in the future without declaration;
- 490.5 any claimed compliance cost 'countervailing benefit' from declaration needs to be netted off against the current compliance costs borne by access seekers in seeking access under the current access undertaking;

491 For the above reasons, DBCTM contends that if considered relevant, such 'countervailing' compliance benefits must be required to withstand scrutiny. Any assessment of benefits to access seekers, in terms of compliance and administrative costs in seeking access to DBCT, should be considered with regard to DBCTM's proposed binding Access Framework.

6.8 Other relevant matters

492 The QCA is afforded significant discretion to consider 'other relevant matters' under section 76(5)(d). DBCTM wishes to make a few brief points in this regard.

493 If the QCA is satisfied that declaration results in some public benefits due to the satisfaction of criteria (a) and (b), contrary to DBCTM's submissions, the QCA will need to assess to what parties any claimed benefits of declaration flow, and whether they relevantly constitute public benefits.

³⁸⁰ QCA Staff Issues Paper, page 23.

- 494 In particular, any benefits found to result from declaration, including regulated pricing resulting in a loss of DBCTM producer surplus and an increase in access seeker's consumer surplus, whilst likely to reflect a 'mere' transfer, are also likely to flow to *users* of the facility only.
- 495 It is unclear as to how the benefit of potentially lower pricing under regulation, reflecting a redistribution of rents from the infrastructure provider to miners, would 'promote the public interest.' Further, it is unclear whether the Queensland consumer surplus is affected, given that the vast majority of relevant market consumption occurs globally.
- 496 In navigating these uncertainties, the QCA is to have regard to the approach taken by Australian courts and the Australian Competition Tribunal when applying the net public benefit test in the context of authorisation decisions made under the CCA. The judiciary has stated that it is benefits to the Australian public, not the overseas public, to which the decision-maker should have regard.³⁸¹ In particular, in *Qantas Airways Limited* [2004], the Tribunal considered the principles to be applied when a company seeking authorisation has a share register with a significant foreign element, including whether benefits accruing to the company's substantial foreign shareholding should be understood as "benefits to the public" for the purposes of the CCA. Endorsing *Re Howard Smith Industries Pty Ltd*,³⁸² the Tribunal emphasised that:
- "in applying the net public benefit test, it is benefits to the Australian public, not to the overseas public, to which the Tribunal should have regard..."³⁸³
- 497 Accordingly, DBCTM submits that any benefits from declaration must relevantly accrue to Queensland consumers or producers to contribute to Queensland economic welfare, and private benefits that accrue to foreign owned entities are to be appropriately discounted in the assessment of whether declaration 'promotes' the public interest.

6.9 Conclusion on criterion (d)

- 498 DBCTM has identified a number of relevant considerations which demonstrate that the declaration of DBCT will not promote the public interest. These include:
- 498.1 Even if criterion (a) and (b) are satisfied, which DBCTM disagrees with, the economic benefits resulting from declaration are limited by the significant competitive and commercial constraints faced by DBCTM, including:
- 498.1.1 the effectively competitive nature of the seaborne coal market;
 - 498.1.2 the mutual dependence between participants in coal value chains which create strong incentives to reach agreement;
 - 498.1.3 the fact that changes in access pricing reflect transfers of economic rents between participants in the coal value chain and are neutral in public interest terms;
 - 498.1.4 the fact that the majority of capacity is contracted;
 - 498.1.5 competitive constraints imposed by other terminals;
 - 498.1.6 competitive constraints imposed by the countervailing power of terminal users;
 - 498.1.7 constraints imposed by DBCT's Access Framework;
 - 498.1.8 constraints imposed by the threat of regulation/declaration; and
 - 498.1.9 constraints imposed by Terminal lease arrangements with the State.

³⁸¹ *Qantas Airways Limited* [2004] ACompT 9 [196]; *Telecom Corporation of New Zealand Ltd v Commerce Commission* (1991) 4 TCLR 473; *Godfrey Hirst NZ Limited v Commerce Commission* [2016] NZCA 560 [7].

³⁸² *Re Howard Smith Industries Pty Ltd* (1977) 28 FLR 385..

³⁸³ *Re Qantas Airways Limited* [2004] ACompT 9 [196].

- 498.2 Declaration results in significant public detriments because:
 - 498.2.1 Regulating one of five terminals may reflect inconsistent regulation; and
 - 498.2.2 Declaration unduly increases regulatory burden.
 - 498.3 Declaration undermines incentives to invest in DBCT because:
 - 498.3.1 Regulated returns are below market-required returns to incentivise investment;
 - 498.3.2 Regulation of DBCTM distorts the inter-terminal pattern of investment;
 - 498.3.3 Regulation has empirically lead to costly delays in expansions; and
 - 498.3.4 The QCA Act access regime has no merits review mechanism to challenge unfavourable regulated returns, exacerbating the regulatory risk of investing in DBCT.
 - 498.4 There are significant administrative and compliance costs associated with declaration.
 - 498.5 Other relevant matters as noted above.
- 499 In conclusion, with due regard to the substantial compliance costs of declaration, the adverse effects on incentives to invest in DBCT associated with declaration, the fact that declaration is unlikely to promote significant economic benefits due to the many constraints faced by DBCTM irrespective of declaration, and the need to promote consistency in regulatory decision-making, it is apparent that on balance, declaration would not promote the public interest. DBCTM submits that the public interest is best served by a decision not to declare DBCT.
- 500 Accordingly, criterion (d) is not satisfied and there is no reasonable basis on which the QCA can recommend that the DBCT service be declared.

Appendix 1 DBCT Access Framework

Dalrymple Bay Coal Terminal Access Framework

[9 September 2020]

DBCT Management Pty Ltd

Level 15
Waterfront Place
1 Eagle Street
Brisbane QLD 4000
Tel: 07 3002 3100

[Note: The DBCT Access Framework and Standard Access Agreement (SAA) provided with DBCTM's submission dated 30 May 2018 should be read in conjunction with Appendix 7 of DBCTM's submission, which sets out the pricing framework that will apply under the DBCT Access Framework and SAA. Drafting to give effect to the pricing framework is being developed. Placeholders are included in this version of the Framework for the drafting to give effect to the pricing framework. Further consequential changes may also be required as a result of the changes to give effect to the pricing framework.]

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1 Introduction

1.1 Purpose of this document

(The Terminal) The Terminal is a common user coal port. The Terminal includes in-loading, stockpiling, reclaiming, out-loading, and associated facilities for the handling of coal. The Terminal is located at the Port of Hay Point, south of Mackay in Queensland.

(Agreements with the State) On 14 September 2001 the DBCT Trustee as trustee of the DBCT Trust, and DBCT Management entered into a number of agreements with DBCT Holdings and PCQ (both wholly owned by the State) under which DBCT Trustee and DBCT Management were granted a 50 year lease (with an option for a further 49 years) of the Terminal.

(Operator) An Operator is contracted to operate the Terminal on behalf of DBCT Management pursuant to an operations and maintenance contract. The Operator of the Terminal has historically been user-owned and independent of the lessee.

(Establishment of Framework) On the Expiry Date, the declaration of coal handling services at the Terminal under the *Queensland Competition Authority Act 1997* (Qld) expired. This Framework has been developed in response and provides a balanced approach to the provision of Access and a framework (based on a negotiate/arbitrate model) to manage negotiations in an efficient and transparent manner for Access Seekers seeking Access to the Services at the Terminal.

1.2 Scope of Framework

This Framework provides for:

- (a) the negotiation and provision of Access to the Services at the Terminal; and
- (b) measures to mitigate potential adverse effects on competition which could arise out of the ownership of a related Supply Chain Business.

1.3 Object of this Framework

- (a) The objective of the Framework is to promote the economically efficient operation of, use of and investment in, the Terminal, with the effect of promoting effective competition in upstream and downstream markets.
- (b) This Framework has been prepared in accordance with, and gives effect to, the Framework Objective.

1.4 Duration of Framework

This Framework will apply on and from the Commencement Date. It will apply until the Terminating Date.

1.5 Access Agreements and effect on Existing User Agreements

This Framework applies to the negotiation of new Access Agreements or the negotiation of additional Access rights in addition to those already the subject of an Access Agreement or Existing User Agreement. Nothing in this Framework requires a party to an Existing User Agreement to vary a term or provision of that Existing User Agreement.

1.6 Implementation of Differentiation in Existing User Agreements

[Drafting Note: Amendments to this clause 1.6 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

Following a Price Ruling that a Terminal Capacity Expansion will be a Differentiated Expansion Component, DBCT Management will:

- (a) calculate Access Charges under each Access Agreement in accordance with the provisions of this Framework; and
- (b) in good faith, take all reasonable steps to negotiate any necessary amendments to any Access Agreement executed prior to Pricing Ruling, including Existing User Agreements, to ensure that they are consistent with the Access Charges being calculated in accordance with the provisions of this Framework in relation to the application of Differentiation to a Terminal Capacity Expansion and the allocation of costs relating to it. For clarity, DBCT Management must use best endeavours to ensure that such amendments are equitable and non-discriminatory as between the relevant executed Access Agreements.

2 Definitions and Interpretation

2.1 Definitions

Unless the subject or context is inconsistent, each of the capitalised terms used in the Framework has the meaning assigned to it in Schedule G.

2.2 Interpretation

The rules set out in Schedule G apply to and govern the interpretation of this Framework.

3 Role of DBCT Management and the Operator

3.1 Role of DBCT Management

- (a) The owner of the Terminal is DBCT Holdings.
- (b) DBCT Trustee and DBCT Management, under the Leases, are the lessee and sublessee of the Terminal. Under the terms of the Leases and the Port Services Agreement, DBCT Management is solely responsible for providing Access to Access Holders and Access Seekers during the Lease Term .
- (c) DBCT Management will comply with and give effect to this Framework and any applicable laws relating to the provision of Access.
- (d) DBCT Management will ensure that employees, subcontractors and agents of subcontractors comply with the requirements of this Framework, except as otherwise provided for under an Access Agreement.
- (e) Where the performance of an obligation under this Framework requires a Related Body Corporate of DBCT Management to take or refrain from taking some action, DBCT Management must procure that the Related Body Corporate takes or refrains from taking that action.
- (f) DBCT Management must procure that any Related Body Corporate provides all necessary assistance and information so that it is in a position to comply with this Framework.

3.2 Role of the Operator

During the term of the Framework, DBCT Management acknowledges and agrees that:

- (a) the Operator is and will remain Dalrymple Bay Coal Terminal Pty Limited ACN 010 268 167 (**DBCT PL**) and that DBCT PL is majority owned or wholly owned by Access Holders;

- (b) each Access Holder has a right under the constitution of DBCT PL to become a shareholder of DBCT PL;
- (c) if an Access Holder is not a shareholder of DBCT PL but wishes to become a shareholder of DBCT PL then that Access Holder may, in accordance with the constitution of DBCT PL, apply to become a shareholder of DBCT PL by making an application to DBCT PL at the following address:

Dalrymple Bay Coal Terminal Pty Limited
M.S. F283
Mackay, Queensland, 4740
Attention: Chief Executive and General Manager;

- (d) the Operator carries out its obligations under the Operation & Maintenance Contract and Terminal Regulations independently of DBCT Management.

3.3 Operation and Maintenance Contract

During the term of the Framework, DBCT Management undertakes to:

- (a) maintain the Operation & Maintenance Contract; and
- (b) ensure that the terms of the Operation and Maintenance Contract, if amended at any time, remain substantially consistent with the terms set out in Schedule H.

4 Services to be provided

DBCT Management must provide the Services at the Terminal in accordance with this Framework and each Access Agreement, including in compliance with the Terminal Regulations (and, without limitation, in accordance with the level of service set out in Schedule E of this Framework).

5 Negotiation arrangements

5.1 Framework for negotiation

(Outline) This Section 5 of this Framework outlines the process which will be followed to enable Access Seekers to obtain Access. It deals with:

- (a) an Access Application by an Access Seeker and a Renewal Application by an Access Applicant;
- (b) provision of an Indicative Access Proposal by DBCT Management;
- (c) negotiations to develop an Access Agreement;
- (d) principles for the entering into of Access Agreements where it is conditional upon a Terminal Capacity Expansion; and
- (e) various other provisions relating to when and the basis on which Access Agreements may be entered into pursuant to Access Applications.

(Progressing Access Applications) DBCT Management will take all reasonable steps to progress each Access Application and any negotiations to develop an Access Agreement with an Access Seeker in a timely manner and will complete each relevant step as soon as is practicable.

5.2 Application for Access and information to be provided

(Form of Access Application) Any application for Access must be in the form specified in Schedule A and include:

- (a) a warranty in the form specified in; and
- (b) such other information that may be required by,

Schedule A. An Access Seeker must, when submitting an Access Application, unconditionally and irrevocably agree to comply with the requirements, obligations and processes in:

- (1) this Framework relating to it or its Access Application; and
- (2) the Deed Poll, including the conditions set out in clauses 8.4, 9, 10 and 11 of the Deed Poll,

and if the Access Seeker does not do so then DBCT Management may refuse to accept the Access Application.

(Forecasts in Access Application) DBCT Management acknowledges that, at the time an Access Application is made, some information provided in the Access Application may be a forecast only. The Access Seeker must, however, use its best endeavours to ensure that any such information contained in an Access Application is as accurate as possible.

(Information sought by Access Seeker prior to Access Application) Prior to submitting an Access Application, an Access Seeker may request from DBCT Management: ***[Drafting Note: Amendments to this clause will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]***

- (c) reasonably available preliminary information relating to the Access Application (including copies of the then current Standard Access Agreement and Terminal Regulations) – which DBCT Management must provide within 10 Business Days of DBCT Management receiving the request;
- (d) where there is a Reference Tariff in respect of the Existing Terminal or any Differentiated Expansion Component, the information set out in sections 101(2)(d) to (h) of the QCA Act - which DBCT Management must provide within 10 Business Days of DBCT Management receiving the request. For clarification, if one or more Expansion Components exist, DBCT Management is to provide this information in respect of the Existing Terminal and each Differentiated Expansion Component;
- (e) where there is no relevant Reference Tariff, the information set out in sections 101(2)(a) to (h) of the QCA Act - which DBCT Management must provide within 10 Business Days of DBCT Management receiving the request; and
- (f) initial meetings to discuss the proposed Access Application and the requirements of the Access Application Form set out in Schedule A – which DBCT Management must facilitate within a reasonable time after being requested to do so.

(Revisions to Access Application)

- (g) At any time after an Access Seeker submits an Access Application to DBCT Management but prior to the commencement of the negotiation period referred to in Section 5.7 in respect of the Access Application, an Access Seeker may notify DBCT Management that it wishes to revise certain information specified in its Access Application.
- (h) In considering whether to allow an Access Seeker to revise certain information specified in its Access Application, DBCT Management will have regard to the impact of

the proposed revision, if allowed by DBCT Management, on other Access Seekers and Access Holders.

- (i) Without otherwise limiting DBCT Management's discretion to allow an Access Seeker to revise information specified in its Access Application, DBCT Management will allow an Access Seeker to revise information specified in its Access Application in accordance with Section 5.4(c) or if DBCT Management is reasonably of the opinion that the proposed revision:
 - (1) if allowed by DBCT Management, would not substantially alter the nature of the Access rights sought by the Access Seeker in its Access Application prior to the revision;
 - (2) if allowed by DBCT Management, would not adversely impact on other Access Seekers or Access Holders; and
 - (3) is not otherwise prohibited under Section 5.4(i)(3), 5.4(j)(7) or 5.10(h).
- (j) For the avoidance of doubt, any revision of information specified in an Access Application which would, if allowed by DBCT Management, increase the annual Tonnage specified in the Access Application or extend the term specified in the Access Application will be taken to be a substantial alteration of the Access rights sought by the Access Seeker in its Access Application.

5.3 What happens after lodgement of Access Application

- (a) **(Acknowledgement by DBCT Management)** Upon receiving a purported Access Application under Section 5.2, DBCT Management must, within 10 Business Days of its receipt, acknowledge in writing to the Access Seeker receipt of the application and confirm whether the application is an Access Application complying with Section 5.2.
- (b) **(Request by DBCT Management for further information)** DBCT Management may request from the Access Seeker additional information where DBCT Management can reasonably demonstrate the need for such information for the purpose of preparing an Indicative Access Proposal, or clarification of information provided, including (but not limited to) obtaining further information to establish the solvency and creditworthiness of the Access Seeker and, where DBCT Management requires, a Security provider. Upon receiving the required information or clarification from the Access Seeker, DBCT Management must provide written acknowledgment of the receipt of this further information as soon as practicable and, in any event, within 10 Business Days of receipt of the further information.
- (c) **(Provision of further information by Access Seeker)** The Access Seeker must provide any information reasonably requested by DBCT Management under this Section 5.3 within 20 Business Days of receipt of the request from DBCT Management (or such later date as DBCT Management agrees to, it being required to act reasonably in agreeing to extend the period if the Access Seeker demonstrates good grounds for a longer period applying). If the Access Seeker does not provide the requested information within that period, its Access Application will be deemed to have been rejected, but it may apply again for Access in accordance with Section 5.2. If an Access Seeker lodges a replacement Access Application, DBCT Management will endeavour in good faith to expedite the steps leading to acknowledgement under this Section 5.3 of the Access Application.
- (d) **(Rejection if Access Seeker fails to provide information or demonstrate application criteria)** If:

- (1) an Access Application fails to comply with Section 5.2 (including where the Access Seeker fails to include the warranty provided for in, or such other information as may be required by, Schedule A); or
- (2) DBCT Management, acting reasonably, is of the opinion that an Access Application:
 - (A) does not demonstrate that the Access Seeker is reasonably likely to commence delivery of coal to the Terminal on the date specified in item 5 of the Access Application (which must be no more than 5 years from the date of the Access Application); or
 - (B) does not demonstrate that the Access Seeker has:
 - (i) Marketable Coal Reserves that are consistent with the net tonnes specified in item 7 of the Access Application in respect of the first five Financial Years of Access applied for; and
 - (ii) Coal Resources that are, together with the Marketable Coal Reserves of the Access Seeker, consistent with the total net tonnes specified in item 7 of the Access Application,

then DBCT Management may reject the Access Application. Where DBCT Management rejects an Access Application in accordance with this Section 5.3 the Access Application will be deemed not to have been received, for the purposes of the Queue, unless Section 5.3(e) applies.

- (e) **(Disputed rejection of Access Application)** If DBCT Management rejects an Access Application submitted by an Access Seeker and the Access Seeker, acting reasonably, is of the opinion that its Access Application should have been accepted by DBCT Management in accordance with this Framework, then the Access Seeker may refer the matter for dispute resolution in accordance with Section 16 of this Framework within 15 Business Days of receiving the notice of rejection. In that case, the Access Applicant may not be removed from the Queue, and DBCT Management must not offer to enter an Access Agreement with another Access Applicant in respect of the Access sought in the relevant Access Application, unless and until the dispute is resolved in favour of DBCT Management.
- (f) **(Expiry of Access Application)** Subject to an Access Application or Renewal Application (as applicable) lapsing or otherwise being rejected by DBCT Management in accordance with this Framework before the relevant expiry date:
 - (1) an Access Application submitted to DBCT Management before the Commencement Date will, unless the Access Application is renewed under Section 5.3A, expire on the date which is eight weeks after the Commencement Date;
 - (2) any Access Application submitted to DBCT Management on or after the Commencement Date will, unless the Application is renewed under Section 5.3A, expire on the next occurring 31 August; and
 - (3) an Access Application which has been renewed in accordance with Section 5.3A, will, unless the Access Application is further renewed under Section 5.3A, expire on the next 31 August occurring after the 31 August on which the Access Application was to expire immediately prior to the Renewal Application being accepted.

- (g) **(Notice of Expiry)** DBCT Management will give notice of the timing of expiry to all Access Seekers with a current Access Application (including those which remain current due to a previous Renewal Application being accepted):
- (1) for Access Applications for which the expiry date is set by Section 5.3(f)(1), on the Commencement Date;
 - (2) for Access Applications for which the expiry date is set by Section 5.3(f)(2) or 5.3(f)(3), at least 1 month and no more than 3 months prior to expiry date of the Access Application.

5.3A Renewal Applications

- (a) **(Renewal Application)** An Access Applicant that wishes to renew its Access Application must submit to DBCT Management a renewal application in the form specified in Schedule A and include:
- (1) the warranty in the form specified in Schedule A; and
 - (2) such other information that may be required, as specified in Schedule A, not later than 15 Business Days before the date that its Access Application is due to expire.
- (b) **(Forecasts in Access Application)** DBCT Management acknowledges that, at the time a Renewal Application is made, some information provided in the Renewal Application may be a forecast only. The Access Applicant must, however, use its best endeavours to ensure that any such information contained in a Renewal Application is as accurate as reasonably possible.
- (c) **(Acknowledgement by DBCT Management)** Upon receiving a purported Renewal Application under this Section 5.3A, DBCT Management must, within 10 Business Days of its receipt, acknowledge in writing to the Access Applicant receipt of the renewal application and confirm whether the application is a Renewal Application complying with this Section 5.3A.
- (d) **(Rejection if Access Seeker fails to provide information or demonstrate renewal criteria)** If:
- (1) an Access Applicant fails to comply with Section 5.2 in respect of a Renewal Application (including where the Access Applicant fails to include the warranty provided for in, or such other information as may be required by, Schedule A); or
 - (2) DBCT Management, acting reasonably, is of the opinion that a Renewal Application submitted by an Access Applicant:
 - (A) does not demonstrate that the Access Applicant is reasonably likely to commence delivery of coal to the Terminal on the date specified in item 5 of the Renewal Application (which must be no more than 5 years from the date of the Renewal Application); or
 - (B) does not demonstrate that the Access Applicant has:
 - (i) Marketable Coal Reserves that are consistent with the net tonnes specified in item 7 of the Renewal Application in respect of the first five Financial Years of Access applied for; and
 - (ii) Coal Resources that are, together with the Marketable Coal Reserves of the Access Applicant, consistent with the total net tonnes specified in item 7 of the Renewal Application,

then DBCT Management may reject the Renewal Application. If DBCT Management rejects a Renewal Application or the Access Applicant fails to submit a Renewal Application to DBCT Management within the timeframe required in Section 5.3A(a), then the Access Applicant's current Access Application will expire on its expiry date (as determined in accordance with Section 5.3(f)) and the Access Applicant will be removed from the Queue on the date the Access Application expires, unless Section 5.3A(e) applies.

- (e) **(Disputed rejection of Renewal Application)** If DBCT Management rejects a Renewal Application submitted by an Access Applicant and the Access Applicant, acting reasonably, is of the opinion that its Renewal Application should have been accepted by DBCT Management in accordance with this Framework, then the Access Applicant may refer the matter for dispute resolution in accordance with Section 16 of this Framework within 15 Business Days of receiving the notice of rejection. In that case, the Access Applicant may not be removed from the Queue, and DBCT Management must not offer to enter an Access Agreement with another Access Applicant in respect of the Access sought in the relevant Renewal Application, unless and until the dispute is resolved in favour of DBCT Management.
- (f) **(New Access Application if renewal is substantially different)** If DBCT Management, acting reasonably, is of the view that a Renewal Application is substantially different to the Access Seeker's current Access Application, then subject to the following paragraph, DBCT Management will treat the Renewal Application as a new Access Application, and the process set out in this Section 5 will recommence from that point. If the difference is an increase in the annual Tonnage required or a longer term, then only the additional annual Tonnage or additional term (as applicable) will be taken to constitute the subject of a new Access Application.
- (g) With respect to the renewal of an Access Application referred to in paragraph (b) of the definition of 'Access Application', if the first Renewal Application after the Commencement Date is for an increase in the term from 5 or more years, then the extended term will not be taken to constitute the subject of a new Access Application and will instead be considered as part of the Renewal Application.
- (h) **(Renewed Access Application)** To the extent that a Renewal Application is confirmed by DBCT Management as a Renewal Application complying with Section 5.3A (or is determined as complying with Section 5.3A in a dispute referred by the Access Applicant in accordance with Section 5.3A):
 - (1) the Access Applicant's current Access Application will be taken to have been renewed;
 - (2) the content of the Renewal Application will be taken to be the Access Applicant's Access Application for the purposes of this Framework; and
 - (3) the priority of Access Applicant in the Queue will continue to be determined by the Access Application Date.

5.4 Priority of Access Applications and execution of Access Agreements

- (a) **(Formation of Queue)** If at any time there are two or more current Access Applications and there is or will be insufficient Available System Capacity associated with Socialised Terminal Capacity at any relevant time to accommodate an increase in Handling of coal applied for in all of those Access Applications, a queue (the **Queue**) will be formed.

- (b) **(General rules for priority in Queue)** Subject to any other provision in Section 5, the priority of an Access Seeker in the Queue will be determined by their Access Application Date, with an earlier Access Application Date having priority in the Queue over any later Access Application Date. An Access Seeker may be removed from the Queue once their Access Application is no longer current in accordance with the terms of Sections 5.3, 5.4, 5.6, 5.7(a)(2), 5.7(a)(4), 5.8, 5.9 or 5.10 of this Framework. An Access Seeker may lose priority in the Queue pursuant to Sections 5.4 or 5.10. The Queue will cease to exist if Available System Capacity at all relevant times subsequently exceeds the amount of capacity requested in all the then current Access Applications.
- (c) **(Notice of formation of or change in Queue)** Promptly after a Queue is first formed and promptly after each occasion that the Annual Contract Tonnage applied for in the Queue is increased or decreased, DBCT Management must notify each Access Seeker in the Queue of:
- (1) the Annual Contract Tonnage applied for in priority to that Access Seeker in the Queue;
 - (2) the total Annual Contract Tonnage applied for in the Queue at that time; and
 - (3) a breakdown of the Annual Contract Tonnage applied for in the Queue by the dates for commencement of Access and Annual Contract Tonnage applied for in each Access Application (without any identification of the Access Seeker which made each Access Application but with identification of the dates for commencement of Access).

(Access Agreements for Available System Capacity from the Existing Terminal)

- (d) **(Entry into Access Agreement for Available System Capacity)** Promptly upon being advised in writing by an Access Holder that Annual Contract Tonnage in respect of the Existing Terminal will become available, DBCT Management will:
- (1) notify each Access Seeker in the Queue of the date for the commencement of such Access and the relevant Tonnage; and
 - (2) issue an Indicative Access Proposal for Available System Capacity in respect of the relevant Tonnage to the Access Seeker who is first in the Queue.
- (e) **(Entry into Access Agreement not conditional on Terminal Capacity Expansion by Access Seekers not first in the Queue but seeking Access at an earlier date)** The following process will apply in relation to Access Seekers who are not first in the Queue but are ready to enter into an Access Agreement that is not conditional on a Terminal Capacity Expansion:
- (1) An Access Seeker who is not first in the Queue (the Notifying Access Seeker) but is seeking access from existing Available System Capacity at a date that is at least 6 months earlier than the date for commencement of Access applied for in the Access Application which is first in the Queue, may give notice in writing to DBCT Management in accordance with Section 5.4(e)(2) **(Notice)**.
 - (2) The Notice is to state that the Notifying Access Seeker is prepared to enter into an Access Agreement consistent (subject to the next sub-section) with its Access Application on the terms of the Standard Access Agreement or on any other terms agreed between DBCT Management and the Access Seeker.
 - (3) The Notice may state that the Notifying Access Seeker wishes to enter into an Access Agreement for a lower Tonnage, shorter term or earlier date for

commencement of Access than requested in the Access Application, provided that any revised Access commencement date must not precede the date of the Notice.

If DBCT Management receives such Notice from the Notifying Access Seeker, it must promptly:

- (4) notify, in writing, all other Access Seekers that are ahead of the Notifying Access Seeker in the Queue (each a **Notified Access Seeker**) of this development (including the requested date for commencement of Access, but not the identity of the Notifying Access Seeker); and
- (5) allow 3 months from the date when such notice is given by DBCT Management for each Notified Access Seeker to:
 - (A) deliver to DBCT Management two signed copies of an Access Agreement consistent with its Access Application (except that it may be for a lower Tonnage, shorter term or earlier date for commencement of Access than requested in the Access Application, provided that any revised Access commencement date must not precede the date of the Notice and on the terms of the Standard Access Agreement or on other terms agreed between DBCT Management and a Notified Access Seeker); and
 - (B) deliver to DBCT Management any Security required by DBCT Management (acting consistently with this Framework).

(f) **(Execution of Access Agreements in order of Access Seekers in Queue which commit)**

If, during the above 3 month period, one or more of the Notified Access Seekers:

- (1) delivers to DBCT Management such signed copies of an Access Agreement for Access to commence on a date which is the same as or earlier than the date for commencement of Access referred to in section 5.4(e)(3) (which, for clarification, may be a retrospective date, provided that any revised Access commencement date must not precede the date of the Notice); and
- (2) also provides any Security reasonably required by DBCT Management (or does not provide such Security but the circumstances in Section 5.4(g) apply),

then DBCT Management must:

- (3) give priority to such of those Notified Access Seekers that are seeking Access on the earliest date for commencement of Access (provided that, if there are two or more Notified Access Seekers each seeking Access commencing on the same date, priority will be given to the Notified Access Seekers in order of their position in the Queue);
- (4) (subject to there being sufficient Available System Capacity at the relevant time) execute those copies of the Access Agreement;
 - (A) re-deliver one signed copy to such Notified Access Seeker; and
 - (B) repeat that process in order of the date for commencement of the access that they are seeking with each successive Notified Access Seeker (if any) which has delivered during the 3 month period such a signed Access Agreement and any Security required by DBCT Management (acting consistently with this Framework).

- (g) **(Issues with provision of requested Security)** If a Notified Access Seeker is unable to provide any Security reasonably required by DBCT Management within the 3 month period referred to in Section 5.4(f), (or if, by the end of the first month of that 3 month

period, the Access Seeker disputes DBCT Management's entitlement to the Security requested), the Access Agreement to be executed and delivered by the relevant Notified Access Seeker in that period will be modified so that it is a condition precedent to it becoming effective that such Security is provided to DBCT Management within 20 Business Days after the Execution Date (or, if so disputed, Security which the Independent Expert determines to be fair is provided within 20 Business Days after the Independent Expert makes that determination), and the "Effective Date" will be adjusted accordingly.

- (h) **(Execution of Access Agreement with Notifying Access Seeker, if sufficient remaining Capacity)** If, after all Access Agreements with all Notified Access Seekers referred to in Section 5.4(e)(5) who have duly delivered signed documents (and provided Security if relevant) have been executed (or negotiations have ceased pursuant to Section 5.8), there is still sufficient Available System Capacity, then DBCT Management will conclude an Access Agreement with the Notifying Access Seeker for that Available System Capacity (or that part of it which the Notifying Access Seeker requires).
- (i) **(Clarifications)** For clarity:
 - (1) **(Position in Queue may be lost by not executing Access Agreement)** any Notified Access Seeker that does not within the above 3 month period deliver to DBCT Management a signed Access Agreement:
 - (A) may be removed by DBCT Management from the Queue, in which case the Notified Access Seeker's Access Application will be taken to have been rejected and the Access Application negotiation process for that Notified Access Seeker will be discontinued, unless a bona fide dispute in relation to the removal is referred under Section 16 – in which case, the Notified Access Seeker will maintain its position in the Queue until that dispute is resolved; or
 - (B) will not, if DBCT Management does not remove the Notified Access Seeker from the Queue, lose its place in the Queue (although a Notifying Access Seeker which does execute an Access Agreement pursuant to this Section 5.4 will no longer be in the Queue in respect of the tonnage the subject of that Access Agreement) and the Access Application negotiation process for that Access Seeker will otherwise continue in accordance with Section 5 of this Framework;
 - (2) **(Considerations regarding removal from Queue)** in considering whether to remove an Access Seeker from the Queue under Section 5.4(i)(1), DBCT Management will have regard to:
 - (A) the date that the Access Seeker proposes to commence delivering coal to the Terminal in comparison with the date that the Notifying Access Seeker proposes to commence delivering coal to the Terminal;
 - (B) the tonnes that the Access Seeker requires to commence delivering coal to the Terminal in comparison with the tonnes that the Notifying Access Seeker proposes to commence delivering to the Terminal; and
 - (C) the likelihood of future Access becoming available at the Terminal on or prior to the date for commencement of Access sought by the Access Seeker that DBCT Management is considering whether to remove from the Queue;
 - (3) **(Amendments to Access Application)** except as provided for in Section 5.4(f)(1), an Access Seeker may not amend the date for commencement of delivery of coal

to the Terminal specified in its Access Application during the 3 month period which commences on the date the Access Seeker receives a notice from DBCT Management under Section 5.4(e)(4);

- (4) **(Offers of Access Agreement not to exceed Available System Capacity)** unless otherwise required by the Port Services Agreement or Section 11 of this Framework, DBCT Management must not offer to enter into an Access Agreement for Annual Contract Tonnage which would result in Aggregate Annual Contract Tonnage of all Access Holders exceeding the Available System Capacity at a relevant time; and
- (5) **(Access Seeker may accept lesser tonnage if insufficient capacity for tonnage applied for)** where the process in Sections 5.4(c), 5.4(e) and 5.4(f) would have the effect of giving an Access Seeker a right to enter into an Access Agreement, except for the fact that there is insufficient Available System Capacity to meet that Access Seeker's Access Application in full, DBCT Management must inform that Access Seeker to that effect, and the Access Seeker may elect to require an Access Agreement for a lesser tonnage consistent with Available System Capacity from time to time during the period originally applied for (subject to the other terms of this Framework), with the balance of the Annual Contract Tonnage originally applied for remaining the subject of the Access Application.

(Conditional Access Agreements)

- (j) **(Entry into an Access Agreement conditional on Terminal Capacity Expansion)** The following process will apply in relation to the entry into Access Agreements that are conditional, wholly or partly, on a Terminal Capacity Expansion (**Conditional Access Agreement**):
 - (1) When the Aggregate Annual Contract Tonnage sought within the next 5 years by Applicants in a Queue cannot be met from Available System Capacity, such that a Terminal Capacity Expansion may be justified, DBCT Management will invite an offer from each Applicant in the Queue to enter into a Conditional Access Agreement.
 - (2) Unless otherwise specified in a Conditional Access Agreement, the date for commencement of Access under a Conditional Access Agreement will be the date on which the Terminal Capacity Expansion is Complete and operating, and DBCT Management notifies Access Seekers in accordance with Section 11.1(l) or 11.1(q), as applicable, on which date the Conditional Access Agreement will take effect as an Access Agreement.
 - (3) In response to an invitation from DBCT Management given under Section 5.4(j)(1), any Access Seeker may make an offer to enter into a Conditional Access Agreement that may be (but need not be) subject to a condition precedent which relates to:
 - (A) **(Conditional on Terminal Capacity Expansion)** the triggering of an obligation by DBCT Management to perform a specified Terminal Capacity Expansion with a specified estimated cost within a specified estimated timeframe;
 - (B) **(Conditional on other System elements)** DBCT Management being reasonably satisfied that a Service Provider (other than DBCT Management), Access Holder, Access Seeker or other relevant entity has committed or will commit, subject only to conditions which are customary

for that Service Provider and an expansion of that nature, to providing an expansion of a relevant part of the System which is necessary to create sufficient Available System Capacity; and/or

- (C) **(Conditional on Section 5.4(o) being satisfied)** DBCT Management being reasonably satisfied that the Access Seeker's Access Rights are matched by an entitlement held by the Access Holder or a person on its behalf to rail infrastructure access rights relating to the coal the subject of the Conditional Access Agreement.

The following provisions relate to any such offer:

- (4) **(Invitation to each Access Seeker)** DBCT Management must give the same notice **(Expansion Notice)** at the same time to each Access Seeker in the Queue, inviting them to submit to DBCT Management (by way of offer to DBCT Management) two signed copies of such a Conditional Access Agreement consistent with their Access Application (except that it may be for a lower tonnage or shorter term than originally requested provided there is a bona fide commercial reason for seeking such lower tonnage or shorter term) on the terms of the Standard Access Agreement or on any other terms which DBCT Management has notified the Access Seeker would be acceptable to DBCT Management, and subject to the condition precedent referred to above.
- (5) **(Position in Queue may be lost by not offering a Conditional Access Agreement)** Any Access Seeker that does not, within 3 months after DBCT Management gives the Access Seeker an Expansion Notice, deliver to DBCT Management a signed Conditional Access Agreement in accordance with the Expansion Notice:
- (A) may, subject to Section 5.4(j)(6), be removed by DBCT Management from the Queue, in which case the Access Seeker's Access Application will be taken to have been rejected and the Access Application negotiation process for that Access Seeker will be discontinued; or
- (B) will not, if DBCT Management does not remove the Access Seeker from the Queue, lose its place in the Queue (although if DBCT Management executes a Conditional Access Agreement offered by any other Access Seeker pursuant to this Section 5.4(j), that Access Seeker will, subject to Section 5.4(j)(11), no longer be in the Queue in respect of the Tonnage the subject of that Conditional Access Agreement) and the Access Application negotiation process for the Access Seeker will otherwise continue in accordance with Section 5 of this Framework.
- (6) **(Considerations regarding removal from Queue)** In considering whether to remove an Access Seeker from the Queue under section 5.4(j)(5)(A), DBCT Management will have regard to the extent to which the additional Annual Contract Tonnage that will be facilitated by the contemplated Terminal Capacity Expansion is reasonably required to provide the Access rights sought by the Access Seeker.
- (7) **(Amendments to Access Application)** Except as provided in Section 5.4(k)(5), an Access Seeker may not amend its Access Application during the 40 Business Day period which commences on the date the Access Seeker receives an Expansion Notice.

- (8) **(Acceptance of offers in order of priority in Queue)** If, during the 3 month period following the giving of an Expansion Notice one or more of the Access Seekers in the Queue:
- (A) delivers to DBCT Management such signed copies of a Conditional Access Agreement; and
 - (B) provides any Security required by DBCT Management (or the circumstances in Section 5.4(j)(9) apply),
- DBCT Management will then give priority to the Access Seeker so doing which has the highest ranking in the Queue and (subject to there being sufficient Available System Capacity should the Terminal Capacity Expansion the subject of the condition precedent proceed) will execute their Conditional Access Agreement. DBCT Management will then repeat the process down the Queue with each successive Access Seeker (if any) which has delivered such a signed Conditional Access Agreement and any relevant Security during the 3 month period.
- (9) **(Issues with provision of Security requested)** If an Access Seeker is unable to provide the Security required by DBCT Management within the 3 month period referred to in Section 5.4(j)(8) (or, by the fifth Business Day of the 3 month period referred to in Section 5.4(j)(8), the Access Seeker disputes DBCT Management's entitlement to the Security requested), the Conditional Access Agreement to be executed will be modified so that it is a further condition precedent to it becoming effective that such Security is provided to DBCT Management within 20 Business Days after the Execution Date (or, if so disputed, a Security which the Independent Expert determines to be fair is provided within 20 Business Days after the Independent Expert makes that determination), and the "Effective Date" will be adjusted accordingly.
- (10) **(Termination if condition precedent not fulfilled)** Each Conditional Access Agreement referred to in Section 5.4(j)(4) and 5.4(j)(8) (as applicable) must be on the basis that it will terminate if a relevant condition precedent referred to in Section 5.4(j)(3)(A) or 5.4(j)(3)(B) is not fulfilled within a reasonable period from the date of execution of the Conditional Access Agreement (which will not be less than 3 months). However, DBCT Management and an Access Seeker can agree to extend this period from time to time, as long as an extension for the same period has been offered by DBCT Management to all Access Seekers who have such condition precedent.
- (11) **(Access Seeker rejoins Queue if Conditional Access Agreements terminate)** If a Conditional Access Agreement referred to in Section 5.4(j)(8) terminates because:
- (A) a condition precedent referred to in Section 5.4(j)(3)(A) or 5.4(j)(3)(B) has not been fulfilled within the reasonable period nominated (or any extended period as agreed between DBCT Management and each Access Seeker in accordance with Section 5.4(j)(10)), the relevant Access Seekers will resume their respective positions in the Queue as if the Access Seekers had never signed the Conditional Access Agreements; or
 - (B) a condition precedent that requires the Access Seeker to provide Security (as referred to in Section 5.4(j)(9)) is not fulfilled, DBCT Management may exercise its discretion to remove that Access Seeker from the Queue in

accordance with Sections 5.4(j)(5) and 5.4(j)(6) and, if so removed, the negotiation process for that Access Seeker in respect of the Terminal Capacity Expansion will be discontinued.

- (12) **(Reductions in contracted tonnage if estimated expansion of Terminal Capacity not achieved)** Each Conditional Access Agreement will include a provision entitling DBCT Management to re-determine Terminal Capacity and Expansion Component Capacity in accordance with Section 11.1(k) and to proportionately reduce the Annual Contract Tonnage allocated under the Conditional Access Agreement to the Access Seeker, subject to the following rules:
- (A) in relation to Socialised Terminal Capacity, if the capacity at the Existing Terminal determined by DBCT Management in accordance with Section 11.1(k)(2) is less than the estimation of aggregate (expanded) capacity at the Existing Terminal made at the time of entry into the Conditional Access Agreement, then DBCT Management will proportionately reduce the Annual Contract Tonnage in all Conditional Access Agreements so that the aggregate Tonnage of all Conditional Access Agreements is equal to the additional capacity at the Existing Terminal determined in accordance with Section 11.1(k) after the deduction of capacity required to eliminate any shortfall between aggregate Annual Contract Tonnages and capacity at the Existing Terminal which existed prior to the Terminal Capacity Expansion (see Section 5.4(k)(3)).
 - (B) unless otherwise agreed with participating Access Seekers, in relation to a Differentiated Expansion Component, any Differentially Priced Capacity will be allocated to meet the full entitlements of Access Seekers as set out under relevant Conditional Access Agreements.
- (13) **(Reduced Tonnages revert to Queue)** If DBCT Management reduces the Annual Contract Tonnage allocated under a Conditional Access Agreement in accordance with Section 5.4(j)(12), then - in respect of those number of Tonnes which are reduced - an Access Seeker which has had its Tonnes reduced will be:
- (A) placed equal first in the Queue with any other Access Seekers whose Tonnes have been reduced following the Terminal Capacity Expansion; and
 - (B) taken not to have signed the relevant Conditional Access Agreement in respect of those Tonnes.
- (14) **(Section 5.4(o) not affected)** Nothing in this Section 5.4(j) is to be construed as limiting or in any way being contrary to the principle of Handling of Annual Contract Tonnage only being able to be availed of to the extent of matching rail access entitlement, in Section 5.4(o).

(Overriding principles)

- (k) Despite any other provision of this Section 5.4:
- (1) **(Existing Access Applications transitioned)** Any outstanding Access Application lodged by an Access Seeker under the 2017 Access Undertaking which applied prior to this Framework will (for the purpose only of determining priority of lodgement and therefore priority in the Queue) be deemed to have been an Access Application lodged under this Framework, as if this Framework had commenced on the date that the first such Access Application was lodged;

- (2) **(Application for extension of term has priority)** An Access Application to extend the term of an Access Agreement (to the extent that it does not increase the relevant Annual Contract Tonnage) to accord with a bona fide re-estimation of the life of a mine will have precedence over an Access Application for new tonnage;
- (3) **(Terminal Capacity Expansion allocated first to eliminate shortfalls in capacity below already contracted tonnage)** If a Terminal Capacity Expansion is being Socialised, then the additional Terminal Capacity which results from that Terminal Capacity Expansion (determined in accordance with Section 11.1(k)) will be:
- (A) firstly utilised to eliminate shortfalls in Annual Contract Tonnages under existing Access Agreements; and
- (B) only thereafter allocated to Annual Contract Tonnages under Conditional Access Agreements entered into in respect of that Terminal Capacity Expansion and proportionately reduced in accordance with Section 5.4(j)(12).
- (4) **(Allocation of Differentially Priced Capacity)** Differentially Priced Capacity will be utilised to meet Annual Contract Tonnages under Access Agreements entered into by the Access Seekers in respect of the relevant Differentiated Expansion Component. Consequently, Access Seekers who are not Differentially Priced Access Seekers in respect of that Differentiated Expansion Component will have no entitlement to have that Differentially Priced Capacity utilised to eliminate shortfalls in Annual Contract Tonnages under their Access Agreements.
- (5) **(Alternative arrangements in some cases if they achieve greater utilisation)** If, in a particular case, the strict application of the process set out in this Section 5.4 would result in a materially greater amount of Available System Capacity not being able to be utilised than could otherwise be the case if an alternative process is followed, then (in the interests of maximising coal exports from Queensland) DBCT Management may enter into one or more Access Agreements in accordance with that alternative process.
- (l) **(Options to extend term taken into account)** For the purpose of this Section 5.4, an Access Holder which has an option to extend the term of its Access Agreement or Existing User Agreement will initially be deemed to have exercised that option, when determining whether or not a Queue exists or needs to be formed in relation to a new Access Application. However, if DBCT Management has the right to do so, it may, on each occasion in which a Queue is formed or re-formed, endeavour to have the exercise of that option brought forward or waived (in the latter case with the intention that one or more waivers may result in the Queue no longer existing).
- (m) **(Other provisions of Framework not limited)** Nothing in this Section 5.4 will be taken to limit or be contrary to:
- (1) any right DBCT Management has pursuant to Section 5.8; or
- (2) any rights or obligations of DBCT Management in Section 11 relating to the expansion of the Terminal (in particular the principle of new Access Agreements only being entered into consistently with anticipated System Capacity).
- (n) **(Disclosure of certain Access Application details)** DBCT Management may at any time and from time to time disclose to any person the aggregate tonnage which is the subject of Access Applications but, except as:

- (1) required by law;
- (2) consented to by the relevant Access Seeker;
- (3) reasonably necessary or desirable in relation to planning for operation of the Terminal; or
- (4) reasonably required to be disclosed to a rail infrastructure provider to assist in development of the System Master Plan,

DBCT Management will not disclose details of an Access Application (including details of the Access Seeker).

- (o) **(Entitlement to have Annual Contract Tonnage Handled must be matched by below rail access)** Despite any other provision in this Framework, DBCT Management must not enter into an Access Agreement with an Access Seeker unless it contains Clause 11.5 of the Standard Access Agreement (under which the Access Holder is not entitled to have its Annual Contract Tonnage Handled at the Terminal, to the extent and for such period as, the Access Holder has not demonstrated to the reasonable satisfaction of DBCT Management that that Annual Contract Tonnage is matched by an entitlement held by the Access Holder or a person on its behalf to railway track access relating to the coal the subject of the Access Agreement).
- (p) **(Notification of Differentially Priced Capacity)** Promptly following Completion of a Differentiated Expansion Component, DBCT Management will notify all Expansion Parties, Access Seekers in the Queue and all Access Holders of the following:
 - (1) the date of Completion;
 - (2) the Differentially Priced Capacity; and
 - (3) if any Tonnage associated with the Differentiated Expansion Component is uncontracted and, if so, the Tonnage which is available for Access Seekers.
- (q) **(Formation of a Differentiated Queue)** If at any time there are two or more current Access Applications received in respect of Differentially Priced Capacity and there is or will be insufficient System Capacity associated with Differentially Priced Capacity which is available at any relevant time to accommodate an increase in Handling of coal applied for in all of those Access Applications, a new queue will form in respect of the Differentially Priced Capacity (the **Differentiated Queue**).
- (r) **(Queuing Principles for a Differentiated Queue)** DBCT Management will manage any Differentiated Queue in accordance with the following principles:
 - (1) DBCT Management will apply the same general rules for priority as apply with respect to the Queue, under this Section 5.4.
 - (2) Access Seekers must specify which queue they wish to join when applying for Access (the Queue or a Differentiated Queue).
 - (3) Access Seekers may be in both the Queue and a Differentiated Queue separately and simultaneously under different Access Applications.
 - (4) Where capacity becomes available in either the Queue or a Differentiated Queue (but not both queues), DBCT Management will invite all Access Seekers in the relevant queue to submit a signed Access Agreement in the priority order of the relevant queue.
- (s) **(Commercial discretion of DBCT Management where Access Application involves both queues)** Where Available System Capacity relies on Terminal Capacity that comprises both Socialised Capacity and Differentially Priced Capacity, DBCT

Management will invite Access Seekers in both the Queue and the Differentiated Queue to submit a relevant signed Access Agreement in accordance with the queuing principles in this Section 5.4.

- (t) **(Reordering of queues applying commercial discretion)** If, having obtained signed Access Agreements from Access Seekers in respect of Available System Capacity under Section 5.4(s), DBCT Management determines that the most efficient use of Available System Capacity is to contract with the same Access Seeker in respect of both Socialised Terminal Capacity and Differentially Priced Capacity, it may accept a signed Access Agreement other than in the order of the relevant queue, provided that, prior to accepting such signed Access Agreement and subject to Section 5.4(u), DBCT Management:
- (1) has notified all other Access Seekers in each Queue of:
 - (A) its intention to reorder one or both queues; and
 - (B) any commercial principles which it intends to apply when reordering one or both queues; and
 - (2) has provided all Access Seekers with a reasonable opportunity to respond; and
 - (3) is satisfied (acting reasonably), based on any responses received from Access Seekers and applying those commercial principles, that there is no Access Seeker which is higher in either queue that is prepared to contract on an equivalent basis.

For this purpose, any commercial principles must operate as between Access Seekers strictly on a non-discriminatory basis.

- (u) **(Dispute in relation to reordering of a queue)**
- (1) An Access Seeker may refer any dispute in relation to reordering of a queue under Section 5.4(t) as a Dispute under Section 16.
 - (2) If a Dispute is raised in respect of any reordering of a queue, DBCT Management will not enter into any relevant Access Agreement under Section 5.4(t) unless and until the Dispute is withdrawn or determined and in accordance with any such determination.

5.5 Indicative Access Proposal

- (a) **(Timing for Indicative Access Proposal)** As soon as practicable and in any event within 20 Business Days following receipt of an Access Application (or, if additional information has been requested by DBCT Management under Section 5.3, within 20 Business Days of receipt of all of the additional information requested), DBCT Management must use its reasonable endeavours to provide the relevant Access Seeker with a response containing proposed terms and conditions of Access (**Indicative Access Proposal**).
- (b) **(Notice of additional time needed by DBCT Management)** If it is not reasonable to provide an Indicative Access Proposal within 20 Business Days of receipt of an Access Application (or, if applicable, the additional information requested under Section 5.3), DBCT Management must, as soon as practicable, but in any event, within 20 Business Days, advise the relevant Access Seeker of its estimate of the extra time required to deliver the Indicative Access Proposal.
- (c) **(Dispute by Access Seeker as to need for additional time)** If the Access Seeker is of the opinion that the estimate of extra time for preparation of the Indicative Access

Proposal is excessive, then the Access Seeker may refer the matter for Expert Determination. DBCT Management must use reasonable efforts to provide the Indicative Access Proposal within the estimated time period provided by DBCT Management or as otherwise determined by the Independent Expert.

- (d) **(Content of Indicative Access Proposal)** The Indicative Access Proposal must set out: *[Drafting Note: This paragraph (d) and (e) will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]*
- (1) an indicative assessment as to whether there is sufficient Available System Capacity at all relevant times (having regard amongst other things to outstanding Access Applications in a Queue) to accommodate the Access Application;
 - (2) advice in respect of the existence of (but not the identity of) other Access Seekers who have already submitted an Access Application and the aggregate tonnage profile(s) requested in those Access Applications;
 - (3) the Standard Access Agreement or a draft access agreement where the Access Application contemplates Access on non-Reference Terms;
 - (4) the expiry date of the Indicative Access Proposal, which will be 30 Business Days following the date the Access Seeker receives the Indicative Access Proposal (should there be no notification by the Access Seeker pursuant to Section 5.6 that the Indicative Access Proposal has not been prepared in accordance with the Framework);
 - (5) if there is sufficient Available System Capacity to accommodate the Access Application, advice to that effect, and:
 - (A) an initial assessment of the Pricing Method applicable to the Access sought (including reasons), having regard to any planned or reasonably expected Terminal Capacity Expansion that is required, relevant QCA rulings and the Expansion Pricing Principles;
 - (B) an initial (alternative) estimate(s) of the Access Charge(s), including an estimate of current and, where reasonable to provide such estimate, prospective Access Charges, for the requested Services in the Access Application based on:
 - (i) the initial assessment of the applicable Pricing Method; and
 - (ii) where provision of any of the Access sought depends upon completion of a Terminal Capacity Expansion, the Pricing Method for which has not yet been determined by the QCA, the alternative Pricing Method, with the Non-Expansion Costs being allocated in accordance with Section 10.11 for any estimates related to a Differentiated Expansion Component;
 - (C) the current Terminal Master Plan and System Master Plan;
 - (D) details of any additional information required by DBCT Management to progress the Access Application and develop the terms and conditions for acceptance; and
 - (E) details of any security, guarantee, other support or other information required by DBCT Management to establish the solvency and creditworthiness of the Access Seeker and, where DBCT Management requires, its guarantor; and

- (6) if there is insufficient Available System Capacity (as determined by reference to the assessment of System Capacity undertaken prior to the time of giving the indicative assessment) to accommodate the Access Application, advice to that effect, and:
- (A) reasonable particulars as to why this circumstance prevails;
 - (B) an estimate of what the Available System Capacity is at relevant times;
 - (C) whether a Queue has been formed in accordance with Section 5.4 of this Framework (including as a result of the relevant Access Application);
 - (D) an initial assessment of the Pricing Method applicable to the Access sought (including reasons) having regard to any planned or reasonably expected Terminal Capacity Expansions, relevant QCA rulings and the Expansion Pricing Principles;
 - (E) where reasonable, an estimate of prospective Access Charges for the requested Services in the Access Application based on:
 - (i) the initial assessment of the applicable Pricing Method; and
 - (ii) the alternative Pricing Method,
 with the Non-Expansion Costs being allocated in accordance with Section 10.11 for any estimates related to a Differentiated Expansion Component; and
 - (F) a copy of the System Master Plan and an indicative timetable for any expansion of System Capacity which may be undertaken (if any).
- (e) **(Best Endeavours estimate of Access Charges)** In estimating the applicable Pricing Method(s) and resulting Access Charges for the purpose of this Section 5, DBCT Management shall use its best endeavours to provide an accurate assessment, having regard to all available information.
- (f) **(Indicative Access Proposal not binding on DBCT Management)** The Indicative Access Proposal will, unless it contains specific conditions to the contrary, contain indicative arrangements only and does not oblige DBCT Management to provide Access.
- (g) **(Access Seeker may dispute time-frame)** If, after 20 Business Days following DBCT Management's acknowledgment of the Access Application, the Access Seeker believes that DBCT Management is not making reasonable progress in the preparation of the Indicative Access Proposal, the Access Seeker may refer the matter for dispute resolution in accordance with Section 16 of this Framework.
- (h) **(Where Terminal Capacity Expansion is needed to satisfy an Access Application)** Where there is not sufficient Available System Capacity to accommodate the Access Application and the Access Seeker wishes to continue the negotiation process provided for in this Section 5, such negotiations may continue on the basis that a Terminal Capacity Expansion may be undertaken in accordance with Section 11 of this Framework which (whether with or without any relevant expansion of other components of the System) is estimated to provide sufficient Available System Capacity. In this case, if DBCT Management is unable to comply with the timeframes specified in Section 5 of this Framework, it will advise the Access Seeker of the estimated timeframes. If the Access Seeker does not believe the proposed timetable is reasonable or that DBCT Management is not making reasonable progress, it may refer the matter to dispute resolution in accordance with Section 16 of this Framework.

5.6 Response to Indicative Access Proposal

- (a) **(Access Seeker's response)** If the Access Seeker intends to progress its Access Application on the basis of the arrangements set out in the Indicative Access Proposal, it must notify DBCT Management of its intention to do so within 30 Business Days of the date it receives the Indicative Access Proposal. If the Access Seeker does not notify DBCT Management of its intention before the expiry date of the Indicative Access Proposal, its Access Application will be deemed to have lapsed and it may apply again for Access in accordance with Section 5.2 (unless a longer period for notification is agreed between the parties).
- (b) **(DBCT Management to expedite any replacement Access Application)** If an Access Application lapses but the Access Seeker lodges a replacement Access Application, DBCT Management will endeavour in good faith to expedite the steps leading to the issue of a new Indicative Access Proposal.
- (c) **(Notice of non-complying Indicative Access Proposal)** If the Access Seeker considers that the Indicative Access Proposal has not been prepared in accordance with Section 5.5 of this Framework, it must notify DBCT Management in writing within 20 Business Days of receipt of the Indicative Access Proposal, notice to that effect, setting out the reasons why the Access Seeker believes that the Indicative Access Proposal is inconsistent with Section 5.5 of this Framework.
- (d) **(Response to notice of non-compliance)** DBCT Management must use all reasonable efforts to respond to this notice, including, where appropriate, the making of revisions to the Indicative Access Proposal, within 20 Business Days of the notification under this Section 5.6. If DBCT Management is unable to respond within this time period, it must notify the Access Seeker of the date on which it expects to be able to respond.
- (e) **(Dispute relating to Indicative Access Proposal)** If the Access Seeker is not satisfied with:
- (1) the response to the notice given under this Section; or
 - (2) DBCT Management's estimated date to respond to the notice,
- the Access Seeker may seek to resolve the dispute in accordance with the dispute resolution procedure in Section 16.

5.7 Negotiation process

- (a) **(Parties to negotiate if Access Seeker wishes to)** If the Access Seeker indicates its willingness to progress its Access Application under Section 5.6 (or otherwise, in the case of an Access Application of the type referred to in paragraph (b) of the definition of that term), then both parties must commence negotiations as soon as reasonably possible to progress towards an Access Agreement or a Conditional Access Agreement. The period for negotiation will commence on the date notified by the Access Seeker under Section 5.6 (or the date 5 Business Days after the commencement of the Term in the case of an Access Application referred to in paragraph (b) of the definition of that term, even if there have been discussions prior to that date) and end upon any of the following events:
- (1) execution of an Access Agreement or Conditional Access Agreement in respect of Access sought by the Access Seeker;
 - (2) written notification by the Access Seeker that it no longer wishes to proceed with its Access Application (at which time its Access Application will be deemed to have lapsed);

- (3) DBCT Management issuing a Negotiation Cessation Notice to the Access Seeker in accordance with Section 5.8;
 - (4) the expiration of 6 months from the commencement of the negotiation period or, if both parties agree to an extension of the negotiation period, the expiration of the agreed extended term, provided that agreement to extend the negotiation period is not unreasonably withheld by either party;
 - (5) a reduction in Available System Capacity due to:
 - (A) another Access Seeker finalising an Access Agreement in accordance with this Framework, where that reduction in Available System Capacity adversely affects DBCT Management's ability to offer Access to the Access Seeker under the terms of the Indicative Access Proposal; or
 - (B) a sustained change in the System operating assumptions of one or more components of the Dalrymple Bay Coal Chain requiring re-determination of System Capacity under Section 11.1, where that reduction in Available System Capacity adversely affects DBCT Management's ability to provide Access to the Access Seeker under the terms of the Indicative Access Proposal; or
 - (6) DBCT Management receiving Notice from a Notifying Access Seeker in accordance with section 5.4(e), for the process contemplated by Section 5.4(f) to occur.
- (b) **(Review of Indicative Access Proposal)** In the event that the negotiation period is suspended for the reasons set out in Section 5.7(a)(5) or Section 5.7(a)(6), (and once the process contemplated by Section 5.4(f) to Section 5.4(h) is complete, if applicable) DBCT Management must review the Indicative Access Proposal and prepare a revised Indicative Access Proposal in accordance with Section 5.5 and the negotiation process will recommence from the date this is provided to the Access Seeker.
- (c) **(Revisions to Access Application)** During the negotiation period, the Access Seeker may review and revise the information provided to DBCT Management in the Access Application, provided that such revision does not substantially alter the nature of the Access rights sought by the Access Seeker and is not otherwise prohibited under Section 5.4(i)(3), 5.4(j)(7) or 5.10(h). If DBCT Management is reasonably of the view that an Access Seeker's revision of information provided to DBCT Management in the Access Application has substantially altered the nature of the Access rights sought by the Access Seeker, then subject to the following paragraph, DBCT Management will treat the revised information as a new Access Application, and the process set out in this Section 5 will recommence from that point. If the revision is for an increase in the annual tonnage required or a longer term, then only the additional annual tonnage or additional term (as applicable) will be taken to constitute the subject of a new Access Application.
- (d) **(Certain extensions of term do not create new Access Application)** If, in the case of an Access Application referred to in paragraph (b) of the definition of that term, the revision is for an increase in the term from 5 or more years, then the extended term will be treated as part of the original Access Application.
- (e) **(Reduction in tonnage applied for does not create new Access Application)** A reduction in tonnage or term will not, of itself, constitute a new Access Application pursuant to this paragraph if there is a bona fide commercial reason for such reduction.

- (f) **(Dispute relating to negotiation)** If at any time during the negotiation period a dispute arises between the parties that, after reasonable negotiations, the parties are unable to resolve to their mutual satisfaction, then either party may seek to resolve the dispute in accordance with the dispute resolution process set out in Section 16.
- (g) **(Negotiations to continue despite dispute)** To remove any doubt, the negotiation process and the obligations of the parties in that regard are to continue notwithstanding the commencement of a dispute resolution process pursuant to Section 16 of this Framework.

5.8 Negotiation Cessation Notice

- (a) **(Negotiation Cessation Notice)** At any time during the negotiation process under Section 5.7, DBCT Management may give notice to an Access Seeker that it does not intend to enter into an Access Agreement with the Access Seeker (such notice being a Negotiation Cessation Notice), if:
 - (1) an Access Seeker does not comply with all of its material obligations contained in this Framework;
 - (2) DBCT Management is reasonably of the opinion that there is no reasonable likelihood that the Access Seeker will comply with the material terms and conditions of an Access Agreement;
 - (3) DBCT Management is reasonably of the opinion that the Access Seeker has no genuine intention of gaining Access, or has no reasonable likelihood of utilising Access, at the level of capacity sought;
 - (4) DBCT Management is reasonably of the opinion that the Access Seeker or its guarantor is not or is likely not to be reputable or of good financial standing;
 - (5) except where the decision of an Independent Expert contains manifest error, the Access Seeker does not materially comply with a decision of the Independent Expert pursuant to Section 16.3; or
 - (6) an Access Seeker does not materially comply with a decision of the Arbitrator pursuant to Section 16.4.
- (b) **(Negotiation Cessation Notice to include reasons)** A Negotiation Cessation Notice must identify the reasons for DBCT Management's decision not to enter into an Access Agreement with the Access Seeker.
- (c) **(Examples of no reasonable likelihood of compliance)** It will be reasonable for DBCT Management to form the view that circumstances in Section 5.8(a)(2) or 5.8(a)(4) apply if:
 - (1) the Access Seeker is Insolvent;
 - (2) the Access Seeker, or a Related Body Corporate of the Access Seeker, is currently or has in the previous two years been in material default of any Access Agreement (which has not been promptly rectified), Existing User Agreement or any other agreement where its performance under that agreement is relevant to the Access Seeker's likely performance under an Access Agreement; or
 - (3) the Access Seeker or a proposed provider of Security fail to establish their solvency and creditworthiness in accordance with Section 5.9.
- (d) **(Dispute as to Negotiation Cessation Notice)** If the Access Seeker reasonably considers that DBCT Management has improperly given it a Negotiation Cessation Notice, then (provided that Section 5.8(c)(1), 5.8(c)(2) or 5.8(c)(3) do not apply) the Access Seeker

may refer the matter to dispute resolution in accordance with Section 16. If the resolution of the dispute is in favour of the Access Seeker, DBCT Management must recommence negotiations with that Access Seeker.

- (e) **(Recovery of costs of DBCT Management)** Subject to any dispute on the matter being otherwise determined, DBCT Management may recover its reasonable costs incurred in negotiations with the Access Seeker where it ceases negotiations in accordance with a Negotiation Cessation Notice validly issued under this Section 5.8. The Access Seeker may refer a Dispute about the recovery of these costs to dispute resolution in accordance with Section 16 of this Framework.

5.9 Creditworthiness of Access Seeker

- (a) **(Access Seeker to be creditworthy)** DBCT Management:

- (1) may remove from the Queue; and
- (2) regardless of whether the relevant Access Seeker has been removed from the Queue by DBCT Management, will not be required to enter into an Access Agreement or proceed with an Access Application with,

an Access Seeker which is or has become Insolvent or which, after DBCT Management's reasonable request, fails within a reasonable period to establish or confirm its likely creditworthiness for the term of the Access Agreement required, or to provide adequate Security from another entity which establishes or confirms its likely creditworthiness for the term of the Access Agreement required.

- (b) **(Information as to solvency)** To confirm the solvency and creditworthiness of an Access Seeker and, where DBCT Management requires, the provider of a Security, the Access Seeker will provide such information as may be reasonably requested by DBCT Management to establish that solvency and creditworthiness.
- (c) **(Provision of Security)** If an Access Seeker or, where DBCT Management requires, its Security provider, is unable to establish their solvency and creditworthiness in their own right, creditworthiness may be established by the Access Seeker and Security provider by providing further Security (as reasonably required by DBCT Management), for example (but not limited to) any one or more of:
- (1) letters of credit;
 - (2) tripartite agreements with project financiers; and
 - (3) guarantees or security from entities with a Standard and Poors or Moodys rating of not less than investment grade.
- (d) **(Access Agreement may permit Security to be required)** For clarification, nothing in this Section 5.9 limits the rights of DBCT Management under an Access Agreement to require Security (or additional Security) after the commencement of an Access Agreement in accordance with the terms of that Access Agreement.

5.10 Funding of feasibility studies

[Drafting Note: Consequential amendments to this clause 5.10 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

- (a) **(Funding of System Capacity studies)** If DBCT Management is required to undertake a System Capacity assessment under Section 11.1 which is not otherwise funded as part of feasibility studies for an Expansion Component under this Section 5.10, DBCT Management may recover the reasonable costs of such assessment as attributable to

the Existing Terminal through NECAP. DBCT Management will consult with and make available the results of all capacity assessments undertaken in accordance with Section 11.1 to all Access Holders and Expansion Parties, including separately identifying:

- (1) the assessed capacity of the Existing Terminal;
 - (2) the projected capacity of a Terminal Capacity Expansion, including, if relevant, the projected capacity of a Differentiated Expansion Component; and
 - (3) the Expansion Component options being considered in any feasibility studies under this Section 5.10.
- (b) **(Request for Access Applicants to Fund Feasibility Studies)** If DBCT Management, acting reasonably, concludes that the Aggregate Annual Contract Tonnages applied for in Access Applications lodged with it, together with all other relevant circumstances, justify the undertaking of a study to determine the feasibility of a relevant Terminal Capacity Expansion then DBCT Management may, subject to Section 5.10(c), give Access Applicants in the Queue a notice requesting that they enter into a Funding Agreement or Underwriting Agreement with DBCT Management. DBCT Management may not make such a request unless a Funding Agreement or Underwriting Agreement (as applicable) has been made and published on the DBCT Management's website in accordance with Section 5.10(q)(9)(A).
- (c) **(Notices will be given simultaneously)** DBCT Management will, in giving notices under Section 5.10(a), give such notices to all Access Applicants in the Queue, as relevant to the contemplated increase in Annual Contract Tonnage which would be facilitated by the Terminal Capacity Expansion under consideration, on or about the same date.
- (d) **(Requests to be proportionate to tonnages applied for)** DBCT Management will request that any funding or underwriting of the feasibility study or feasibility studies referred to in Section 5.10(a) pursuant to a Funding Agreement or Underwriting Agreement (as applicable) be proportionate amongst the relevant participating Access Applicants, according to the respective Aggregate Annual Contract Tonnages requested in their Access Applications over the first 10 years of Handling under the Conditional Access Agreement applied for by them.
- (e) **(Order of responses to notices)** DBCT Management must, in dealing with responses from Access Applicants to notices given by DBCT Management under Section 5.10(a), start with the response given by the Access Applicant that has the highest ranking in the Queue and proceed to the response given by each successive Access Applicant in order of their respective ranking in the Queue.
- (f) **(Position in Queue may be lost to subsequent Applicants)** If an Access Applicant is requested by DBCT Management to enter into a Funding Agreement or Underwriting Agreement but the Access Applicant:
- (1) declines to do so;
 - (2) fails to enter into a Funding Agreement or Underwriting Agreement (as applicable) with DBCT Management on such terms as DBCT Management reasonably requires within 3 months after being requested by DBCT Management to do so; or
 - (3) does not provide security required by DBCT Management in connection with the Funding Agreement or Underwriting Agreement (as applicable) within 3 months after being requested by DBCT Management to do so,
- (such an Access Applicant being a **Non-Funding Access Applicant**) then:

- (4) DBCT Management may, subject to Section 5.10(g), remove the Non-Funding Access Applicant from the Queue, in which case the Non-Funding Access Applicant's Access Application will be taken to have been rejected; or
- (5) if DBCT Management does not remove the Non-Funding Access Applicant from the Queue, then to the extent that any Access Applicant after the Non-Funding Access Applicant in the Queue within 3 months thereafter:
 - (A) enters into a Funding Agreement or Underwriting Agreement with DBCT Management; and
 - (B) provides security required by DBCT Management in relation to the Funding Agreement or Underwriting Agreement (as applicable) of at least the aggregate amount that is required by DBCT Management to fund or underwrite the study referred to in Section 5.10(a) in the proportion to which the tonnage applied for by an Access Applicant bears to the aggregate additional Annual Contract Tonnage that will be facilitated by the contemplated Terminal Capacity Expansion,

those subsequent Access Applicants will, from the date on which they are legally committed to provide or underwrite such feasibility funding and provide security under the Funding Agreement or Underwriting Agreement (as applicable), have priority in the Queue ahead of the Non-Funding Access Applicant.
- (g) **(Considerations regarding removal from Queue)** In considering whether to remove an Access Seeker from the Queue under section 5.10(f)(4), DBCT Management will have regard to the extent to which the additional Annual Contract Tonnage that will be facilitated by the contemplated Terminal Capacity Expansion is reasonably required to provide the Access rights sought by the Access Seeker.
- (h) **(Amendments to Access Application)** An Access Seeker may not amend its Access Application during the 3 month period which commences on the date the Access Seeker receives a notice from DBCT Management under Section 5.10(b).
- (i) **(Priorities restored if feasibility study does not proceed)** If an Access Applicant obtains a higher priority in the Queue as a result of Section 5.10(f), and DBCT Management elects not to proceed with the relevant feasibility study, then the relevant Access Applicant will again have the same priority in the Queue as it had as if Section 5.10(f) did not apply.
- (j) **(Clarifications)** Nothing in this Section 5.10:
 - (1) requires DBCT Management to proceed with a FEL 1 Feasibility Study, FEL 2 Feasibility Study or FEL 3 Feasibility Study (as the case may be) unless it secures a Funding Agreement or Underwriting Agreement in respect of the full cost of that feasibility study from one or more Access Seekers;
 - (2) prohibits an Access Seeker from providing more than its required proportion in respect of any funding or underwriting requested for Feasibility Studies (but providing a greater proportion does not in itself entitle that Access Seeker to any additional tonnage under an Access Agreement); or
 - (3) is to be taken as limiting the obligations of DBCT Management in Section 11.
- (k) **(Disputes relating to requests for Feasibility Funding)** If any Access Applicant considers that the terms of the Funding Agreement, Underwriting Agreement or the amount or type of security required in connection with the Funding Agreement or Underwriting Agreement requested by DBCT Management pursuant to

Sections 5.10(b) and 5.10(d) are not reasonable, it may within 3 months after being requested to enter into a Funding Agreement or Underwriting Agreement and to provide security, apply for Expert Determination to determine what is reasonable, and in such event:

- (1) the determination of the Independent Expert as to what is reasonable will apply in respect of what DBCT Management can require from each Access Applicant; and
- (2) the period of 3 months in Section 5.10(f) will become a period ending 15 days after the Independent Expert notifies its determination.

The terms of a Funding Agreement or Underwriting Agreement will be reasonable to the extent that they are consistent with the terms of the Funding Agreement or Underwriting Agreement (as applicable), or is otherwise approved by the Independent Expert in accordance with Section 5.10(q).

- (l) **(FEL 3 Feasibility Funding)** If DBCT Management having completed a FEL 1 Feasibility Study and FEL 2 Feasibility Study, acting reasonably and consistently with prudent business practice concludes that Aggregate Annual Contract Tonnage applied for in one or more Access Applications lodged with it, together with all other relevant circumstances, justify it undertaking a FEL 3 Feasibility Study, DBCT Management may, at its own cost, undertake a FEL 3 Feasibility Study. For clarity, if DBCT Management undertakes to independently fund a FEL 3 Feasibility Study this will not affect the entitlement of any Funding Access Seekers (which funded the relevant FEL 1 Feasibility Study and FEL 2 Feasibility Study) to continue to participate in any subsequent Expansion Component.
- (m) **(Transitional arrangements for previous funding)** If at the Commencement Date DBCT Management is undertaking a FEL 1 Feasibility Study or FEL 2 Feasibility Study in respect of a relevant proposed Terminal Capacity Expansion, DBCT Management may (by giving not less than 14 days written notice) give Access Applicants in the Queue a notice requesting that they enter into a Funding Agreement or Underwriting Agreement with DBCT Management in which case:
 - (1) Sections 5.10(d), 5.10(e), 5.10(f), 5.10(g), 5.10(i) and 5.10(k) apply (with such modifications as the circumstances require); and
 - (2) if the Feasibility Study being undertaken at the Commencement Date is a FEL 2 Feasibility Study, the Funding Agreement and Underwriting Agreement will apply to the FEL 2 Feasibility Study and the FEL 1 Feasibility Study which preceded the FEL 2 Feasibility Study.
- (n) **(Credit for prior Funding, and refunds)** If an Access Seeker has provided funding for a Feasibility Study referred to in Section 5.10(m) prior to the Commencement Date, the amount funded will be deemed to be a contribution to the funding requested under Section 5.10(m). To the extent that an Access Seeker has contributed funds (as opposed to underwriting the funding) prior to the Commencement Date in excess of the funds required to be contributed under Section 5.10(m) DBCT Management may elect to refund to that Access Seeker such excess funding or credit it towards any further contribution to a Feasibility Study required or agreed to be paid by that Access Seeker.
- (o) **(Contributions to Funding of Feasibility Studies by DBCT Management)** DBCT Management may at its discretion elect to itself bear, or be required under law or by the Port Services Agreement to itself fund, all or part of the costs of a FEL 1 Feasibility

Study, FEL 2 Feasibility Study or FEL 3 Feasibility Study which one or more Access Applicants do not fund or underwrite in accordance with a Funding Agreement or Underwriting Agreement (as applicable). Nothing in this Section 5.10(o) affects:

- (1) DBCT Management's rights to apply to have such sum included in the relevant Regulated Asset Base if the relevant proposed Terminal Capacity Expansion proceeds;
 - (2) DBCT Management's right to apply to have such sum (but not exceeding 20% of the prudent cost of the FEL 1 Feasibility Study or FEL 2 Feasibility Study (as relevant)) included in the relevant Regulated Asset Base on a Review Event if the proposed Terminal Capacity Expansion does not proceed;
 - (3) DBCT Management's rights to apply to have such sum included in the relevant Regulated Asset Base if DBCT Management is required by Section 11 of this Framework to investigate or undertake a Terminal Capacity Expansion; or
 - (4) DBCT Management's obligation to fund a FEL 3 Feasibility Study.
- (p) **(Refund of FEL1, FEL 2 and FEL 3 contributions if Terminal Capacity Expansion proceeds)** In the event that the Terminal Capacity Expansion the subject of a FEL 1 Feasibility Study and FEL 2 Feasibility Study and FEL 3 Feasibility Study proceeds and substantial site works commence, DBCT Management will promptly following the commencement of substantial site works:
- (1) refund to each Funding Access Seeker who contributed funds (as opposed to underwriting the funding) under Section 5.10(b) for that Terminal Capacity Expansion the funds provided by that Access Seeker; and
 - (2) release any underwriting commitment made by each Funding Access Seeker in respect of that Terminal Capacity Expansion.
- (q) **(Preparation and approval of Standard Funding Agreement or Standard Underwriting Agreement)**
- (1) DBCT Management must prepare a proposed Standard Funding Agreement or proposed **Standard Underwriting Agreement** (as applicable) (**Proposed Standard Funding/Underwriting Agreement**) where:
 - (A) DBCT Management considers there to be reasonable likelihood that the Aggregate Annual Contract Tonnage applied for in an Access Application or Conditional Access Agreement may justify undertaking Feasibility Studies during the term of the Access Framework; or
 - (B) DBCT Management receives a written notice from an Access Seeker or Access Holder requesting DBCT Management develops a Proposed Standard Funding/Underwriting Agreement.
 - (2) In preparing a Proposed Standard Funding/Underwriting Agreement DBCT Management must consult with Access Seekers, Expansion Parties and Access Holders.
 - (3) A Proposed Standard Funding/Underwriting Agreement must be reasonable in all of the circumstances having regard to terms of the Framework and:
 - (A) the legitimate business interests of DBCT Holding in its capacity as the owner of the Terminal;
 - (B) legitimate business interests of DBCT Management in its capacity as the Operator of the Terminal;

- (C) public interest, including the public interest in having competition in markets (whether or not in Australia); and
 - (D) interests of Access Seekers who have signed an Access Application Form or Access Renewal Form (as set out at Schedule A), or who are a party to a Conditional Access Agreement and Access Applicants, including whether adequate provision has been made for compensation if the rights of the Access Holders are adversely affected.
- (4) DBCT Management must publish the Proposed Standard Funding/Underwriting Agreement on its website and must separately notify all Access Holders and Access Seekers promptly following publication of DBCT Management's Proposed Standard Funding/Underwriting Agreement.
 - (5) An Access Seeker or Access Holder may, within 3 months after receiving the notice from DBCT Management, give DBCT Management a Dispute Notice under Section 16.1 regarding whether the Proposed Standard Funding/Underwriting Agreement is consistent with Section 5.10(q)(3). Such notice must specify the way in which the Access Seeker or Access Holder considers that the Proposed Standard Funding/Underwriting Agreement fails to satisfy Section 5.10(q)(3) and, if necessary, any amendments which the Access Seeker or Access Holder considers are necessary to satisfy Section 5.10(q)(3).
 - (6) If the dispute is not resolved in accordance with Section 16.2, such dispute is to be resolved in accordance with Section 16.4 .
 - (7) An Arbitrator is to decide whether the Proposed Standard Funding/Underwriting Agreement satisfies Section 5.10(q)(3). If the Arbitrator decides that the Proposed Standard Funding/Underwriting Agreement does not satisfy Section 5.10(q)(3) it is to decide the terms of an alternative proposed Standard Funding Agreement or alternative proposed Standard Underwriting Agreement (as applicable) (**Alternative Proposed Standard Funding/Underwriting Agreement**) that it considers will satisfy Section 5.10(q)(3), provided that the Arbitrator must give DBCT Management a reasonable opportunity to consider and comment on the draft. The Arbitrator will take into account any comments made by DBCT Management in relation to the Arbitrator's 's draft.
 - (8) Notwithstanding a notice given under Section 5.10(q)(5), the Arbitrator may approve the Proposed Standard Funding/Underwriting Agreement, if the Arbitrator considers it reasonable in all of the circumstances having regard to terms of the Framework and the matters set out in clause 5.10(q)(3)(A) to 5.10(q)(3)(F).
 - (9) If no notice is given under Section 5.10(q)(5); or if the Arbitrator decides that the Proposed Standard Funding/Underwriting Agreement satisfies Section 5.10(q)(3); or if the Arbitrator decides that an Alternative Proposed Standard Funding/Underwriting Agreement satisfies Section 5.10(q)(3), then:
 - (A) the Proposed Standard Funding/Underwriting Agreement (or the Alternative Proposed Standard Funding/Underwriting Agreement as the case may be) will become the approved Standard Funding Agreement or the approved Standard Underwriting Agreement (as applicable), which is to be published on DBCT Management's website; and
 - (B) DBCT Management will, if requested by Access Seekers or Access Holders, enter into agreements with Access Seekers or Access Holders, on the terms

of the approved Standard Funding Agreement or approved Standard Underwriting Agreement (as applicable), unless otherwise agreed between DBCT Management and the relevant Access Seeker or Access Holder.

- (10) For clarity, nothing in this Section 5.10(q) limits or restricts DBCT Management or an Access Seeker or Access Holder from referring as a Dispute any failure to agree reasonable amendments to a Standard Funding Agreement/Underwriting Agreement where it is being used in respect of a specific Terminal Capacity Expansion.

5.11 Existing User Agreement Process

If an Access Agreement or an Existing User Agreement provides a mechanism for applications for additional capacity to be made by the relevant Access Holder under that agreement, those provisions may be utilised by that Access Holder in respect of additional capacity sought under that agreement, but such application will be treated as an Access Application for the purposes of Section 5.4, and any other Section in Section 5 which is not inconsistent with the terms of that agreement will apply.

5.12 Review of Pricing Method and Indicative Access Charges

[Drafting Note: Consequential amendments to this clause will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

(a) **(Review of estimated Access Charges)** Where an Indicative Access Proposal has been prepared on the basis that a Terminal Capacity Expansion would be required in order to accommodate the relevant Access Application:

(1) as soon as practicable and in any event within 20 Business Days following completion of a FEL 1 Feasibility Study, DBCT Management must review the Indicative Access Proposal and provide the Access Seeker with a revised assessment of the applicable Pricing Method and estimated Access Charges for the Services requested in the Access Application (a **Revised Pricing Proposal**);

(2) as soon as practicable and in any event within 20 Business Days following completion of a FEL 2 Feasibility Study which supports proceeding to a FEL 3 Feasibility Study (including where that support is conditional on whether an Expansion Component will be priced Differentially or Socialised), DBCT Management must (unless it has already done so pursuant to Section 11.5(a)) review the Revised Pricing Proposal and apply to an Expansion Arbitrator for a determination as to how it intends to treat the following matters in respect of the Terminal Capacity Expansion under Section 11.5:

(A) the applicable Pricing Method for the Terminal Capacity Expansion;

(B) if the applicable Pricing Method is determined by an Expansion Arbitrator to be Differential, what Access Charges should apply to the Expansion Component, (a **Price Ruling**); and

(C) any Different Terms for an Access Agreement in respect of the Terminal Capacity Expansion agreed.

(b) **(Application for Price Ruling)** An application for a Price Ruling shall include:

(1) information about the nature and amount of Capital Expenditure forecast to carry out the Terminal Capacity Expansion, as assessed in any Feasibility Studies;

(2) information about any Different Terms that will have been agreed;

- (3) a justification as to why the Access Agreement (incorporating any Different Terms) does not, and need not, comply with the Standard Access Agreement, but will nevertheless be economically and operationally prudent and result in DBCT Management achieving a regulated return that is commensurate with the cost and risks involved with the Terminal Capacity Expansion;
 - (4) information about the increase in Terminal Capacity expected to arise from the Terminal Capacity Expansion (and expected increases to System Capacity);
 - (5) information about positive or negative impacts on existing users of the Terminal or existing operations of the Terminal;
 - (6) information about the forecast demand for Access to the increased Terminal Capacity;
 - (7) an assessment of the Pricing Method applicable to the Terminal Capacity Expansion, applying the Expansion Pricing Principles;
 - (8) information about the anticipated impact on Non-Expansion Costs for the Terminal; and
 - (9) an estimate of the Reference Tariff that will apply to the Terminal Component the subject of the Terminal Capacity Expansion, if it was Differentiated and if it was Socialised, having regard to the information referred to above and the other pricing arrangements set out in Section 10.
- (c) **(Expansion Arbitrator to provide Price Ruling)** In response to an application for a Price Ruling, the Expansion Arbitrator shall, after conducting an investigation:
- (1) determine the application; and
 - (2) determine whether the Terminal Capacity Expansion should be Socialised or Differentiated, applying the Expansion Pricing Principles.

5.13 Access Transfers

- (a) In processing any request by an Access Holder or Access Seeker for a transfer of rights or entitlements under an Access Agreement (whether by way of assignment or novation), DBCT Management must consent to any such proposed transfer unless DBCT Management (acting reasonably) is satisfied that:
 - (1) the assignor is in material breach of its Access Agreement;
 - (2) the assignee:
 - (A) is not of good financial standing, creditworthy and able to fully discharge the financial obligations of the Access Holder under the relevant Access Agreement or the assignee has not otherwise provided security in a form acceptable to DBCT Management (acting reasonably) for the performance of the obligations under this Agreement in respect of the transferred rights or entitlements;
 - (B) is incapable of performing the obligations of the Access Holder under the Access Agreement in respect of the transferred rights or entitlements, including complying with the Terminal Regulations; and
 - (C) is unable to reasonably demonstrate that the rights or entitlements to be transferred under the relevant Access Agreement are matched by an entitlement to railway track access held by the assignee or a person on its behalf.

- (b) The assignor must provide all information reasonably required by DBCT Management to assess the criteria specified in Section 5.13(a) to DBCT Management in a timely manner.
- (c) DBCT Management must take all steps necessary to assess and respond to any request for a transfer as soon as reasonably practicable.
- (d) Without limitation to Section 16, an Access Holder or an Access Seeker may refer to the Arbitrator as a dispute under this Framework:
 - (1) any refusal by DBCT Management to consent to a transfer;
 - (2) any failure to agree the reasonable terms governing an Access Agreement which is the subject of a transfer;
 - (3) any failure by DBCT Management in assessing or responding to a request for transfer in a timely manner.

6 Terminal Regulations

6.1 Compliance with Terminal Regulations

- (a) **(Compliance by DBCT Management and Operator)** DBCT Management acknowledges that under the Operation & Maintenance Contract DBCT Management and the Operator must comply with the Terminal Regulations. DBCT Management must comply with, and will procure that the Operator complies with, the Terminal Regulations in force from time to time.
- (b) **(Compliance by Access Holders is condition of access)** Each Access Holder must observe the Terminal Regulations, in force from time to time, as a condition of access to and the right to have its coal Handled at the Terminal.

6.2 Amendment of Terminal Regulations

- (a) **(Process for amending Terminal Regulations)** The Operator may, from time to time, by written notice to DBCT Management, propose amendments to the Terminal Regulations regarding operational issues. If the Operator submits to DBCT Management a proposed amendment to the Terminal Regulations DBCT Management must:
 - (1) conduct reasonable consultation with Access Holders, Access Seekers, Expansion Parties and/or Rail Operators in relation to the proposed amendment; and
 - (2) following the completion of such reasonable consultation, notify the Access Holders, Access Seekers, Expansion Parties and Rail Operators of:
 - (A) the wording of the proposed amendment;
 - (B) whether it has given its consent to the proposed amendment;
 - (C) the detailed reasons for its decision to give (or not give) consent to the proposed amendment; and
 - (D) except in the case of notification to Rail Operators, that there is a 30 day period for notifying DBCT Management of any objections to the decision to consent or not consent (as applicable) to the amendment.
- (b) **(Implementation of amended Terminal Regulations)** A proposed amendment to the Terminal Regulations will not be implemented unless:

- (1) DBCT Management has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with Section 6.2(a)(1); and
- (2) one of the following has occurred:
 - (A) DBCT Management has consented to the proposed amendment to the Terminal Regulations and no Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent being provided to the proposed amendments within 30 days of being notified of the amendments by DBCT Management;
 - (B) DBCT Management has consented to the proposed amendments to the Terminal Regulations and while an Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent being provided to the proposed amendments within 30 days of being notified of the amendments by DBCT Management, an Independent Expert appointed to hear the objection (in accordance with Section 6.2(f)) has rejected that objection; or
 - (C) DBCT Management has not consented to the proposed amendments to the Terminal Regulations, but an Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent not being provided, and an Independent Expert appointed to hear the objection (in accordance with Section 6.2(g)) has upheld that objection.
- (c) **(Consent of DBCT Management)** DBCT Management will only give its consent to a proposed amendment to the Terminal Regulations under Section 6.2(b)(2)(A) or 6.2(b)(2)(B) if it has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with Section 6.2(a)(1) and, taking into account the results of such consultation, it reasonably considers that:
 - (1) the amendments relate to operational issues;
 - (2) the amended Terminal Regulations, as a whole, will operate equitably amongst Access Holders, Access Seekers (should they become Access Holders) and Expansion Parties (should they become Access Holders) and, where the relevant amendments affect Rail Operators, amongst affected Rail Operators;
 - (3) the amendments are consistent with this Framework, and any Access Agreements; and
 - (4) the amendments are reasonably necessary for the operation of the Terminal in accordance with applicable laws and regulatory standards, Approvals, Good Operating and Maintenance Practice or any costs or obligations imposed are justified by the efficiency benefits arising from those costs or obligations.
- (d) **(Criteria for disputing refusal to provide consent)** If DBCT Management does not provide its consent to a proposed amendment to the Terminal Regulations, an Access Holder, Access Seeker or Expansion Party may object to DBCT Management's refusal to provide consent if they reasonably consider that:
 - (1) the amendments relate to operational issues;
 - (2) the amended Terminal Regulations, as a whole, will operate equitably amongst Access Holders, Access Seekers (should they become Access Holders) and Expansion Parties (should they become Access Holders) and, where the relevant amendments affect Rail Operators, amongst affected Rail Operators;

- (3) the amendments are consistent with this Framework and any Access Agreements; and
 - (4) the amendments are reasonably necessary for the operation of the Terminal in accordance with applicable laws and regulatory standards, Approvals, Good Operating and Maintenance Practice or any costs or obligations imposed are justified by the efficiency benefits arising from those costs or obligations.
- (e) **(Notice of amendments to Terminal Regulations)** DBCT Management must notify all Access Holders, Access Seekers, Expansion Parties and Rail Operators of any amendments to the Terminal Regulations that have been approved and must provide a copy of the amended Terminal Regulations to these parties (which may be by way of reference to the website on which the amended Terminal Regulations are available in accordance with Section 6.2(i)).
- (f) **(Objection to DBCT Management decision to approve amendment of Terminal Regulations)**
- (1) If:
 - (A) DBCT Management has given its consent to a proposed amendment to the Terminal Regulations; and
 - (B) an Access Holder, Access Seeker or Expansion Party objects to the proposed amendment on the basis that it reasonably considers that the criteria specified in Sections 6.2(c)(1) to 6.2(c)(4) are not satisfied,
then the Access Holder, Access Seeker or Expansion Party may, within 30 days after being notified of DBCT Management's consent, notify DBCT Management of its objection to the consent to the proposed amendment, such objection to be determined by an Independent Expert.
 - (2) If, in response to an objection notified by an Access Holder, Access Seeker or Expansion Party (whether under Section 6.2(f)(1) of this Framework or any corresponding provision of an Access Agreement), the Independent Expert determines that the criteria specified in Sections 6.2(c)(1) to 6.2(c)(4) are not satisfied then:
 - (A) the proposed amendment and DBCT Management's consent to the proposed amendment will be taken to have been withdrawn; and
 - (B) the proposed amendment will not be made.
- (g) **(Objection to DBCT Management decision to reject amendment of Terminal Regulations)**
- (1) If:
 - (A) DBCT Management has refused to give its consent to a proposed amendment to the Terminal Regulations; and
 - (B) an Access Holder, Access Seeker or Expansion Party objects to DBCT Management not providing consent to the proposed amendment on the basis that it reasonably considers that the criteria specified in Sections 6.2(c)(1) to 6.2(c)(4) are satisfied,
then the Access Holder, Access Seeker or Expansion Party may within 30 days of being notified of DBCT Management's refusal to give its consent to a proposed amendment to the Terminal Regulations, notify DBCT Management of its objection to DBCT Management not providing consent

for the proposed amendment, such objection to be determined by an Independent Expert.

- (2) If, in response to an objection notified by an Access Holder, Access Seeker or Expansion Party (whether under Section 6.2(g)(1) of this Framework or any corresponding provision of an Access Agreement), the Independent Expert determines that the criteria in Sections 6.2(c)(1) to 6.2(c)(4) are satisfied, then:
- (A) DBCT Management's consent to the proposed amendment will be deemed to have been given; and
 - (B) the proposed amendment will be made.
- (h) **(Protection of DBCT Management)** Subject to DBCT Management complying with Section 6.2(b), DBCT Management will not be liable to the Rail Operators or Access Seekers (and the Standard Access Agreement will provide that DBCT Management will have no liability (on any basis whatsoever) to an Access Holder which executes it) as a result of DBCT Management consenting to an amendment to the Terminal Regulations or the due implementation and observance of an amendment to the Terminal Regulations, as long as DBCT Management had in all respects acted reasonably and in good faith and (acting reasonably and in good faith) had formed the opinion required by Section 6.2(c). For clarification, this does not affect DBCT Management's obligation to do anything required on its part to cause the termination or consequential amendment of a Terminal Regulation after any determination that the Terminal Regulation breaches this Framework or a relevant Access Agreement.
- (i) **(DBCT Management to make copies available)** DBCT Management must make a copy of the Terminal Regulations available to each Access Holder, Access Seeker and Rail Operator (which may be by displaying it on DBCT Management's website).

7 Confidentiality requirements

7.1 Confidential Information to be kept confidential

Subject to Section 5.4(c) each relevant Access Seeker, Access Holder and DBCT Management will, at all times, keep confidential and not disclose to any other person, any Confidential Information exchanged under the negotiation arrangements in Section 5 of this Framework or any other part of this Framework, except:

- (a) where disclosure is required by any law or legally binding order of any court, government, semi-government authority, administrative or judicial body, or requirement of a stock exchange or regulator;
- (b) with the prior written consent of the relevant Access Seeker or DBCT Management, as applicable;
- (c) where disclosure is to the recipient's professional advisors provided that such professional advisors are under a duty of confidentiality;
- (d) to the extent disclosure is necessary for notifications to financiers, brokers, insurers or claims assessors or reasonably necessary in connection with seeking financing from a bona fide financier, provided that the broker, insurer, claims assessor or financier to whom the disclosure is made is under a legal obligation to keep the information confidential;
- (e) where disclosure is made to any person or body established to provide coordination in the Dalrymple Bay Coal Chain;

- (f) where disclosure is to an expert, Independent Expert, an Arbitrator, an Expansion Arbitrator, or a court (in the case of a party seeking urgent injunctive relief) to the extent necessary for resolving a Dispute provided that DBCT Management does not disclose the Confidential Information of one Access Seeker to another Access Seeker without the first Access Seeker's consent, unless directed to by the an expert, Independent Expert, an Arbitrator, an Expansion Arbitrator or a court (as the case may be); or
- (g) to the extent disclosure is required to protect the safety or security of persons or property or in connection with an accident or emergency.

7.2 Confidentiality deed

If required by either party, the parties will enter into a confidentiality deed substantially in the form set out in Schedule D of this Framework.

7.3 Use of Confidential Information

Without limiting the circumstances specified in this Section 7 in which Confidential Information may be used or disclosed, both the Access Seeker and DBCT Management must otherwise only use Confidential Information provided by the other party for the purposes for which it was provided.

7.4 Reporting of aggregated information

For the avoidance of doubt, nothing in this Section 7 prevents DBCT Management from:

- (a) complying with its obligations under Sections 9.1 and 9.2; or
- (b) disclosing, in the ordinary course of business, financial reporting information which has been aggregated with other information of a similar nature such that it cannot reasonably be, and is not reasonably capable of being, identified with, attributed to or used to identify, any Access Seeker, Access Holder, or Rail Operator.

8 Ring-fencing arrangements

8.1 No related Supply Chain Businesses

DBCT Management and its Related Bodies Corporate will not own or operate a Supply Chain Business in any market that is related to or uses the Terminal.

8.2 Non-discrimination

DBCT Management will not:

- (a) engage in conduct for the purpose of preventing or hindering an Access Holder's or Access Seeker's Access; or
- (b) unfairly differentiate between Access Seekers, Access Holders, or Rail Operators.

8.3 Confidentiality undertaking by board members

DBCT Management will ensure that each of its directors executes a confidentiality deed pursuant to which the relevant director agrees to only use and disclose Confidential Information obtained as a director of DBCT Management in connection with its role as a director of DBCT Management.

8.4 Complaint handling

If an Access Holder, Access Seeker, Rail Operator or other affected party considers that DBCT Management may have breached one or more of its obligations under this Section 8 they

may raise a dispute in respect of such complaint in accordance with Section 16 of this Framework.

9 Reporting by DBCT Management

9.1 Indicators relating to compliance with this Framework

DBCT Management will Publicly Report on an annual basis the following information:

- (a) **(Indicative Access Proposals)** the number and percentage of total Indicative Access Proposals provided within the applicable timeframe;
- (b) **(Access Applications)** the number and percentage of Access Applications received for which an extension of time for provision of an Indicative Access Proposal was sought by DBCT Management;
- (c) **(Response times)** the average delay (in days) taken to provide an Indicative Access Proposal not provided within the applicable timeframe;
- (d) **(Disputes)** the number of instances where a Dispute has been referred to dispute resolution in accordance with Section 16;
- (e) **(Negotiation periods for successful outcomes)** the average length of the negotiation period (in days), where the negotiation period has commenced and has ceased as the result of the execution of an Access Agreement in respect of the Access sought by the Access Seeker;
- (f) **(Negotiation periods where no Access Agreement signed)** the average length of the negotiation period (in days), where the negotiation period has commenced and has ceased as the result of any reason other than the execution of an Access Agreement in respect of the Access sought by the Access Seeker;
- (g) **(Access Transfer Applications)** in respect of the Access Transfer processes set out in Section 5.13, the following:
 - (1) the number of requests received for a transfer of rights or entitlements; and
 - (2) the period taken to resolve each transfer, being in each case the period from the date of receipt of the request and ending on the earliest of the date that:
 - (A) an Access Agreement facilitating the transfer was executed by DBCT Management;
 - (B) DBCT Management gave notice to the transferor that consent for the transfer was refused; or
 - (C) any notice was given to the Arbitrator of a dispute in relation to the purported transfer;
- (h) **(Access Agreements concluded)** the number of instances where a negotiation period that had commenced, ceased as the result of the execution of an Access Agreement in respect of the Access sought by the Access Seeker; and
- (i) **(Complaints)** written complaints received by DBCT Management in relation to its compliance with this Framework.

9.2 Indicators relating to service quality

DBCT Management is required to Publicly Report on the following service quality key performance indicators for the Terminal on a quarterly basis:

- (a) **(System delivery):**

- (1) number of trains requested by the Operator and scheduled by the rail providers to arrive at the Terminal;
 - (2) actual number of trains completing unloading at the Terminal;
 - (3) number of tonnes of coal scheduled to be delivered to the Terminal; and
 - (4) number of tonnes of coal actually delivered to the Terminal,
- for each month of the quarter.
- (b) **(Inloading performance):**
- (1) average train unloading time at the Terminal (on a Terminal job-open to job-close basis); and
 - (2) average train unload time (from permission to unload the train until unloading of the last wagon is complete),
- for each month of the quarter.
- (c) **(Stockyard performance):**
- (1) average stock-build time per parcel; and
 - (2) average stock-residence time per parcel,
- for each month of the quarter.
- (d) **(Out-loading performance):**
- in respect of each outloading conveyor:
- (1) average gross load rate per vessel class – first coal to last coal; and
 - (2) average utilisation of out-load conveyors,
- for each month of the quarter.
- (e) **(Vessel performance):**
- (1) number of vessels (by class);
 - (2) average number of parcels per vessel (by class);
 - (3) total tonnes per vessel (by class); and
 - (4) total tonnes shipped,
- for each month of the quarter.
- (f) **(Vessel queuing)** (vessels which have arrived and are awaiting berthing to load):
- (1) average daily total vessels in queue;
 - (2) average daily number of vessels in queue where relevant coal is not yet available to be railed to the Terminal (“dead ships”);
 - (3) vessel queuing times;
 - (4) queue ordering; and
 - (5) average waiting time to berth at anchor,
- for each month of the quarter.
- (g) **(Operating efficiency)** inloading and outloading.
- (h) **(Environmental performance):**
- (1) number of times during each month of the quarter that the “management objective” (as provided for in the Terminal’s environmental licence and approvals) in dust deposition was exceeded; and

- (2) number of times during each month of the quarter that the “acoustic quality objective” (as provided for in the Terminal’s environmental licence and approvals) was exceeded.
- (i) **(Other)** any additional or alternative service quality key performance indicators that DBCT Management and Access Holders agree from time to time.

10 Pricing arrangements

[Drafting Note: This clause will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

10.1 Interpretation of Pricing Provisions

In this undertaking, the following principles of interpretation shall apply:

- (a) **(Single meaning where only Socialisation applies)** for so long as Access to the Terminal continues to be priced on a Socialised basis, such that there is a single Annual Revenue Requirement for the entire Terminal, the Terms and definitions of this Undertaking relevant to pricing apply to all Access collectively; and
- (b) **(Alternative meanings where Differentiation applies)** where, pursuant to Section 10.13, Access to the Terminal is charged to one or more Access Holders on a Differentiation basis, such that multiple Regulated Asset Bases, and Annual Revenue Requirements exist in respect of various Terminal Components, the terms and definitions of this Undertaking relevant to pricing apply to each Terminal Component separately.

10.2 Pricing objectives

In developing Access Charges, DBCT Management’s objectives are to:

- (a) **(Achieve ARR)** achieve the ARR in each Financial Year in accordance with this Undertaking; by way of the Revenue Cap plus any applicable Additional Tonnage Amount;
- (b) **(Efficient utilisation)** provide incentives for efficient utilisation of Terminal Capacity by Access Holders;
- (c) **(Equity)** ensure equitable treatment of Access Holders and Access Seekers;
- (d) **(Efficient investment)** encourage efficient future investment in the Terminal;
- (e) **(Recovery of Operating Costs)** ensure full recovery (but not over-recovery) from Access Holders of Terminal Operating Costs; and
- (f) **(Efficient Operating Costs)** ensure efficient Terminal Operating Costs.

10.3 Access Charges

Access Charges for each Terminal Component will comprise two parts:

- (a) a Capital Charge, being:
- (1) in respect of Reference Tonnage, the Reference Tariff;
 - (2) in respect of any Excess Tonnage, the Excess Charge;
 - (3) where applicable, the Year End Adjustment and the Provisional Increment Repayment; or
 - (4) in respect of Non-Reference Tonnage, such tariff as is agreed between DBCT Management and an Access Holder; and

- (b) an Operation & Maintenance Charge.

10.4 Reference Tariff

- (a) **(Applies to Reference Tonnage)** A Reference Tariff will apply to all Reference Tonnage, or where Section 10.1(b) applies, a different Reference Tariff for the Reference Tonnage in respect of each Terminal Component.
- (b) **(Revenue Cap)** Each Reference Tariff for each Terminal Component will be set such that, in each Financial Year, the Revenue Cap for that Terminal Component will be recovered by DBCT Management over the Aggregate Reference Tonnage for that Terminal Component.
- (c) **(TIC)** Each Reference Tariff will comprise a single component Terminal Infrastructure Charge (TIC), being an amount per tonne payable by a relevant Access Holder at a relevant time, calculated (and adjusted as required) in accordance with Schedule C.
- (d) **(Reviews of Reference Tariff, etc)** On each occasion referred to in Schedule C, DBCT Management will (and, on each occasion mentioned in Section 11.5(o), DBCT Management may, but is not obliged to) submit to the QCA a request for the QCA to approve an appropriate amendment of each relevant ARR, Revenue Cap and Reference Tariff, to the extent that they are affected by the occasion referred to in Schedule C, or Section 11.5(o) (as the case may be), in accordance with Schedule C. They will be mended (effective from the relevant date in Schedule C) when that approval is given by the QCA.
- (e) **(ARR notified to Access Seekers)** Where a Reference Tariff has been calculated from the ARR, that Reference Tariff will be an acceptable means by which DBCT Management provides Access Seekers with information about the matters listed in Sections 101(2)(a) to (c) of the QCA Act (as provided for in accordance with Section 101(4) of the QCA Act).

10.5 Excess Charge

- (a) The Excess Charge will apply to all Excess Tonnage.
- (b) The Excess Charge will be calculated in accordance with Schedule C

10.6 Year End Adjustment

- (a) The Year End Adjustment (if any) will apply where any Excess Tonnage is Handled in a Financial Year.
- (b) The Year End Adjustment will be calculated in accordance with Schedule C

10.7 Increment

DBCT Management is entitled to add an Increment to the Revenue Cap otherwise applying, in the circumstances outlined in Schedule C. DBCT Management may retain a Provisional Increment pending the outcome of an application for the

Increment. The Provisional Increment will be calculated in accordance with Schedule C

10.8 Provisional Increment Repayment

The Provisional Increment Repayment (if any) will apply where DBCT Management has retained an amount in accordance with Schedule C (the Provisional Increment) but that amount must subsequently be repaid to relevant Access Holders pursuant to Schedule C Sub-Section

10.9 Payment and adjustment of Capital Charges

- (a) **(Interim payments)** Each Access Holder will pay to DBCT Management in respect of its Reference Tonnage a payment in each Month of each Financial Year during the term of its Access Agreement (the **Monthly Payment**) calculated (and adjusted as required) in accordance with Schedule C
- (b) **(Financial Year end adjustments)** After the end of each Financial Year:
- (1) each Access Holder will pay any Excess Charge applicable to it in respect of the Financial Year (or the balance of the Excess Charge if any prepayment has been made);
 - (2) DBCT Management will pay any Year End Adjustment in respect of the Financial Year, due to each Access Holder; and
 - (3) DBCT Management will pay any Provisional Increment Repayment in respect of the Financial Year, due to each Access Holder.

10.10 Operation & Maintenance Charge

- (a) **(Terminal Operating Costs recovery)** Terminal Operating Costs will be recovered from each Access Holder through the Operation & Maintenance Charge. The Operation & Maintenance Charge for each Access Holder will be calculated on the basis outlined in the Standard Access Agreement and otherwise in accordance with the Operations & Maintenance Contract.
- (b) Where a Differentiated Expansion Component exists and Terminal Operating Costs are required to be allocated between different Terminal Components, then the Operation & Maintenance Charge for each Access Holder will be calculated in accordance with the following procedure:
- (1) the quantum of Terminal Operating Costs, and the proposed allocation among Terminal Components, will be advised to DBCT Management by the Operator. The Operator will determine the allocation in accordance with Section 10.11(a); and
 - (2) DBCT Management will review the quantum and allocation proposed by the Operator and submit the proposed quantum and allocation to the QCA annually for approval, indicating, where relevant, any variation it considers necessary to comply with Section 10.10(c)(3);
 - (3) DBCT Management will recover the Operation & Maintenance Charge from Access Holders in accordance with the QCA's decision.
- (c) **(Notifications, payments and adjustments)** DBCT Management will:
- (1) notify Access Holders of estimated Terminal Operating Costs annually in advance;

- (2) recover such estimated costs monthly;
- (3) notify Access Holders of any applicable adjustment at the end of each Financial Year – to recover any shortfall or to reimburse Access Holders in the event of over-recovery by DBCT Management; and
- (4) recover or reimburse at the end of each quarter and at the end of a Financial Year (as the case may be), such amount (if any) as referred to in Section 10.10(c)(3).

10.11 Cost Allocation

- (a) **(Cost allocation as per Cost Allocation Manual)** Where this undertaking provides for:
 - (1) allocation of Terminal Operating Costs among multiple Terminal Components; or
 - (2) the inclusion in a Regulated Asset Base of Capital Expenditure not related to a Terminal Capacity Expansion, and there are multiple Terminal Components, the cost in question is to be allocated in accordance with the Cost Allocation Manual or, if no Cost Allocation Manual exists, in accordance with the Cost Allocation Principles. Any dispute as to the allocation of costs in accordance with the Cost Allocation Manual may be referred under Section 16 of the .
- (b) **(Request for Cost Allocation Manual)** When the first Price Ruling is made, the QCA shall request that DBCT Management prepare a draft Cost Allocation Manual pursuant to section 159 of the QCA Act.
- (c) **(Preparation of draft Cost Allocation Manual)** DBCT Management will prepare and submit to the QCA for approval a draft Cost Allocation Manual within 60 days of a request from the QCA to do so.
- (d) **(Preparation of revised draft Cost Allocation Manual)** DBCT Management shall, if so requested by the QCA, prepare and submit within 60 days of such request, a revised draft Cost Allocation Manual that satisfies the requirements of the QCA.
- (e) **(Consulting in good faith with the Operator)** DBCT Management shall consult in good faith with the Operator in preparing the Cost Allocation Manual and updating it, from time to time.
- (f) **(Approval of Cost Allocation Manual)** The QCA shall prepare the final Cost Allocation Manual in accordance with section 159 of the QCA Act and publish the Cost Allocation Manual in accordance with section 160 of the QCA Act.
- (g) **(Cost Allocation Manual requirements)** The Cost Allocation Manual should:
 - (1) provide a transparent basis for assigning costs to separate Terminal Components in different circumstances; and
 - (2) be consistent with the Cost Allocation Principles.
- (h) **(Cost Allocation Principles):**
 - (1) Where costs of a Terminal Capacity Expansion should be Socialised, other Non-Expansion Costs should be included in the Existing Terminal's Regulated Asset Base.
 - (2) Where costs of a Terminal Capacity Expansion should not be Socialised, other Non-Expansion Costs should be allocated:
 - (A) **(Identifiable cost)** if the cost is uniquely identified or directly incurred in relation to a particular Terminal Component, to that Terminal Component's Regulated Asset Base;

- (B) **(Attributable cost)** if the cost is not an identifiable cost, but there is a reasonable causal relationship between the cost and one or more Terminal Components, to the Regulated Asset Bases for those Terminal Components, in proportion to their reasonably estimated cost drivers; and
- (C) **(Non-identifiable and non-attributable cost)** if the cost is neither identifiable nor attributable to a particular Terminal Component, on a reasonable basis between the Regulated Asset Bases for the Terminal Components.

10.12 Limits on price differentiation

- (a) Subject to paragraph 10.12(b), DBCT Management will not differentiate Access Charges between Access Seekers or between Access Seekers and Access Holders of a Terminal Component, other than to reflect differences in costs (direct or indirect) or risks to DBCT Management of providing Access. Where DBCT Management proposes a Capital Charge that varies from the Capital Charge applied in respect of Reference Tonnage for that Terminal Component, it must demonstrate to the Access Seeker that the divergence is justified. In doing so, DBCT Management must provide sufficient information to adequately explain the reasons for the divergence.
- (b) For the avoidance of doubt, DBCT Management may differentiate Access Charges applicable to a Differentiated Expansion Components in accordance with an applicable Price Ruling and associated draft amending access undertaking pursuant to Section 11.5(o) and 11.5(q).

10.13 Expansion Pricing Principles

In assessing whether or not Differentiation should apply in respect of a proposed Terminal Capacity Expansion, the following principles shall apply:

- (a) where Socialisation of a Terminal Capacity Expansion would decrease the Reference Tariff for users of the Existing Terminal, the Terminal Capacity Expansion should be treated as forming part of the Existing Terminal, such that a single Reference Tariff and Annual Revenue Requirement shall apply to the Existing Terminal (including the Terminal Capacity Expansion) (a **Socialised Expansion**).
- (b) where Socialisation of a Terminal Capacity Expansion would increase the Reference Tariff for users of the Existing Terminal (a **Cost Sensitive Expansion**), subject to Section 10.13(c), the Terminal Capacity Expansion should be treated as a separate Terminal Component, with its own Regulated Asset Base, Reference Tariff and Annual Revenue Requirement (a Differentiated Expansion Component).
- (c) A Cost Sensitive Expansion may be treated as forming part of the Existing Terminal (and therefore, not treated as a Differentiated Expansion Component) where circumstances exist that justify Socialisation. In determining whether there are circumstances that warrant Socialisation, consideration shall be given to:
 - (1) the materiality of the increase in the Existing Terminal's Reference Tariff that would be affected by socialising the Cost Sensitive Expansion;
 - (2) the extent to which assets or infrastructure the subject of the Cost Sensitive Expansion will operate wholly or partly, in an integrated way with the Existing Terminal or as a stand-alone development;
 - (3) the extent to which the Cost Sensitive Expansion is likely to benefit users of the Existing Terminal (for example, such as through higher efficiency, reliability or flexibility of the Existing Terminal);

- (4) any differences in the risks of providing Access to users of the Existing Terminal in respect of additional Terminal Capacity created by the Cost Sensitive Expansion; and
- (5) any other factor that the QCA considers relevant.

It is acknowledged that there may be circumstances in which parts and not the whole of a Cost Sensitive Expansion may be Socialised.

11 Terminal Capacity Expansion

[Drafting Note: Amendments to this clause 11 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

11.1 Procedure for determining Terminal Capacity and System Capacity

- (a) DBCT Management will, at each time required in Section 11.1(k), either:
 - (1) **(Estimate capacities)** accept an estimation that has been accepted by the expert as provided for in Section 11.1(m)(3) of the maximum reasonably achievable capacity (measured in tonnes of coal per Financial Year) of:
 - (A) the Terminal (on a “name-plate capacity” basis) (**Terminal Capacity**), including separately identifying the capacity of:
 - (i) the Existing Terminal (on a “name-plate capacity” basis) (**Existing Terminal Capacity**); and
 - (ii) each Expansion Component (on a “name-plate capacity” basis) (**Expansion Component Capacity**), which for clarity may constitute either Socialised Capacity or Differentially Priced Capacity depending upon the nature of the relevant Expansion Component; and
 - (B) the System (**System Capacity**); or
 - (2) **(Determine capacities after advice and consultation)** (to the extent that there is no estimation as provided for in Section 11.1(m)(3) in that regard at the time) acting reasonably and after:
 - (A) taking advice from an independent expert appointed by DBCT Management under this Section 11.1; and
 - (B) consultation by DBCT Management and that expert with the Operator, Access Holders, any Expansion Parties, and other Service Providers or their respective nominees,
 determine Terminal Capacity, Expansion Component Capacity and System Capacity (as applicable) having regard to:
 - (i) **(Terminal operating assumptions)** in respect of Terminal Capacity – the following Terminal operating assumptions:
 - a. DBCT Management’s obligations and Access Holders’ entitlements under Access Agreements (including taking into account historical and reasonably estimated rates of utilisation of the Terminal's capacity, but also having regard to reasonably foreseeable future changes in capacity utilisation rates);
 - b. DBCT Management’s requirement to comply with Good Operating and Maintenance Practice;

- c. the Terminal Regulations;
 - d. an objective of maximum reasonably achievable capacity for the Terminal without unduly increasing vessel waiting times as a result of the operation of the Terminal;
 - e. rail and vessel interfaces with the Terminal;
 - f. the estimated additional capacity which it is anticipated will become available in a relevant Financial Year as a result of any proposed Terminal Capacity Expansion; and
 - g. any other matter DBCT Management reasonably considers appropriate;
- (ii) **(Terminal operating assumptions** – Differentiated Expansion Component) in respect of Expansion Component Capacity – the Terminal operating assumptions set out at Section 11.1(a)(2)(B)(i), to the extent applicable solely to the Differentiated Expansion Component; and
- (iii) **(System operating assumptions)** in respect of System Capacity – the following System operating assumptions (to the extent that such information is available to DBCT Management):
- a. operating modes of the System;
 - b. rail infrastructure characteristics (e.g. single track, double track, passing loops and speed restraints);
 - c. the tonnes to be loaded by or on behalf of an Access Holder at each relevant train load out facility;
 - d. Terminal Capacity as assessed in accordance with Section 11.1(a)(2)(B)(i) and the capacity and performance implications arising out of Terminal interfaces with rail unloading and vessel loading;
 - e. quantity, configuration and performance characteristics of locomotives and rolling stock;
 - f. capacity and performance of mine loading facilities;
 - g. the System Master Plan; and
 - h. any other matter DBCT Management reasonably considers appropriate.
- (b) **(Additional assumptions)** For clarification, Terminal Capacity, Expansion Component Capacity and System Capacity are to be:
- (1) estimated making a projected allowance (as applicable to either Terminal Capacity and/or Expansion Component Capacity alone or to System Capacity) for interruptions or loss of capacity from maintenance, repairs, inclement weather, breakdowns, derailments, cancellations, loading and unloading issues (including sticky coal), vessel-types (based on a historical analysis);
 - (2) estimated as at the date of estimation and for the Financial Year in which that date falls and for each of the following two Financial Years; and
 - (3) assumed to continue at no lesser rate indefinitely after the periods referred to in Section 11.1(b)(2), except to the extent that (at the time of making the

estimation) DBCT Management or the independent expert are actually aware of a reasonably certain future material decrease in capacity (for example, where DBCT Management is aware of a decrease in capacity caused by a planned shutdown in another part of the System).

- (c) **(Disclosure of process and advice)** Subject to any confidentiality restrictions applying to DBCT Management, DBCT Management must disclose to the Access Holders, Access Seekers, Expansion Parties, the Operator and other Service Providers its decision making process in relation to its estimations of Terminal Capacity, Expansion Component Capacity and System Capacity and provide them with a copy of any independent expert report that DBCT Management receives in relation to estimating those capacities. DBCT Management will not enter into any confidentiality restrictions which would prevent disclosure for the purposes of this Section 11.1(c) except as may be commercially reasonable and customary to avoid disclosure of commercially sensitive information.
- (d) **(Independent expert)** Any independent expert to be appointed by DBCT Management under this Section 11.1 will be:
- (1) where a group of Access Holders whose combined Annual Contract Tonnage for the then current Financial Year is greater than 50% of the Aggregate Annual Contract Tonnage for that Financial Year object (in accordance with Section 11.1(g)) to the independent expert nominated by DBCT Management, an independent expert appointed in accordance with Section 11.1(g);
 - (2) where a majority of the group of Expansion Parties for an Expansion Component object (in accordance with Section 11.1(g)) to the independent expert nominated by DBCT Management, an independent expert appointed in accordance with Section 11.1(g); or
 - (3) where Section 11.1(d)(1) and (2) do not apply - an independent expert nominated by DBCT Management.
- (e) **(Notice of proposed independent expert)** DBCT Management will advise all Access Holders (and, where relevant, Expansion Parties) as to the identity of any independent expert it proposes appointing pursuant to Section 11.1(a)(2) and request that any objection to that independent expert be given in writing to DBCT Management within 14 days after receipt of DBCT Management's notice.
- (f) **(Appointment if no objection)** If no Access Holder (and, where relevant, if no Funding Access Seeker) objects in writing to the independent expert nominated by DBCT Management within the 14 day period referred to in Section 11.1(e), DBCT Management will promptly appoint the independent expert nominated by it.
- (g) **(Procedure if objection to proposed independent expert)** If a group of Access Holders or Expansion Parties determined in accordance with Section 11.1(d) objects within the 14 day period provided for in Section 11.1(e):
- (1) DBCT Management will promptly request the Resolution Institute to nominate an independent expert, and it will engage the independent expert so nominated; and
 - (2) the 6 month period referred to in Section 11.1(k)(1) will not commence until the independent expert has been nominated by the Resolution Institute.
- (h) **(Independent expert to consult)** DBCT Management must require its independent expert to consult (as far as is practicable, and to the extent that consultation has not

already occurred in respect of a relevant estimation of Terminal Capacity, Expansion Component Capacity or System Capacity (as applicable)) with the Operator, Access Holders, any Access Seekers and other Service Providers, or their respective nominees with respect to the factors referred to in Sections 11.1(a)(2)(B)(i), and 11.1(a)(2)(B)(iii).

- (i) **(Objection to estimation by independent expert)** Despite Section 16, DBCT Management's estimation of Terminal Capacity, Expansion Component Capacity and System Capacity under Section 11.1(a) may not be disputed or challenged or otherwise subject to review by or on behalf of Access Holders or Access Seekers:
 - (1) except on the basis that it has been determined in bad faith, in breach of the Framework or an Access Agreement, or on the basis of a manifest error;
 - (2) unless Access Holders whose combined Annual Contract Tonnage for the then current Financial Year is greater than 50% of the Aggregate Annual Contract Tonnage for that Financial Year each object on the same or similar grounds; or
 - (3) unless Expansion Parties whose combined projected Annual Contract Tonnage would amount to greater than 50% of the projected Expansion Component Capacity, each object on the same or similar grounds.
- (j) **(Determination of Capacity conclusive)** The capacity of the Terminal, Differentiated Expansion Component and System Capacity estimated under Section 11.1(a) (or, if applicable, Section 16) will constitute Terminal Capacity, Expansion Component Capacity or System Capacity (as relevant) for the purposes of this Framework until it is next reassessed.
- (k) **(Times for re-determination of Capacity)** Terminal Capacity, Expansion Component Capacity and System Capacity will be assessed by DBCT Management in accordance with Section 11.1(a) and will be reassessed during the Term of this Framework:
 - (1) during each stage of a Feasibility Study being conducted by DBCT Management in accordance with Section 5.10;
 - (2) (subject to Section 11.1(g)(2)) not later than 6 months, or such time as otherwise agreed by the parties, after each of the following:
 - (A) the Completion of each Terminal Capacity Expansion; and
 - (B) the time at which DBCT Management becomes aware of the completion of each material and discrete expansion (such materiality to be determined by DBCT Management acting reasonably) of any other component of the System; or
 - (3) otherwise at DBCT Management's discretion.
- (l) **(Notification of assessments of Terminal Capacity, Expansion Component Capacity and System Capacity)** DBCT Management must promptly notify DBCT Holdings, each Access Holder and each Access Seeker of each capacity assessment undertaken in accordance with this Section 11.1.
- (m) **(Requirements for expert report process)** The following will apply to an expert report for the purposes of Section 11.1(a):
 - (1) subject to confidentiality restrictions applying to DBCT Management, DBCT Management must provide to the expert all relevant information which DBCT Management has or to which it has access, to assist the expert to reach their estimation. DBCT Management will not enter into any confidentiality restrictions which would prevent disclosure for the purposes of this Section 11.1(m) except

as may be commercially reasonable and customary to avoid disclosure of commercially sensitive information;

- (2) DBCT Management must, as far as practicable, use reasonable endeavours to work cooperatively with each other Service Provider (for example by regularly providing information relevant to System Capacity) and, as far as practicable, using reasonable endeavours to agree on the joint engagement of experts for the purposes of both this Framework and in respect of similar obligations by other Service Providers; and
 - (3) if the expert reasonably considers that there is either agreement or broad consensus amongst stakeholders in the Dalrymple Bay Coal Chain as to **Existing Terminal Capacity**, Expansion Component Capacity or System Capacity (such agreement or consensus having been reached having regard to expert reports), the expert must accept that agreement or broad consensus as evidence of **Existing Terminal Capacity**, Expansion Component Capacity or System Capacity (as the case may be) except to the extent that the expert reasonably forms the opinion that there is compelling evidence to the contrary.
- (n) **(Tonnes under Access Agreements must not exceed System Capacity)** DBCT Management must not enter into any Access Agreement if the Aggregate Annual Contract Tonnage would (after including the tonnage under the new Access Agreement) exceed the System Capacity (as determined for a relevant time), unless otherwise required to do so by the Access Framework (including pursuant to Section 11.3), statute, or an agreement relating to its tenure of the Terminal including the Framework Agreement or the Port Services Agreement. For clarification:
- (1) **(Access Agreements can be conditional on capacity resulting from a Terminal Capacity Expansion)** this does not prohibit DBCT Management from entering into a Conditional Access Agreement as long as the terms of all such Conditional Access Agreements are such that the increase in Aggregate Annual Contract Tonnage consequent on the Completion of the relevant Terminal Capacity Expansion will nevertheless not cause Aggregate Annual Contract Tonnage to exceed System Capacity (based on the estimated System Capacity at the completion of the relevant expansion); and
 - (2) **(Framework not breached if System Capacity exceeded after good faith reasonable efforts)** DBCT Management will not be in breach of this Framework if it has complied with this Framework (or made good faith and reasonable attempts to comply) but the re-determination of System Capacity in accordance with Section 11.1(k) reveals that System Capacity is less than the Aggregate Annual Contract Tonnage at that time.
- (o) **(Protection of DBCT Management)** Notwithstanding any other provision of this Framework, if DBCT Management complies (or makes a good faith and reasonable attempt to comply) with the provisions of this Section 11.1, DBCT Management will not have any liability (whether for loss, damage, cost, expense or other remedy) to any Access Seeker (and the Standard Access Agreement will provide that DBCT Management will not be liable to an Access Holder which executes it) for any:
- (1) breach of this Section 11.1;
 - (2) delay which arises as a result of the Aggregate Annual Contract Tonnage (which was expected not to exceed Terminal Capacity, Expansion Component Capacity

- or System Capacity) subsequently exceeding Terminal Capacity, Expansion Component Capacity or System Capacity for any reason;
- (3) one or more factors related to utilisation of capacity of the Terminal, or any other part of the System subsequently changes (for example, changes in service levels required pursuant to a right of Access Holders under a Standard Access Agreement, the nature of coal Handled, an Access Holder's use of the Terminal, vessel mix, railway infrastructure, rolling stock or locomotives, rail loading facilities of mines or any other relevant factor (provided that such factor is not a breach by DBCT Management of any other part of this Framework or an Access Agreement); or
 - (4) any defect, error or omission on the part of the independent expert appointed under Section 11.1.
- (p) **(Recovery of independent expert's costs)** The costs of an independent expert appointed under Section 11.1(d):
- (1) following the Completion of and handover to the Operator of a Terminal Capacity Expansion will be borne by DBCT Management, and may be included in the Regulated Asset Base (of the Existing Terminal or Differentiated Expansion Component, as relevant) as an Other Cost in accordance with Section 11.5(a)(3)(B); and
 - (2) in all circumstances other than as described in Section 11.1(p)(1), be borne by DBCT Management.
- (q) **(Provisional allocation pending determination of Capacity)** Notwithstanding any other provision of this Framework, DBCT Management may, on a provisional basis, allocate after the Completion of a Terminal Capacity Expansion the anticipated increase in Terminal Capacity and Expansion Component Capacity (if relevant depending on the Terminal Capacity Expansion) until Terminal Capacity, Expansion Component Capacity (if relevant depending on the Terminal Capacity Expansion) and System Capacity is determined in accordance with Section 11.1(k).

11.2 Terminal Capacity Expansion consultation

- (a) **(Meeting agendas)** DBCT Management will hold meetings with Access Holders and, where they exist, Expansion Parties not less than twice per Financial Year to consult in good faith upon the following issues:
- (1) current Terminal Capacity, Expansion Component Capacity and System Capacity;
 - (2) constraints on current Terminal Capacity, Expansion Component Capacity and System Capacity including the impact on vessel waiting times and Access Holder transport costs;
 - (3) future contracts/forecasts that may impact on Terminal Capacity, Expansion Component Capacity and System Capacity;
 - (4) significant issues relevant to Terminal Capacity, Expansion Component Capacity and System Capacity;
 - (5) the timing and nature of the next Terminal Capacity Expansion (if any) and the impact on current capacity requirements, pricing and the Terminal Master Plan and System Master Plan; and
 - (6) any proposed changes to the Terminal Regulations.

- (b) DBCT Management will also hold such meetings to consult in good faith upon these issues in respect of Expansion Component Capacity with Differentially Priced Access Holders for the relevant Expansion Component.
- (c) **(Meeting administration)** DBCT Management will distribute, in a timely manner, agendas, detailed briefing material and a copy of the minutes of each of these meetings to all Access Holders, Expansion Parties and DBCT Holdings.
- (d) **(Separate meetings with Expansion Parties)** For the avoidance of doubt, nothing in this Section 11.2 limits or restricts DBCT Management from meeting separately with Expansion Parties to the extent that the matters raised relate only to a Differentiated Expansion Component.

11.3 General obligation to undertake Terminal Capacity Expansions

- (a) Subject to Sections 11.7 and 11.8 of this Framework, DBCT Management will undertake Terminal Capacity Expansions as are necessary to:
 - (1) **(Accommodate growth)** accommodate the actual and reasonably anticipated future growth of demand (having regard to Access Applications received by DBCT Management and other relevant factors) for the use of the Terminal by Access Holders and Access Seekers;
 - (2) **(Eliminate shortfalls in Terminal Capacity)** eliminate sustained shortfalls in actual Terminal Capacity below the aggregate of Annual Contract Tonnages of Access Holders, whatever the reason for such shortfalls;
 - (3) **(Good Operating and Maintenance Practices)** ensure that the Terminal complies with Good Operating and Maintenance Practice in respect of quality standards for such facilities, good environmental practice and applicable environmental standards; and
 - (4) **(Laws)** comply with Approvals and applicable laws,

provided that DBCT Management will nevertheless have regard to the System Master Plan and the expected capacity of other components of the System, with the intention that the capacity of the Terminal will (as far as practicable and economic and can reasonably be anticipated) not significantly and disproportionately exceed System Capacity for more than 12 months after the Completion of a Terminal Capacity Expansion.
- (b) **(Factors to be taken into account)** It is recognised that:
 - (1) the name-plate capacity of each individual component of the System will, on a "stand alone" basis at all times, be likely to exceed the aggregate System Capacity to some extent; and
 - (2) DBCT Management does not have any control over any part of the System other than the Terminal, and DBCT Management's estimate of expected capacity of the other components of the System will have limited accuracy (for example, because of changes in or operation of the System or the operation of any upstream components of the System in relation to the Terminal, delays in expansions of other parts of the System (including in the circumstance in which another Service Provider delays an expansion which was provided for in a System Master Plan) and other differences to DBCT Management's assumptions).
- (c) **(Protection of DBCT Management)** Accordingly DBCT Management will not have any liability to an Access Seeker (and the Standard Access Agreement will provide that DBCT Management will not be liable to an Access Holder who executes it) if DBCT

Management makes a good faith and reasonable attempt to comply with this Section 11.3, even if it does not actually comply with this Section 11.3.

11.4 Accommodation of Capacity

- (a) **(General obligation to accommodate Access Applications)** Subject to Sections 5.4(j), 11.7 and 11.8 of this Framework, and the proviso in Section 11.3(a), DBCT Management will use best endeavours to ensure that as soon as reasonably practical after DBCT Management receives from a reasonably creditworthy Access Seeker a bona fide offer to enter into an Access Agreement that will be unconditional and legally binding and require the Access Seeker to obtain Handling of coal at the Terminal for a period in excess of 5 years (or 10 years or more Handling of coal if acceptance of the offer would require a Capacity Expansion).
- (b) DBCT Management will use its best endeavours to ensure that the Terminal is able to Handle that coal without a material and sustained increase in:
- (1) vessel waiting times; or
 - (2) the average net costs (after taking into account any discounts or rebates available to Access Holders) across all Access Holders of transporting coal from the rail loading points at mine sites to the Terminal for Handling, over any period of three consecutive months,

attributable to delays caused by the provision of Services in respect of the additional volume. DBCT Management will disclose to all Access Holders and Access Seekers its process for so calculating vessel waiting times and average net costs to Access Holders.

- (c) **(Bona fide offers and reasonably creditworthy Access Seekers)** Without limiting the circumstances in which DBCT Management may be taken to have received from a reasonably creditworthy Access Seeker a bona fide offer to enter into an Access Agreement, if:
- (1) DBCT Management receives an offer from an Access Seeker to enter into an Access Agreement on the terms of the Standard Access Agreement, or receives an offer from an Access Seeker to enter into an Access Agreement where any departure of the terms of that offer from the terms of a Standard Access Agreement is not likely to increase cost (direct or indirect) or risks to DBCT Management; and
 - (2) the Access Seeker has satisfied DBCT Management (acting reasonably) in accordance with Section 5.9 that the Access Seeker (or any relevant Security provider) has the financial and other relevant resources to enable it to discharge its obligations under the relevant Access Agreement,

then for the purpose of this Section 11.4, DBCT Management will be taken to have received from a reasonably creditworthy Access Seeker a bona fide offer to enter into an Access Agreement.

11.5 Undertaking Terminal Capacity Expansions

- (a) **(Terminal Capacity Expansion application to be lodged with Arbitrator)** If DBCT Management proposes to expand the Terminal during the Term of the Framework (either because it is obliged to do so under this Framework or wishes to do so without being obliged to do so), then in respect of the particular expansion to the Terminal it will submit to an arbitrator appointed in accordance with Section 16.4 (**Expansion Arbitrator**), a Terminal Capacity Expansion application, which must include the following information:

- (1) details of the scope of the proposed Terminal Capacity Expansion, including:
 - (A) confirmation of Terminal operating assumptions and System operating assumptions in the FEL 3 Feasibility Study, including confirmation of the capacity of the Existing Terminal and System Capacity prior to the proposed Terminal Capacity Expansion and the proposed Expansion Component Capacity; and either:
 - (i) confirmation that, and details of how, the Terminal Capacity Expansion complies with both the current Terminal Master Plan and System Master Plan; or
 - (ii) a justification acceptable to the Expansion Arbitrator as to why it does not, and need not, comply with the Terminal Master Plan or System Master Plan, but will nevertheless be economically and operationally prudent;
- (2) the terms and conditions of any Access Agreements that are conditional on the Terminal Capacity Expansion, including:
 - (A) confirmation that, and details of how, the Conditional Access Agreement complies with the Standard Access Agreement; and
 - (B) a justification acceptable to the Expansion Arbitrator as to why the Conditional Access Agreement does not, and need not, comply with the Standard Access Agreement, but will nevertheless be economically and operationally prudent and result in DBCT Management achieving a regulated return that is commensurate with the cost and risks involved with the Terminal Capacity Expansion;
- (3) the estimated cost of the proposed Terminal Capacity Expansion categorised into:
 - (A) works that are proposed to be managed under the Tender and Contract Management Process (**TCMP**) (**Contract Costs**); and
 - (B) work and costs which are not to be managed under the TCMP (**Other Costs**);
- (4) the estimated timetable for the proposed Terminal Capacity Expansion;
- (5) a high level project execution strategy, which will, among other things, identify risks and risk mitigation;
- (6) either:
 - (A) evidence that the 60/60 Requirement has been complied with; or
 - (B) DBCT Management's justification for the Terminal Capacity Expansion without the 60/60 Requirement having been complied with;
- (7) the process for the tendering and awarding of contracts, standard form contract terms, and the contract management process for the management of contracts post award (these processes together constitute the TCMP);
- (8) the process by which costs will be expended, tracked and managed if they are not covered by the TCMP; and
- (9) an application for a Price Ruling in respect of the Terminal Capacity Expansion, if one has not already been made.

- (b) **(Monthly reporting to Expansion Arbitrator)** DBCT Management will also submit to the Expansion Arbitrator (with a copy to each Access Holder) a monthly report setting out:
- (1) the status of each contract awarded under the TCMP, including the degree of completion and the anticipated final cost inclusive of actual and provisioned variations;
 - (2) the status of each element of the Other Costs, including the costs incurred, the degree of completion and the anticipated final costs; and
 - (3) if anticipated final costs vary from the costs initially forecast, details of and the reasons for the variation.
- (c) **(Expansion Arbitrator to confirm Price Ruling following application for Expansion)** Following receipt of an application under 5.12(a)(2), the Expansion Arbitrator will provide to DBCT Management and each Expansion Party notice of, in respect of a relevant Expansion Component:
- (1) where a Price Ruling has been made in accordance with Section 5.12(c), the content of the Expansion Arbitrator's ruling and details of any material changes apparent in the application which may require a new or varied ruling to be made, including the extent to which the circumstances of the Expansion Component vary from the assumptions made in the original Price Ruling;
 - (2) where a Price Ruling has not been made in accordance with 5.12(c), but a Price Ruling Application has been made under Section 5.12(a)(2) or 11.5(a)(9), a copy of the Price Ruling Application and information on the Expansion Arbitrator's process for determining a Price Ruling for that Terminal Capacity Expansion.
- (d) **(DBCT Management to provide information to the Expansion Arbitrator)** DBCT Management will provide all information required by the Expansion Arbitrator or any advisor to the Expansion Arbitrator to enable the Expansion Arbitrator to assess the prudence of any proposed or actual Capital Expenditure and Different Terms. Prior to disclosing any confidential information, DBCT Management must ensure that the Expansion Arbitrator (and any advisor to the Expansion Arbitrator) enters into a confidentiality deed with DBCT Management to the effect that that the Expansion Arbitrator (and any advisor to the Expansion Arbitrator) must keep the information confidential and only use that information for the purpose of its engagement under this Section 11.5.
- (e) **(Expansion Arbitrator's acceptance of prudence of contract costs)**
- (1) The Expansion Arbitrator will accept that capital expenditure in respect of a proposed Expansion Component is prudent and will include it into the Regulated Asset Base (of the Existing Terminal, or Differentiated Expansion Component, as applicable) following Completion of the Terminal Capacity Expansion if DBCT Management can demonstrate and the Expansion Arbitrator is satisfied that:
 - (A) the scope of the works complies with Section 11.5(f) and the requirements of that Section have been met; and
 - (B) the standard and specifications of the works is appropriate, as provided for in Section 11.5(g) and the requirements of that Section have been met; and
 - (C) the works were undertaken in accordance with the approved TCMP or were otherwise reasonable, as provided for in Sections 11.5(i), 11.5(j), 11.5(k) and 11.5(l) and the requirements of those Sections have been met.

- (2) In the event that the Expansion Arbitrator considers that any elements specified in Section 11.5(e)(1) are not satisfactorily met, the Expansion Arbitrator will undertake an assessment of the prudence of the capital expenditure as if the works were Other Costs, as provided for in Section 11.5(m). In undertaking this assessment, the Expansion Arbitrator will take into account the extent to which DBCT Management has achieved compliance with the expansion approval process outlined in this Section 11.5, including consistency with any assumptions associated with a Price Ruling.
- (f) **(Expansion Arbitrator's acceptance of scope of works)**
 - (1) The Expansion Arbitrator will accept the scope of the proposed Terminal Capacity Expansion if it is satisfied that:
 - (A) the scope is consistent with the current Terminal Master Plan and System Master Plan and applicable laws;
 - (B) the 60/60 Requirement has been complied with; and
 - (C) (together with any other relevant expansions of one or more components of the System) the Terminal Capacity Expansion will result in an increase in System Capacity and will not be expected to result in Terminal Capacity significantly and disproportionately exceeding System Capacity for more than 12 months after Completion of a Terminal Capacity Expansion.
 - (2) The Expansion Arbitrator will accept or not accept the scope within 20 Business Days of being provided with all of the information it requires to assess the proposed works and the criteria listed in Section 11.5(f)(1). If the Expansion Arbitrator does not accept the scope of the proposed works, it will give reasons in writing.
- (g) **(Expansion Arbitrator's acceptance of standard and specifications of works)**
 - (1) The Expansion Arbitrator will review the standard and specifications of works relating to a Terminal Capacity Expansion and all relevant contract terms to ensure that the works do not involve any unnecessary works or contain design standards that exceed those standards necessary to comply with Clause 12.1 of the Port Services Agreement, or, in the case of contract terms, are not likely to materially adversely impact on a prudent balance between price and risk.
 - (2) The Expansion Arbitrator will accept or not accept on a contract by contract basis the standard, specifications, and contract terms for the works within 20 Business Days of receipt of the technical specifications, design drawings and contract terms for the works and any other information needed by the Expansion Arbitrator to review the standard, specifications and contract terms for the works. If the Expansion Arbitrator does not accept the standard, specifications and contract terms of the works, it will give reasons in writing.
 - (3) If DBCT Management amends the submitted technical specifications and/or design drawings and/or material contract terms after an approval by the Expansion Arbitrator, DBCT Management will immediately advise the Expansion Arbitrator of the changes. The Expansion Arbitrator will accept or not accept the changes.
- (h) **(60/60 Requirement)**
 - (1) **(What is the 60/60 Requirement)** In this Section 11.5, the "60/60 Requirement" is satisfied when:

- (A) DBCT Management has executed Access Agreements from Access Holders, each of which provides for the Handling of coal for a period of at least 10 years duration for at least 60% of the proposed Terminal Capacity increment.
 - (B) 60% of all Access Holders and Expansion Parties (as determined by their Annual Contract Tonnages reduced by the relevant exclusions set out in Section 11.5(h)(1)(C)) do not oppose the Terminal Capacity Expansion, having been given the information and notice in Section 11.5(h)(2) at least 15 Business Days before it is determined whether or not the 60/60 Requirement has been satisfied.
 - (C) The relevant exclusions are the tonnages of any Access Holder of existing capacity at the Terminal where the Access Holder is:
 - (i) legally and beneficially, the same entity as; or
 - (ii) a related body corporate of an Access Holder that is legally and beneficially, the same entity as,

an Expansion Party that is within Section 11.5(h)(1)(A). For clarification, where an Expansion Party or Access Holder is, or acts on behalf of, a joint venture, the Expansion Party or Access Holder will only be "legally and beneficially" the same, in respect of both an Access Agreement (or Existing User Agreement) and an Access Application or two or more Access Agreements (or Existing User Agreements) and Access Applications, where each of the entities comprising the joint venture relating to each relevant Access Agreement (or Existing User Agreement) and Access Application is the same (or a related body corporate of the same) entity in each context.
- (2) **(DBCT Management to provide information for 60/60 Requirement process)**
 DBCT Management will provide the Access Holders and Expansion Parties referred to in Section 11.5(h)(1)(B) relevant to a proposed Terminal Capacity Expansion with the following information, for the purposes of determining whether the 60/60 Requirement can be complied with in respect of a proposed Terminal Capacity Expansion:
- (A) outline details of the scope of the proposed Terminal Capacity Expansion works;
 - (B) details of how the Terminal Capacity Expansion complies with the current Terminal Master Plan and System Master Plan;
 - (C) without limitation to Section 5.10, provide a copy of the capacity assessment undertaken in accordance with Section 11.1 which separately identifies the capacity of the Existing Terminal and the proposed Expansion Component Capacity;
 - (D) cost estimates for the proposed Terminal Capacity Expansion and each element of the Terminal Capacity Expansion, including contingency, financing and escalation allowances;
 - (E) a schedule of each element of the proposed Terminal Capacity Expansion;
 - (F) the projected total Terminal Capacity and System Capacity following the Terminal Capacity Expansion;
 - (G) a high level project execution strategy, which strategy will, among other things, identify risks and risk mitigation;

- (H) a schedule of likely reductions in Terminal Capacity and System Capacity during construction;
 - (I) an outline of Existing User Agreement tonnages, Access Agreement tonnages, Conditional Access Agreement tonnages and Access Application tonnages and contract periods;
 - (J) an estimate of what effect the proposed Terminal Capacity Expansion will have on each Terminal Component's Capital Charges and Operation and Maintenance Charges;
 - (K) a notice that the above information is being expressly provided in contemplation of the 60/60 Requirement (even if the notice was given prior to the Commencement Date);
 - (L) where a Price Ruling has been made in respect of a relevant Terminal Capacity Expansion, the content of the Expansion Arbitrator's ruling; and
 - (M) where a Price Ruling has not yet been made in respect of a relevant Terminal Capacity Expansion, the application for a Price Ruling filed with the Expansion Arbitrator under Section 11.5(a)(9).
- (3) **(60/60 Requirement conclusive)** Once evidence of compliance with the 60/60 Requirement has been provided and accepted by the Expansion Arbitrator it will not be subject to further review (provided that the evidence presented was not misleading or deceptive and there has been no dishonesty or manifest error).
- (4) **(60/60 Requirement determines deemed need for Terminal Capacity Expansion)** If Section 11.5(a)(6)(A) applies, the Expansion Arbitrator will confirm the sufficiency (or sufficiencies) of evidence of the 60/60 Requirement within 20 Business Days of receipt of the Terminal Capacity Expansion application. If the Expansion Arbitrator provides such confirmation, it will be deemed to have accepted the need for the Terminal Capacity Expansion.
- (5) **(Expansion Arbitrator review if 60/60 Requirement not met)** If Section 11.5(a)(6)(B) applies, the Expansion Arbitrator will, within 3 months of receipt of the Terminal Capacity Expansion application, review whether the Terminal should be expanded in the way proposed by DBCT Management. If the Expansion Arbitrator does not accept that the Terminal should be expanded in the way proposed by DBCT Management, it will give reasons in writing.
- (i) **(Tender and Contract Management Processes)**
- (1) **(General principles for Expansion Arbitrator approval)** The Expansion Arbitrator will approve DBCT Management's TCMP if it is satisfied that it is consistent with the following general principles, namely that the TCMP:
- (A) is in accordance with good industry practice;
 - (B) will generate an efficient and competitive outcome;
 - (C) will avoid conflict of interest or collusion amongst tenderers;
 - (D) is prudent in the circumstances of the Terminal Capacity Expansion project; and
 - (E) will avoid unreasonable exposure to contract variation claims.

- (2) **(Detailed considerations for Expansion Arbitrator approval)** In particular, in considering whether or not to approve DBCT Management's TCMP, the Expansion Arbitrator will consider whether, (amongst other things):
- (A) there is a clear process for the calling of tenders, including having clear specifications for tenders, and processes for mitigating conflicts of interest (except when it is assessed that calling tenders is likely to be less advantageous than an alternative means of negotiating a contract);
 - (B) (where applicable) there is a tender assessment process which contains clear and appropriate processes for determining the successful tender, with any decisions to approve a tender that is not the lowest tender being appropriately justified and documented;
 - (C) the basis of payment for works is clearly specified and the basis for undertaking the works is in accordance with good commercial practice;
 - (D) there is a process for managing contracts before and after award that accords with good commercial practice for a project of the type and scale of the Terminal Capacity Expansion and provides appropriate guidance on the criteria that DBCT Management should apply to decisions regarding the management of the Terminal Capacity Expansion, including but not limited to:
 - (i) safety during construction and operation;
 - (ii) compliance with environmental requirements during construction and operation;
 - (iii) minimising disruption to operating capacity during construction;
 - (iv) accommodation of the reasonable requests of Access Holders and Expansion Parties to change the scope and sequence of construction to suit their needs;
 - (v) a prudent balance between:
 - (A) a higher price in return for more certainty as to final cost;
 - (B) a lower price accepting that final cost may be less certain; and
 - (C) costs, schedule and minimising disruption to operating capacity during construction;
 - (vi) minimising whole of asset life costs including future maintenance and operating costs; and
 - (vii) minimising total project cost which may at times not be consistent with minimisation of individual contract costs;
 - (E) there is a process for managing contract variations and/or escalation that occurs post award of a contract, requiring that reasonable consideration be given to managing the risk of contract variations and/or escalation and the allocation of potential risks during the management of the contract and requiring the provision of clear documentary evidence regarding the nature and reasonableness of any variation and/or escalation; and

- (F) DBCT Management has engaged an auditor in accordance with Section 11.5(l) to monitor compliance with the TCMP.
- (3) **(Notification of TCMP decision by Expansion Arbitrator)** The Expansion Arbitrator will within 20 Business Days of the Expansion Arbitrator receiving all the information it requires to assess the TCMP give DBCT Management a notice in writing whether it will approve or not approve the TCMP, setting out:
- (A) reasons for its decision; and
- (B) if requested, the way the TCMP should be amended.
- (4) **(Amendment of TCMP)** DBCT Management may at any time and from time to time request amendments to an approved TCMP by giving written notice to the Expansion Arbitrator . Promptly following receipt of a request to amend the TCMP the Expansion Arbitrator will approve or not approve the amendments. In considering such amendments the Expansion Arbitrator will apply Sections 11.5(i)(1), 11.5(i)(2) and 11.5(i)(3).
- (j) **(Indicators of prudent contract value)** The Expansion Arbitrator will accept that the value of a contract as awarded is prudent and will include it into the relevant Regulated Asset Base if:
- (1) the Expansion Arbitrator has approved DBCT Management’s TCMP in accordance with Section 11.5(i);
- (2) the Expansion Arbitrator is satisfied that contract provisions regarding contract variations and escalation accord with good commercial practice; and
- (3) the auditor engaged in accordance with Section 11.5(l) certifies that the works have been conducted in accordance with the approved TCMP.
- (k) **(Indicators of prudent variations and escalations)** The Expansion Arbitrator will accept that contract variations and/or escalations post award of a contract are prudent and will include them into the relevant Regulated Asset Base if:
- (1) **(Compliance with TCMP)** a contract which has been accepted as prudent under Section 11.5(j) has been managed in accordance with the approved TCMP;
- (2) **(Auditor certification)** the auditor engaged in accordance with Section 11.5(l) has certified that contract variations and/or escalations have been handled in a manner consistent with the relevant contract provisions; and
- (3) **(Variations and escalations)** the Expansion Arbitrator is satisfied that the cost of contract variations and/or escalations is otherwise appropriate, having regard to the following:
- (A) whether adequate consideration was given to properly managing the risk of contract variations and/or escalation or the allocation of potential risks during the awarding and management of the contract;
- (B) whether the contract has been appropriately managed when regard is had for matters outlined in Section 11.5(i)(2)(D);
- (C) whether the contract variations and/or escalations are appropriately justified; and
- (D) whether the contract has been managed with a regard to a prudent balance between costs, schedule and minimising disruption to operating capacity during construction.

- (l) **(Independent external audit)** As part of the implementation of the approved TCMP, DBCT Management will engage an independent external auditor to audit the compliance of DBCT Management's tender and contract management processes with the TCMP approved under this Section 11.5. The process in this regard will be as follows:
- (1) **(Appointment)** DBCT Management will appoint the auditor, subject to obtaining the Expansion Arbitrator's prior approval of the selection of the auditor and the Expansion Arbitrator's prior approval of the terms and conditions of the engagement of the auditor;
 - (2) **(Acknowledgement of duty)** the auditor will be required to acknowledge and accept that the auditor owes a separate contractual duty of care to the Expansion Arbitrator in the provision of the audit and, in the event of a conflict between the auditor's obligations to DBCT Management and its duty of care to the Expansion Arbitrator, the auditor's duty of care to the Expansion Arbitrator will take precedence;
 - (3) **(Audit process to be agreed and approved)** the auditor must agree the processes for conducting an audit with DBCT Management and obtain the Expansion Arbitrator's approval of the audit process. The audit process will consist of a proposed work program, including audit costs (which shall be payable by DBCT Management and included in the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated), for the execution of the audit;
 - (4) **(Provision of information to auditor)** DBCT Management will, within a nominated timeframe that is determined by the auditor to be reasonable after consultation with DBCT Management, provide any relevant information the auditor reasonably requires for the purpose of conducting the audit;
 - (5) **(Confidentiality deed)** if required by DBCT Management, the auditor will enter into a confidentiality deed with DBCT Management in relation to any information provided by DBCT Management to the effect that it must keep the information confidential and only use that information for the purpose of conducting the audit and completing the audit report detailed below;
 - (6) **(Audit reports)** the auditor will compile an audit report identifying whether DBCT Management has complied in all material respects with the approved TCMP including in relation to contract variations and/or escalation. If the auditor identifies that DBCT Management has not complied in all material respects with the approved TCMP, then the audit report is also to contain details on the relevant non-compliance, any reasons stated by DBCT Management for the relevant non-compliance, and whether the non-compliance was reasonable in the circumstances;
 - (7) **(Progress reports)** the auditor will provide progress reports on the audit process every 6 months. The auditor will also provide a copy of the audit report to DBCT Management and the Expansion Arbitrator upon completion of the audit. The Expansion Arbitrator may have the audit report published on DBCT Management's website if it considers it appropriate; and
 - (8) **(Arbitrator may require additional detail)** if the Expansion Arbitrator forms the view that any of the auditor's reports (whether progress reports or a final report) are lacking in detail or otherwise deficient, the Expansion Arbitrator may direct

DBCT Management to instruct the auditor to review their report and, in doing so, to address the concerns of the Expansion Arbitrator .

(m) **(Prudency of Other Costs)**

- (1) **(Expansion Arbitrator to assess prudency)** The Expansion Arbitrator will undertake an assessment of the prudency of Other Costs, and costs to which Section 11.5(e)(2) applies, after the relevant costs have been expended.
- (2) **(Considerations relating to prudency)** In assessing whether actual capital expenditure is prudent, the Expansion Arbitrator will have regard for the scope of the works undertaken, the standard of the works undertaken and the reasonableness of the cost of works undertaken.
- (3) **(Factors relevant to scope of work)** In assessing the scope of the works and any associated ancillary services undertaken, the Expansion Arbitrator will have regard to (amongst other things):
 - (A) the scope of the proposed Terminal Capacity Expansion;
 - (B) the current Terminal Master Plan and System Master Plan (or to the extent that there is no current System Master Plan, the considerations DBCT Management is required to have regard to under Section 14.2(c));
 - (C) the extent of current contracted demand, likely future demand and any spare capacity considered appropriate, and the need for capital works to accommodate that demand;
 - (D) the appropriateness of DBCT Management's processes to evaluate and select proposed capital works, including the extent to which alternatives are evaluated as part of the process;
 - (E) the extent to which capital projects that were undertaken were subjected to DBCT Management's evaluation and selection process; and
 - (F) the extent to which consultation has occurred with relevant stakeholders about the proposed capital works.
- (4) **(Factors relevant to standard and specifications)** In assessing the standard and specifications of the works undertaken, the Expansion Arbitrator will ensure that the proposed works do not involve any unnecessary works or contain design standards that exceed those standards necessary to comply with Clause 12.1 of the Port Services Agreement and section 11, Schedule E of this Framework.
- (5) **(Factors relevant to reasonableness)** In assessing the reasonableness of the cost of works undertaken, the Expansion Arbitrator will have regard to, (among other things):
 - (A) the level of such costs and risks relative to the scale, nature, cost and complexity of the project;
 - (B) the circumstances prevailing in the markets for engineering, equipment supply and construction;
 - (C) the manner in which the Terminal Capacity Expansion has been managed, including but not limited to the manner in which DBCT Management has balanced the needs of:
 - (i) safety during construction and operation;

- (ii) compliance with environmental requirements during construction and operation;
 - (iii) minimising disruption to operating capacity during construction;
 - (iv) accommodating the reasonable requests of Access Holders to change the scope and sequence of the works undertaken to suit their needs;
 - (v) a prudent balance between:
 - (A) a higher price in return for more certainty as to final cost;
 - (B) a lower price, accepting that final cost may be less certain; and
 - (C) costs, schedule and minimising disruption to operating capacity during construction;
 - (vi) minimising whole of asset life costs including future maintenance and operating costs; and
 - (vii) minimising the total cost of the Terminal Capacity Expansion which may at times not be consistent with minimisation of individual costs.
- (6) **(Assessing capital expenditure)** In assessing the prudence of capital expenditure undertaken, the Expansion Arbitrator will take advice as necessary from independent advisors using appropriate benchmarks and experience, and consult as necessary with relevant stakeholders (the cost of which advisers will be borne by DBCT Management at the discretion of the Expansion Arbitrator).
- (7) **(Audit costs)** The costs of the external auditor referred to in Section 11.5(l) and the advisers referred to in Section 11.5(m)(6) (where payable by DBCT Management) will form part of the Other Costs.
- (8) **(Inclusion in asset base)** The Expansion Arbitrator will include all prudent capital expenditure into the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated).
- (n) **(Preliminary assessment of Other Costs)** If requested by DBCT Management, the Expansion Arbitrator will undertake a preliminary assessment of the reasonableness of the Other Costs and shall advise DBCT Management of the results of such assessment. The Expansion Arbitrator will not be bound by this assessment when determining the prudence of actual capital expenditure and whether the capital expenditure should be included in the Regulated Asset Base (of the Existing Terminal, or Differentiated Expansion Component as applicable).
- (o) **(Interim Reference Tariffs determined before Completion of Terminal Capacity Expansion)** Prior to the Completion of a Terminal Capacity Expansion DBCT Management must submit a draft amending access undertaking in accordance with Schedule C to provide for:
- (1) an interim ARR, Revenue Cap and Reference Tariff (which interim ARR, Revenue Cap and Reference Tariff is based on forecast costs) to apply to the Expansion Component from the first day of the Month following the Month in which a Terminal Capacity Expansion is Completed and handed over to the Operator, until approval by the QCA of an amended ARR, Revenue Cap and Reference Tariff for the Expansion Component which are based on the actual costs of the Terminal Capacity Expansion; and

- (2) a mechanism for the adjustment of Access Charges for the Expansion Component (to the extent that they are affected by a Terminal Capacity Expansion) so as to reconcile the difference between Access Charges which are based on forecast costs and Access Charges which are based on actual costs, with the purpose that DBCT Management and Reference Tonnage Access Holders will be placed in the same position they would have been in had the Access Charges which were payable in respect of the Expansion Component were originally based on the actual costs of the Terminal Capacity Expansion and not the forecast costs.
- (p) **(Consistency of Interim Reference Tariff with earlier pricing reviews)** Where a draft amending access undertaking is submitted in accordance with Section 11.5(o)(1) above, the interim ARR, Revenue Cap, Reference Tariff and Access Charges to apply to the Expansion Component shall:
- (1) be calculated in accordance with Schedule C of the Framework;
 - (2) include any information about queuing and how the relevant queue is to be managed; and
 - (3) be consistent with any relevant Price Ruling.
- (q) **(Adjustment of Interim Reference Tariff etc following Completion and determination of actual costs)** Promptly following the Completion of a Terminal Capacity Expansion and the determination of the actual costs of that Capacity Expansion, DBCT Management must submit a draft amending access undertaking which shall:
- (1) be calculated in accordance with Schedule C of the Framework;
 - (2) include any updated information as required by section 11.5(o);
 - (3) be consistent with any applicable Price Ruling,
and which draft amending access undertaking may take the form of a variation to any draft submitted pursuant to Section 11.5(o) if it is not yet approved by the QCA.

11.6 Return on capital applicable to Terminal Capacity Expansions

- (a) **(WACC(2))** In the event of a Terminal Capacity Expansion costs incurred in the Terminal Capacity Expansion and approved by the Expansion Arbitrator pursuant to Section 11.5, including construction related financing costs, (which will include a return on capital over the construction period on the Terminal Capacity Expansion expenditure incurred), will be included in the Expansion Component's Regulated Asset Base upon which the ARR and Reference Tariff are determined. The return on capital over the construction period to be included in the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated) will be calculated at the WACC(2) Rate.
- (b) **(WACC(3))** The return on capital to apply to the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated), when calculating the ARR and Reference Tariffs to apply from the first day of the Month following the Completion and handover to the Operator of the Terminal Capacity Expansion, will be calculated at the WACC(3) Rate.
- (c) **(WACC(1))** The return on capital to apply to other components of the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated) will continue to be calculated at the WACC(1) Rate.

11.7 Unreasonable and uneconomic proposed Terminal Capacity Expansions

If, having regard to:

- (a) the actual or anticipated long-term demand for the Services;
- (b) the extent to which a Terminal Capacity Expansion under the relevant stage of the Terminal Master Plan would produce capacity in excess of demand;
- (c) the cost of the Terminal Capacity Expansion;
- (d) the extent to which DBCT Management can demonstrate on reasonable evidence that the costs of the Terminal Capacity Expansion would be unlikely to be accepted by the QCA as forming part of the cost base for the purposes of determining Access Charges in respect of that Terminal Capacity Expansion; and
- (e) the long-term nature of DBCT Management's investment in the Terminal,

the cost to DBCT Management of complying with Sections 11.3, 11.4 and 11.5 would be unreasonable and uneconomic, DBCT Management may submit to DBCT Holdings a written proposal that:

- (f) provides details of the above matters; and
- (g) proposes a modification to or temporary delay in the Terminal Capacity Expansion that would otherwise be required to be undertaken under this Section 11, on terms and conditions that are not inconsistent with the objectives in Clause 2.2 of the Port Services Agreement,

and DBCT Management and DBCT Holdings will consult with one another, the State, Access Holders and Access Seekers, in good faith in respect of the proposal. DBCT Holdings will not unreasonably withhold or delay its agreement to such modification or delay. DBCT Management will be relieved of its obligations under this Section 11 to the extent that DBCT Holdings agrees to modify or delay a Terminal Capacity Expansion (whether such agreement is given under the Framework or the Port Services Agreement).

11.8 Inability to proceed with a proposed Terminal Capacity Expansion

If DBCT Management would otherwise be required to proceed with a Terminal Capacity Expansion but, despite its best endeavours, is:

- (a) unable to procure a relevant tenure to or interest in land or seabed necessary for such Terminal Capacity Expansion;
- (b) unable to procure an approval in respect of the occupation or operation of the Terminal, that is required for DBCT Management to lawfully undertake any construction or development otherwise required by a Terminal Capacity Expansion under this Section 11; or
- (c) reasonably of the view that it is not possible to increase Terminal Capacity,

then the obligations of DBCT Management under this Section 11 will be suspended to the extent affected by that inability while that inability continues. DBCT Management will continue to use its best endeavours to (as applicable) procure that approval (including amending, resubmitting or substituting the application and amending the relevant design or work program for the construction or development to procure the approval), procure the interest or tenure, or identify a means of increasing Terminal Capacity.

11.9 Terminal Capacity Expansions to comply with Terminal Master Plan

If DBCT Management wishes to undertake a Terminal Capacity Expansion under this Section 11, it will do so by undertaking the next applicable stage or stages of development

contemplated by the Terminal Master Plan (which is intended to be integrated with the System Master Plan) that are necessary to at least provide the necessary relevant additional Handling capacity.

11.10 Non-expansion Capital Expenditure

- (a) **(Good Operating and Maintenance Practice and Port Services Agreement)** DBCT Management will incur Capital Expenditure which does not relate to a Capacity Expansion as is necessary to ensure:
- (1) that the Terminal complies with Good Operating and Maintenance Practice; and
 - (2) that DBCT Management complies with its obligations under the Port Services Agreement.
- (b) **(Streamlined approval of Capital Expenditure)** The QCA will be obliged to accept that Capital Expenditure (which does not relate to a Terminal Capacity Expansion) is prudent and include it in the relevant Regulated Asset Base:
- (1) provided that DBCT Management confirms, to the reasonable satisfaction of the QCA, that the expenditure incurred falls within the definition of Capital Expenditure;
 - (2) if:
 - (A) the Capital Expenditure is unanimously approved by all Access Holders whose Reference Tariff is calculated by reference to the relevant Regulated Asset Base(s); or
 - (B) no Access Holder at the relevant time objected to the Capital Expenditure within 20 Business Days after receiving written notice of the estimated Capital Expenditure from DBCT Management which expressly drew their attention to this Section; and
 - (3) if the Operator has recommended in writing the incurring of the Capital Expenditure.
- (c) **(Inclusion of Capital Expenditure where specific criteria satisfied)** The QCA will accept into the relevant Regulated Asset Base Capital Expenditure which:
- (1) does not relate to a Terminal Capacity Expansion; and
 - (2) does not comply with all the conditions in Section 11.10(b),
- if the QCA forms the view that such expenditure is prudent having regard to (among other things):
- (3) the need for the work to be undertaken for the efficient operation and use of the Terminal having regard to demand, cost benefit and other relevant factors;
 - (4) the scope of the work undertaken;
 - (5) the standard of the work undertaken;
 - (6) the circumstances prevailing in the markets for engineering, equipment supply and construction;
 - (7) safety during construction and operation;
 - (8) compliance with environmental requirements during construction and operation;
 - (9) minimising whole of asset life costs; and

- (10) the advice of independent advisors using appropriate benchmarks and experience and which advisors are appointed (and paid for) by DBCT Management.

12 Terms and conditions of Access

12.1 Access Agreements

- (a) **(Standard Access Agreement guide for all access)** The granting of Access will be underpinned by the Standard Access Agreement.
- (b) **(Parties to Access Agreements)** The parties to each Access Agreement will include DBCT Management, DBCT Trustee and the relevant Access Holder.
- (c) **(Consistency with Standard Access Agreement)** If the Access Seeker so requires (although DBCT Management and the Access Seeker are able to agree otherwise), the Access Agreement will, in all material respects be consistent with the Standard Access Agreement.
- (d) **(Different terms)** DBCT Management or an Access Seeker may seek Access on terms which are different (Different Terms) from the Standard Access Agreement.
- (e) **(Standard Access Agreement is guide for access negotiations)** For Access required on terms other than the Standard Access Agreement, the terms of the Standard Access Agreement will provide guidance as to the terms and conditions that are to be included in the relevant Access Agreement.
- (f) **(Execution copies to be prepared)** Once an Access Seeker has notified DBCT Management that it is satisfied with the terms and conditions of the Access Agreement as drafted, DBCT Management will, as soon as reasonably practicable, provide a final Access Agreement to the Access Seeker for execution.
- (g) **(Prompt execution)** The parties will use reasonable efforts to duly execute the final Access Agreement as soon as practicable after negotiations are finalised.

12.2 Minimum Term of Access Agreements

- (a) **(10 years where Terminal Capacity Expansion required)**
- (1) An Access Agreement which will, if entered into by DBCT Management, require a Terminal Capacity Expansion, must:
- (A) provide for the Handling of coal for a minimum term of 10 years; and
- (B) not allow the Access Holder to voluntarily reduce the Annual Contract Tonnage earlier than the end of that 10 year period, except for any right of DBCT Management to terminate for default.
- (2) A series of Access Agreements which will, if entered into by DBCT Management with an Access Seeker, require a Terminal Capacity Expansion must:
- (A) provide for the Handling of coal for a minimum Weighted Average Term of 10 years; and
- (B) not allow the Access Holder to voluntarily reduce the Annual Contract Tonnage under any Access Agreement in the series earlier than the tenth anniversary of commencement of the term of the latest-dated Access Agreement in the series, except for any right of DBCT Management to terminate for default.

- (b) **(Replacement Agreements for existing mines)** An Access Agreement in respect of an existing mine for which there is already an Access Agreement or Existing User Agreement may be for any term, but:
- (1) if it is for less than 5 years that term and the relevant tonnages must correspond with the expected remaining life of that mine; and
 - (2) no option to extend the term may be granted under it if the term is for less than 10 years.
- (c) **(Constraints on term for new mine)** The term of an Access Agreement relating to a new mine (including a mine where production is being resumed after a full closure or a sustained period of dormancy), may be for any term, but
- (1) if it is for a term of less than 5 years, DBCT Management may reserve the right to terminate it on not less than 12 months' notice if:
 - (A) DBCT Management executes an Access Agreement for a period in excess of 5 years, commencing during that term; and
 - (B) DBCT Management would have been unable to execute that new Access Agreement without a Terminal Capacity Expansion of the Terminal, had the first mentioned Access Agreement not been terminated at that time; and
 - (2) no option to extend the term may be granted under it if the agreement provides for the Handling of coal for a term of less than 10 years.
- (d) **(Increased Tonnage or term is deemed new Access Agreement)** For clarification, increasing the term of, or Annual Contract Tonnage under, an Access Agreement or Existing User Agreement will be taken to constitute a separate Access Agreement in respect of the increased term or tonnage for the purposes of this Section 12.2 (except to the extent that an Access Holder under an Existing User Agreement has a contractual right to require the increase, on terms which are inconsistent with this paragraph).
- (e) **(Clarification re options)** Reference to an Access Agreement in this Section 12.2 does not include an Access Agreement resulting from the exercise of an option to renew or extend the term under a previous access agreement.

13 Whole of supply chain efficiency

13.1 Engagement in Dalrymple Bay Coal Chain efficiency improvement

DBCT Management will, on a “best endeavours” basis, engage with other stakeholders to develop and implement mechanisms to improve the overall efficiency of the Dalrymple Bay Coal Chain (including forums established pursuant to or arising out of a Memorandum of Understanding dated 1 April 2008 between stakeholders in the DBCT Coal Chain or any subsequent agreement or arrangement replacing or pursuant to that Memorandum of Understanding).

14 Master plans

14.1 Terminal Master Plan

- (a) **(What the Terminal Master Plan is)** The Terminal Master Plan is the framework and reasoning for the expansion of the Terminal in the most logical and efficient way. It is intended to be a part of, and integrated with, the System Master Plan (and to the

extent that at any time there is no System Master Plan, having regard to DBCT Management's knowledge of the System and System Capacity for the relevant period).

- (b) **(Schedule F)** Until changed pursuant to the Framework and the Port Services Agreement, the Terminal Master Plan is the Terminal Master Plan in Schedule F.
- (c) **(Annual review)** DBCT Management must review the Terminal Master Plan at least annually and otherwise in accordance with its obligations under the Port Services Agreement.
- (d) **(Consultation)** Without limiting Section 14.1(c) DBCT Management must consult with all other Service Providers, Access Holders, Access Seekers and the Operator in respect of any proposed amendment to the Terminal Master Plan.
- (e) **(DBCT Management to make copies available)** DBCT Management must make a copy of the Terminal Master Plan available to each other Service Provider and to each Access Holder and Access Seeker and the Operator (which may be by way of reference to a website) promptly after each amendment of the Terminal Master Plan.

14.2 System Master Plan

- (a) **(Participate in System Master Planning)** DBCT Management must use its reasonable endeavours to:
 - (1) (to the extent that it has not already occurred at the Commencement Date) reach agreement with each other Service Provider and DBCT Holdings (after consultation with those stakeholders and with all Access Holders and Access Seekers and the Operator) on a System Master Plan; and
 - (2) review (and if necessary revise) that System Master Plan by agreement with each other Service Provider, following ongoing consultation with all the above mentioned stakeholders.
- (b) **(Withdrawal from System Master Planning)** DBCT Management may at any time, acting reasonably propose amendments to an existing or proposed System Master Plan. If after a reasonable time each other Service Provider does not agree to the amendments proposed by DBCT Management, DBCT Management may withdraw its agreement in respect of that System Master Plan in which case there will be assumed to be no System Master Plan for the purposes of this Framework. DBCT Management will publish on its website its reasons for withdrawing its agreement to a System Master Plan.
- (c) **(If no System Master Plan)** If at any time for any reason there is (or is deemed to be) no System Master Plan in force, where a provision of this Framework requires DBCT Management (or an independent expert / an Arbitrator / Expansion Arbitrator (as relevant)) to have regard to a System Master Plan, DBCT Management (or an independent expert / an Arbitrator / Expansion Arbitrator (as relevant)) will have regard to the Terminal Master Plan together with what it reasonably considers to be the present and likely future state of the other relevant components of the System and what DBCT Management (or an independent expert / an Arbitrator / Expansion Arbitrator (as relevant)) reasonably understands to be generally accepted System operating assumptions.
- (d) **(Protection of DBCT Management)** DBCT Management will not be liable to an Access Seeker (and the Standard Access Agreement will provide that DBCT Management will not be liable to an Access Holder who executes it) if DBCT Management makes a good faith and reasonable attempt to comply with this Section 14.

- (e) **(DBCT Management's obligations in System Master Planning process)** The following apply to DBCT Management in relation to its endeavours to agree a System Master Plan pursuant to Section 14.2(a) and 14.2(b):
- (1) DBCT Management must fully and promptly provide to all other relevant Stakeholders all information (to the extent that it is available to DBCT Management) which might reasonably be considered to be relevant for the purpose of determining a System Master Plan (but this does not require DBCT Management to disclose any information which could reasonably be considered to be commercially sensitive to it or any Access Holder or Access Seeker); and
 - (2) DBCT Management must, as far as practicable, work cooperatively with each other Service Provider (for example regularly provide information relevant to System Capacity and, as far as practicable, using reasonable endeavours to agree on the joint engagement of experts for the purpose of the Framework and similar obligations by other Service Providers).

15 Not Used

16 Governing Law and Dispute resolution

[Drafting Note: Consequential amendments to the dispute resolution provisions in this clause 16 may be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

Governing Law

This Framework is governed by the laws in force in the State of Queensland.

16.1 Disputes

- (a) **(Disputes under this Framework)** If any dispute or question arises under this Framework or in relation to the negotiation of Access between an Access Seeker and DBCT Management (**Dispute**) then, unless otherwise expressly agreed by both parties in writing, such Dispute will be resolved in the manner specified in this Framework (where applicable) and in accordance with this Section. Either party may give to the other party to the Dispute notice in writing (**Dispute Notice**) specifying the Dispute and requiring that it be dealt with in the manner specified in this Framework (where applicable) and as set out in this Section 16.
- (b) **(Disputes under Access Agreements)** Unless otherwise agreed by the parties, Disputes under an Access Agreement or Existing User Agreement will be dealt with in accordance with the provisions of that Access Agreement or Existing User Agreement and are not dealt with under this Framework.
- (c) **(Dispute under Deed Poll)** The courts of Queensland have exclusive jurisdiction to determine any disputes arising under the Deed Poll.

16.2 Chief Executive resolution

- (a) **(Reference to CEOs)** Unless otherwise agreed by both parties or provided for in this Framework (including where the Framework provides that a Dispute or other matter is to be referred to or determined by an Independent Expert (or Expert Determination)), any Dispute will be referred in the first instance and in any event within 10 Business Days of the giving of the Dispute Notice to the Chief Executive of DBCT Management

(or his or her nominee) and the Chief Executive of the Access Seeker (or his or her nominee) for resolution.

(b) In the event that:

- (1) resolution is not reached within 10 Business Days of referral; or
- (2) either Chief Executive appoints a nominee in accordance with this Section 16 that is unacceptable to the other party,

unless otherwise agreed by the parties, where this Framework provides that the Dispute is to be referred to Expert Determination (or determination by an Independent Expert) the Dispute will be referred to an Independent Expert in accordance with Section 16.3. All other Disputes will be referred to Arbitration in accordance with Section 16.4.

16.3 Expert Determination

Where a matter is referred to Expert Determination (or determination by an Independent Expert) in accordance with Section 16.2 or as otherwise specified in accordance with this Framework, then the following will apply:

- (a) **(Appointment)** An Independent Expert may be appointed by the parties, or where agreement cannot be reached by the parties within five Business Days, by the Resolution Institute.
- (b) **(Criteria for Independent Expert)** In any event the Independent Expert must:
 - (1) have appropriate qualifications and practical experience having regard to the nature of the Dispute;
 - (2) have no interest or duty which conflicts or may conflict with his or her function as Independent Expert, he or she being required to fully disclose any such interest or duty before his or her appointment; and
 - (3) not be a current or immediate past employee of the Access Seeker or DBCT Management or of a Related Body Corporate of either of them.
- (c) **(Acceptance of appointment)** The Independent Expert appointed pursuant to this Section 16.3 must not act until the Independent Expert has given written notice of the acceptance of his or her appointment to both parties.
- (d) **(Provision of information to Independent Expert)** The parties must upon request by the Independent Expert, provide or make available to the Independent Expert:
 - (1) all information in their possession or control (other than Confidential Information);
 - (2) all Confidential Information (subject to entry into arrangements to preserve confidentiality which are acceptable to all relevant parties, acting reasonably); and
 - (3) all other assistance,

that the Independent Expert may reasonably require. Any such information or assistance must be provided as soon as reasonably practicable. Any determination made by an Independent Expert in relation to a Dispute must be consistent with the provisions of this Framework;
- (e) **(Determination to be given to each party)** The Independent Expert will provide both parties with a copy of the written determination in relation to the Dispute within a reasonable time after his or her appointment.

- (f) **(Confidentiality)** The Independent Expert appointed pursuant to this Section 16.3 is required to undertake to the parties in writing to keep confidential all matters coming to his or her knowledge by reason of this appointment and performance of his or her duties.
- (g) **(Not arbitration)** Any person nominated as an Independent Expert pursuant to this Section 16.3 is deemed to be and must act as an Independent Expert and not as an arbitrator. The law relating to arbitration including, without limitation, the *Commercial Arbitration Act 2013* (Qld) as it may be amended from time to time, does not apply to the Independent Expert or to the determination or to the procedures by which the Independent Expert may reach that determination.
- (h) **(Independent Expert's decision final)** In the absence of manifest error, the decision of the Independent Expert is final and binding upon the parties. If a party believes that there was a manifest error it may refer the matter to the Arbitrator for a determination in accordance with Section 16.4. If the Arbitrator determines that there was a manifest error, then the parties may agree to refer the Dispute to another Independent Expert in accordance with this Section 16.3, or failing such agreement, either party may refer the Dispute to the Arbitrator for resolution in accordance with Section 16.4.
- (i) **(Costs of Independent Expert)** The costs of the Independent Expert and the reasonable costs of the parties are to be borne by the parties in such proportions as determined by the Independent Expert. If two or more Access Seekers are parties to a Dispute involving substantially the same issues and there are no special circumstances making it necessary or desirable for them to be separately represented, it will only be reasonable for those Access Seekers in aggregate to recover the costs of being collectively represented in any Dispute.

16.4 Determination by Arbitration

- (a) All Disputes referred to Arbitration (or determination by an Arbitrator) under this Framework must be conducted in accordance with this Section 16.4.
- (b) The Dispute shall be submitted to Arbitration in accordance with, and subject to, the Resolution Institute Arbitration Rules.
- (c) The Arbitration must be effected by a single suitably qualified and experienced arbitrator who is either:
 - (1) agreed upon between the parties; or
 - (2) in default of such agreement within five Business Days after the Dispute is referred for Arbitration, nominated by the Resolution Institute.
- (d) Any party to the Arbitration may be represented before the Arbitrator by a member of the legal profession without the need for leave of the Arbitrator.
- (e) In making a determination, the Arbitrator must have regard to the terms of the Framework and to the following matters:
 - (1) the Framework Objective;
 - (2) DBCT Management's binding legal obligations and obligations under law;
 - (3) DBCT Management's legitimate business interests and investment in the Terminal;
 - (4) the legitimate business interests of persons who have, or may acquire, rights to use the Terminal;

- (5) the public interest, including the benefit to the public in having competitive markets;
 - (6) the value of the service to:
 - (A) the Access Seeker;
 - (B) a class of Access Seekers or Access Holders;
 - (7) the direct costs to DBCT Management of providing Access to the Terminal, including any costs of a Terminal Capacity Expansion, but not costs associated with losses arising from increased competition;
 - (8) the economic value to DBCT Management of any Terminal Capacity Expansion, or other additional investment in the Terminal, that DBCT Management or an Access Seeker or an Access Holder has undertaken or agreed to undertake;
 - (9) the quality of the Services;
 - (10) the operational and technical requirements necessary for the safe and reliable operation of the Terminal;
 - (11) the economically efficient operation of the Terminal;
 - (12) any other matters to which the Arbitrator thinks it is appropriate to have regard.
- (f) Any arbitration commenced under this Framework may be consolidated with any other arbitration commenced under:
- (i) this Framework (or agreements referred to in the Framework); and / or
 - (ii) an Access Agreement,
- regardless of the parties involved, provided that the issue(s) which each arbitrator has been asked to determine concern common questions of fact or law. Such consolidated arbitration shall be determined by the arbitrator appointed for the arbitration proceeding that was commenced first in time.
- (g) The venue for any Arbitration will be Brisbane, Queensland.
- (h) Unless otherwise determined by the Arbitrator, the costs of the Arbitration shall be paid by the unsuccessful party.

16.5 Urgent matters

Nothing in this Section 16 prevents a party from seeking urgent injunctive relief from a court.

17 Limitations to Losses and Damages

Subject to the terms of an Access Agreement, Funding Agreement, Underwriting Agreement or any other agreement entered into with DBCT Management as contemplated by this Framework, and notwithstanding any other Section of this Framework:

- (a) damages is not a remedy for any breach of this Framework;
- (b) the only remedy available for any breach of this Framework is specific performance; and
- (c) DBCT Management is not liable to Access Holders, Access Seekers or Rail Operators for any indirect Loss or Consequential Loss arising in connection with this Framework.

18 Severability

- (a) Subject to Section 18(b), if a provision of this Framework is illegal or unenforceable in any relevant jurisdiction, it may be severed for the purposes of that jurisdiction without affecting the enforceability of the other provisions of this Framework.
- (b) Section 18(a) does not apply if severing the provision:
 - (1) materially alters the scope and nature of this Framework; or
 - (2) would be contrary to public policy.

Schedule A – Access Application Form and Renewal Application Form

Access Application Form

[Note: this form to be issued on Access Seeker’s letterhead]

To: Chief Executive Officer
DBCT Management

DBCT Access Application

TAKE NOTICE that the Access Seeker named below applies for Access to the Services at Dalrymple Bay Coal Terminal pursuant to section 5.2 of the Access Framework .

Name of Access Seeker	
Origin of Coal (Mine Name)	
Street address	
Telephone	
Attention	
Email address	

The Access Seeker warrants that it has:

- (a) rights to below rail infrastructure; and/or
- (b) made or will promptly make an application to the relevant railway infrastructure service provider to obtain rights to rail infrastructure (which it reasonably expects will be granted if this Access Application is granted); and/or
- (c) otherwise made arrangements,

to ensure that rail access is sufficient to deliver to the Terminal the tonnages which are the subject of this Access Application.

Category of Access Application:	
A	A new Access Seeker <i>(please (1) complete Schedule A attached and (2) provide evidence of solvency or security offered to enable DBCT Management to assess creditworthiness).</i> <input type="checkbox"/>
B	An existing Access Holder seeking additional capacity (including an extension of the Term) pursuant to a mechanism in its Access Agreement (as contemplated by section 5.11 of the Access Framework) <input type="checkbox"/>
C	An existing Access Holder seeking additional capacity (including an extension of the Term) other than in the circumstances contemplated by Section 5.11 of the Access Framework . <i>For existing Access Holders making a category B or C application, please complete the declaration below or Schedule A attached:</i>
	I confirm that all details required by Schedule A attached in relation to the Services required at DBCT, and any Security required, will be as per our existing Access Agreement <i>[tick box at right]</i> . <input type="checkbox"/>
<i>[Note: If box is not ticked, please complete Schedule A attached]</i>	
Name	DBCT Management use only Received Date: Access Application Date: <i>[per section 5.4(b) of the Access Framework]</i>
Position	
Signed	
Date	

The Access Seeker unconditionally and irrevocably agrees:

- (a) to comply with the requirements, obligations and processes in:
 - a. the Framework relating to it or its Access Application; and
 - b. the Deed Poll, including the conditions set out in clauses 8.4, 9, 10 and 11 of the Deed Poll; and
- (b) that the Access Application is governed by the laws in force in the State of Queensland.

Schedule A to the Access Application of [insert name]

(Note – where the Access Seeker is an Existing Access Holder and the details are relevantly the same as the Services being provided under the Access Agreement, state “as existing”. Cross reference to further sheets to be attached where there is insufficient room in the table below.

1	Name and contact details	As above
2	Stockpiling requirements	
3	Blending requirements	
4	Number of products	
5	Date of commencement of delivery of coal to the Terminal	
6	Description of each type of coal (including coal qualities such as moisture content, dust extinction moisture level, “stickiness”, and contamination levels and any special requirements the Access Seeker has in relation to its coal, including any special equipment or particular Handling processes) to be delivered to the Terminal	
7	Net tonnes of coal per annum requested for each Financial Year where access is requested	Year Mtpa
8	Proposed number of trains and wagons per train for each week from the proposed date of commencement of the delivery of coal to the Terminal to the end of the first full Financial Year:	
9	Proposed gross tonnes per wagon	
10	To the extent possible, the number, type and respective gross and deadweight tonnages of vessels, on a month by month basis, expected to ship the Access Seeker’s coal from the proposed date of the commencement of the delivery of coal to the Terminal to the end of the first full Financial Year, including details of the numbers of single and part vessel consignments.	
11	Requirements for trial shipments (if any)	
12	<ul style="list-style-type: none"> • A report prepared by a ‘competent person’ (as defined in the JORC Code) in accordance with the JORC Code and the Coal Guidelines which provides an estimate of Marketable Coal Reserves and Coal Resources as at the date the report is prepared (which must be within 12 months of the date of the Access Application) which are to be allocated for shipment under the Access Seeker’s Access Agreement. The estimate must be calculated in accordance with the JORC Code and the Coal Guidelines. The report and the key documents used to develop the report must be verified by a ‘competent person’ (as defined in the JORC Code). • An explanation of how the estimate of Marketable Coal Reserves and Coal Resources in the report is consistent with having sufficient: <ul style="list-style-type: none"> • Marketable Coal Reserves for the net tonnes of coal per annum requested for each of the first 5 Financial Years in item 7 in respect of which Access is applied for; and • Coal Resources, together with the Marketable Coal Reserves, for the net tonnes of coal per annum requested for each Financial Year in item 7. 	
13	<ul style="list-style-type: none"> • A description of the coal mine project that will be used as the source of coal to be delivered by the Access Seeker to the Terminal (Source Mine Project). • The project timeline (including key milestones) for the construction, commissioning and production phases of the Source Mine Project. • An explanation of how the Source Mine Project is currently tracking against the project timeline and a description of the current stage of the Source Mine Project. • An explanation of how the project timeline referred to above is consistent with the date for commencement of delivery of coal to the Terminal (as specified in item 5). • An assessment of the prospects of the Access Seeker obtaining any debt or equity finance required in order for the Source Mine Project to achieve the key milestones referred to in the project timeline including commencement of the production phase. • The Access Seeker’s progress in obtaining the necessary approvals for the Source Mine Project. 	

Name	Signed
Position	
Date	

Access Renewal Form

[Note: this form to be issued on Access Seeker’s letterhead]

To: Chief Executive Officer
DBCT Management

DBCT Renewal Application

TAKE NOTICE that the Access Seeker named below applies to renew its Access Application for Access to the Services at Dalrymple Bay Coal Terminal pursuant to section 5.3A of the Access Framework .

Name of Access Seeker	
Origin of Coal (Mine Name)	
Street address	
Telephone	
Attention	
Email address	

The Access Seeker warrants that it has:

- (a) rights to below rail infrastructure; and/or
- (b) made or will promptly make an application to the relevant railway infrastructure service provider to obtain rights to rail infrastructure (which it reasonably expects will be granted if this Renewal Application is granted); and/or
- (c) otherwise made arrangements,

to ensure that rail access is sufficient to deliver to the Terminal the tonnages which are the subject of this Renewal Application.

Category of Renewal Application	
<p>A A renewal of an Access Application which was submitted by a new Access Seeker <i>(please complete the declaration below or (1) complete Schedule A attached and (2) provide evidence of solvency or security offered to enable DBCT Management to assess creditworthiness).</i> <input type="checkbox"/></p> <p>I confirm that all details required by Schedule A attached in relation to the Services required at DBCT, and any Security required, will be as per our current Access Application <i>[tick box at right]. [Note: If box is not ticked, please complete Schedule A attached]</i> <input type="checkbox"/></p>	
<p>B A renewal of an Access Application which was submitted by an existing Access Holder seeking additional capacity (including an extension of the Term) pursuant to a mechanism in its Access Agreement (as contemplated by section 5.11 of the Access Framework). <input type="checkbox"/></p>	
<p>C A renewal of an Access Application which was submitted by an existing Access Holder seeking additional capacity (including an extension of the Term) other than in the circumstances contemplated by section 5.11 of the Access Framework . <input type="checkbox"/></p> <p><i>For existing Access Holders making a category B or C Renewal Application, please complete the declaration below or Schedule A attached:</i></p> <p>I confirm that all details required by Schedule A attached in relation to the Services required at DBCT, and any Security required, will be as per our current Access Application and existing Access Agreement <i>[tick box at right].</i> <input type="checkbox"/></p> <p style="text-align: right;"><i>[Note: If box is not ticked, please complete Schedule A attached]</i></p>	
Name	DBCT Management use only Received Date:
Position	
Signed	
Date	

The Access Seeker unconditionally and irrevocably agrees to:

- (a) to comply with the requirements, obligations and processes in:
 - a. the Framework relating to it or its Access Application and Access Renewal Form; and
 - b. the Deed Poll, including the conditions set out in clauses 8.4, 9, 10 and 11 of the Deed Poll; and

- (a) the Access Application and Access Renewal Form are governed by the laws in force in the State of Queensland.

Schedule A to the Renewal Application of [insert name]

(Note – where the Access Seeker is an Existing Access Holder and the details are relevantly the same as the Services being provided under the Access Agreement, state “as existing”. Cross reference to further sheets to be attached where there is insufficient room in the table below.)

1	Name and contact details	As above
2	Stockpiling requirements	
3	Blending requirements	
4	Number of products	
5	Date of commencement of delivery of coal to the Terminal	
6	Description of each type of coal (including coal qualities such as moisture content, dust extinction moisture level, “stickiness”, and contamination levels and any special requirements the Access Seeker has in relation to its coal, including any special equipment or particular Handling processes) to be delivered to the Terminal	
7	Net tonnes of coal per annum requested for each Financial Year where access is requested	Year Mtpa
8	Proposed number of trains and wagons per train for each week from the proposed date of commencement of the delivery of coal to the Terminal to the end of the first full Financial Year	
9	Proposed gross tonnes per wagon	
10	To the extent possible, the number, type and respective gross and deadweight tonnages of vessels, on a month by month basis, expected to ship the Access Seeker’s coal from the proposed date of the commencement of the delivery of coal to the Terminal to the end of the first full Financial Year, including details of the numbers of single and part vessel consignments	
11	Requirements for trial shipments (if any)	
12	<ul style="list-style-type: none"> • A report prepared by a ‘competent person’ (as defined in the JORC Code) in accordance with the JORC Code and the Coal Guidelines which provides an estimate of Marketable Coal Reserves and Coal Resources as at the date the report is prepared (which must be within 12 months of the date of the Renewal Application) which are to be allocated for shipment under the Access Seeker’s Access Agreement. The estimate must be calculated in accordance with the JORC Code and the Coal Guidelines. The report and the key documents used to develop the report must be verified by a ‘competent person’ (as defined in the JORC Code). • An explanation of how the estimate of Coal Resources in the report is consistent with being able to economically extract the net tonnes of coal per annum requested for each Financial Year in item 7 by the relevant Financial Years (including the proportion which is ‘Marketable Coal Reserves’ as defined in the JORC Code, and the Access Seeker’s approach to converting those Coal Resources to Marketable Coal Reserves). • An explanation of how the estimate of Marketable Coal Reserves and Coal Resources in the report is consistent with having sufficient: <ul style="list-style-type: none"> • Marketable Coal Reserves for the net tonnes of coal per annum requested for the first five Financial Year in item 7 in respect of which Access applied for; and • Coal Resources, together with the Marketable Coal Reserves, for the net tonnes of coal per annum requested for each Financial Year in item 7. 	
13	<ul style="list-style-type: none"> • A description of the coal mine project that will be used as the source of coal to be delivered by the Access Seeker to the Terminal (Source Mine Project). • The project timeline (including key milestones) for the construction, commissioning and production phases of the Source Mine Project. • An explanation of how the Source Mine Project is currently tracking against the project timeline and a description of the current stage of the Source Mine Project. • An explanation of how the project timeline referred to above is consistent with the date for commencement of delivery of coal to the Terminal (as specified in item 5). • An assessment of the prospects of the Access Seeker obtaining any debt or equity finance required in order for the Source Mine Project to achieve the key milestones referred to in the project timeline including commencement of the production phase. • The Access Seeker’s progress in obtaining the necessary approvals for the Source Mine Project. 	

Name	Signed
Position	
Date	

Schedule B – Standard Access Agreement

[Standard Access Agreement attached separately]

Schedule C – [Pricing - Placeholder]

[Drafting Note: Please refer to Appendix 7 of DBCTM's submission, which sets out the pricing framework. Drafting to give effect to the pricing framework is being developed and this schedule will be updated to reflect the pricing framework]

Schedule D – Confidentiality deed

This confidentiality deed

is made on _____ between the following parties:

1. **DBCT Management Pty Limited**
ACN 097 698 916
of Level 15, Waterfront Place, 1 Eagle Street, Brisbane QLD 4000
(**DBCT Management**)
2. **[insert name of receiving party]**
[insert ABN/ACN/ARBN]
of [insert address]
(**Access Seeker**)

Recitals

- A. DBCT Management and the Access Seeker wish to negotiate the terms of an Access Agreement under which DBCT Management will provide Access to the Services.
- B. The parties have agreed to the disclosure of certain Confidential Information to each other in order to assist them to reach a negotiated outcome on the terms and conditions of Access to the Services.
- C. The parties have agreed that any Confidential Information is provided on the terms of this deed and that they will not use or disclose the Confidential Information except as provided in this deed.

This deed witnesses

that in consideration of, among other things, the mutual promises contained in this deed, the parties agree:

1 Definitions and interpretation

1.1 Definitions

In this deed:

Access Framework means the Dalrymple Bay Coal Terminal Access Framework dated 9 September 2020 as varied or replaced from time to time;

Confidential Information means any information, data or other matter disclosed to a party by or on behalf of another party where:

- (a) the disclosure of the information, data or other matter by the Recipient might reasonably be expected to affect the commercial affairs of the owner of the information, data or other matter; or
- (b) the information, data or other matter is marked or otherwise clearly identified as confidential by a party when disclosed,
provided that such information, data or other matter:
 - (c) is not already in the public domain;
 - (d) does not become available to the public through means other than a breach of this confidentiality deed or of the confidentiality provisions of the Access Framework;

- (e) was not in the other party's lawful possession prior to such disclosure; or
- (f) is not received by the other party independently from a third party free to disclose such information, data or other matter,

and provided further that the information, data or other matter will cease to be Confidential Information if the information has ceased to retain its confidential nature, for example because:

- (g) the disclosure of the information, data or other matter by the Recipient would no longer reasonably be expected to affect the commercial affairs of the owner of the information, data or other matter;
- (h) the information, data or other matter is now in the public domain through means other than a breach of this confidentiality deed or of the confidentiality provisions of the Access Framework; or
- (i) the information, data or other matter has been received by the Recipient independently from a third party free to disclose the information, data or other matter.

Corporations Act means the *Corporations Act 2001* (Cth);

Discloser means a person who discloses Confidential Information to a Recipient pursuant to negotiations for Access under Part 5 of the Access Framework;

Document includes any note, memorandum, record, report, financial information, summary, analysis, calculation, strategic assessment, market survey, business plan, computer program, computer record, circuit, circuit layout, drawing, specification, material or any other means by which information may be stored or reproduced;

Express Purpose means to assist the Recipient to reach a negotiated outcome with the Discloser as to the terms and conditions of Access;

Recipient means a person who receives Confidential Information pursuant to negotiations for Access under Part 5 of the Access Framework; and

Specified Person means:

- (a) an officer or employee of a Recipient;
- (b) a professional adviser to a Recipient;
- (c) a financier of a Recipient;
- (d) a professional adviser to a financier of a Recipient;
- (e) an officer, employee, or a professional adviser to a related body corporate of a Recipient; or
- (f) an officer or employee of the Operator,

who has a specific need to have access to the Confidential Information for the Express Purpose.

1.2 Interpretation

- (a) Terms defined in the Access Framework have the same meaning in this deed unless otherwise defined.
- (b) Headings are for convenience only and do not affect interpretation.
- (c) In this deed, unless the context otherwise requires:
 - (1) words importing the singular include the plural and vice versa;

- (2) a reference to any thing (including, but not limited to, any right) includes a part of that thing but nothing in this Clause 1.2(c)(2) implies that performance of part of an obligation constitutes performance of the obligation;
- (3) the term “related body corporate” has the meaning given to that term under the Corporations Act;
- (4) the term “associate” has the meaning given to that term in Section 15 of the Corporations Act;
- (5) an expression importing a natural person includes any company, partnership, joint venture, association, corporation or other body corporate and any government agency; and
- (6) a reference to a person includes that person’s successors and legal personal representatives.

2 Confidentiality

The Recipient must:

- (a) hold the Confidential Information in strict confidence and not disclose, or cause or permit the disclosure of, the Confidential Information, except as permitted under this deed or with the prior written consent of the Discloser;
- (b) not disclose, or cause or permit the disclosure to any person of, any opinion in respect of the Confidential Information or a Document created in accordance with Clause 3(c), except as permitted under this deed;
- (c) keep the Confidential Information and any Documents created in accordance with Clause 3(c) in a way such that it is reasonably protected from any use, disclosure or access which is inconsistent with this deed;
- (d) promptly notify the Discloser if it suspects, or becomes aware of, any unauthorised use, storage, copying or disclosure of the Confidential Information;
- (e) do anything reasonably required by the Discloser to prevent or stop a breach or threatened breach of this deed or an infringement or threatened infringement of the Discloser’s rights arising out of this deed by any person, whether by court proceedings or otherwise; and
- (f) maintain such procedures as are reasonably necessary to ensure compliance with this deed by the Recipient and each Specified Person and, upon request, provide the Discloser details of the procedures adopted.

3 Permitted use and disclosure

The Recipient may:

- (a) only use the Confidential Information for the Express Purpose;
- (b) not make use of the Confidential Information to the commercial, financial or competitive disadvantage of the Discloser (but this does not preclude the Recipient from using the Confidential Information in negotiations with the Discloser or in any dispute proceedings);

- (c) create, or cause or permit to be created, a Document which reproduces, is based on, utilises or relates to Confidential Information only if that creation is solely for the Express Purpose; and
- (d) only disclose Confidential Information (including as contained in a Document created in accordance with Clause 3(c)) to a Specified Person, and may only make such disclosure solely for the Express Purpose.

4 Return and destruction of information

- (a) If requested by the Discloser, the Recipient must promptly return to the Discloser, or destroy or delete as the Discloser directs, all original Documents and copies which:
 - (1) are or contain Confidential Information; and
 - (2) reproduce, are based on, utilise or relate to Confidential Information.
- (b) If a Document or a copy referred to in Clause 4(a) contains information which is Confidential Information of the Recipient, then the Recipient is not required to return that Document but must destroy or delete the portion of the Document containing the Confidential Information of the Discloser.
- (c) Nothing in this clause 4 requires the destruction or return of documentation contained in any board papers or information retained by a professional adviser in accordance with usual professional practice.

5 Operation of this deed

- (a) This deed continues without limitation in time but, subject to Clause 5(b), does not apply to any Confidential Information that:
 - (1) the Recipient or a Specified Person is required to disclose by any applicable law or legally binding order of any court, government, semi-government authority, administrative or judicial body, or a requirement of a stock exchange or regulator;
 - (2) is in the public domain other than as a result of a breach of this deed;
 - (3) was at the time of disclosure already in the lawful possession of the Recipient; or
 - (4) is received by the Recipient from a person (other than a Discloser or any employee, officer, agent or adviser of a Discloser) legally entitled to possess that information and provide it to the Recipient.
- (b) If the Recipient or a Specified Person must make a disclosure referred to in Clause 5(a)(1):
 - (1) the Recipient must only disclose, and must ensure that the Specified Person only discloses the minimum Confidential Information required to comply with the applicable law, order or requirement; and
 - (2) before making such disclosure, the Recipient must:
 - (A) give the Discloser reasonable written notice of:
 - (i) the full circumstances of the required disclosure; and

- (ii) the Confidential Information which it, or the Specified Person, proposes to disclose; and
 - (B) consult with the Discloser as to the form of the disclosure.
-

6 Acknowledgment

The Recipient acknowledges that:

- (a) the Confidential Information is secret and highly confidential to the Discloser;
 - (b) this deed does not convey any proprietary or other interest in the Confidential Information to the Recipient or any Specified Person;
 - (c) disclosure of Confidential Information in breach of this deed could cause considerable commercial and financial detriment to the Discloser;
 - (d) damages may be inadequate compensation for breach of this deed and, subject to the court's discretion, the Discloser may restrain by an injunction or similar remedy, any conduct or threatened conduct which is or would be a breach of this deed; and
 - (e) some or all of the Confidential Information may be relevant to the price or value of securities of the Discloser. The Recipient undertakes that it will not deal in those securities in breach of the insider trading provisions of the Corporations Act.
-

7 Recipient to ensure others comply

The Recipient must:

- (a) inform each Specified Person of the Recipient's obligations under this deed;
 - (b) procure that each Specified Person strictly observes all of the Recipient's obligations under this deed as if those obligations were imposed on that person; and
 - (c) generally ensure that no officer, employee, adviser or agent of the Recipient does anything which, if done by the Recipient, would be inconsistent with this deed.
-

8 Indemnity

The Recipient indemnifies the Discloser in respect of any claim, action, damage, loss, cost, charge, expense, outgoing or payment which the Discloser suffers, incurs or is liable for in respect of:

- (a) any breach of this deed by the Recipient;
 - (b) any failure by the Recipient to ensure compliance by any Specified Person with the terms of this deed; or
 - (c) any infringement of the Discloser's rights in respect of the Confidential Information by the Recipient or a Specified Person.
-

9 Disclaimer

- (a) Neither the Discloser, nor any of its related bodies corporate nor any of their respective officers, employees or advisers:
 - (1) makes any representation or warranty:
 - (A) as to the accuracy or completeness of the Confidential Information;
-

- (B) that the Confidential Information has been audited, verified or prepared with reasonable care; or
 - (C) that the Confidential Information is the totality of the information that a prospective Access Seeker may require in order to negotiate an Access Agreement;
- (2) accepts any responsibility for any interpretation, opinion or conclusion that the Recipient or a Specified Person may form as a result of examining the Confidential Information;
- (3) accepts any responsibility to inform the Recipient of any matter arising or coming to the Discloser's notice which may affect or qualify any Confidential Information which the Discloser provides to the Recipient; and
- (4) is liable, and the Recipient covenants not to make any claim or commence or pursue any proceedings against any of them, for any loss of any kind (including, without limitation, damages, costs, interest, loss of profits, or special loss or damage) arising from:
 - (A) an error, inaccuracy, incompleteness or similar defect in the Confidential Information; or
 - (B) any default, negligence or lack of care in relation to the preparation or provision of the Confidential Information.
- (b) The Recipient acknowledges that it is making an independent assessment of the Confidential Information and that it will carry out, and rely solely on, its own investigation and analyses in relation to the Confidential Information.
- (c) Any reliance by the Recipient, or any Specified Person, on any Confidential Information, or any use of any Confidential Information, is solely at its own risk.

10 Governing law and jurisdiction

- (a) This deed is governed by the laws of Queensland.
- (b) Any dispute arising out of or in connection with this deed shall be resolved in accordance with the dispute resolution provisions contained in section 16 of the Access Framework.

11 Waivers

- (a) Waiver of any right, power, authority, discretion or remedy arising on default under this deed must be in writing and signed by the party granting the waiver.
- (b) A failure or delay in exercise, or partial exercise, of a right, power, authority, discretion or remedy created or arising on default under this deed does not result in a waiver of that right, power, authority, discretion or remedy.

12 Variation

Any variation of this deed must be in writing and signed by the parties.

13 Entire agreement

This deed is the entire agreement between the parties in respect of its subject matter.

Executed as a deed:

**Signed sealed and delivered by
DBCT Management**
by:

Director/Secretary

Director

Name (please print)

Name (please print)

**Signed sealed and delivered by
*[insert Access Seeker]***
by:

Director/Secretary

Director

Name (please print) Name (please print)

Schedule E – Services

1 Train scheduling

DBCT Management must (subject to availability of trains and factors beyond its control) co-ordinate cargo assembly windows at the terminal to receive coal parcels and provide train operators and Access Holders with details of cargo receipt windows suitable for terminal acceptance of trains and ensure sufficient unloading capacity is made available at the Terminal, to allow each Access Holder to ship its Annual Contract Tonnage of coal in each Financial Year.

2 Train unloading

If a train carrying an Access Holder's coal arrives at the Terminal within its designated cargo build window, DBCT Management must ensure that the train is unloaded at a rate (consistent with the type and condition of the coal) consistent with achieving Handling of the Annual Contract Tonnage of coal for an Access Holder.

3 Reclaiming and vessel loading

DBCT Management must:

- (a) make the Terminal available for berthing by vessels (which are satisfactory in all respects to receive coal) nominated by each Access Holder, such that not less than the Annual Contract Tonnage can be Handled by DBCT Management on behalf of that Access Holder in each Financial Year (as long as the vessel and/or cargo mix required by the Access Holder (or its customer) does not unreasonably impact on the efficiency of the Terminal). It is agreed that historical vessel or cargo mixes prior to 30 June 2005 will be taken generally not to have unreasonably impacted on efficiency; and
- (b) load each Access Holder's coal into a vessel which is nominated by the Access Holder and is available for loading so as to achieve the objective in paragraph 3(a).

4 Incidental services

DBCT Management must provide the following services incidental to coal Handling (unless provided directly by the Operator):

- sampling and survey services;
- vessel monitoring;
- co-ordination with ships' agents, masters, customers and other relevant entities;
- crew disembarkation services; and
- wharfage and line services.

5 Miscellaneous services

If required by an Access Holder or any Approval or statutory authority notified to DBCT Management, DBCT Management must, in accordance with Good Operating and Maintenance Practice, provide the following miscellaneous services to the Access Holder:

- moisture adding;
- compacting;
- surfactant adding;
- dozing;

- blending (subject to Section 6(d) below); and
- any other services reasonably requested from time to time in writing by an Access Holder to DBCT Management, provided that such services will not unreasonably impact on the efficiency or capacity of the Terminal.

6 Stockpiling and blending

- (a) DBCT Management must provide to each Access Holder sufficient stockpile areas to allow cargo assembly (i.e. assembly of cargo for a nominated vessel with an appropriate arrival time) for vessels onto which the Access Holder's coal is to be loaded.
- (b) Remnant management areas will be determined by the Operator in areas of the Terminal which are not required for cargo assembly and which can be made available for dedicated stockpiling without materially affecting efficiency of the Terminal. DBCT Management must ensure that each Access Holder is offered the opportunity to use a proportion of that stockpiling area which accords with its proportion of the Aggregate Annual Contract Tonnage under all Access Agreements and Existing User Agreements.
- (c) The stockpiling rights in Section 6(a) and 6(b) are subject to any other obligation of DBCT Management under any Access Agreement or Existing User Agreement with another Access Holder entered into prior to 1 July 2004 (to the extent that such obligation has not been waived).
- (d) DBCT Management must blend coal if so requested, but subject to requirements in the Terminal Regulations from time to time, which may:
 - (1) require coal to be blended before it is received at the Terminal, where reasonably practicable;
 - (2) require coal to be blended into a stockpile where reasonably practicable (rather than being blended from stockpile); and
 - (3) limit the proportions in which coal may be blended (to limit the increase in consumption of capacity of the Terminal consumed because of blending).
- (e) DBCT Management must transfer each Access Holder's coal from the train unloading facility at the Terminal to the relevant stockpile area or a cargo assembly area and stockpile an Access Holder's coal in that area (except to the extent that a quality plan under the Terminal Regulations has been agreed to which provides for direct loading from train to vessel).

7 Prevention of contamination

DBCT Management must take all practicable measures to maintain the integrity of each Access Holder's coal at the Terminal, including (without limitation) by:

- (a) avoiding contamination of the Access Holder's coal, including (without limitation) contamination with other coal or waste material; and
- (b) minimising handling and associated degradation of the Access Holder's coal.

8 Data provision

DBCT Management must provide such information and access to systems as are reasonable to inform Access Holders of relevant data relating to handling of their coal.

9 Co-ordination

Subject to the Access Holder providing relevant information to DBCT Management within a reasonable time, DBCT Management must:

- (a) ensure, as far as practicable, that it discharges its obligations in this Schedule in accordance with the requirements of the Access Holder's reasonable quality plans, reasonable shipping programs and contracts as notified to DBCT Management and the Operator from time to time consistent with Terminal Regulations; and
- (b) (subject to the foregoing and having regard to equity amongst Access Holders) use its best endeavours to minimise the aggregate cost to the Access Holder arising out of Handling at the Terminal (including demurrage costs and rail freight).

10 Terminal Regulations, Force Majeure, Laws and Operation & Maintenance Contract

The provision of each of the above Services by DBCT Management is subject to (and DBCT Management's obligations are modified to the extent of):

- (a) any relevant provisions of the Terminal Regulations in so far as they;
 - (1) require scheduling of Access Holder's railing in and shipment of coal in ways which promote Terminal and System efficiency and endeavours to achieve the objective of even shipments by Access Holders;
 - (2) temporarily reduce the tonnage of coal which may be Handled or Services provided, during such periods as capacity of the Terminal or relevant Services becomes restricted, provided that such reductions and restrictions affect all Access Holders equitably (but this does not relieve the Access Holder or DBCT Management respectively from any liability which they might have in respect of causing capacity or Services to have become restricted);
 - (3) prescribe requirements for trains, unloading of trains, stockpiling and cargo assembly of vessels, arrival of vessels, loading of vessels, pre-loading requirements and order of loading and unloading and other matters where possible (including matters of the type dealt with in the Terminal Regulations as at the Commencement Date) which promotes the efficient, safe and equitable utilisations of Terminal Capacity and System Capacity and Terminal Services;
 - (4) require Access Holders to co-operate with the Operator and other Access Holders in relation to scheduling, loading, unloading, priorities and other matters relating to the operation of the Terminal; and
 - (5) allow the exercise of discretions on the part of the Operator in limited cases, where it is reasonable to do so, to optimise Terminal or System efficiency and the power is required to be exercised in good faith and in a non-discriminatory way;
- (b) in respect of an Access Holder, any specific provision of their Access Agreement or Existing User Agreement including any provisions relating to an event of force majeure;
- (c) DBCT Management:
 - (1) being able to require the Operator under the Operation & Maintenance Contract to provide such services; and

- (2) without limiting Section 10(c) any specific provision in the Operation & Maintenance Contract including any provisions relating to an event of force majeure.

The provision of the above Services by DBCT Management must be carried out in accordance with Good Operating and Maintenance Practice and all applicable laws.

11 Standard for Services

- (a) The provision of the above Services by DBCT Management must be carried out with due skill, care and diligence in accordance with this Framework, the Terminal Regulations, Good Operating and Maintenance Practice and all applicable laws.
- (b) When providing the above Services, DBCT Management must take into account the following factors, where relevant:
 - (1) lowest total whole of life cost;
 - (2) reliability and economy of performance;
 - (3) maximising the effective life of the Terminal; and
 - (4) DBCT Management's non-discrimination obligations under this Framework.

Schedule F – Terminal Master Plan

[Terminal Master Plan attached separately]

[Drafting Note: DBCTM's 2018 Master Plan is attached at Appendix 19 of DBCTM's submission dated 30 May 2018]

Schedule G – Definitions and Interpretation

[Drafting Note: Amendments to this Schedule G will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018. Shaded terms in particular are pricing-related terms that will be reviewed. Consequential changes to other terms may also be required.]

1. Definitions

In this Framework:

2017 Access Undertaking means the Dalrymple Bay Coal Terminal Access Undertaking prepared in accordance with the requirements of the *Queensland Competition Authority Act 1997* (Qld) and approved on 16 February 2017.

60/60 Requirement has the meaning given in Section 11.5(h).

Access means access under an Access Agreement or Existing User Agreement to the Services to be provided by DBCT Management at the Terminal.

Access Agreement means an access agreement between DBCT Management and an Access Holder negotiated under Section 5 of this Framework (or otherwise entered into during the Term) including an Existing User Agreement, and a Differentially Priced Access Agreement, as the context provides.

Access Applicant means a person who has submitted to DBCT Management a valid Access Application that has been confirmed by DBCT Management as compliant with Section 5.2 and has not lapsed, expired or otherwise been validly rejected by DBCT Management.

Access Application means:

- (a) an application for Access made or deemed to have been made under Section 5.2 of this Framework;
 - (b) for the purposes of Sections 5.3A, 5.4, 5.7, 5.8, 5.9, and Section 16 only – an Access Application which was duly submitted to DBCT Management prior to the Commencement Date under and in accordance with the 2017 Access Undertaking for the Terminal and which has not been dealt with on the Commencement Date. For clarification, the time of the submission of the Schedule A information (before or after the Commencement Date) will not affect the date on which the application is taken to have been received by DBCT Management; and
 - (c) for the purposes of Section 5.4 only – an application of the kind referred to in Section 5.10(q)(9)(B) which is made after the Commencement Date,
- as renewed from time to time in accordance with this Framework.

Access Application Date means:

- (a) where paragraph (b) of this definition does not apply, the date that the Access Application was received by DBCT Management; or
- (b) the date that the Access Application was deemed to be made if the Access Application was substantially altered in accordance with Section 5.3A or 5.7.

Access Charges means amounts payable by an Access Holder under an Access Agreement or Existing User Agreement for the Services.

Access Holder means a party who has an entitlement to Access under an Access Agreement or an Existing User Agreement.

Access Seeker means a party seeking Access, or increased Access, to the Services and includes a party to a Conditional Access Agreement.

Access Transfer has the meaning given in Section 5.13 of this Framework.

Additional Tonnage means, in respect of a relevant Financial Year, the aggregate of all Excess Tonnage of all Access Holders in that Financial Year which, because of Terminal Capacity, could not have been Handled unless there had been an Early Termination. For clarification, the Additional Tonnage cannot exceed the relevant annual tonnages the subject of Early Termination.

Additional Tonnage Amount or **ATA** has the meaning given in Schedule C

Aggregate Annual Contract Tonnage means, in respect of a relevant Financial Year:

- (a) in respect of an Expansion Component, the sum of the Annual Contract Tonnages for only the Differentially Priced Access Holders in respect of that Expansion Component; and
- (b) in respect of the Base Terminal, the sum of the Annual Contract Tonnages for all Access Holders other than Differentially Priced Access Holders in that Financial Year.

Aggregate Reference Tonnage means, in respect of a relevant Financial Year:

- (a) in respect of an Expansion Component, the sum of the Reference Tonnages for only the Differentially Priced Access Holders in respect of that Expansion Component; and
- (b) in respect of the Base Terminal, the sum of the Reference Tonnages for all Access Holders other than Differentially Priced Access Holders in that Financial Year.

Alternative Proposed Standard Funding/Underwriting Agreement means the alternative proposed Standard Funding Agreement or alternative proposed Standard Underwriting Agreement as specified under Section 5.10(q)(7).

Annual Contract Tonnage means, for an Access Holder in a relevant Financial Year, the number of Tonnes of coal in that Financial Year that the Access Holder is entitled to have Handled under its Access Agreement:

- (a) including tonnage which an Access Holder is entitled to have Handled but which may not, at a practical level, be able to be Handled due to circumstances such as a force majeure event or relevant provisions of Terminal Regulations and any tonnage which an Access Holder would be entitled to have Handled but for the suspension of the Access Holder's right to have the tonnage Handled under an Access Agreement; but
- (b) excluding ad-hoc over shipments which may be permitted subject to available capacity.

Annual Revenue Requirement or **ARR** means, in respect of a relevant Financial Year, the amount of revenue which the QCA determines that DBCT Management is entitled to earn in that Financial Year to fully recover the costs incurred in providing Access to the Services (including an adequate rate of return on the value of assets employed but excluding Terminal Operating Costs), assuming that the Aggregate Annual Contract Tonnage for that Financial Year was all contracted as Reference Tonnage.

Approval means any and all licences, approvals, consent or permits required from any Government Agency or third party for the construction, occupation, development or operation of the Terminal for the provision of the Services, performance of the Leases, or the Port Services Agreement, including but not limited to:

- (a) environmental approvals and licences;
- (b) planning and development approvals and licences; and
- (c) local government approvals and licences.

Arbitration means an arbitration commenced under section 16.4.

Arbitrator means an arbitrator appointed under Section 16.4.

Available System Capacity means, in respect of a relevant time, the amount of System Capacity at that time not contracted to be Handled. It is derived by subtracting the Aggregate Annual Contract Tonnage as at the relevant time from System Capacity at that time. Where that subtraction results in a negative number, it will be taken to be "nil". Where Available System Capacity is to be determined in respect of a future time DBCT Management will estimate it taking all relevant factors into account (including System Capacity expected to arise out of a System Capacity Expansion which has been or can reasonably be expected to be committed to at the time of the estimation).

Business Day means a day other than a Saturday, a Sunday, or a public holiday in Brisbane.

Capital Charge means the components of Access Charges that are not an Operation & Maintenance Charge.

Capital Expenditure means expenditure (incurred by DBCT Management) which:

- (a) relates to replacement or expansion of any part of the Terminal;
- (b) relates to refurbishment or upgrade of any part of the Terminal which can reasonably be expected to extend the life of the relevant part beyond its original useful life or is undertaken for environmental or safety reasons;
- (c) otherwise relates to the refurbishment or upgrade of Terminal plant and/or infrastructure which is reasonably expected to improve whole of life cost, or is incurred with the agreement of the Operator; or
- (d) is ancillary or incidental to paragraphs (a), (b) or (c),

but not expenditure recovered through HCF or HCV (as those terms are defined in the Standard Access Agreement).

Coal Guidelines means the 'Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves' published by the Coalfields Geology Council of New South Wales and the Queensland Resources Council or its successor document, as updated from time to time.

Coal Resources has the meaning given to it in the JORC Code.

Commencement Date means the day following the Expiry Date.

Completion means, in respect of relevant works comprising a Terminal Capacity Expansion:

- (a) the works are electrically and mechanically complete; and
- (b) testing and commissioning has been satisfactorily completed (including load commissioning), but where punchlist items (being items intended to be carried out after practical completion and commencement of full operation of the relevant items) are not necessarily complete, and **Complete** and **Completed** have corresponding meanings.

Conditional Access Agreement has the meaning given to it in Section 5.4(j) of this Framework.

Confidential Information means any information, data or other matter disclosed to a person by, or on behalf of, another person where:

- (a) the disclosure of the information, data or other matter by the recipient might reasonably be expected to affect the commercial affairs of the owner of the information, data or other matter; or

- (b) the information, data or other matter is marked or otherwise clearly identified as confidential by a party when disclosed;

provided that such information, data or other matter:

- (c) is not already in the public domain;
- (d) does not become available to the public through means other than a breach of the confidentiality provisions in this Framework or a breach of any confidentiality deed contemplated in Section 7 of this Framework;
- (e) was not in the other party's lawful possession prior to such disclosure; or
- (f) is not received by the other party independently from a third party free to disclose such information, data or other matter;

and provided further that the information, data or other matter will cease to be Confidential Information if the information, data or other matter has ceased to retain its confidential nature, for example because:

- (g) the disclosure of the information, data or other matter by the recipient would no longer reasonably be expected to affect the commercial affairs of the owner of the information, data or other matter;
- (h) the information, data or other matter has entered in the public domain through means other than a breach of the confidentiality provisions in this Framework or a breach of any confidentiality deed contemplated in Section 7 of this Framework; or
- (i) the information, data or other matter has been received by the recipient independently from a third party free to disclose the information, data or other matter.

Consequential Loss means any one or more of the following:

- (a) Loss of profits; or
- (b) Loss of opportunity to make profits; or
- (c) Loss of business opportunity; or
- (d) special exemplary or punitive damages; or
- (e) any Loss which does not directly and naturally flow in the normal course of events from the occurrence of the event giving rise to the liability for such Loss, whether or not such Loss was in the contemplation of the relevant party at the relevant time,

including any of the above types of Loss arising from an interruption to a business or activity.

Construction Period Risk Free Rate means the rate calculated by averaging the yield of the 10 year Commonwealth Government bond over the 20 Business Days preceding the earlier of:

- (a) the first draw down date on floating rate construction debt financing; or
- (b) the interest rate set date on a fixed rate construction debt financing;

effected by DBCT Management in respect of a relevant Terminal Capacity Expansion.

Control has the meaning given to that term in the *Corporations Act 2001* (Cth) and **Controlled** has a corresponding meaning.

Cost Allocation Principles has the meaning given in Section [10].

Cost Sensitive Expansion has the meaning given in Section [10].

Dalrymple Bay Coal Chain means all infrastructure relating to raiing and shipping of coal (from mine outloaders to Terminal shiploaders and adjacent infrastructure), excluding Hay Point, generally referred to as the *Dalrymple Bay Coal Chain*, (unless all relevant stakeholders otherwise agree).

DBCT Holdings means DBCT Holdings Pty Limited ACN 096 395 783 and its successors and assigns, including persons taking by way of novation.

DBCT Management means DBCT Management Pty Ltd ACN 097 698 916 and its successors and permitted assigns, including persons taking by way of novation.

DBCT Trustee means DBCT Investor Services Pty Ltd ACN 052 156 082 as trustee of the DBCT Trust.

Deed Poll means the irrevocable deed poll dated [*insert*] given by DBCT Management under which it covenants to comply with the Framework.

Different Terms has the meaning given in Section 12.1(d).

Differentiation, in respect of a Terminal Capacity Expansion, means the exclusion of costs associated with an expansion from an existing Terminal Component's Regulated Asset Base, so as to create a separate Regulated Asset Base, Annual Revenue Requirement and Reference Tariff for the purpose of calculating Capital Charges in respect of the Terminal Capacity Expansion. Where expansion costs are differentiated, they are not shared by the users of existing Terminal Components and **Differentiated** has a corresponding meaning.

Differentiated Expansion Component has the meaning giving in Section [10] 10.13(b).

Differentially Priced Access Agreement means an Access Agreement under which the Access Charges are to be differentially priced and Services are to be provided by DBCT Management from capacity created by an Expansion Component.

Differentially Priced Access Holder means an Access Holder who is party to a Differentially Priced Access Agreement.

Differentially Priced Capacity means capacity associated with a Differentiated Expansion Component.

Differentiated Queue has the meaning set out in Section 5.4(q).

Dispute has the meaning given to that term in Section 16.1.

Dispute Notice has the meaning given to that term in Section 16.1.

Early Termination means the termination of an Access Agreement or Existing User Agreement (**Terminated Agreement**) before its originally scheduled expiry date (but not where that occurred as a result of the exercise of a contractual right to terminate which was included in the Terminated Agreement when it was entered into, other than a right to do so for default in payment or insolvency of the Access Holder or default by DBCT Management. For the purpose of this definition, termination for default in payment or insolvency will be taken to have occurred if DBCT Management terminates the Terminated Agreement on other grounds but in circumstances where a default in payment or the insolvency of the Access Holder could have been reasonably expected within a reasonably short time thereafter had that termination not occurred).

Effective Date has the meaning given in the Standard Access Agreement.

Excess Charge has the meaning given in Section [10] .

Excess Tonnage means, in respect of an Access Holder, the number of tonnes of the Access Holder's coal (excluding Non-Reference Tonnage) Handled in a Financial Year which is more than the Access Holder's Reference Tonnage for that Financial Year.

Execution Date has the meaning given in the Standard Access Agreement.

Existing Terminal means the Terminal as it exists at the Commencement Date together with each Socialised Expansion of that existing Terminal.

Existing Terminal Capacity has the meaning given in Section 11.1(a)(1).

Existing User Agreement means an agreement which is in force as at the Commencement Date by which DBCT Management has granted an Access Holder an entitlement to have coal Handled through the Terminal.

Expansion Arbitrator has the meaning given in clause 11.5(a).

Expansion Component means in respect of a Terminal Capacity Expansion, the Terminal Component the subject of the expansion, as determined in accordance with this Framework.

Expansion Component Capacity means, for an Expansion Component, the maximum reasonably achievable capacity of that Expansion Component (measured in tonnes per Financial Year) as estimated pursuant to Section 11.1.

Expansion Parties means, in respect of an Expansion Component, any Funding Access Seeker or any party to a Conditional Access Agreement associated with that Expansion Component.

Expansion Pricing Principles means the principles set out in Section [10] .

Expert Determination means an expert determination process commenced under Section 16.3.

Expiry Date means 8 September 2020.

Feasibility Studies means in relation to a proposed Terminal Capacity Expansion, a FEL 1 Feasibility Study, FEL 2 Feasibility Study and FEL 3 Feasibility Study.

FEL 1 Feasibility Study means in respect of a proposed Terminal Capacity Expansion, a study that:

- (a) estimates Terminal Capacity and System Capacity in accordance with Section 11.1 of the Framework;
- (b) identifies possible Terminal Expansion Components that will create additional Terminal Capacity, including any potential system capacity expansions that may be required to create complementary additional System Capacity;
- (c) makes a preliminary assessment of the available Terminal capacity that will be created by the Terminal Expansion Components;
- (d) makes a preliminary assessment of the available Terminal capacity that will be created by the Terminal capacity expansion
- (e) unless otherwise agreed by DBCT Management and the relevant Funding Access Seeker, includes an indicative assessment of:
 - (1) project objectives in relation to the creation of additional Terminal Capacity; and
 - (2) the possible Terminal Expansion Components:
 - (A) a broad cost estimate with a +/- 50% accuracy (or such other accuracy where agreed with the Funding Access Seekers (acting reasonably));
 - (B) a preliminary financial analysis and risk assessment; and
 - (C) indicative timeframes for developing and completing the possible Terminal Components; and
 - (3) includes a proposed scope, budget, duration and deliverables for a FEL 2 Feasibility Study including the reasons for selecting the possible Terminal Components that will be considered during that FEL 2 Feasibility Study.

FEL 2 Feasibility Study means in respect of a proposed Terminal Capacity Expansion, a study that:

- (a) re-confirms Terminal operating assumptions and System operating assumptions undertaken in the FEL 1 Feasibility Study and, if they differ from the previous study, re-estimates Terminal Capacity and System Capacity in accordance with Section 11.1 of the Framework;

- (b) confirms the project objectives in relation to the creation of additional Terminal Capacity and the possible Terminal Expansion Components that will create the additional Terminal Capacity;
- (c) assesses each of the possible Terminal Components in respect of:
 - (1) the technical and operating requirements for that Terminal Capacity Expansion;
 - (2) an indicative assessment of the additional Capacity that might reasonably be expected by implementing that Terminal Capacity Expansion; and
 - (3) a preliminary risk assessment for that Terminal Capacity Expansion;
- (d) includes preliminary survey and geotechnical investigation to support the level of design and cost accuracy required for the study;
- (e) identifies the preferred Terminal Capacity Expansion to be studied under a FEL 3 Feasibility Study; and
- (f) provides:
 - (1) a high level engineering assessment of the preferred Terminal Capacity Expansion;
 - (2) analysis of the technical and economic feasibility of the preferred Terminal Capacity Expansion and identifies why it is preferred;
 - (3) a project budget, with a +/-20% level of accuracy (or such other accuracy where agreed with the Funding Access Seekers (acting reasonably));
 - (4) an indicative design and construct schedule for the preferred Terminal Capacity Expansion that includes time tolerances; and
 - (5) potential benefits (including additional Terminal Capacity, maintenance and operating benefits) of the preferred Terminal Capacity Expansion; and
- (g) includes a proposed scope, budget, duration and deliverables for a FEL 3 Feasibility Study,
- (h) includes an assessment of the available Terminal Capacity that will be created by the Terminal Capacity Expansion; and
- (i) includes an assessment of the available Terminal Capacity that will be created by the preferred Terminal Expansion Component.

FEL 3 Feasibility Study means in respect of a proposed Terminal Capacity Expansion, a study that, in relation to the preferred Terminal Capacity Expansion identified in a FEL 2 Feasibility Study :

- (a) re-confirms Terminal operating assumptions and System operating assumptions undertaken in the FEL 1 or FEL2 Feasibility Study and, if they differ from the previous studies, re-estimates Terminal Capacity and System Capacity in accordance with Section 11.1 of the Framework;
- (b) details the project objective for the preferred Terminal Capacity Expansion;
- (c) provides a detailed assessment of technical and operating requirements of the preferred Terminal Capacity Expansion;
- (d) includes survey and geotechnical investigations to support the level of design and cost accuracy;
- (e) provides a detailed design for the preferred Terminal Capacity Expansion;
- (f) provides the following details of the preferred Terminal Capacity Expansion's scope:
 - (1) an optimised project configuration that would provide the targeted additional Terminal Capacity to be created by the preferred Terminal Capacity Expansion;

- (2) a detailed cost estimate with a +/-10% level of accuracy (or such other accuracy where agreed with the Funding Access Seekers (acting reasonably));
- (3) a detailed design and construction project schedule;
- (4) the basis on which the project contingency was determined;
- (5) a financial evaluation, including (if applicable) the estimated impact on the relevant Reference Tariff;
- (6) a procurement methodology and report on any previous approaches to the construction market that are relevant to the preferred Terminal Capacity Expansion;
- (7) a project management plan comprised of:
 - (A) resource management plan;
 - (B) cost management plan;
 - (C) design management plan
 - (D) quality management plan;
 - (E) safety management plan;
 - (F) schedule management plan;
 - (G) risk management plan;
 - (H) project packaging and delivery strategy;
 - (I) procurement management plan;
 - (J) interface management plan;
 - (K) change management plan;
 - (L) environmental management plan;
 - (M) project phases, milestones and deliverables;
 - (N) project risk assessment report; and
 - (O) regulators notification, if needed, and
- (8) provides a detailed capacity assessment on the available Terminal Capacity to be created by the preferred Terminal Expansion Component and the associated impact, if any, on the capacity rating of the base Terminal,

and including the outcomes of any analysis and decisions made in relation to the above matters (with reasons, where applicable).

Financial Year means 1 July in a calendar year to 30 June in the next following calendar year. Where the context allows, it also includes a period shorter than 12 months – from the Commencement Date to the next 30 June, inclusive, and from the last 1 July during the Term to the Terminating Date inclusive - but where that period is less than 12 months, any provision of this Framework which, in respect of a Financial Year, assumes a full 12 months period, will be taken to be modified proportionately.

Framework means this Access Framework (including its schedules) as amended from time to time.

Framework Agreement means the framework agreement between DBCT Holdings, the State, PCQ, DBCT Trustee, DBCT Management and others dated 31 August 2001.

Framework Objective has the meaning given in clause 1.31.3(a).

Funding Access Seeker means an Access Seeker that has entered into a Funding Agreement or Underwriting Agreement with DBCT Management.

Funding Agreement means an agreement on such terms as DBCT Management reasonably requires, including in relation to the provision of such security to DBCT Management as it reasonably requires, pursuant to which an Access Applicant must fund the reasonable and proper costs of:

- (a) a FEL 1 Feasibility Study; and
- (b) after a satisfactory outcome from a FEL 1 Feasibility Study, a FEL 2 Feasibility Study and a FEL 3 Feasibility Study, in respect of a proposed Terminal Capacity Expansion.

Good Operating and Maintenance Practice means adherence to a standard of practice which includes the exercise of that degree of skill, diligence, prudence and foresight which would reasonably be expected from a competent, experienced and qualified operator of a facility comparable with the Terminal.

Government Agency means a minister, government, government department or another government body, a governmental, semi-governmental or judicial person or a person (whether autonomous or not) charged with the administration of any applicable law.

Handle means the receiving by rail, unloading, stacking, storing, reclaiming and loading of vessels with coal and any other relevant Services required by the Access Holder using any of the infrastructure at the Terminal.

Increment has the meaning given in [Schedule C].

Independent Expert means an independent expert appointed under Section 16.3.

Indicative Access Proposal has the meaning given to that term in Section 5.5.

Insolvent means, for an Access Seeker, where one of the following events has happened in relation to the Access Seeker:

- (a) it is unable to pay all its debts as and when they become due and payable or it has failed to comply with a statutory demand as provided in Section 459F(1) of the *Corporations Act 2001* (Cth);
- (b) a resolution is passed to place it in voluntary liquidation or to appoint an administrator;
- (c) an application is made to a court for it to be wound up and the application is not dismissed or withdrawn within 14 days;
- (d) the appointment of a controller (as defined in the *Corporations Act 2001* (Cth)) of any of its assets, if that appointment is made and not terminated within 14 days after it is made; or
- (e) it resolves to enter into or enters into any form of arrangement (formal or informal) with its creditors or any of them, including a deed of company arrangement.

Interim Reference Tariff Period has the meaning given in Schedule C

JORC Code the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia, as updated from time to time.

Leases means the Primary Leases and the Secondary Leases.

Lease Term has the meaning ascribed to that term in the Framework Agreement.

Loss means any damage, loss (including loss of reputation), cost, expense, fine, penalty or liability incurred by the person concerned, however it arises and whether it is present or future, fixed or unascertained, actual or contingent.

Marketable Coal Reserves has the meaning given to it in the JORC Code.

Month means a calendar month.

Monthly Payment has the meaning given to it in Section [10] 10.9(a).

Negotiation Cessation Notice means a notice given in accordance with the provisions of Section 5.8.

Non-Expansion Costs means Terminal Operating Costs and Capital Expenditure not related to the development of a Terminal Capacity Expansion.

Non-Reference Tonnage means, for an Access Holder, that portion of the Access Holder's Annual Contract Tonnage that is not Reference Tonnage.

Notice has the meaning given to that term in Section 5.4(e)(1).

Notified Access Seeker has the meaning given to that term in Section 5.4(e).

Notifying Access Seeker has the meaning given to that term in Section 5.4(e).

Notional Contracted Tonnage or **NCT** means, in respect of a Financial Year the Aggregate Annual Contract Tonnage.

Operation & Maintenance Charge means the component of Access Charges under which DBCT Management recovers the Terminal Operating Costs from Access Holders and is calculated in accordance with Section [10] .

Operation & Maintenance Contract or **OMC** means the contract between DBCT Management, the DBCT Trustee and the Operator under which the Operator is engaged by DBCT Management to operate and maintain the Terminal on a day to day basis. The terms of the OMC are summarised for convenience in Schedule H.

Operator means Dalrymple Bay Coal Terminal Pty Limited ACN 010 268 167.

Other Costs has the meaning given in Section 11.5(a)(3)(B).

Over-shipment has the meaning given in Schedule C

PCQ means Ports Corporation of Queensland Limited ACN 126 302 994.

Port Services Agreement has the meaning ascribed to that term in the Framework Agreement.

Price Ruling has the meaning given in Section 5.12(a).

Pricing Method means the method of pricing Access created by a Terminal Capacity Expansion, being either Socialised or Differential.

Primary Leases has the meaning ascribed to that term in the Framework Agreement.

Proposed Standard Funding/Underwriting Agreement means the proposed Standard Funding Agreement or proposed Standard Underwriting Agreement (as applicable) by DBCT Management under Section 5.10(q)(1).

Provisional Increment has the meaning given in Schedule C

Provisional Increment Repayment has the meaning given in Schedule C

Publicly Report means to upload information onto DBCT Management's website so that it is publicly accessible.

QCA means the Queensland Competition Authority, a statutory authority established under the QCA Act.

QCA Act means the Queensland Competition Authority Act 1997 (Qld).

Queue has the meaning given in Section 5.4(a).

Rail Operator means an entity that:

- (a) provides above rail services to an Access Holder for the purpose of transporting coal to the Terminal; or
- (b) is nominated by an Access Seeker as likely to provide above rail services to that Access Seeker for the purpose of transporting coal to the Terminal.

Reference Tariff means each reference tariff approved by the QCA for the purposes of this Framework, as amended from time to time, in accordance with this Framework.

Reference Terms means terms and conditions which are in all material respects the same as the terms and conditions in the Standard Access Agreement relating to the calculation of charges. (For clarification, it is expected that Reference Terms will usually only apply under an Access Agreement where the terms of that Access Agreement are, in respect of the risk profile and costs (direct and indirect) to DBCT Management, the same as the terms of the Standard Access Agreement).

Reference Tonnage means:

- (a) for an Access Holder under an Existing User Agreement, that portion of the Access Holder's Annual Contract Tonnage that is charged on the basis of terms that in all material respects align with the Reference Terms; and
- (b) for an Access Holder under an Access Agreement, that portion of the Access Holder's Annual Contract Tonnage which is charged in accordance with the Reference Terms.

Reference Tonnage Access Holder or **RTAH** means an Access Holder to the extent that its Annual Contract Tonnage is Reference Tonnage.

Related Body Corporate has the meaning given to that term in the *Corporations Act 2001* (Cth).

Related Entity has the meaning given to that term in the *Corporations Act 2001* (Cth).

Regulated Asset Base means, as relevant in respect of the any Terminal Component:

- (a) in respect of a Differentiated Expansion Component, the Regulated Asset Base for that Differentiated Expansion Component as approved by the QCA in accordance with this Framework; and
- (b) in respect of the Existing Terminal, the Regulated Asset Base for the Existing Terminal (which at the Commencement Date is the only Regulated Asset Base) as approved by the QCA in accordance with this Framework.]

Renewal Application has the meaning given in Section 5.3A.

Revenue Cap is the amount DBCT Management is entitled to earn from Reference Tonnage and is calculated in accordance with Schedule C.

Review Event means, for any Terminal Component, any one or more of the following events:

- (a) a change in Reference Tonnage;
- (b) a change in Non-Reference Tonnage;
- (c) Completion and handover to the Operator of the whole of a discrete phase of a Terminal Capacity Expansion;
- (d) receipt of insurance proceeds, damages or other compensation for loss, damage or destruction of an asset comprised in the Terminal Component, to the extent that those moneys are not applied in repair, reinstatement or replacement; and

- (e) each 1 July, in respect of:
- (1) Capital Expenditure incurred in any prior period (including Capital Expenditure in any period preceding the Commencement Date provided such Capital Expenditure has not already been included in the relevant Regulated Asset Base) which does not relate to a Terminal Capacity Expansion and is paid by DBCT Management after Completion and handover of the relevant works, including:
 - (A) Capital Expenditure referred to in Section 11.10(b);
 - (B) Capital Expenditure referred to in Section 11.10(c);
 - (2) sale of assets comprised in the Terminal Component during the preceding 12 months;
 - (3) the prudent cost of a FEL 3 Feasibility Study to the extent not included in Capital Expenditure the subject of a Capacity Expansion;
 - (4) the cost of a Feasibility Study referred to in Section 5.10(m)(1) or 5.10(m)(2), to the extent not funded by Access Seekers; and
 - (5) the prudent cost of a Feasibility Study referred to in Section 5.10(o), to the extent not funded by Access Seekers (but limited to 20% of the prudent cost of the Feasibility Study if the proposed Terminal Capacity Expansion does not proceed).

Secondary Leases has the meaning ascribed to that term in the Framework Agreement.

Security means any form of security or guarantee required to be provided by an Access Seeker or Access Holder to DBCT Management pursuant to Section 5.9.

Service Provider means:

- (a) DBCT Management, as the provider of Services at the Terminal;
- (b) each provider at a relevant time of railway infrastructure ("below rail") for any part of the System;
- (c) each provider at a relevant time of railway freight services ("above rail") for any part of the System.

Services means the services set out in Schedule E of this Framework.

Socialisation, in respect of a Terminal Capacity Expansion, means the inclusion of costs associated with the expansion in an existing Terminal Component's Regulated Asset Base (as determined by the QCA), so as to avoid the creation of a separate Regulated Asset Base, Annual Revenue Requirement and Reference Tariff in respect of the expansion. Where expansion costs are socialised, they are shared by existing users of the Terminal Component into which the costs are socialised and **Socialised** has a corresponding meaning.

Socialised Terminal Capacity means capacity associated with a Socialised Expansion.

Socialised Expansion has the meaning given in Section [10].

Standard Funding Agreement means the standard Funding Agreement [approved in accordance with Section 5.10(q)].

Standard Underwriting Agreement means the standard Underwriting Agreement approved in accordance with Section 5.10(q).]

Standard Access Agreement means the standard access agreement set out in Schedule B of this Framework.

State means the State of Queensland.

Supply Chain Business means an entity (or group of entities) which:

- (a) provides, or proposes to provide, above rail services in Queensland which access the Terminal;
- (b) owns or holds an interest in, or proposes to acquire such an interest in, coal-producing mines in Queensland that export coal via the Terminal;
- (c) purchases coal that has been produced in Australia and exports that coal via the Terminal;
- (d) provides shipping services from the Terminal; or
- (e) trades in capacity at the Terminal.

System means, in respect of the Dalrymple Bay Coal Chain, the following components of infrastructure relating to the transport of coal from mines whose coal is Handled by the Terminal:

- (a) rail loading facility of mines whose coal is Handled by the Terminal;
- (b) railway infrastructure in the Dalrymple Bay Coal Chain;
- (c) railway locomotives and rolling stock used in the Dalrymple Bay Coal Chain; and
- (d) Terminal unloading, stacking, loading and other Handling facilities,

and all interfaces between such components.

System Capacity means at a relevant time, the maximum reasonably achievable estimated capacity of the System (measured in tonnes per financial year) as determined pursuant to Section 11.1 in respect of that time. Where System Capacity is required to be estimated in respect of a future time (for example, for the purposes of Section 5.4) DBCT Management will estimate it taking all relevant factors into account (including System Capacity expected to arise out of a System Capacity Expansion which has been or can reasonably be expected to be committed to at the time of the estimation).

System Capacity Expansion means the construction, upgrade, refinement, purchase, installation and/or erection of new works or items or modifications to existing works or items intended to materially increase the System Capacity.

System Master Plan means, at a relevant time, the master plan (if any) determined pursuant to Section 14.

TCMP has the meaning given in Section 11.5(a)(7).

Term means the period between (and including each of) the Commencement Date and the Terminating Date.

Terminal means the land and port infrastructure located at the Port of Hay Point which is owned by DBCT Holdings or the State and leased to DBCT Trustee and/or DBCT Management, and known as the Dalrymple Bay Coal Terminal, and includes the following:

- (a) loading and unloading equipment;
- (b) stacking, reclaiming, conveying and other handling equipment;
- (c) wharves and piers;
- (d) deepwater berths; and
- (e) shiploaders,

and for the avoidance of doubt, includes the Existing Terminal and any Differentiated Expansion Component.

Terminal Capacity means the maximum reasonably achievable capacity of the Terminal (measured in tonnes per Financial Year) as estimated pursuant to Section 11.1.

Terminal Capacity Expansion means the construction, upgrade, refinement, purchase, installation and/or erection of new works or items or modifications to existing works or items intended to materially increase the **Terminal Capacity**.

Terminal Capacity Expansion Risk Free Rate means the rate calculated by averaging the yield of the 10 year Commonwealth Government bond over the 20 Business Days preceding the date of Completion and handover to the Operator of the relevant Terminal Capacity Expansion.

Terminal Component means each of:

- (a) the Existing Terminal; and
- (b) the Differentiated Expansion Component,

which shall each have their own Annual Revenue Requirement.

Terminal Infrastructure Charge or **TIC** has the meaning given in Section [10].

Terminal Master Plan (a copy of the version which was current at the Commencement Date is attached at Schedule F) means the master plan approved by DBCT Holdings under the Port Services Agreement, and related engineering and other reports, as amended from time to time with the approval of DBCT Holdings under the Port Services Agreement.

Terminal Operating Costs means any amounts:

- (a) reasonably incurred or charged by the Operator (including any margin payable to the Operator under the Operation & Maintenance Contract);
- (b) in the nature of an operating expense for the Terminal and reasonably incurred or charged by DBCT Management with the express written consent of not less than 66% of Access Holders by contract tonnage; and
- (c) reasonably incurred by DBCT Management in exercising its rights under the Operation & Maintenance Contract to step in or take work out of the hands of the Operator (as a result of a default by the Operator),

but excluding Capital Expenditure other than minor capital expenditure not exceeding \$3 million per Financial Year.

Terminal Regulations means regulations in force from time to time governing procedures for the operation of the Terminal and provision of the Services under an Access Agreement or Existing User Agreement.

Terminating Date means the earlier of:

- (a) the date which is 10 years from the Commencement Date; and
- (b) the date on which use of the Terminal is taken to be a service declared under Part 5, Division 2 of the *Queensland Competition Authority Act 1997* (Qld).

Tonnage means the volume of Access supplied under an Access Agreement, determined by reference to the volume of coal Handled or contracted to be Handled.

Underwriting Agreement means an agreement on such terms as DBCT Management reasonably requires, including in relation to the provision of such security to DBCT Management as it reasonably requires, which gives DBCT Management the right to call for, and requires an Access Applicant to fund in response to such call, the reasonable and proper costs of:

- (a) a FEL 1 Feasibility Study; and
- (b) after a satisfactory outcome from a FEL 1 Feasibility Study, a FEL 2 Feasibility Study,

in respect of a proposed Terminal Capacity Expansion, if the proposed Terminal Capacity Expansion does not proceed.

WACC(1) Rate means 5.82%, being the weighted average cost of capital set by the QCA in its final decision on this Undertaking.

WACC(2) Rate means a rate equivalent to the Construction Period Risk Free Rate plus 4.00%.

WACC(3) Rate means a rate equivalent to the Terminal Capacity Expansion Risk Free Rate plus 4.00%.

Year End Adjustment or **YEA** has the meaning given in Section [10].

2. Interpretation

In this Framework unless the context otherwise requires:

- (a) reference to any statute or statutory provision includes any modification or re-enactment of, or any legislative provisions substituted for, and all legislation and statutory instruments issued under such legislation or such provision;
- (b) words denoting the singular include the plural and vice versa;
- (c) words denoting persons or individuals include corporations, associations, trustees, instrumentalities and partnerships and vice versa;
- (d) words denoting any gender include all genders;
- (e) references to parties, Parts, Sections, Annexures and Schedules are references to parties, Parts, Sections, Annexures and Schedules to this Framework as modified or varied from time to time;
- (f) references to any document, deed or agreement include references to such document or agreement as amended, novated, supplemented, varied or replaced from time to time;
- (g) references to any party to this Framework or any other document, deed or agreement include its successors, permitted assigns, or permitted subcontractors and the obligations of any party extends to those persons;
- (h) all references to dates and times are to Brisbane time;
- (i) all references to "\$" and "dollars" are to the lawful currency of Australia;
- (j) a reference to "including" shall be construed as "including, but not limited to," and "include" and "includes" shall be construed similarly;
- (k) where a provision provides that a party "may" do something, "may" shall be construed as discretionary and without obligation;
- (l) where any word or phrase is given a defined meaning, any other grammatical form of that word or phrase has a corresponding meaning;
- (m) where there is a requirement under this Framework to consider whether Access Holders are being treated or will be affected equitably, the party so considering must have regard to (amongst other things) the Access Holders' respective Annual Contract Tonnages and the extent to which (if at all) Differential Pricing applies to the Annual Contract Tonnages the subject of each Access Agreement;
- (n) where measurement of coal "Handled" is being made in respect of a period, the tonnage loaded into vessels will be taken to be the tonnage Handled in that period; and
- (o) headings are for convenience only and do not affect interpretation of this Framework.

Schedule H – Terms of Operation and Maintenance Contract

Term	Summary of term
Parties	<p>DBCT Management Pty Ltd (DBCTM), DBCT Investor Services Pty Limited as trustee of the DBCT Trust (DBCT Trustee) and the operator, Dalrymple Bay Coal Terminal Pty Limited (Operator).</p> <p>The Operation and Maintenance Contract (Contract) defines the relationships between the parties and their rights and obligations.</p>
Term	<p>The Contract will expire on [date] unless terminated earlier. Other than for default of DBCTM (refer further below), the Operator cannot terminate the Contract before this date.</p> <ul style="list-style-type: none"> • If DBCTM wishes to terminate the Contract other than for the Operator's default, DBCTM must give 5 years' prior notice of termination; and • If an access undertaking is in place and the Operator wishes to terminate other than for DBCTM's default, the Operator can terminate by giving not less than two years notice to DBCTM. If the period of notice given will expire during the term of an access undertaking, the notice period will be extended and take on the from earlier of expiry of the access undertaking or 5 years after the date that a notice of termination is given.
Intentions of the parties	<p>The parties' intentions include (among other things):</p> <ul style="list-style-type: none"> • The Operator will be responsible for day-to-day operation and maintenance of the Terminal; • The Operator must ensure that its performance of services is coordinated in accordance with the relevant access undertaking in force at the time to the extent that no act or omission by the Operator would cause DBCTM to be in breach of a provision of the access undertaking; and • Subject to DBCTM's rights under the Contract (for example in relation to default by the Operator), DBCTM will not intervene in the day-to-day operation and maintenance of the Terminal.
Operator's engagement	<p>DBCTM has engaged the Operator to perform the services. The Operator is an independent contractor and not an agent of DBCTM. The services include all things necessary for the operation, maintenance and management of the Terminal.</p>
Operational Services to be performed by the Operator	<p>Operation of the Terminal specifically includes the following services:</p> <ul style="list-style-type: none"> • coordinate the ordering and scheduling of trains; • train unloading; • coal stockpile management, reclamation and handling; • coal blending if required by users of the Terminal; • vessel ordering; and • the loading of ships in accordance with the Terminal Regulations. In the absence of other applicable provisions in the Terminal Regulations, the Operator must normally load ships in order of arrival (subject to there being relevant coal at the Terminal and all prerequisites to loading having been complied with). <p>These services must be provided in accordance with the approved access undertaking and user agreements and are to be further detailed in an Appendix to the specification included in the Contract.</p>
Maintenance Services to be performed by the Operator	<p>The Operator must maintain the Terminal and each component of the Terminal at its operating capacity as specified in the Contract. This specifically includes:</p> <ul style="list-style-type: none"> • planned maintenance and repair in accordance with an annual operation, maintenance and capital plan (prepared by the Operator); • unplanned maintenance and repair as required (for example following equipment breakdown); • condition monitoring and maintenance management; and • upkeep of the Terminal, including activities such as maintenance of access roads and dust suppression.

Term	Summary of term
Standard of Operator's performance	<p>The Operator must operate and maintain the Terminal in order to ensure it is capable of operating:</p> <ul style="list-style-type: none"> • at its rated design capacity; • in accordance with good operating and maintenance practice; and • in good and substantial repair. <p>The Operator must ensure that the Terminal is maintained and operated so as to achieve, as far as practical, the best and most cost effective outcome, taking account, as appropriate, of:</p> <ul style="list-style-type: none"> • lowest total whole of life cost; • reliability and economy of performance; • maximising the effective life of the Terminal; • good operating and maintenance practice; • in the case of competing interests between users, fairness; and • the obligations of DBCT Management under the access undertaking and any user agreements. These obligations are subject to DBCTM having expended appropriate capital if relevant. <p>The Operator must provide everything that is necessary for performance of the services, other than any things specified in the Contract as to be provided by DBCTM. The Operator's supply obligations include the supply of water and power to the Terminal. The Operator is also required to supply and maintain spares for the Terminal.</p> <p>The Operator can subcontract parts of the Services without DBCTM's consent, however remains liable for the standard of performance. The Operator is specifically required to supervise the execution of all Services.</p>
Annual operation, maintenance and capital plan	<p>The Operator must, in consultation with DBCTM, prepare and submit an annual operation, maintenance and capital plan by 15 May. The plan will identify the proposed budget for the next financial year and will foreshadow the likely plan and budget for the subsequent two years (i.e. provide a three year budget snapshot).</p>
Payments to the Operator	<p>DBCTM pays the Operator all reasonably incurred costs of performing the services (that is, operating and maintaining the Terminal in accordance with the Contract) plus a margin.</p> <p>The Operator is also entitled to be paid:</p> <ul style="list-style-type: none"> • reimbursement of capital expended by the Operator, subject to certain conditions (outlined below in capital works); • consulting fees in respect of capital works (refer further below in relation to capital works); and • a project management commission if the Operator project manages a non-expansion capital project. <p>The Contract acknowledges that it is intended that amounts paid to the Operator will be recovered by DBCTM from users under their user agreements. The Operator has obligations to assist DBCTM to facilitate this pass through.</p>
Terminal Regulations	<p>Both the Operator and DBCTM are required to comply with the Terminal Regulations.</p> <p>The Operator may propose amendments to the Terminal Regulations for DBCTM's consent, which DBCTM must not unreasonably withhold but which will be subject to the requirements of the access undertaking in relation to such amendments.</p> <p>DBCTM must require each Terminal user pursuant to their user agreement(s) to comply with the Terminal regulations as applicable from time to time.</p>
Access to the Terminal	<p>DBCTM has granted the Operator a licence to use, occupy and control the Terminal as is necessary to perform the services in accordance with the Contract.</p> <p>The Operator must give DBCTM and its personnel such access to the Terminal as they reasonably require from time to time. However, such access is subject to compliance with the Operator's applicable procedures (including safety requirements). DBCTM must also take reasonable measures not to impede the Operator's performance of the services.</p>

Term	Summary of term
Care of and risk in the Terminal	The Operator has care of the Terminal and assumes the risk of damage to the Terminal and all things located at it (including coal). The Operator must insure the Terminal in accordance with the insurance program detailed in the Contract.
Safety and environmental compliance	<p>The Operator has primary responsibility for the management of safety at the Terminal and for compliance with legal requirements with respect to safety at the Terminal.</p> <p>The Operator also has primary responsibility for the compliance of the Terminal with all relevant environmental laws and requirements. Among other things, the Operator is required to obtain and maintain all required approvals from authorities with respect to the performance of the services.</p>
Records and audits	<p>The Operator must maintain records (including financial records) relating to the services.</p> <p>From time to time, DBCTM may appoint a suitably qualified person to conduct an audit of the records maintained by the Operator and/or of the Operator's relevant systems and procedures.</p> <p>The Operator must work with DBCTM to ensure that DBCTM is able to comply with its reporting obligations under the approved access undertaking.</p>
Continuous improvement	The Operator must work with DBCTM in undertaking reviews to identify and develop options for improved efficiency of the Terminal as well as of the coal transport chain. The parties have coordination obligations in relation to the implementation of the findings of such reviews.
Capital works	<p>Either the Operator or DBCTM can propose that capital works are undertaken. The Operator has obligations to participate in planning for proposed capital works. The Operator is entitled to be paid consulting fees (which are separate and additional to its usual monthly payments) for this participation.</p> <p>If capital works are to proceed, DBCTM and the Operator may agree that the capital works will be implemented by the Operator, DBCTM or another contractor.</p> <p>There is a handover process which applies once capital works have been completed. From the time of handover, the capital works become part of the Terminal and the Operator's obligations to provide the services extend to include that part of the Terminal.</p>
Force majeure	The Contract defines events of force majeure. If a party is affected by such an event, it may be granted relief from performance of its affected obligations under the Contract, subject to compliance with certain requirements.
Dispute resolution	<p>The Contract specifies a dispute resolution procedure which includes the following provisions:</p> <ul style="list-style-type: none"> • If a dispute between DBCTM and the Operator arises out of or in connection with the Contract, then either party may give the other party a notice of dispute. • Neither party may commence any court proceedings or arbitration in respect of any dispute which is the subject of a notice of dispute until the party has complied with the dispute resolution procedure specified in the Contract. • Within 14 days after service of a notice of dispute, the senior executives of each party must confer at least once to attempt to resolve the dispute and failing resolution, to consider and, if possible, agree on methods of resolving the dispute by other means. • If the dispute cannot be resolved by the senior executives after a further period of 14 days or if at any time either party considers that the other party is not making reasonable efforts to resolve the dispute, either party may refer the dispute to conciliation. • If the dispute is not resolved by conciliation within a period of 14 days after nomination of the conciliator, the parties may agree to refer the dispute to arbitration or either party may pursue any other means of dispute resolution including litigation. • The Contract will specify procedures with respect to conciliation and arbitration. • The dispute resolution procedure does not prevent any party from seeking urgent interlocutory or declaratory relief from a court of competent jurisdiction where, in that party's reasonable opinion, that action is necessary to protect its rights.

Term	Summary of term
Change in control of the Operator	<p>There is a deemed assignment of the Contract if:</p> <ul style="list-style-type: none"> • a person who is not a user or its related body corporate acquires an interest in the Operator; or • a user or its related body corporate acquires an interest in the Operator which exceeds its proportionate usage of the Terminal. <p>The Contract may not be assigned without DBCTM's approval.</p>
Termination for default by either party	<p>Each party has termination rights if the other defaults under the Contract. The rights differ between the parties, but allow the non-defaulting party to require rectification or require the defaulting party to show cause, before the non-defaulting party may terminate the Contract.</p>

Appendix 2 DBCT Access Framework — markup

Dalrymple Bay Coal Terminal Access Undertaking Framework

~~DAAU to amend 2017 Access Undertaking~~

[9 September 2020]

Submitted by
DBCT Management Pty Ltd

Level 15
Waterfront Place
1 Eagle Street
Brisbane QLD 4000
Tel: 07 3002 3100

[Note: The DBCT Access Framework and Standard Access Agreement (SAA) provided with DBCTM's submission dated 30 May 2018 should be read in conjunction with Appendix 7 of DBCTM's submission, which sets out the pricing framework that will apply under the DBCT Access Framework and SAA. Drafting to give effect to the pricing framework is being developed. Placeholders are included in this version of the Framework for the drafting to give effect to the pricing framework. Further consequential changes may also be required as a result of the changes to give effect to the pricing framework.]

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1 Introduction

1.1 Purpose of this document

(The Terminal) The Terminal is a common user coal port. The Terminal includes in-loading, stockpiling, reclaiming, out-loading, and associated facilities for the handling of coal. The Terminal is located at the Port of Hay Point, south of Mackay in Queensland.

~~**(Declared service under QCA Act)** In March of 2001 the State passed a regulation under which the handling of coal at the Terminal was made a “declared service” for the purposes of the QCA Act. Access providers of declared services have an obligation under the QCA Act to negotiate with, and in certain circumstances provide access to, third parties seeking access to that service. The regulator under the QCA Act is the QCA.~~

~~**(Draft access undertaking under QCA Act)** The QCA Act has provisions that allow the owner or operator of a declared service to voluntarily submit a draft access undertaking to the QCA which sets out the terms and conditions upon which access will be granted to Access Seekers. If the draft access undertaking meets certain criteria set out under the QCA Act and is approved by the QCA, it will regulate third party access to the service.~~

(Agreements with the State) On 14 September 2001 the DBCT Trustee as trustee of the DBCT Trust, and DBCT Management entered into a number of agreements with DBCT Holdings and PCQ (both wholly owned by the State) under which DBCT Trustee and DBCT Management were granted a 50 year lease (with an option for a further 49 years) of the Terminal.

~~**(Port Services Agreement)** One of the agreements referred to above, the Port Services Agreement, requires DBCT Trustee to prepare a draft access undertaking on behalf of DBCT Holdings (which as the owner of the Terminal was formally responsible for submitting the draft access undertaking) for submission to the QCA for approval under the QCA Act. The Port Services Agreement also specifies a number of issues the draft access undertaking must address above and beyond the requirements of the QCA Act.~~

(Operator) An Operator is contracted to operate the Terminal on behalf of DBCT Management pursuant to an operations and maintenance contract. The Operator of the Terminal has historically been user-owned and independent of the lessee.

~~**(Previous access undertakings)** The first access undertaking for the Terminal was approved by the QCA in June 2006. That undertaking was superseded by a further access undertaking for the Terminal that was approved by the QCA in September 2010 (**2010 Access Undertaking**). The 2010 Access Undertaking was due to expire on 30 June 2016 but was extended by an extension DAAU approved by the QCA on 16 June 2016 until the earlier of 30 June 2017 and the approval date of this Undertaking.~~ [**\(Establishment of Framework\) On the Expiry Date, the declaration of coal handling services at the Terminal under the Queensland Competition Authority Act 1997 \(Qld\) expired. This Framework has been developed in response and provides a balanced approach to the provision of Access and a framework \(based on a negotiate/arbitrate model\) to manage negotiations in an efficient and transparent manner for Access Seekers seeking Access to the Services at the Terminal.**](#)

~~**(Background to this Undertaking)** On 23 June 2015 the QCA issued an initial undertaking notice under the QCA Act. In response to that Notice, DBCT Management submitted an Undertaking to the QCA on 9 October 2015, to replace the 2010 Access Undertaking and to establish a new term.~~

~~(Approval of this Undertaking)~~ After a public consultation process, the QCA approved this Undertaking on 16 February 2017.

1.2 Scope of ~~Undertaking~~Framework

This ~~Undertaking~~Framework provides for:

- (a) the negotiation and provision of Access to the Services at the Terminal; and
- (b) measures to mitigate potential adverse effects on competition which could arise out of the common ownership within the Brookfield Group of both DBCT Management and the Trading SCB. ownership of a related Supply Chain Business.

1.3 Object of this Framework

- (a) The objective of the Framework is to promote the economically efficient operation of, use of and investment in, the Terminal, with the effect of promoting effective competition in upstream and downstream markets.
- (b) This Framework has been prepared in accordance with, and gives effect to, the Framework Objective.

1.4 ~~1.3~~ Duration of ~~Undertaking~~Framework

This ~~Undertaking~~Framework will apply on and from the Approval Commencement Date. It will apply until the Terminating Date unless withdrawn as provided for in the QCA Act.

~~1.4~~ Reviews of Undertaking

~~(a) (General reviews) If:~~

~~(1) as a result of any review of this Undertaking by DBCT Management, the Access Holders and the QCA, DBCT Management, the Access Holders and the QCA agree that amendment of the Undertaking is desirable; or~~

~~(2) the QCA considers it necessary that the Undertaking be amended so as to rectify a significant inequity or significant unfairness suffered by an Access Seeker, Access Holder or DBCT Management, which inequity or unfairness was not generally foreseen or intended at the Approval Date,~~

~~then DBCT Management will submit to the QCA a draft amending access undertaking addressing the relevant issue or issues, for approval under the QCA Act.~~

~~(b) (Undertaking includes Standard Access Agreement) For clarification, an amendment to this Undertaking may include an amendment to the Standard Access Agreement.~~

1.5 Access Agreements and effect on Existing User Agreements

This ~~Undertaking~~Framework applies to the negotiation of new Access Agreements or the negotiation of additional Access rights in addition to those already the subject of an Access Agreement or Existing User Agreement. Nothing in this ~~Undertaking~~Framework requires a party to an Existing User Agreement to vary a term or provision of that Existing User Agreement.

~~1.6~~ Amendment to Undertaking

~~Any amendment to this Undertaking will be prepared and submitted to the QCA by DBCT Management in accordance with the QCA Act.~~

1.6 ~~1.7~~ Implementation of Differentiation in Existing User Agreements

[\[Drafting Note: Amendments to this clause 1.6 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018\]](#)

Following a Price Ruling that a Terminal Capacity Expansion will be a Differentiated Expansion Component, DBCT Management will:

- (a) calculate Access Charges under each Access Agreement in accordance with the provisions of this ~~Undertaking~~[Framework](#); and
- (b) in good faith, take all reasonable steps to negotiate any necessary amendments to any Access Agreement executed prior to Pricing Ruling, including Existing User Agreements, to ensure that they are consistent with the Access Charges being calculated in accordance with the provisions of this ~~Undertaking~~[Framework](#) in relation to the application of Differentiation to a Terminal Capacity Expansion and the allocation of costs relating to it. For clarity, DBCT Management must use best endeavours to ensure that such amendments are equitable and non-discriminatory as between the relevant executed Access Agreements.

2 Definitions and Interpretation

2.1 Definitions

Unless the subject or context is inconsistent, each of the capitalised terms used in the ~~Undertaking~~[Framework](#) has the meaning assigned to it in Schedule G.

2.2 Interpretation

The rules set out in Schedule G apply to and govern the interpretation of this ~~Undertaking~~[Framework](#).

3 Role of DBCT Management and the Operator

3.1 Role of DBCT Management

- ~~(a) The owner or operator of a declared service may voluntarily submit a draft access undertaking to the QCA under section 136(1) of the QCA Act or be required to do so under section 133(1) or 134(2) of the QCA Act.~~
- (a) ~~(b)~~ The owner of the Terminal ~~(and consequently the declared service)~~ is DBCT Holdings.
- (b) ~~(c)~~ DBCT Trustee and DBCT Management, under the Leases, are the lessee and sublessee of the Terminal. Under the terms of the ~~leases~~[Leases](#) and the Port Services Agreement, DBCT Management is solely responsible for providing Access to Access Holders and Access Seekers during the Lease Term. ~~Accordingly, DBCT Management is the operator (within the meaning of that term in the QCA Act) of the declared service.~~
- (c) ~~(d)~~ DBCT Management will comply with and give effect to this ~~Undertaking~~[Framework](#) and any applicable laws relating to the provision of Access ~~as the operator~~.
- (d) ~~(e)~~ DBCT Management will ensure that employees, subcontractors and agents of subcontractors comply with the requirements of this ~~Undertaking~~[Framework](#), except as otherwise provided for under an Access Agreement.
- (e) ~~(f)~~ Where the performance of an obligation under this ~~Undertaking~~[Framework](#) requires a Related Body Corporate of DBCT Management ~~(including Trading SCB)~~ to take or refrain from taking some action, DBCT Management must procure that the Related Body Corporate takes or refrains from taking that action.
- (f) ~~(g)~~ DBCT Management must procure that any Related Body Corporate provides all necessary assistance and information so that it is in a position to comply with this

~~Undertaking, including (without limitation) with any direction from the QCA under this Undertaking~~[Framework](#).

3.2 Role of the Operator

During the term of the ~~Undertaking~~[Framework](#), DBCT Management acknowledges and agrees that:

- (a) the Operator is and will remain Dalrymple Bay Coal Terminal Pty Limited ACN 010 268 167 (**DBCT PL**) and that DBCT PL is majority owned or wholly owned by Access Holders;
- (b) each Access Holder has a right under the constitution of DBCT PL to become a shareholder of DBCT PL;
- (c) if an Access Holder is not a shareholder of DBCT PL but wishes to become a shareholder of DBCT PL then that Access Holder may, in accordance with the constitution of DBCT PL, apply to become a shareholder of DBCT PL by making an application to DBCT PL at the following address:

Dalrymple Bay Coal Terminal Pty Limited
M.S. F283
Mackay, Queensland, 4740
Attention: Chief Executive and General Manager;

- (d) the Operator carries out its obligations under the Operation & Maintenance Contract and Terminal Regulations independently of DBCT Management.

3.3 Operation and Maintenance Contract

During the term of the ~~Undertaking~~[Framework](#), DBCT Management undertakes to:

- (a) maintain the Operation & Maintenance Contract; and
- (b) ensure that the terms of the Operation and Maintenance Contract, if amended at any time, remain substantially consistent with the terms set out in Schedule ~~H~~[H](#).

4 Services to be provided

DBCT Management must provide the Services at the Terminal in accordance with this ~~Undertaking~~[Framework](#) and each Access Agreement, including in compliance with the Terminal Regulations (and, without limitation, in accordance with the level of service set out in Schedule E of this ~~Undertaking~~[Framework](#)).

5 Negotiation arrangements

5.1 Framework for negotiation

(Outline) This Section 5 of this ~~Undertaking~~[Framework](#) outlines the process which will be followed to enable Access Seekers to obtain Access. It deals with:

- (a) an Access Application by an Access Seeker and a Renewal Application by an Access Applicant;
- (b) provision of an Indicative Access Proposal by DBCT Management;
- (c) negotiations to develop an Access Agreement;
- (d) principles for the entering into of Access Agreements where it is conditional upon a Terminal Capacity Expansion; and

- (e) various other provisions relating to when and the basis on which Access Agreements may be entered into pursuant to Access Applications.

(Progressing Access Applications) DBCT Management will take all reasonable steps to progress each Access Application and any negotiations to develop an Access Agreement with an Access Seeker in a timely manner and will complete each relevant step as soon as is practicable.

5.2 Application for Access and information to be provided

(Form of Access Application) Any application for Access must be in the form specified in Schedule A and include:

- (a) a warranty in the form specified in; and
- (b) such other information that may be required by,

Schedule A. —[An Access Seeker must, when submitting an Access Application, unconditionally and irrevocably agree to comply with the requirements, obligations and processes in:](#)

- (1) [this Framework relating to it or its Access Application; and](#)
- (2) [the Deed Poll, including the conditions set out in clauses 8.4, 9, 10 and 11 of the Deed Poll,](#)

[and if the Access Seeker does not do so then DBCT Management may refuse to accept the Access Application.](#)

(Forecasts in Access Application) DBCT Management acknowledges that, at the time an Access Application is made, some information provided in the Access Application may be a forecast only. The Access Seeker must, however, use its best endeavours to ensure that any such information contained in an Access Application is as accurate as possible.

(Information sought by Access Seeker prior to Access Application) Prior to submitting an Access Application, an Access Seeker may request from DBCT Management: [**\[Drafting Note: Amendments to this clause will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018\]**](#)

- (c) reasonably available preliminary information relating to the Access Application (including copies of the then current Standard Access Agreement and Terminal Regulations) – which DBCT Management must provide within 10 Business Days of DBCT Management receiving the request;
- (d) where there is a Reference Tariff in respect of the Existing Terminal or any Differentiated Expansion Component, the information set out in sections 101(2)(d) to (h) of the QCA Act - which DBCT Management must provide within 10 Business Days of DBCT Management receiving the request. For clarification, if one or more Expansion Components exist, DBCT Management is to provide this information in respect of the Existing Terminal and each Differentiated Expansion Component;
- (e) where there is no relevant Reference Tariff, the information set out in sections 101(2)(a) to (h) of the QCA Act - which DBCT Management must provide within 10 Business Days of DBCT Management receiving the request; and
- (f) initial meetings to discuss the proposed Access Application and the requirements of the Access Application Form set out in Schedule A – which DBCT Management must facilitate within a reasonable time after being requested to do so.

(Revisions to Access Application)

- (g) At any time after an Access Seeker submits an Access Application to DBCT Management but prior to the commencement of the negotiation period referred to in Section 5.7 in respect of the Access Application, an Access Seeker may notify DBCT Management that it wishes to revise certain information specified in its Access Application.
- (h) In considering whether to allow an Access Seeker to revise certain information specified in its Access Application, DBCT Management will have regard to the impact of the proposed revision, if allowed by DBCT Management, on other Access Seekers and Access Holders.
- (i) Without otherwise limiting DBCT Management's discretion to allow an Access Seeker to revise information specified in its Access Application, DBCT Management will allow an Access Seeker to revise information specified in its Access Application in accordance with Section 5.4(c) or if DBCT Management is reasonably of the opinion that the proposed revision:
 - (1) if allowed by DBCT Management, would not substantially alter the nature of the Access rights sought by the Access Seeker in its Access Application prior to the revision;
 - (2) if allowed by DBCT Management, would not adversely impact on other Access Seekers or Access Holders; and
 - (3) is not otherwise prohibited under Section 5.4(i)(3), 5.4(j)(7) or 5.10(h).
- (j) For the avoidance of doubt, any revision of information specified in an Access Application which would, if allowed by DBCT Management, increase the annual Tonnage specified in the Access Application or extend the term specified in the Access Application will be taken to be a substantial alteration of the Access rights sought by the Access Seeker in its Access Application.

5.3 What happens after lodgement of Access Application

- (a) **(Acknowledgement by DBCT Management)** Upon receiving a purported Access Application under Section ~~5.2~~5.2, DBCT Management must, within 10 Business Days of its receipt, acknowledge in writing to the Access Seeker receipt of the application and confirm whether the application is an Access Application complying with Section ~~5.2~~5.2.
- (b) **(Request by DBCT Management for further information)** DBCT Management may request from the Access Seeker additional information where DBCT Management can reasonably demonstrate the need for such information for the purpose of preparing an Indicative Access Proposal, or clarification of information provided, including (but not limited to) obtaining further information to establish the solvency and creditworthiness of the Access Seeker and, where DBCT Management requires, a Security provider. Upon receiving the required information or clarification from the Access Seeker, DBCT Management must provide written acknowledgment of the receipt of this further information as soon as practicable and, in any event, within 10 Business Days of receipt of the further information.
- (c) **(Provision of further information by Access Seeker)** The Access Seeker must provide any information reasonably requested by DBCT Management under this Section 5.3 within 20 Business Days of receipt of the request from DBCT Management (or such later date as DBCT Management agrees to, it being required to act reasonably in agreeing to extend the period if the Access Seeker demonstrates good grounds for a longer period applying). If the Access Seeker does not provide the requested

information within that period, its Access Application will be deemed to have been rejected, but it may apply again for Access in accordance with Section ~~5.2~~[5.2](#). If an Access Seeker lodges a replacement Access Application, DBCT Management will endeavour in good faith to expedite the steps leading to acknowledgement under this Section 5.3 of the Access Application.

(d) **(Rejection if Access Seeker fails to provide information or demonstrate application criteria)** If:

(1) an Access Application fails to comply with Section 5.2 (including where the Access Seeker fails to include the warranty provided for in, or such other information as may be required by, Schedule A); or

(2) DBCT Management, acting reasonably, is of the opinion that an Access Application:

(A) does not demonstrate that the Access Seeker is reasonably likely to commence delivery of coal to the Terminal on the date specified in item 5 of the Access Application (which must be no more than 5 years from the date of the Access Application); or

(B) does not demonstrate that the Access Seeker has:

(i) Marketable Coal Reserves that are consistent with the net tonnes specified in item 7 of the Access Application in respect of the first five Financial Years of Access applied for; and

(ii) Coal Resources that are, together with the Marketable Coal Reserves of the Access Seeker, consistent with the total net tonnes specified in item 7 of the Access Application,

then DBCT Management may reject the Access Application. Where DBCT Management rejects an Access Application in accordance with this Section 5.3 the Access Application will be deemed not to have been received, for the purposes of the Queue, unless Section 5.3(e) applies.

(e) **(Disputed rejection of Access Application)** If DBCT Management rejects an Access Application submitted by an Access Seeker and the Access Seeker, acting reasonably, is of the opinion that its Access Application should have been accepted by DBCT Management in accordance with this ~~Undertaking~~[Framework](#), then the Access Seeker may refer the matter for dispute resolution in accordance with Section ~~17~~[16](#) of this ~~Undertaking~~[Framework](#) within 15 Business Days of receiving the notice of rejection. In that case, the Access Applicant may not be removed from the Queue, and DBCT Management must not offer to enter an Access Agreement with another Access Applicant in respect of the Access sought in the relevant Access Application, unless and until the dispute is resolved in favour of DBCT Management.

(f) **(Expiry of Access Application)** Subject to an Access Application or Renewal Application (as applicable) lapsing or otherwise being rejected by DBCT Management in accordance with this ~~Undertaking~~[Framework](#) before the relevant expiry date:

(1) an Access Application submitted to DBCT Management before the Commencement Date will, unless the Access Application is renewed under Section 5.3A, expire on the date which is eight weeks after the Commencement Date;

- ~~(2) an Access Application submitted to DBCT Management on or after the Commencement Date but before 28 February 2017 will, unless the Access Application is renewed under Section 5.3A, expire on 31 August 2017;~~
 - (2) ~~(3)~~ any Access Application submitted to DBCT Management on or after ~~1 March 2017~~ the Commencement Date will, unless the Application is renewed under Section 5.3A, expire on the next occurring 31 August; and
 - (3) ~~(4)~~ an Access Application which has been renewed in accordance with Section 5.3A, will, unless the Access Application is further renewed under Section 5.3A, expire on the next 31 August occurring after the 31 August on which the Access Application was to expire immediately prior to the Renewal Application being accepted.
- (g) **(Notice of Expiry)** DBCT Management will give notice of the timing of expiry to all Access Seekers with a current Access Application (including those which remain current due to a previous Renewal Application being accepted):
- (1) for Access Applications for which the expiry date is set by Section 5.3(f)(1), on the Commencement Date;
 - (2) for Access Applications for which the expiry date is set by Section 5.3(f)(2), or 5.3(f)(3) ~~or 5.3(f)(4)~~, at least 1 month and no more than 3 months prior to expiry date of the Access Application.

5.3A Renewal Applications

- (a) **(Renewal Application)** An Access Applicant that wishes to renew its Access Application must submit to DBCT Management a renewal application in the form specified in Schedule A and include:
 - (1) the warranty in the form specified in Schedule A; and
 - (2) such other information that may be required, as specified in Schedule A,
 not later than 15 Business Days before the date that its Access Application is due to expire.
- (b) **(Forecasts in Access Application)** DBCT Management acknowledges that, at the time a Renewal Application is made, some information provided in the Renewal Application may be a forecast only. The Access Applicant must, however, use its best endeavours to ensure that any such information contained in a Renewal Application is as accurate as reasonably possible.
- (c) **(Acknowledgement by DBCT Management)** Upon receiving a purported Renewal Application under this Section 5.3A, DBCT Management must, within 10 Business Days of its receipt, acknowledge in writing to the Access Applicant receipt of the renewal application and confirm whether the application is a Renewal Application complying with this Section 5.3A.
- (d) **(Rejection if Access Seeker fails to provide information or demonstrate renewal criteria)** If:
 - (1) an Access Applicant fails to comply with Section 5.2 in respect of a Renewal Application (including where the Access Applicant fails to include the warranty provided for in, or such other information as may be required by, Schedule A); or
 - (2) DBCT Management, acting reasonably, is of the opinion that a Renewal Application submitted by an Access Applicant:

- (A) does not demonstrate that the Access Applicant is reasonably likely to commence delivery of coal to the Terminal on the date specified in item 5 of the Renewal Application (which must be no more than 5 years from the date of the Renewal Application); or
- (B) does not demonstrate that the Access Applicant has:
 - (i) Marketable Coal Reserves that are consistent with the net tonnes specified in item 7 of the Renewal Application in respect of the first five Financial Years of Access applied for; and
 - (ii) Coal Resources that are, together with the Marketable Coal Reserves of the Access Applicant, consistent with the total net tonnes specified in item 7 of the Renewal Application,

then DBCT Management may reject the Renewal Application. If DBCT Management rejects a Renewal Application or the Access Applicant fails to submit a Renewal Application to DBCT Management within the timeframe required in Section 5.3A(a), then the Access Applicant's current Access Application will expire on its expiry date (as determined in accordance with Section 5.3(f)) and the Access Applicant will be removed from the Queue on the date the Access Application expires, unless Section 5.3A(e) applies.

- (e) **(Disputed rejection of Renewal Application)** If DBCT Management rejects a Renewal Application submitted by an Access Applicant and the Access Applicant, acting reasonably, is of the opinion that its Renewal Application should have been accepted by DBCT Management in accordance with this [Undertaking Framework](#), then the Access Applicant may refer the matter for dispute resolution in accordance with Section ~~17~~16 of this [Undertaking Framework](#) within 15 Business Days of receiving the notice of rejection. In that case, the Access Applicant may not be removed from the Queue, and DBCT Management must not offer to enter an Access Agreement with another Access Applicant in respect of the Access sought in the relevant Renewal Application, unless and until the dispute is resolved in favour of DBCT Management.
- (f) **(New Access Application if renewal is substantially different)** If DBCT Management, acting reasonably, is of the view that a Renewal Application is substantially different to the Access Seeker's current Access Application, then subject to the following paragraph, DBCT Management will treat the Renewal Application as a new Access Application, and the process set out in this Section 5 will recommence from that point. If the difference is an increase in the annual Tonnage required or a longer term, then only the additional annual Tonnage or additional term (as applicable) will be taken to constitute the subject of a new Access Application.
- (g) With respect to the renewal of an Access Application referred to in paragraph (b) of the definition of 'Access Application', if the first Renewal Application after the Commencement Date is for an increase in the term from 5 or more years, then the extended term will not be taken to constitute the subject of a new Access Application and will instead be considered as part of the Renewal Application.
- (h) **(Renewed Access Application)** To the extent that a Renewal Application is confirmed by DBCT Management as a Renewal Application complying with Section 5.3A (or is determined as complying with Section 5.3A in a dispute referred by the Access Applicant in accordance with Section 5.3A):
 - (1) the Access Applicant's current Access Application will be taken to have been renewed;

- (2) the content of the Renewal Application will be taken to be the Access Applicant's Access Application for the purposes of this ~~Undertaking~~ Framework; and
- (3) the priority of Access Applicant in the Queue will continue to be determined by the Access Application Date.

5.4 Priority of Access Applications and execution of Access Agreements

- (a) **(Formation of Queue)** If at any time there are two or more current Access Applications and there is or will be insufficient Available System Capacity associated with Socialised Terminal Capacity at any relevant time to accommodate an increase in Handling of coal applied for in all of those Access Applications, a queue (the **Queue**) will be formed.
- (b) **(General rules for priority in Queue)** Subject to any other provision in Section ~~5.5~~ 5.5, the priority of an Access Seeker in the Queue will be determined by their Access Application Date, with an earlier Access Application Date having priority in the Queue over any later Access Application Date. An Access Seeker may be removed from the Queue once their Access Application is no longer current in accordance with the terms of Sections ~~5.3, 5.4, 5.6,~~ 5.3, 5.4, 5.6, 5.7(a)(2), 5.7(a)(4), ~~5.8,~~ 5.8, 5.9 or 5.10 of this ~~Undertaking~~ Framework. An Access Seeker may lose priority in the Queue pursuant to Sections 5.4 or ~~5.10,~~ 5.10. The Queue will cease to exist if Available System Capacity at all relevant times subsequently exceeds the amount of capacity requested in all the then current Access Applications.
- (c) **(Notice of formation of or change in Queue)** Promptly after a Queue is first formed and promptly after each occasion that the Annual Contract Tonnage applied for in the Queue is increased or decreased, DBCT Management must notify each Access Seeker in the Queue of:
 - (1) the Annual Contract Tonnage applied for in priority to that Access Seeker in the Queue;
 - (2) the total Annual Contract Tonnage applied for in the Queue at that time; and
 - (3) a breakdown of the Annual Contract Tonnage applied for in the Queue by the dates for commencement of Access and Annual Contract Tonnage applied for in each Access Application (without any identification of the Access Seeker which made each Access Application but with identification of the dates for commencement of Access).

(Access Agreements for Available System Capacity from the Existing Terminal)

- (d) **(Entry into Access Agreement for Available System Capacity)** Promptly upon being advised in writing by an Access Holder that Annual Contract Tonnage in respect of the Existing Terminal will become available, DBCT Management will:
 - (1) notify each Access Seeker in the Queue of the date for the commencement of such Access and the relevant Tonnage; and
 - (2) issue an Indicative Access Proposal for Available System Capacity in respect of the relevant Tonnage to the Access Seeker who is first in the Queue.
- (e) **(Entry into Access Agreement not conditional on Terminal Capacity Expansion by Access Seekers not first in the Queue but seeking Access at an earlier date)** The following process will apply in relation to Access Seekers who are not first in the Queue but are ready to enter into an Access Agreement that is not conditional on a Terminal Capacity Expansion:
 - (1) An Access Seeker who is not first in the Queue (the Notifying Access Seeker) but is seeking access from existing Available System Capacity at a date that is at least

6 months earlier than the date for commencement of Access applied for in the Access Application which is first in the Queue, may give notice in writing to DBCT Management in accordance with Section 5.4(e)(2) (**Notice**).

- (2) The Notice is to state that the Notifying Access Seeker is prepared to enter into an Access Agreement consistent (subject to the next sub-section) with its Access Application on the terms of the Standard Access Agreement or on any other terms agreed between DBCT Management and the Access Seeker.
- (3) The Notice may state that the Notifying Access Seeker wishes to enter into an Access Agreement for a lower Tonnage, shorter term or earlier date for commencement of Access than requested in the Access Application, provided that any revised Access commencement date must not precede the date of the Notice.

If DBCT Management receives such Notice from the Notifying Access Seeker, it must promptly:

- (4) notify, in writing, all other Access Seekers that are ahead of the Notifying Access Seeker in the Queue (each a **Notified Access Seeker**) of this development (including the requested date for commencement of Access, but not the identity of the Notifying Access Seeker); and
 - (5) allow 3 months from the date when such notice is given by DBCT Management for each Notified Access Seeker to:
 - (A) deliver to DBCT Management two signed copies of an Access Agreement consistent with its Access Application (except that it may be for a lower Tonnage, shorter term or earlier date for commencement of Access than requested in the Access Application, provided that any revised Access commencement date must not precede the date of the Notice and on the terms of the Standard Access Agreement or on other terms agreed between DBCT Management and a Notified Access Seeker); and
 - (B) deliver to DBCT Management any Security required by DBCT Management (acting consistently with this [Undertaking Framework](#)).
- (f) **(Execution of Access Agreements in order of Access Seekers in Queue which commit)**
If, during the above 3 month period, one or more of the Notified Access Seekers:
- (1) delivers to DBCT Management such signed copies of an Access Agreement for Access to commence on a date which is the same as or earlier than the date for commencement of Access referred to in section 5.4(e)(3) (which, for clarification, may be a retrospective date, provided that any revised Access commencement date must not precede the date of the Notice); and
 - (2) also provides any Security reasonably required by DBCT Management (or does not provide such Security but the circumstances in Section 5.4(g) apply),
- then DBCT Management must:
- (3) give priority to such of those Notified Access Seekers that are seeking Access on the earliest date for commencement of Access (provided that, if there are two or more Notified Access Seekers each seeking Access commencing on the same date, priority will be given to the Notified Access Seekers in order of their position in the Queue);
 - (4) (subject to there being sufficient Available System Capacity at the relevant time) execute those copies of the Access Agreement;

- (A) re-deliver one signed copy to such Notified Access Seeker; and
 - (B) repeat that process in order of the date for commencement of the access that they are seeking with each successive Notified Access Seeker (if any) which has delivered during the 3 month period such a signed Access Agreement and any Security required by DBCT Management (acting consistently with this [Undertaking Framework](#)).
- (g) **(Issues with provision of requested Security)** If a Notified Access Seeker is unable to provide any Security reasonably required by DBCT Management within the 3 month period referred to in Section 5.4(f), (or if, by the end of the first month of that 3 month period, the Access Seeker disputes DBCT Management’s entitlement to the Security requested), the Access Agreement to be executed and delivered by the relevant Notified Access Seeker in that period will be modified so that it is a condition precedent to it becoming effective that such Security is provided to DBCT Management within 20 Business Days after the Execution Date (or, if so disputed, Security which the [QCA Independent Expert](#) determines to be fair is provided within 20 Business Days after the [QCA Independent Expert](#) makes that determination), and the “Effective Date” will be adjusted accordingly.
- (h) **(Execution of Access Agreement with Notifying Access Seeker, if sufficient remaining Capacity)** If, after all Access Agreements with all Notified Access Seekers referred to in Section 5.4(e)(5) who have duly delivered signed documents (and provided Security if relevant) have been executed (or negotiations have ceased pursuant to Section 5.8), there is still sufficient Available System Capacity, then DBCT Management will conclude an Access Agreement with the Notifying Access Seeker for that Available System Capacity (or that part of it which the Notifying Access Seeker requires).
- (i) **(Clarifications)** For clarity:
- (1) **(Position in Queue may be lost by not executing Access Agreement)** any Notified Access Seeker that does not within the above 3 month period deliver to DBCT Management a signed Access Agreement:
 - (A) may be removed by DBCT Management from the Queue, in which case the Notified Access Seeker’s Access Application will be taken to have been rejected and the Access Application negotiation process for that Notified Access Seeker will be discontinued, unless a bona fide dispute in relation to the removal is referred under Section [1716](#) – in which case, the Notified Access Seeker will maintain its position in the Queue until that dispute is resolved; or
 - (B) will not, if DBCT Management does not remove the Notified Access Seeker from the Queue, lose its place in the Queue (although a Notifying Access Seeker which does execute an Access Agreement pursuant to this Section 5.4 will no longer be in the Queue in respect of the tonnage the subject of that Access Agreement) and the Access Application negotiation process for that Access Seeker will otherwise continue in accordance with Section 5 of this [Undertaking Framework](#);
 - (2) **(Considerations regarding removal from Queue)** in considering whether to remove an Access Seeker from the Queue under Section 5.4(i)(1), DBCT Management will have regard to:

- (A) the date that the Access Seeker proposes to commence delivering coal to the Terminal in comparison with the date that the Notifying Access Seeker proposes to commence delivering coal to the Terminal;
 - (B) the tonnes that the Access Seeker requires to commence delivering coal to the Terminal in comparison with the tonnes that the Notifying Access Seeker proposes to commence delivering to the Terminal; and
 - (C) the likelihood of future Access becoming available at the Terminal on or prior to the date for commencement of Access sought by the Access Seeker that DBCT Management is considering whether to remove from the Queue;
- (3) **(Amendments to Access Application)** except as provided for in Section 5.4(f)(1), an Access Seeker may not amend the date for commencement of delivery of coal to the Terminal specified in its Access Application during the 3 month period which commences on the date the Access Seeker receives a notice from DBCT Management under Section 5.4(e)(4);
- (4) **(Offers of Access Agreement not to exceed Available System Capacity)** unless otherwise required by the Port Services Agreement or Section ~~12.11~~ of this ~~Undertaking~~[Framework](#), DBCT Management must not offer to enter into an Access Agreement for Annual Contract Tonnage which would result in Aggregate Annual Contract Tonnage of all Access Holders exceeding the Available System Capacity at a relevant time; and
- (5) **(Access Seeker may accept lesser tonnage if insufficient capacity for tonnage applied for)** where the process in Sections 5.4(c), 5.4(e) and 5.4(f) would have the effect of giving an Access Seeker a right to enter into an Access Agreement, except for the fact that there is insufficient Available System Capacity to meet that Access Seeker's Access Application in full, DBCT Management must inform that Access Seeker to that effect, and the Access Seeker may elect to require an Access Agreement for a lesser tonnage consistent with Available System Capacity from time to time during the period originally applied for (subject to the other terms of this ~~Undertaking~~[Framework](#)), with the balance of the Annual Contract Tonnage originally applied for remaining the subject of the Access Application.

(Conditional Access Agreements)

- (j) **(Entry into an Access Agreement conditional on Terminal Capacity Expansion)** The following process will apply in relation to the entry into Access Agreements that are conditional, wholly or partly, on a Terminal Capacity Expansion (**Conditional Access Agreement**):
- (1) When the Aggregate Annual Contract Tonnage sought within the next 5 years by Applicants in a Queue cannot be met from Available System Capacity, such that a Terminal Capacity Expansion may be justified, DBCT Management will invite an offer from each Applicant in the Queue to enter into a Conditional Access Agreement.
 - (2) Unless otherwise specified in a Conditional Access Agreement, the date for commencement of Access under a Conditional Access Agreement will be the date on which the Terminal Capacity Expansion is Complete and operating, and DBCT Management notifies Access Seekers in accordance with Section ~~12.11.1~~(l) or ~~12.11.1~~(q), as applicable, on which date the Conditional Access Agreement will take effect as an Access Agreement.

- (3) In response to an invitation from DBCT Management given under Section 5.4(j)(1), any Access Seeker may make an offer to enter into a Conditional Access Agreement that may be (but need not be) subject to a condition precedent which relates to:
- (A) **(Conditional on Terminal Capacity Expansion)** the triggering of an obligation by DBCT Management to perform a specified Terminal Capacity Expansion with a specified estimated cost within a specified estimated timeframe;
 - (B) **(Conditional on other System elements)** DBCT Management being reasonably satisfied that a Service Provider (other than DBCT Management), Access Holder, Access Seeker or other relevant entity has committed or will commit, subject only to conditions which are customary for that Service Provider and an expansion of that nature, to providing an expansion of a relevant part of the System which is necessary to create sufficient Available System Capacity; and/or
 - (C) **(Conditional on Section 5.4(o) being satisfied)** DBCT Management being reasonably satisfied that the Access Seeker's Access Rights are matched by an entitlement held by the Access Holder or a person on its behalf to rail infrastructure access rights relating to the coal the subject of the Conditional Access Agreement.

The following provisions relate to any such offer:

- (4) **(Invitation to each Access Seeker)** DBCT Management must give the same notice **(Expansion Notice)** at the same time to each Access Seeker in the Queue, inviting them to submit to DBCT Management (by way of offer to DBCT Management) two signed copies of such a Conditional Access Agreement consistent with their Access Application (except that it may be for a lower tonnage or shorter term than originally requested provided there is a bona fide commercial reason for seeking such lower tonnage or shorter term) on the terms of the Standard Access Agreement or on any other terms which DBCT Management has notified the Access Seeker would be acceptable to DBCT Management, and subject to the condition precedent referred to above.
- (5) **(Position in Queue may be lost by not offering a Conditional Access Agreement)** Any Access Seeker that does not, within 3 months after DBCT Management gives the Access Seeker an Expansion Notice, deliver to DBCT Management a signed Conditional Access Agreement in accordance with the Expansion Notice:
- (A) may, subject to Section 5.4(j)(6), be removed by DBCT Management from the Queue, in which case the Access Seeker's Access Application will be taken to have been rejected and the Access Application negotiation process for that Access Seeker will be discontinued; or
 - (B) will not, if DBCT Management does not remove the Access Seeker from the Queue, lose its place in the Queue (although if DBCT Management executes a Conditional Access Agreement offered by any other Access Seeker pursuant to this Section 5.4(j), that Access Seeker will, subject to Section 5.4(j)(11), no longer be in the Queue in respect of the Tonnage the subject of that Conditional Access Agreement) and the Access Application negotiation process for the Access Seeker will otherwise continue in accordance with Section 5 of this ~~Undertaking~~ [Framework](#).

- (6) **(Considerations regarding removal from Queue)** In considering whether to remove an Access Seeker from the Queue under section 5.4(j)(5)(A), DBCT Management will have regard to the extent to which the additional Annual Contract Tonnage that will be facilitated by the contemplated Terminal Capacity Expansion is reasonably required to provide the Access rights sought by the Access Seeker.
- (7) **(Amendments to Access Application)** Except as provided in Section 5.4(k)(5), an Access Seeker may not amend its Access Application during the 40 Business Day period which commences on the date the Access Seeker receives an Expansion Notice.
- (8) **(Acceptance of offers in order of priority in Queue)** If, during the 3 month period following the giving of an Expansion Notice one or more of the Access Seekers in the Queue:
- (A) delivers to DBCT Management such signed copies of a Conditional Access Agreement; and
 - (B) provides any Security required by DBCT Management (or the circumstances in Section 5.4(j)(9) apply),

DBCT Management will then give priority to the Access Seeker so doing which has the highest ranking in the Queue and (subject to there being sufficient Available System Capacity should the Terminal Capacity Expansion the subject of the condition precedent proceed) will execute their Conditional Access Agreement. DBCT Management will then repeat the process down the Queue with each successive Access Seeker (if any) which has delivered such a signed Conditional Access Agreement and any relevant Security during the 3 month period.

- (9) **(Issues with provision of Security requested)** If an Access Seeker is unable to provide the Security required by DBCT Management within the 3 month period referred to in Section 5.4(j)(8) (or, by the fifth Business Day of the 3 month period referred to in Section 5.4(j)(8), the Access Seeker disputes DBCT Management's entitlement to the Security requested), the Conditional Access Agreement to be executed will be modified so that it is a further condition precedent to it becoming effective that such Security is provided to DBCT Management within 20 Business Days after the Execution Date (or, if so disputed, a Security which the ~~QCA~~[Independent Expert](#) determines to be fair is provided within 20 Business Days after the ~~QCA~~[Independent Expert](#) makes that determination), and the "Effective Date" will be adjusted accordingly.
- (10) **(Termination if condition precedent not fulfilled)** Each Conditional Access Agreement referred to in Section 5.4(j)(4) and 5.4(j)(8) (as applicable) must be on the basis that it will terminate if a relevant condition precedent referred to in Section 5.4(j)(3)(A) or 5.4(j)(3)(B) is not fulfilled within a reasonable period from the date of execution of the Conditional Access Agreement (which will not be less than 3 months). However, DBCT Management and an Access Seeker can agree to extend this period from time to time, as long as an extension for the same period has been offered by DBCT Management to all Access Seekers who have such condition precedent.

- (11) **(Access Seeker rejoins Queue if Conditional Access Agreements terminate)** If a Conditional Access Agreement referred to in Section 5.4(j)(8) terminates because:
- (A) a condition precedent referred to in Section 5.4(j)(3)(A) or 5.4(j)(3)(B) has not been fulfilled within the reasonable period nominated (or any extended period as agreed between DBCT Management and each Access Seeker in accordance with Section 5.4(j)(10)), the relevant Access Seekers will resume their respective positions in the Queue as if the Access Seekers had never signed the Conditional Access Agreements; or
 - (B) a condition precedent that requires the Access Seeker to provide Security (as referred to in Section 5.4(j)(9)) is not fulfilled, DBCT Management may exercise its discretion to remove that Access Seeker from the Queue in accordance with Sections 5.4(j)(5) and 5.4(j)(6) and, if so removed, the negotiation process for that Access Seeker in respect of the Terminal Capacity Expansion will be discontinued.
- (12) **(Reductions in contracted tonnage if estimated expansion of Terminal Capacity not achieved)** Each Conditional Access Agreement will include a provision entitling DBCT Management to re-determine Terminal Capacity and Expansion Component Capacity in accordance with Section ~~12.1~~11.1(k) and to proportionately reduce the Annual Contract Tonnage allocated under the Conditional Access Agreement to the Access Seeker, subject to the following rules:
- (A) in relation to Socialised Terminal Capacity-, if the capacity at the Existing Terminal determined by DBCT Management in accordance with Section ~~12.1~~11.1(k)(2) is less than the estimation of aggregate (expanded) capacity at the Existing Terminal made at the time of entry into the Conditional Access Agreement, then DBCT Management will proportionately reduce the Annual Contract Tonnage in all Conditional Access Agreements so that the aggregate Tonnage of all Conditional Access Agreements is equal to the additional capacity at the Existing Terminal determined in accordance with Section ~~12.1~~11.1(k) after the deduction of capacity required to eliminate any shortfall between aggregate Annual Contract Tonnes and capacity at the Existing Terminal which existed prior to the Terminal Capacity Expansion (see Section 5.4(k)(3)).
 - (B) unless otherwise agreed with participating Access Seekers, in relation to a Differentiated Expansion Component, any Differentially Priced Capacity will be allocated to meet the full entitlements of Access Seekers as set out under relevant Conditional Access Agreements.
- (13) **(Reduced Tonnes revert to Queue)** If DBCT Management reduces the Annual Contract Tonnage allocated under a Conditional Access Agreement in accordance with Section 5.4(j)(12), then - in respect of those number of Tonnes which are reduced - an Access Seeker which has had its Tonnes reduced will be:
- (A) placed equal first in the Queue with any other Access Seekers whose Tonnes have been reduced following the Terminal Capacity Expansion; and
 - (B) taken not to have signed the relevant Conditional Access Agreement in respect of those Tonnes.

- (14) **(Section 5.4(o) not affected)** Nothing in this Section 5.4(j) is to be construed as limiting or in any way being contrary to the principle of Handling of Annual Contract Tonnage only being able to be availed of to the extent of matching rail access entitlement, in Section 5.4(o).

(Overriding principles)

(k) Despite any other provision of this Section 5.4:

- (1) **(Existing Access Applications transitioned)** Any outstanding Access Application lodged by an Access Seeker under the ~~access undertaking~~ 2017 Access Undertaking which applied prior to this ~~Undertaking~~ Framework will (for the purpose only of determining priority of lodgement and therefore priority in the Queue) be deemed to have been an Access Application lodged under this ~~Undertaking~~ Framework, as if this ~~Undertaking~~ Framework had commenced on the date that the first such Access Application was lodged;
- (2) **(Application for extension of term has priority)** An Access Application to extend the term of an Access Agreement (to the extent that it does not increase the relevant Annual Contract Tonnage) to accord with a bona fide re-estimation of the life of a mine will have precedence over an Access Application for new tonnage;
- (3) **(Terminal Capacity Expansion allocated first to eliminate shortfalls in capacity below already contracted tonnage)** If a Terminal Capacity Expansion is being Socialised, then the additional Terminal Capacity which results from that Terminal Capacity Expansion (determined in accordance with Section ~~12.1~~ 11.1(k)) will be:
 - (A) firstly utilised to eliminate shortfalls in Annual Contract Tonnages under existing Access Agreements; and
 - (B) only thereafter allocated to Annual Contract Tonnages under Conditional Access Agreements entered into in respect of that Terminal Capacity Expansion and proportionately reduced in accordance with Section 5.4(j)(12).
- (4) **(Allocation of Differentially Priced Capacity)** Differentially Priced Capacity will be utilised to meet Annual Contract Tonnages under Access Agreements entered into by the Access Seekers in respect of the relevant Differentiated Expansion Component. Consequently, Access Seekers who are not Differentially Priced Access Seekers in respect of that Differentiated Expansion Component will have no entitlement to have that Differentially Priced Capacity utilised to eliminate shortfalls in Annual Contract Tonnages under their Access Agreements.
- (5) **(Alternative arrangements in some cases if they achieve greater utilisation)** If, in a particular case, the strict application of the process set out in this Section 5.4 would result in a materially greater amount of Available System Capacity not being able to be utilised than could otherwise be the case if an alternative process is followed, then (in the interests of maximising coal exports from Queensland) DBCT Management may, ~~with the approval of the QCA,~~ enter into one or more Access Agreements in accordance with that alternative process.
- (l) **(Options to extend term taken into account)** For the purpose of this Section ~~5.4~~ 5.4, an Access Holder which has an option to extend the term of its Access Agreement or Existing User Agreement will initially be deemed to have exercised that option, when determining whether or not a Queue exists or needs to be formed in relation to a new

Access Application. However, if DBCT Management has the right to do so, it may, on each occasion in which a Queue is formed or re-formed, endeavour to have the exercise of that option brought forward or waived (in the latter case with the intention that one or more waivers may result in the Queue no longer existing).

- (m) **(Other provisions of ~~Undertaking~~ [Framework](#) not limited)** Nothing in this Section 5.4 will be taken to limit or be contrary to:
- (1) any right DBCT Management has pursuant to Section 5.8; or
 - (2) any rights or obligations of DBCT Management in Section ~~12.11~~ [12.11](#) relating to the expansion of the Terminal (in particular the principle of new Access Agreements only being entered into consistently with anticipated System Capacity).
- (n) **(Disclosure of certain Access Application details)** DBCT Management may at any time and from time to time disclose to any person the aggregate tonnage which is the subject of Access Applications but, except as:
- (1) required by law;
 - (2) consented to by the relevant Access Seeker;
 - (3) reasonably necessary or desirable in relation to planning for operation of the Terminal; or
 - (4) reasonably required to be disclosed to a rail infrastructure provider to assist in development of the System Master Plan,

DBCT Management will not disclose details of an Access Application (including details of the Access Seeker).

- (o) **(Entitlement to have Annual Contract Tonnage Handled must be matched by below rail access)** Despite any other provision in this ~~Undertaking~~ [Framework](#), DBCT Management must not enter into an Access Agreement with an Access Seeker unless it contains Clause 11.5 of the Standard Access Agreement (under which the Access Holder is not entitled to have its Annual Contract Tonnage Handled at the Terminal, to the extent and for such period as, the Access Holder has not demonstrated to the reasonable satisfaction of DBCT Management that that Annual Contract Tonnage is matched by an entitlement held by the Access Holder or a person on its behalf to railway track access relating to the coal the subject of the Access Agreement).
- (p) **(Notification of Differentially Priced Capacity)** Promptly following Completion of a Differentiated Expansion Component, DBCT Management will notify all Expansion Parties, Access Seekers in the Queue and all Access Holders of the following:
- (1) the date of Completion;
 - (2) the Differentially Priced Capacity; and
 - (3) if any Tonnage associated with the Differentiated Expansion Component is uncontracted and, if so, the Tonnage which is available for Access Seekers.
- (q) **(Formation of a Differentiated Queue)** If at any time there are two or more current Access Applications received in respect of Differentially Priced Capacity and there is or will be insufficient System Capacity associated with Differentially Priced Capacity which is available at any relevant time to accommodate an increase in Handling of coal applied for in all of those Access Applications, a new queue will form in respect of the Differentially Priced Capacity (the **Differentiated Queue**).
- (r) **(Queuing Principles for a Differentiated Queue)** DBCT Management will manage any Differentiated Queue in accordance with the following principles:

- (1) DBCT Management will apply the same general rules for priority as apply with respect to the Queue, under this Section ~~5.4~~5.4.
 - (2) Access Seekers must specify which queue they wish to join when applying for Access (the Queue or a Differentiated Queue).
 - (3) Access Seekers may be in both the Queue and a Differentiated Queue separately and simultaneously under different Access Applications.
 - (4) Where capacity becomes available in either the Queue or a Differentiated Queue (but not both queues), DBCT Management will invite all Access Seekers in the relevant queue to submit a signed Access Agreement in the priority order of the relevant queue.
- (s) **(Commercial discretion of DBCT Management where Access Application involves both queues)** Where Available System Capacity relies on Terminal Capacity that comprises both Socialised Capacity and Differentially Priced Capacity, DBCT Management will invite Access Seekers in both the Queue and the Differentiated Queue to submit a relevant signed Access Agreement in accordance with the queuing principles in this Section ~~5.4~~5.4.
- (t) **(Reordering of queues applying commercial discretion)** If, having obtained signed Access Agreements from Access Seekers in respect of Available System Capacity under Section 5.4(s), DBCT Management determines that the most efficient use of Available System Capacity is to contract with the same Access Seeker in respect of both Socialised Terminal Capacity and Differentially Priced Capacity, it may accept a signed Access Agreement other than in the order of the relevant queue, provided that, prior to accepting such signed Access Agreement and subject to Section 5.4(u), DBCT Management:
- (1) has notified all other Access Seekers in each Queue of:
 - (A) its intention to reorder one or both queues; and
 - (B) any commercial principles which it intends to apply when reordering one or both queues; and
 - (2) has provided all Access Seekers with a reasonable opportunity to respond; and
 - (3) is satisfied (acting reasonably), based on any responses received from Access Seekers and applying those commercial principles, that there is no Access Seeker which is higher in either queue that is prepared to contract on an equivalent basis.
- For this purpose, any commercial principles must operate as between Access Seekers strictly on a non-discriminatory basis.
- (u) **(Dispute in relation to reordering of a queue)**
- (1) An Access Seeker may refer any dispute in relation to reordering of a queue under Section 5.4(t) as a Dispute under Section ~~17~~16.
 - (2) If a Dispute is raised in respect of any reordering of a queue, DBCT Management will not enter into any relevant Access Agreement under Section 5.4(t) unless and until the Dispute is withdrawn or determined and in accordance with any such determination.

5.5 Indicative Access Proposal

- (a) **(Timing for Indicative Access Proposal)** As soon as practicable and in any event within 20 Business Days following receipt of an Access Application (or, if additional

information has been requested by DBCT Management under Section ~~5.3~~5.3, within 20 Business Days of receipt of all of the additional information requested), DBCT Management must use its reasonable endeavours to provide the relevant Access Seeker with a response containing proposed terms and conditions of Access (**Indicative Access Proposal**).

- (b) **(Notice of additional time needed by DBCT Management)** If it is not reasonable to provide an Indicative Access Proposal within 20 Business Days of receipt of an Access Application (or, if applicable, the additional information requested under Section 5.3), DBCT Management must, as soon as practicable, but in any event, within 20 Business Days, advise the relevant Access Seeker of its estimate of the extra time required to deliver the Indicative Access Proposal.
- (c) **(Dispute by Access Seeker as to need for additional time)** If the Access Seeker is of the opinion that the estimate of extra time for preparation of the Indicative Access Proposal is excessive, then the Access Seeker may refer the matter for ~~dispute resolution in accordance with Section 17 of this Undertaking~~Expert Determination. DBCT Management must use reasonable efforts to provide the Indicative Access Proposal within the estimated time period provided by DBCT Management or as otherwise determined by the ~~QCA~~Independent Expert.
- (d) **(Content of Indicative Access Proposal)** The Indicative Access Proposal must set out: **[Drafting Note: This paragraph (d) and (e) will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]**
- (1) an indicative assessment as to whether there is sufficient Available System Capacity at all relevant times (having regard amongst other things to outstanding Access Applications in a Queue) to accommodate the Access Application;
 - (2) advice in respect of the existence of (but not the identity of) other Access Seekers who have already submitted an Access Application and the aggregate tonnage profile(s) requested in those Access Applications;
 - (3) the Standard Access Agreement or a draft access agreement where the Access Application contemplates Access on non-Reference Terms;
 - (4) the expiry date of the Indicative Access Proposal, which will be 30 Business Days following the date the Access Seeker receives the Indicative Access Proposal (should there be no notification by the Access Seeker pursuant to Section 5.6 that the Indicative Access Proposal has not been prepared in accordance with the ~~Undertaking~~Framework);
 - (5) if there is sufficient Available System Capacity to accommodate the Access Application, advice to that effect, and:
 - (A) an initial assessment of the Pricing Method applicable to the Access sought (including reasons), having regard to any planned or reasonably expected Terminal Capacity Expansion that is required, relevant QCA rulings and the Expansion Pricing Principles;
 - (B) an initial (alternative) estimate(s) of the Access Charge(s), including an estimate of current and, where reasonable to provide such estimate, prospective Access Charges, for the requested Services in the Access Application based on:
 - (i) the initial assessment of the applicable Pricing Method; and

- (ii) where provision of any of the Access sought depends upon completion of a Terminal Capacity Expansion, the Pricing Method for which has not yet been determined by the QCA, the alternative Pricing Method,
 - with the Non-Expansion Costs being allocated in accordance with Section ~~11.11~~ [10.11](#) for any estimates related to a Differentiated Expansion Component;
 - (C) the current Terminal Master Plan and System Master Plan;
 - (D) details of any additional information required by DBCT Management to progress the Access Application and develop the terms and conditions for acceptance; and
 - (E) details of any security, guarantee, other support or other information required by DBCT Management to establish the solvency and creditworthiness of the Access Seeker and, where DBCT Management requires, its guarantor; and
- (6) if there is insufficient Available System Capacity (as determined by reference to the assessment of System Capacity undertaken prior to the time of giving the indicative assessment) to accommodate the Access Application, advice to that effect, and:
 - (A) reasonable particulars as to why this circumstance prevails;
 - (B) an estimate of what the Available System Capacity is at relevant times;
 - (C) whether a Queue has been formed in accordance with Section 5.4 of this ~~Undertaking~~ [Framework](#) (including as a result of the relevant Access Application);
 - (D) an initial assessment of the Pricing Method applicable to the Access sought (including reasons) having regard to any planned or reasonably expected Terminal Capacity Expansions, relevant QCA rulings and the Expansion Pricing Principles;
 - (E) where reasonable, an estimate of prospective Access Charges for the requested Services in the Access Application based on:
 - (i) the initial assessment of the applicable Pricing Method; and
 - (ii) the alternative Pricing Method,
 - with the Non-Expansion Costs being allocated in accordance with Section ~~11.11~~ [10.11](#) for any estimates related to a Differentiated Expansion Component; and
 - (F) a copy of the System Master Plan and an indicative timetable for any expansion of System Capacity which may be undertaken (if any).
- (e) **(Best Endeavours estimate of Access Charges)** In estimating the applicable Pricing Method(s) and resulting Access Charges for the purpose of this Section ~~5,5~~ [5,5](#), DBCT Management shall use its best endeavours to provide an accurate assessment, having regard to all available information.
- (f) **(Indicative Access Proposal not binding on DBCT Management)** The Indicative Access Proposal will, unless it contains specific conditions to the contrary, contain indicative arrangements only and does not oblige DBCT Management to provide Access.

- (g) **(Access Seeker may dispute time-frame)** If, after 20 Business Days following DBCT Management's acknowledgment of the Access Application, the Access Seeker believes that DBCT Management is not making reasonable progress in the preparation of the Indicative Access Proposal, the Access Seeker may refer the matter for dispute resolution in accordance with Section ~~17~~16 of this ~~Undertaking~~Framework.
- (h) **(Where Terminal Capacity Expansion is needed to satisfy an Access Application)** Where there is not sufficient Available System Capacity to accommodate the Access Application and the Access Seeker wishes to continue the negotiation process provided for in this Section ~~5~~5, such negotiations may continue on the basis that a Terminal Capacity Expansion may be undertaken in accordance with Section ~~12~~11 of this ~~Undertaking~~Framework which (whether with or without any relevant expansion of other components of the System) is estimated to provide sufficient Available System Capacity. In this case, if DBCT Management is unable to comply with the timeframes specified in Section 5 of this ~~Undertaking~~Framework, it will advise the Access Seeker of the estimated timeframes. If the Access Seeker does not believe the proposed timetable is reasonable or that DBCT Management is not making reasonable progress, it may refer the matter to dispute resolution in accordance with Section ~~17~~16 of this ~~Undertaking~~Framework.

5.6 Response to Indicative Access Proposal

- (a) **(Access Seeker's response)** If the Access Seeker intends to progress its Access Application on the basis of the arrangements set out in the Indicative Access Proposal, it must notify DBCT Management of its intention to do so within 30 Business Days of the date it receives the Indicative Access Proposal. If the Access Seeker does not notify DBCT Management of its intention before the expiry date of the Indicative Access Proposal, its Access Application will be deemed to have lapsed and it may apply again for Access in accordance with Section 5.2 (unless a longer period for notification is agreed between the parties).
- (b) **(DBCT Management to expedite any replacement Access Application)** If an Access Application lapses but the Access Seeker lodges a replacement Access Application, DBCT Management will endeavour in good faith to expedite the steps leading to the issue of a new Indicative Access Proposal.
- (c) **(Notice of non-complying Indicative Access Proposal)** If the Access Seeker considers that the Indicative Access Proposal has not been prepared in accordance with Section 5.5 of this ~~Undertaking~~Framework, it must notify DBCT Management in writing within 20 Business Days of receipt of the Indicative Access Proposal, notice to that effect, setting out the reasons why the Access Seeker believes that the Indicative Access Proposal is inconsistent with Section 5.5 of this ~~Undertaking~~Framework.
- (d) **(Response to notice of non-compliance)** DBCT Management must use all reasonable efforts to respond to this notice, including, where appropriate, the making of revisions to the Indicative Access Proposal, within 20 Business Days of the notification under this Section ~~5.6~~5.6. If DBCT Management is unable to respond within this time period, it must notify the Access Seeker of the date on which it expects to be able to respond.
- (e) **(Dispute relating to Indicative Access Proposal)** If the Access Seeker is not satisfied with:
- (1) the response to the notice given under this Section; or
 - (2) DBCT Management's estimated date to respond to the notice,

the Access Seeker may seek to resolve the dispute in accordance with the dispute resolution procedure in Section ~~17.16~~16.

5.7 Negotiation process

- (a) **(Parties to negotiate if Access Seeker wishes to)** If the Access Seeker indicates its willingness to progress its Access Application under Section 5.6 (or otherwise, in the case of an Access Application of the type referred to in paragraph (b) of the definition of that term), then both parties must commence negotiations as soon as reasonably possible to progress towards an Access Agreement or a Conditional Access Agreement. The period for negotiation will commence on the date notified by the Access Seeker under Section 5.6 (or the date 5 Business Days after the commencement of the Term in the case of an Access Application referred to in paragraph (b) of the definition of that term, even if there have been discussions prior to that date) and end upon any of the following events:
- (1) execution of an Access Agreement or Conditional Access Agreement in respect of Access sought by the Access Seeker;
 - (2) written notification by the Access Seeker that it no longer wishes to proceed with its Access Application (at which time its Access Application will be deemed to have lapsed);
 - (3) DBCT Management issuing a Negotiation Cessation Notice to the Access Seeker in accordance with Section 5.8;
 - (4) the expiration of 6 months from the commencement of the negotiation period or, if both parties agree to an extension of the negotiation period, the expiration of the agreed extended term, provided that agreement to extend the negotiation period is not unreasonably withheld by either party;
 - (5) a reduction in Available System Capacity due to:
 - (A) another Access Seeker finalising an Access Agreement in accordance with this ~~Undertaking~~Framework, where that reduction in Available System Capacity adversely affects DBCT Management's ability to offer Access to the Access Seeker under the terms of the Indicative Access Proposal; or
 - (B) a sustained change in the System operating assumptions of one or more components of the Dalrymple Bay Coal Chain requiring re-determination of System Capacity under Section ~~12.1~~11.1, where that reduction in Available System Capacity adversely affects DBCT Management's ability to provide Access to the Access Seeker under the terms of the Indicative Access Proposal; or
 - (6) DBCT Management receiving— Notice from a Notifying Access Seeker in accordance with section 5.4(e), for the process contemplated by Section 5.4(f) to occur.
- (b) **(Review of Indicative Access Proposal)** In the event that the negotiation period is suspended for the reasons set out in Section 5.7(a)(5) or Section 5.7(a)(6), (and once the process- contemplated by Section 5.4(f) to Section 5.4(h) is complete, if applicable) DBCT Management must review the Indicative Access Proposal and prepare a revised Indicative Access Proposal in accordance with Section 5.5 and the negotiation process will recommence from the date this is provided to the Access Seeker.
- (c) **(Revisions to Access Application)** During the negotiation period, the Access Seeker may review and revise the information provided to DBCT Management in the Access

Application, provided that such revision does not substantially alter the nature of the Access rights sought by the Access Seeker and is not otherwise prohibited under Section 5.4(i)(3), 5.4(j)(7) or 5.10(h). If DBCT Management is reasonably of the view that an Access Seeker's revision of information provided to DBCT Management in the Access Application has substantially altered the nature of the Access rights sought by the Access Seeker, then subject to the following paragraph, DBCT Management will treat the revised information as a new Access Application, and the process set out in this Section 5 will recommence from that point. If the revision is for an increase in the annual tonnage required or a longer term, then only the additional annual tonnage or additional term (as applicable) will be taken to constitute the subject of a new Access Application.

- (d) **(Certain extensions of term do not create new Access Application)** If, in the case of an Access Application referred to in paragraph (b) of the definition of that term, the revision is for an increase in the term from 5 or more years, then the extended term will be treated as part of the original Access Application.
- (e) **(Reduction in tonnage applied for does not create new Access Application)** A reduction in tonnage or term will not, of itself, constitute a new Access Application pursuant to this paragraph if there is a bona fide commercial reason for such reduction.
- (f) **(Dispute relating to negotiation)** If at any time during the negotiation period a dispute arises between the parties that, after reasonable negotiations, the parties are unable to resolve to their mutual satisfaction, then either party may seek to resolve the dispute in accordance with the dispute resolution process set out in Section ~~17.16~~.
- (g) **(Negotiations to continue despite dispute)** To remove any doubt, the negotiation process and the obligations of the parties in that regard are to continue notwithstanding the commencement of a dispute resolution process pursuant to Section ~~17.16~~ of this ~~Undertaking~~Framework.

5.8 Negotiation Cessation Notice

- (a) **(Negotiation Cessation Notice)** At any time during the negotiation process under Section ~~5.7~~5.7, DBCT Management may give notice to an Access Seeker that it does not intend to enter into an Access Agreement with the Access Seeker (such notice being a Negotiation Cessation Notice), if:
 - (1) an Access Seeker does not comply with all of its material obligations contained in this ~~Undertaking~~Framework;
 - (2) DBCT Management is reasonably of the opinion that there is no reasonable likelihood that the Access Seeker will comply with the material terms and conditions of an Access Agreement;
 - (3) DBCT Management is reasonably of the opinion that the Access Seeker has no genuine intention of gaining Access, or has no reasonable likelihood of utilising Access, at the level of capacity sought;
 - (4) DBCT Management is reasonably of the opinion that the Access Seeker or its guarantor is not or is likely not to be reputable or of good financial standing;
 - (5) except where the ~~expert is in~~decision of an Independent Expert contains manifest error, the Access Seeker does not materially comply with a decision of ~~an expert~~the Independent Expert pursuant to Section ~~17.3~~16.3; or

- (6) an Access Seeker does not materially comply with a decision of the ~~QCA~~Arbitrator pursuant to Section ~~17.4~~16.4.
- (b) **(Negotiation Cessation Notice to include reasons)** A Negotiation Cessation Notice must identify the reasons for DBCT Management's decision not to enter into an Access Agreement with the Access Seeker.
- (c) **(Examples of no reasonable likelihood of compliance)** ~~Without limitation, it~~It will be reasonable for DBCT Management to form the view that circumstances in Section 5.8(a)(2) or 5.8(a)(4) apply if:
- (1) the Access Seeker is Insolvent;
 - (2) the Access Seeker, or a Related Body Corporate of the Access Seeker, is currently or has in the previous two years been in material default of any Access Agreement (which has not been promptly rectified), Existing User Agreement or any other agreement where its performance under that agreement is relevant to the Access Seeker's likely performance under an Access Agreement; or
 - (3) the Access Seeker or a proposed provider of Security fail to establish their solvency and creditworthiness in accordance with Section ~~5.9~~5.9.
- (d) **(Dispute as to Negotiation Cessation Notice)** If the Access Seeker reasonably considers that DBCT Management has improperly given it a Negotiation Cessation Notice, then (provided that Section 5.8(c)(1), 5.8(c)(2) or 5.8(c)(3) do not apply) the Access Seeker may refer the matter to dispute resolution in accordance with Section ~~17~~16. If the resolution of the dispute is in favour of the Access Seeker, DBCT Management must re-commence negotiations with that Access Seeker.
- (e) **(Recovery of costs of DBCT Management)** Subject to any dispute on the matter being otherwise determined, DBCT Management may recover its reasonable costs incurred in negotiations with the Access Seeker where it ceases negotiations in accordance with a Negotiation Cessation Notice validly issued under this Section ~~5.8~~5.8. The Access Seeker may refer a Dispute about the recovery of these costs to dispute resolution in accordance with Section ~~17~~16 of this ~~Undertaking~~Framework.

5.9 Creditworthiness of Access Seeker

- (a) **(Access Seeker to be creditworthy)** DBCT Management:
- (1) may remove from the Queue; and
 - (2) regardless of whether the relevant Access Seeker has been removed from the Queue by DBCT Management, will not be required to enter into an Access Agreement or proceed with an Access Application with,

an Access Seeker which is or has become Insolvent or which, after DBCT Management's reasonable request, fails within a reasonable period to establish or confirm its likely creditworthiness for the term of the Access Agreement required, or to provide adequate Security from another entity which establishes or confirms its likely creditworthiness for the term of the Access Agreement required.
- (b) **(Information as to solvency)** To confirm the solvency and creditworthiness of an Access Seeker and, where DBCT Management requires, the provider of a Security, the Access Seeker will provide such information as may be reasonably requested by DBCT Management to establish that solvency and creditworthiness.
- (c) **(Provision of Security)** If an Access Seeker or, where DBCT Management requires, its Security provider, is unable to establish their solvency and creditworthiness in their own right, creditworthiness may be established by the Access Seeker and Security

provider by providing further Security (as reasonably required by DBCT Management), for example (but not limited to) any one or more of:

- (1) letters of credit;
 - (2) tripartite agreements with project financiers; and
 - (3) guarantees or security from entities with a Standard and Poors or Moodys rating of not less than investment grade.
- (d) **(Access Agreement may permit Security to be required)** For clarification, nothing in this Section 5.9 limits the rights of DBCT Management under an Access Agreement to require Security (or additional Security) after the commencement of an Access Agreement in accordance with the terms of that Access Agreement.

5.10 Funding of feasibility studies

[Drafting Note: Consequential amendments to this clause 5.10 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

- (a) **(Funding of System Capacity studies)** If DBCT Management is required to undertake a System Capacity assessment under Section ~~12.1~~11.1 which is not otherwise funded as part of feasibility studies for an Expansion Component under this Section ~~5.10~~5.10, DBCT Management may recover the reasonable costs of such assessment as attributable to the Existing Terminal through NECAP. DBCT Management will consult with and make available the results of all capacity assessments undertaken in accordance with Section ~~12.1~~11.1 to all Access Holders and Expansion Parties, including separately identifying:
- (1) the assessed capacity of the Existing Terminal;
 - (2) the projected capacity of a Terminal Capacity Expansion, including, if relevant, the projected capacity of a Differentiated Expansion Component; and
 - (3) the Expansion Component options being considered in any feasibility studies under this Section ~~5.10~~5.10.
- (b) **(Request for Access Applicants to Fund Feasibility Studies)** If DBCT Management, acting reasonably, concludes that the Aggregate Annual Contract Tonnages applied for in Access Applications lodged with it, together with all other relevant circumstances, justify the undertaking of a study to determine the feasibility of a relevant Terminal Capacity Expansion then DBCT Management may, subject to Section 5.10(c), give Access Applicants in the Queue a notice requesting that they enter into a Funding Agreement or Underwriting Agreement with DBCT Management. DBCT Management may not make such a request unless a Funding Agreement or Underwriting Agreement (as applicable) has been made and published on the ~~QCA~~DBCT Management's website in accordance with Section 5.10(q)(9)(A).
- (c) **(Notices will be given simultaneously)** DBCT Management will, in giving notices under Section 5.10(a), give such notices to all Access Applicants in the Queue, as relevant to the contemplated increase in Annual Contract Tonnage which would be facilitated by the Terminal Capacity Expansion under consideration, on or about the same date.
- (d) **(Requests to be proportionate to tonnages applied for)** DBCT Management will request that any funding or underwriting of the feasibility study or feasibility studies referred to in Section 5.10(a) pursuant to a Funding Agreement or Underwriting Agreement (as applicable) be proportionate amongst the relevant participating Access Applicants, according to the respective Aggregate Annual Contract Tonnages

requested in their Access Applications over the first 10 years of Handling under the Conditional Access Agreement applied for by them.

- (e) **(Order of responses to notices)** DBCT Management must, in dealing with responses from Access Applicants to notices given by DBCT Management under Section 5.10(a), start with the response given by the Access Applicant that has the highest ranking in the Queue and proceed to the response given by each successive Access Applicant in order of their respective ranking in the Queue.
- (f) **(Position in Queue may be lost to subsequent Applicants)** If an Access Applicant is requested by DBCT Management to enter into a Funding Agreement or Underwriting Agreement but the Access Applicant:
- (1) declines to do so;
 - (2) fails to enter into a Funding Agreement or Underwriting Agreement (as applicable) with DBCT Management on such terms as DBCT Management reasonably requires within 3 months after being requested by DBCT Management to do so; or
 - (3) does not provide security required by DBCT Management in connection with the Funding Agreement or Underwriting Agreement (as applicable) within 3 months after being requested by DBCT Management to do so,
- (such an Access Applicant being a **Non-Funding Access Applicant**) then:
- (4) DBCT Management may, subject to Section 5.10(g), remove the Non-Funding Access Applicant from the Queue, in which case the Non-Funding Access Applicant's Access Application will be taken to have been rejected; or
 - (5) if DBCT Management does not remove the Non-Funding Access Applicant from the Queue, then to the extent that any Access Applicant after the Non-Funding Access Applicant in the Queue within 3 months thereafter:
 - (A) enters into a Funding Agreement or Underwriting Agreement with DBCT Management; and
 - (B) provides security required by DBCT Management in relation to the Funding Agreement or Underwriting Agreement (as applicable) of at least the aggregate amount that is required by DBCT Management to fund or underwrite the study referred to in Section 5.10(a) in the proportion to which the tonnage applied for by an Access Applicant bears to the aggregate additional Annual Contract Tonnage that will be facilitated by the contemplated Terminal Capacity Expansion,

those subsequent Access Applicants will, from the date on which they are legally committed to provide or underwrite such feasibility funding and provide security under the Funding Agreement or Underwriting Agreement (as applicable), have priority in the Queue ahead of the Non-Funding Access Applicant.
- (g) **(Considerations regarding removal from Queue)** In considering whether to remove an Access Seeker from the Queue under section 5.10(f)(4), DBCT Management will have regard to the extent to which the additional Annual Contract Tonnage that will be facilitated by the contemplated Terminal Capacity Expansion is reasonably required to provide the Access rights sought by the Access Seeker.
- (h) **(Amendments to Access Application)** An Access Seeker may not amend its Access Application during the 3 month period which commences on the date the Access Seeker receives a notice from DBCT Management under Section 5.10(b).

- (i) **(Priorities restored if feasibility study does not proceed)** If an Access Applicant obtains a higher priority in the Queue as a result of Section 5.10(f), and DBCT Management elects not to proceed with the relevant feasibility study, then the relevant Access Applicant will again have the same priority in the Queue as it had as if Section 5.10(f) did not apply.
- (j) **(Clarifications)** Nothing in this Section 5.10:
- (1) requires DBCT Management to proceed with a FEL 1 Feasibility Study, FEL 2 Feasibility Study or FEL 3 Feasibility Study (as the case may be) unless it secures a Funding Agreement or Underwriting Agreement in respect of the full cost of that feasibility study from one or more Access Seekers;
 - (2) prohibits an Access Seeker from providing more than its required proportion in respect of any funding or underwriting requested for Feasibility Studies (but providing a greater proportion does not in itself entitle that Access Seeker to any additional tonnage under an Access Agreement); or
 - (3) is to be taken as limiting the obligations of DBCT Management in Section ~~12~~11.
- (k) **(Disputes relating to requests for Feasibility Funding)** If any Access Applicant considers that the terms of the Funding Agreement, Underwriting Agreement or the amount or type of security required in connection with the Funding Agreement or Underwriting Agreement requested by DBCT Management pursuant to Sections 5.10(b) and 5.10(d) are not reasonable, it may within 3 months after being requested to enter into a Funding Agreement or Underwriting Agreement and to provide security, ~~make application to the QCA~~ apply for Expert Determination to determine what is reasonable, and in such event:
- (1) the determination of the ~~QCA~~ Independent Expert as to what is reasonable will apply in respect of what DBCT Management can require from each Access Applicant; and
 - (2) the period of 3 months in Section 5.10(f) will become a period ending 15 days after the ~~QCA~~ Independent Expert notifies its determination.
- The terms of a Funding Agreement or Underwriting Agreement will be reasonable to the extent that they are consistent with the terms of the Funding Agreement or Underwriting Agreement (as applicable), or is otherwise approved by the ~~QCA~~ Independent Expert in accordance with Section 5.10(q).
- (l) **(FEL 3 Feasibility Funding)** If DBCT Management having completed a FEL 1 Feasibility Study and FEL 2 Feasibility Study, acting reasonably and consistently with prudent business practice concludes that Aggregate Annual Contract Tonnage applied for in one or more Access Applications lodged with it, together with all other relevant circumstances, justify it undertaking a FEL 3 Feasibility Study, DBCT Management may, at its own cost, undertake a FEL 3 Feasibility Study. For clarity, if DBCT Management undertakes to independently fund a FEL 3 Feasibility Study this will not affect the entitlement of any Funding Access Seekers (which funded the relevant FEL 1 Feasibility Study and FEL 2 Feasibility Study) to continue to participate in any subsequent Expansion Component.
- (m) **(Transitional arrangements for previous funding)** If at the Commencement Date DBCT Management is undertaking a FEL 1 Feasibility Study or FEL 2 Feasibility Study in respect of a relevant proposed Terminal Capacity Expansion, DBCT Management may (by giving not less than 14 days written notice) give Access Applicants in the Queue a

notice requesting that they enter into a Funding Agreement or Underwriting Agreement with DBCT Management in which case:

- (1) Sections 5.10(d), 5.10(e), 5.10(f), 5.10(g), 5.10(i) and 5.10(k) apply (with such modifications as the circumstances require); and
 - (2) if the Feasibility Study being undertaken at the Commencement Date is a FEL 2 Feasibility Study, the Funding Agreement and Underwriting Agreement will apply to the FEL 2 Feasibility Study and the FEL 1 Feasibility Study which preceded the FEL 2 Feasibility Study.
- (n) **(Credit for prior Funding, and refunds)** If an Access Seeker has provided funding for a Feasibility Study referred to in Section 5.10(m) prior to the Commencement Date, the amount funded will be deemed to be a contribution to the funding requested under Section 5.10(m). To the extent that an Access Seeker has contributed funds (as opposed to underwriting the funding) prior to the Commencement Date in excess of the funds required to be contributed under Section 5.10(m)- DBCT Management may elect to refund to that Access Seeker such excess funding or credit it towards any further contribution to a Feasibility Study required or agreed to be paid by that Access Seeker.
- (o) **(Contributions to Funding of Feasibility Studies by DBCT Management)** DBCT Management may at its discretion elect to itself bear, or be required under law or by the Port Services Agreement to itself fund, all or part of the costs of a FEL 1 Feasibility Study, FEL 2 Feasibility Study or FEL 3 Feasibility Study which one or more Access Applicants do not fund or underwrite in accordance with a Funding Agreement or Underwriting Agreement (as applicable). Nothing in this Section 5.10(o) affects:
- (1) DBCT Management's rights to apply to have such sum included in the relevant Regulated Asset Base if the relevant proposed Terminal Capacity Expansion proceeds;
 - (2) DBCT Management's right to apply to have such sum (but not exceeding 20% of the prudent cost of the FEL 1 Feasibility Study or FEL 2 Feasibility Study (as relevant)) included in the relevant Regulated Asset Base on a Review Event if the proposed Terminal Capacity Expansion does not proceed;
 - (3) DBCT Management's rights to apply to have such sum included in the relevant Regulated Asset Base if DBCT Management is required by Section ~~12.11~~ 12.11 of this ~~Undertaking~~ Framework to investigate or undertake a Terminal Capacity Expansion; or
 - (4) DBCT Management's obligation to fund a FEL 3 Feasibility Study.
- (p) **(Refund of FEL1, FEL 2 and FEL 3 contributions if Terminal Capacity Expansion proceeds)** In the event that the Terminal Capacity Expansion the subject of a FEL 1 Feasibility Study and FEL 2 Feasibility Study and FEL 3 Feasibility Study proceeds and substantial site works commence, DBCT Management will promptly following the commencement of substantial site works:
- (1) refund to each Funding Access Seeker who contributed funds (as opposed to underwriting the funding) under Section 5.10(b) for that Terminal Capacity Expansion the funds provided by that Access Seeker; and
 - (2) release any underwriting commitment made by each Funding Access Seeker in respect of that Terminal Capacity Expansion.

- (q) **(Preparation and approval of Standard Funding Agreement or Standard Underwriting Agreement)**
- (1) DBCT Management must prepare a proposed Standard Funding Agreement or proposed **Standard Underwriting Agreement** (as applicable) (**Proposed Standard Funding/Underwriting Agreement**) where:
 - (A) DBCT Management considers there to be reasonable likelihood that the Aggregate Annual Contract Tonnage applied for in an Access Application or Conditional Access Agreement may justify undertaking Feasibility Studies during the term of the Access ~~Undertaking~~[Framework](#); or
 - (B) DBCT Management receives a written notice from an Access Seeker or Access Holder requesting DBCT Management develops a Proposed Standard Funding/Underwriting Agreement.
 - (2) In preparing a Proposed Standard Funding/Underwriting Agreement DBCT Management must consult with Access Seekers, Expansion Parties and Access Holders.
 - (3) A Proposed Standard Funding/Underwriting Agreement must be reasonable in all of the circumstances having regard to terms of the ~~Undertaking~~[Framework](#) and ~~138(2) of the QCA Act.~~:
 - (A) [the legitimate business interests of DBCT Holding in its capacity as the owner of the Terminal;](#)
 - (B) [legitimate business interests of DBCT Management in its capacity as the Operator of the Terminal;](#)
 - (C) [public interest, including the public interest in having competition in markets \(whether or not in Australia\); and](#)
 - (D) [interests of Access Seekers who have signed an Access Application Form or Access Renewal Form \(as set out at Schedule A\), or who are a party to a Conditional Access Agreement and Access Applicants, including whether adequate provision has been made for compensation if the rights of the Access Holders are adversely affected.](#)
 - (4) DBCT Management must ~~provide~~[publish](#) the ~~QCA with its~~ Proposed Standard Funding/Underwriting Agreement ~~for the QCA to publish it~~ on its website and must separately notify all Access Holders and Access Seekers promptly following ~~the QCA's~~ publication of DBCT Management's Proposed Standard Funding/Underwriting Agreement ~~on the QCA website.~~
 - (5) An Access Seeker or Access Holder may, within 3 months after receiving the notice from DBCT Management, give ~~the QCA and~~ DBCT Management a [Dispute Notice under](#) Section ~~17.4~~ [notice of a dispute](#) ~~16.1~~ regarding whether the Proposed Standard Funding/Underwriting Agreement is consistent with Section 5.10(q)(3). Such notice must specify the way in which the Access Seeker or Access Holder considers that the Proposed Standard Funding/Underwriting Agreement fails to satisfy Section 5.10(q)(3) and, if necessary, any amendments which the Access Seeker or Access Holder considers are necessary to satisfy Section 5.10(q)(3).
 - (6) If ~~notice is given and within the time required by~~ [the dispute is not resolved in accordance with](#) Section ~~5.10(q)(5),~~ [16.2](#), such dispute is to be resolved in accordance with Section ~~17.4,~~ [16.4](#).

- (7) ~~In accordance with Section 17.4, the QCA~~ An Arbitrator is to decide whether the Proposed Standard Funding/Underwriting Agreement satisfies Section 5.10(q)(3). If the ~~QCA~~ Arbitrator decides that the Proposed Standard Funding/Underwriting Agreement does not satisfy Section 5.10(q)(3) it is to decide the terms of an alternative proposed Standard Funding Agreement or alternative proposed Standard Underwriting Agreement (as applicable) (**Alternative Proposed Standard Funding/Underwriting Agreement**) that it considers will satisfy Section 5.10(q)(3), provided that the ~~QCA~~ Arbitrator must give DBCT Management a reasonable opportunity to consider and comment on the draft. The ~~QCA~~ Arbitrator will take into account any comments made by DBCT Management in relation to the ~~QCA~~ Arbitrator's draft.
- (8) Notwithstanding ~~any~~ notice being given under Section 5.10(q)(5), the ~~QCA~~ Arbitrator may approve the Proposed Standard Funding/Underwriting Agreement, if ~~QCA~~ the Arbitrator considers it reasonable in all of the circumstances having regard to terms of the ~~Undertaking~~ Framework and ~~s 138(2) of the QCA Act.~~ the matters set out in clause 5.10(q)(3)(A) to 5.10(q)(3)(F).
- (9) If no notice is given under Section 5.10(q)(5); or if the ~~QCA~~ Arbitrator decides that the Proposed Standard Funding/Underwriting Agreement satisfies Section 5.10(q)(3); or if the ~~QCA~~ Arbitrator decides that an Alternative Proposed Standard Funding/Underwriting Agreement satisfies Section 5.10(q)(3), then:
- (A) the Proposed Standard Funding/Underwriting Agreement (or the Alternative Proposed Standard Funding/Underwriting Agreement as the case may be) will become the approved Standard Funding Agreement or the approved Standard Underwriting Agreement (as applicable), which is to be published on ~~the QCA~~ DBCT Management's website; and
- (B) DBCT Management will, if requested by Access Seekers or Access Holders, enter into agreements with Access Seekers or Access Holders, on the terms of the approved Standard Funding Agreement or approved Standard Underwriting Agreement (as applicable), unless otherwise agreed between DBCT Management and the relevant Access Seeker or Access Holder.
- (10) For clarity, nothing in this Section 5.10(q) limits or restricts DBCT Management or an Access Seeker or Access Holder from referring as a Dispute any failure to agree reasonable amendments to a Standard Funding Agreement/Underwriting Agreement where it is being used in respect of a specific Terminal Capacity Expansion.

5.11 Existing User Agreement Process

If an Access Agreement or an Existing User Agreement provides a mechanism for applications for additional capacity to be made by the relevant Access Holder under that agreement, those provisions may be utilised by that Access Holder in respect of additional capacity sought under that agreement, but such application will be treated as an Access Application for the purposes of Section ~~5.4,~~ 5.4, and any other Section in Section 5 which is not inconsistent with the terms of that agreement will apply.

5.12 Review of Pricing Method and Indicative Access Charges

Drafting Note: Consequential amendments to this clause will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018

- (a) **(Review of estimated Access Charges)** Where an Indicative Access Proposal has been prepared on the basis that a Terminal Capacity Expansion would be required in order to accommodate the relevant Access Application:
- (1) as soon as practicable and in any event within 20 Business Days following completion of a FEL 1 Feasibility Study, DBCT Management must review the Indicative Access Proposal and provide the Access Seeker with a revised assessment of the applicable Pricing Method and estimated Access Charges for the Services requested in the Access Application (a **Revised Pricing Proposal**);
 - (2) as soon as practicable and in any event within 20 Business Days following completion of a FEL 2 Feasibility Study which supports proceeding to a FEL 3 Feasibility Study (including where that support is conditional on whether an Expansion Component will be priced Differentially or Socialised), DBCT Management must (unless it has already done so pursuant to Section ~~12.5~~[11.5](#)(a)) review the Revised Pricing Proposal and apply to ~~the QCA in accordance with s150D of the QCA Act for a ruling as to how the QCA~~[an Expansion Arbitrator for a determination as to how it](#) intends to treat the following matters ~~for the purpose of any draft amending access undertaking to be submitted by DBCT Management~~ in respect of the Terminal Capacity Expansion under Section ~~12.5~~[11.5](#):
 - (A) the applicable Pricing Method for the Terminal Capacity Expansion;
 - (B) if the applicable Pricing Method is determined by ~~the QCA~~[an Expansion Arbitrator](#) to be Differential, what Access Charges should apply to the Expansion Component, (a **Price Ruling**); and
 - (C) any Different Terms for an Access Agreement in respect of the Terminal Capacity Expansion, ~~agreed or determined in accordance with Section 13.1(f); and~~

~~if Different Terms are approved by the QCA, the approved Different Terms will be included in any Access Agreement that applies to the Price Ruling.~~
- (b) **(Application for Price Ruling)** An application for a Price Ruling shall include:
- (1) information about the nature and amount of Capital Expenditure forecast to carry out the Terminal Capacity Expansion, as assessed in any Feasibility Studies;
 - (2) information about any Different Terms that will have been agreed ~~or required in accordance with Section 13.1(f);~~
 - (3) a justification as to why the Access Agreement (incorporating any Different Terms) does not, and need not, comply with the Standard Access Agreement, but will nevertheless be economically and operationally prudent and result in DBCT Management achieving a regulated return that is commensurate with the cost and risks involved with the Terminal Capacity Expansion;
 - (4) information about the increase in Terminal Capacity expected to arise from the Terminal Capacity Expansion (and expected increases to System Capacity);
 - (5) information about positive or negative impacts on existing users of the Terminal or existing operations of the Terminal;
 - (6) information about the forecast demand for Access to the increased Terminal Capacity;
 - (7) an assessment of the Pricing Method applicable to the Terminal Capacity Expansion, applying the Expansion Pricing Principles;

- (8) information about the anticipated impact on Non-Expansion Costs for the Terminal; and
 - (9) an estimate of the Reference Tariff that will apply to the Terminal Component the subject of the Terminal Capacity Expansion, if it was Differentiated and if it was Socialised, having regard to the information referred to above and the other pricing arrangements set out in Section ~~11.10~~.
- (c) (**QCA Expansion Arbitrator to provide Price Ruling**) In response to an application for a Price Ruling, the **QCA Expansion Arbitrator** shall, after conducting an investigation pursuant to Part 5, Subdivision 3 of the QCA Act:
- (1) determine the application in accordance s150F of the QCA Act; and
 - (2) determine whether the Terminal Capacity Expansion should be Socialised or Differentiated, applying the Expansion Pricing Principles.

5.13 Access Transfers

- (a) In processing any request by an Access Holder or Access Seeker for a transfer of rights or entitlements under an Access Agreement (whether by way of assignment or novation), DBCT Management must consent to any such proposed transfer unless DBCT Management (acting reasonably) is satisfied that:
 - (1) the assignor is in material breach of its Access Agreement;
 - (2) the assignee:
 - (A) is not of good financial standing, creditworthy and able to fully discharge the financial obligations of the Access Holder under the relevant Access Agreement or the assignee has not otherwise provided security in a form acceptable to DBCT Management (acting reasonably) for the performance of the obligations under this Agreement in respect of the transferred rights or entitlements;
 - (B) is incapable of performing the obligations of the Access Holder under the Access Agreement in respect of the transferred rights or entitlements, including complying with the Terminal Regulations; and
 - (C) is unable to reasonably demonstrate that the rights or entitlements to be transferred under the relevant Access Agreement are matched by an entitlement to railway track access held by the assignee or a person on its behalf; ~~and~~.
- (b) The assignor must provide all information reasonably required by DBCT Management to assess the criteria specified in Section 5.13(a) to DBCT Management in a timely manner.
- (c) DBCT Management must take all steps necessary to assess and respond to any request for a transfer as soon as reasonably practicable.
- (d) Without limitation to Section ~~17.16~~, an Access Holder or an Access Seeker may refer to the **QCA Arbitrator** as a dispute under this **Undertaking Framework**:
 - (1) any refusal by DBCT Management to consent to a transfer;
 - (2) any failure to agree the reasonable terms governing an Access Agreement which is the subject of a transfer;
 - (3) any failure by DBCT Management in assessing or responding to a request for transfer in a timely manner.

6 Terminal Regulations

6.1 Compliance with Terminal Regulations

- (a) **(Compliance by DBCT Management and Operator)** DBCT Management acknowledges that under the Operation & Maintenance Contract DBCT Management and the Operator must comply with the Terminal Regulations. DBCT Management must comply with, and will procure that the Operator complies with, the Terminal Regulations in force from time to time.
- (b) **(Compliance by Access Holders is condition of access)** Each Access Holder must observe the Terminal Regulations, in force from time to time, as a condition of access to and the right to have its coal Handled at the Terminal.

6.2 Amendment of Terminal Regulations

- (a) **(Process for amending Terminal Regulations)** The Operator may, from time to time, by written notice to DBCT Management, propose amendments to the Terminal Regulations regarding operational issues. If the Operator submits to DBCT Management a proposed amendment to the Terminal Regulations DBCT Management must:
 - (1) conduct reasonable consultation with Access Holders, Access Seekers, Expansion Parties and/or Rail Operators in relation to the proposed amendment; and
 - (2) following the completion of such reasonable consultation, notify the Access Holders, Access Seekers, Expansion Parties and Rail Operators of:
 - (A) the wording of the proposed amendment;
 - (B) whether it has given its consent to the proposed amendment;
 - (C) the detailed reasons for its decision to give (or not give) consent to the proposed amendment; and
 - (D) except in the case of notification to Rail Operators, that there is a 30 day period for notifying DBCT Management of any objections to the decision to consent or not consent (as applicable) to the amendment.
- (b) **(Implementation of amended Terminal Regulations)** A proposed amendment to the Terminal Regulations will not be implemented unless:
 - (1) DBCT Management has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with Section 6.2(a)(1); and
 - (2) one of the following has occurred:
 - (A) DBCT Management has consented to the proposed amendment to the Terminal Regulations and no Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent being provided to the proposed amendments within 30 days of being notified of the amendments by DBCT Management;
 - (B) DBCT Management has consented to the proposed amendments to the Terminal Regulations and while an Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent being provided to the proposed amendments within 30 days of being notified of the amendments by DBCT Management, ~~the QCA~~an

Independent Expert appointed to hear the objection (in accordance with Section 6.2(f)) has rejected that objection; or

- (C) DBCT Management has not consented to the proposed amendments to the Terminal Regulations, but an Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent not being provided, and ~~the OCA~~ an Independent Expert appointed to hear the objection (in accordance with Section 6.2(g)) has upheld that objection.
- (c) **(Consent of DBCT Management)** DBCT Management will only give its consent to a proposed amendment to the Terminal Regulations under Section 6.2(b)(2)(A) or 6.2(b)(2)(B) if it has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with Section 6.2(a)(1) and, taking into account the results of such consultation, it reasonably considers that:
- (1) the amendments relate to operational issues;
 - (2) the amended Terminal Regulations, as a whole, will operate equitably amongst Access Holders, Access Seekers (should they become Access Holders) and Expansion Parties (should they become Access Holders) and, where the relevant amendments affect Rail Operators, amongst affected Rail Operators;
 - (3) the amendments are consistent with this ~~Undertaking~~ Framework, and any Access Agreements; and
 - (4) the amendments are reasonably necessary for the operation of the Terminal in accordance with applicable laws and regulatory standards, Approvals, Good Operating and Maintenance Practice or any costs or obligations imposed are justified by the efficiency benefits arising from those costs or obligations.
- (d) **(Criteria for disputing refusal to provide consent)** If DBCT Management does not provide its consent to a proposed amendment to the Terminal Regulations, an Access Holder, Access Seeker or Expansion Party may object to DBCT Management's refusal to provide consent if they reasonably consider that:
- (1) the amendments relate to operational issues;
 - (2) the amended Terminal Regulations, as a whole, will operate equitably amongst Access Holders, Access Seekers (should they become Access Holders) and Expansion Parties (should they become Access Holders) and, where the relevant amendments affect Rail Operators, amongst affected Rail Operators;
 - (3) the amendments are consistent with this ~~Undertaking~~ Framework and any Access Agreements; and
 - (4) the amendments are reasonably necessary for the operation of the Terminal in accordance with applicable laws and regulatory standards, Approvals, Good Operating and Maintenance Practice or any costs or obligations imposed are justified by the efficiency benefits arising from those costs or obligations.
- (e) **(Notice of amendments to Terminal Regulations)** DBCT Management must notify all Access Holders, Access Seekers, Expansion Parties and Rail Operators of any amendments to the Terminal Regulations that have been approved ~~by the OCA~~ and must provide a copy of the amended Terminal Regulations to these parties (which may be by way of reference to the website on which the amended Terminal Regulations are available in accordance with Section 6.2(i)).
- (f) **(Objection to DBCT Management decision to approve amendment of Terminal Regulations)**

- (1) If:
 - (A) DBCT Management has given its consent to a proposed amendment to the Terminal Regulations; and
 - (B) an Access Holder, Access Seeker or Expansion Party objects to the proposed amendment on the basis that it reasonably considers that the criteria specified in Sections 6.2(c)(1) to 6.2(c)(4) are not satisfied,
then the Access Holder, Access Seeker or Expansion Party may, within 30 days after being notified of DBCT Management's consent, notify DBCT Management ~~and the QCA~~ of its objection to the consent to the proposed amendment, such objection to be determined by an Independent Expert.
 - (2) If, in response to an objection notified ~~to the QCA~~ by an Access Holder, Access Seeker or Expansion Party (whether under Section 6.2(f)(1) of this ~~Undertaking~~ Framework or any corresponding provision of an Access Agreement), the ~~QCA~~ Independent Expert determines ~~in accordance with the process under Section 17.4~~ that the criteria specified in Sections 6.2(c)(1) to 6.2(c)(4) are not satisfied then:
 - (A) the proposed amendment and DBCT Management's consent to the proposed amendment will be taken to have been withdrawn; and
 - (B) the proposed amendment will not be made.
- (g) **(Objection to DBCT Management decision to reject amendment of Terminal Regulations)**
- (1) If:
 - (A) DBCT Management has refused to give its consent to a proposed amendment to the Terminal Regulations; and
 - (B) an Access Holder, Access Seeker or Expansion Party objects to DBCT Management not providing consent to the proposed amendment on the basis that it reasonably considers that the criteria specified in Sections 6.2(c)(1) to 6.2(c)(4) are satisfied,
then the Access Holder, Access Seeker or Expansion Party may within 30 days of being notified of DBCT Management's refusal to give its consent to a proposed amendment to the Terminal Regulations, notify DBCT Management ~~and the QCA~~ of its objection to DBCT Management not providing consent for the proposed amendment, such objection to be determined by an Independent Expert.
 - (2) If, in response to an objection notified ~~to the QCA~~ by an Access Holder, Access Seeker or Expansion Party (whether under Section 6.2(g)(1) of this ~~Undertaking~~ Framework or any corresponding provision of an Access Agreement), the ~~QCA~~ Independent Expert determines that the criteria in Sections 6.2(c)(1) to 6.2(c)(4) are satisfied, then:
 - (A) DBCT Management's consent to the proposed amendment will be deemed to have been given; and
 - (B) the proposed amendment will be made.
- (h) **(Protection of DBCT Management)** Subject to DBCT Management complying with Section 6.2(b), DBCT Management will not be liable to the ~~QCA~~, Rail Operators or Access Seekers (and the Standard Access Agreement will provide that DBCT Management will have no liability (on any basis whatsoever) to an Access Holder which

executes it) as a result of DBCT Management consenting to an amendment to the Terminal Regulations or the due implementation and observance of an amendment to the Terminal Regulations, as long as DBCT Management had in all respects acted reasonably and in good faith and (acting reasonably and in good faith) had formed the opinion required by Section 6.2(c). For clarification, this does not affect DBCT Management's obligation to do anything required on its part to cause the termination or consequential amendment of a Terminal Regulation after any determination that the Terminal Regulation breaches this ~~Undertaking~~[Framework](#) or a relevant Access Agreement.

- (i) **(DBCT Management to make copies available)** DBCT Management must make a copy of the Terminal Regulations available to each Access Holder, Access Seeker, ~~and~~[and](#) Rail Operator ~~and the QCA~~ (which may be by displaying it on DBCT Management's website).

~~7~~ **Information provision**

~~The QCA has the right, by written notice, to request that DBCT Management provide to the QCA any information or documents that the QCA reasonably requires for the purpose of performing its obligations and functions in accordance with either this Undertaking or an Access Agreement developed pursuant to this Undertaking, or to determine compliance with this Undertaking. The notice must include a description of the information or document required, the purpose for which it is required, and the date it is required (with such date to allow DBCT Management reasonable time to comply with the notice).~~

~~DBCT Management will comply with any such request by the date stated in the notice, unless there is a reasonable reason for non-compliance. Information or documents provided to the QCA may be subject to obligations of confidence in accordance with section 239 of the QCA Act.~~

7 8-Confidentiality requirements

7.1 ~~8.1~~ Confidential Information to be kept confidential

Subject to Section 5.4(c) each relevant Access Seeker, Access Holder and DBCT Management will, at all times, keep confidential and not disclose to any other person, any Confidential Information exchanged under the negotiation arrangements in Section 5 of this ~~Undertaking~~[Framework](#) or any other part of this ~~Undertaking~~[Framework](#), except:

- (a) where disclosure is required by any law or legally binding order of any court, government, semi-government authority, administrative or judicial body, or requirement of a stock exchange or regulator;
- (b) with the prior written consent of the relevant Access Seeker or DBCT Management, as applicable;
- (c) where disclosure is to the recipient's professional advisors provided that such professional advisors are under a duty of confidentiality;
- (d) to the extent disclosure is necessary for notifications to financiers, brokers, insurers or claims assessors or reasonably necessary in connection with seeking financing from a bona fide financier, provided that the broker, insurer, claims assessor or financier to whom the disclosure is made is under a legal obligation to keep the information confidential;

- (e) where disclosure is made to any person or body established to provide coordination in the Dalrymple Bay Coal Chain;
- (f) where disclosure is to an expert ~~or the QCA~~, Independent Expert, an Arbitrator, an Expansion Arbitrator, or a court (in the case of a party seeking urgent injunctive relief) to the extent necessary for resolving a Dispute provided that DBCT Management does not disclose the Confidential Information of one Access Seeker to another Access Seeker without the first Access Seeker's consent, unless directed to by the ~~QCA~~an expert, Independent Expert, an Arbitrator, an Expansion Arbitrator or a court (as the case may be); or
- (g) to the extent disclosure is required to protect the safety or security of persons or property or in connection with an accident or emergency.

7.2 ~~8.2~~ Confidentiality deed

If required by either party, the parties will enter into a confidentiality deed substantially in the form set out in Schedule D of this ~~Undertaking~~Framework.

7.3 ~~8.3~~ Use of Confidential Information

Without limiting the circumstances specified in this Section ~~8~~7 in which Confidential Information may be used or disclosed, both the Access Seeker and DBCT Management must otherwise only use Confidential Information provided by the other party for the purposes for which it was provided.

7.4 ~~8.4~~ Reporting of aggregated information

For the avoidance of doubt, nothing in this Section ~~8~~7 prevents DBCT Management from:

- (a) complying with its obligations under Sections ~~10.2~~9.1 and ~~10.3~~9.2; or
- (b) disclosing, in the ordinary course of business, financial reporting information which has been aggregated with other information of a similar nature such that it cannot reasonably be, and is not reasonably capable of being, identified with, attributed to or used to identify, any Access Seeker, Access Holder, or Rail Operator.

8 ~~9~~ Ring-fencing arrangements

8.1 ~~9.1~~ No related Supply Chain Businesses

- ~~(a) DBCT Management and its Related Bodies Corporate will not own or operate a Supply Chain Business (other than a Trading SCB) in any market that is related to or uses the Terminal.~~
- ~~(b) The Trading SCB engages solely in the trading of secondary capacity at the Terminal and any access rights held by the Trading SCB, from time to time, are intended to be held by it as an intermediary in order to facilitate the transfer of such access rights between third parties.~~
- ~~(c) DBCT Management must procure that the Trading SCB executes the undertaking in the form set out in Schedule H and will provide an executed copy of the undertaking to the QCA before the Trading SCB commences any activities related to the trading of capacity at the Terminal under this Undertaking.~~

8.2 ~~9.2~~ Non-discrimination

DBCT Management will not:

- (a) engage in conduct for the purpose of preventing or hindering an Access Holder's or Access Seeker's Access; or
- (b) unfairly differentiate between Access Seekers, Access Holders, or Rail Operators; ;
- ~~(c) provide Access to the Trading SCB on more favourable terms than the terms on which DBCT Management provides Access to other Access Seekers or Access Holders; or~~
- ~~(d) exercise a right or a power (including a right to withhold consent or in respect of the timeliness of any assessment) under an Access Agreement in relation to an assignment or transfer of Access rights or an Access Agreement in a manner that discriminates in favour of, or otherwise unfairly benefits, the Trading SCB relative to other Access Seekers or Access Holders.~~

8.3 ~~9.3~~ Confidentiality undertaking by board members

DBCT Management will ensure that each of its directors executes a confidentiality deed pursuant to which the relevant director agrees to only use and disclose Confidential Information obtained as a director of DBCT Management in connection with its role as a director of DBCT Management.

8.4 ~~9.4~~ Complaint handling

If an Access Holder, Access Seeker, Rail Operator or other affected party considers that DBCT Management may have breached one or more of its obligations under this Section ~~9~~8 they may raise a dispute in respect of such complaint in accordance with Section ~~17~~16 of this Undertaking Framework.

9 ~~10~~ Reporting by DBCT Management

~~10.1~~ Regulatory accounts

~~DBCT Management will for each Terminal Component report to the QCA on an annual and confidential basis, (with a copy to each relevant Access Holder), within four (4) months of the close of the relevant Financial Year, the following information relating to, its Regulated Asset Base:~~

- ~~(a) **(Asset base details)** the opening Regulated Asset Base value for the relevant Financial Year — by asset class/type consistent with the asset class/types used to determine the initial capital base;~~
- ~~(b) **(Indexation of asset base)** the amount of indexation of the Regulated Asset Base calculated for the relevant Financial Year — by asset class/type;~~
- ~~(c) **(Depreciation)** the amount of depreciation calculated for the relevant Financial Year — by asset class/type;~~
- ~~(d) **(Corporate overheads)** DBCT Management's aggregate permitted corporate overheads for the relevant Financial Year and its allocation of them to each Terminal Component;~~
- ~~(e) **(New assets)** the value of any new assets (capital expenditure) acquired during the relevant Financial Year — by asset class/type. Capital Expenditure is to be identified as either replacement or expansionary Capital Expenditure, and is to include information relating to the estimated life of each new asset;~~
- ~~(f) **(Disposals)** asset disposals for the relevant Financial Year — by asset class/type;~~
- ~~(g) **(Operating and maintenance costs)** the actual operating and maintenance costs incurred for the relevant Financial Year including minor capital expenditure not exceeding \$3 million for the Financial Year — at a level of detail to be determined by~~

~~the QCA. This should separately identify any minor Capital Expenditure recovered through the Operation & Maintenance Charge;~~

- ~~(h) **(Variances)** an explanation for any significant variance in actual capital expenditure and/or operating and maintenance costs, and forecast capital expenditure and/or operating and maintenance costs for the relevant Financial Year; and~~
- ~~(i) **(Apportionment)** where a cost for the Terminal Component has been apportioned among multiple Terminal Components, details of the relevant apportionments and the basis of the allocation, and how that is consistent with the Cost Allocation Manual (or, where none exists, the Cost Allocation Principles).~~

9.1 ~~10.2~~ Indicators relating to compliance with this ~~Undertaking~~ Framework

DBCT Management will Publicly Report on an annual basis the following information:

- (a) **(Indicative Access Proposals)** the number and percentage of total Indicative Access Proposals provided within the applicable timeframe;
- (b) **(Access Applications)** the number and percentage of Access Applications received for which an extension of time for provision of an Indicative Access Proposal was sought by DBCT Management;
- (c) **(Response times)** the average delay (in days) taken to provide an Indicative Access Proposal not provided within the applicable timeframe;
- (d) **(Disputes)** the number of instances where a Dispute has been referred to dispute resolution in accordance with Section ~~17~~16;
- (e) **(Negotiation periods for successful outcomes)** the average length of the negotiation period (in days), where the negotiation period has commenced and has ceased as the result of the execution of an Access Agreement in respect of the Access sought by the Access Seeker;
- (f) **(Negotiation periods where no Access Agreement signed)** the average length of the negotiation period (in days), where the negotiation period has commenced and has ceased as the result of any reason other than the execution of an Access Agreement in respect of the Access sought by the Access Seeker;
- (g) **(Access Transfer Applications)** in respect of the Access Transfer processes set out in Section ~~5.13~~5.13, the following:
 - (1) the number of requests received for a transfer of rights or entitlements; and
 - (2) the period taken to resolve each transfer, being in each case the period from the date of receipt of the request and ending on the earliest of the date that:
 - (A) an Access Agreement facilitating the transfer was executed by DBCT Management;
 - (B) DBCT Management gave notice to the transferor that consent for the transfer was refused; or
 - (C) any notice was given to the ~~QCA~~Arbitrator of a dispute in relation to the purported transfer-;
- (h) **(Access Agreements concluded)** the number of instances where a negotiation period that had commenced, ceased as the result of the execution of an Access Agreement in respect of the Access sought by the Access Seeker; and
- (i) **(Complaints)** written complaints received by DBCT Management in relation to its compliance with this ~~Undertaking~~ and Framework.

- ~~(j) **(Other)** any other performance measure requested by the QCA, provided that DBCT Management is not required to Publicly Report any information which the QCA accepts it would not disclose in the same circumstances under section 239 of the QCA Act (although, in such cases, the QCA may require DBCT Management to comply with alternative publication arrangements).~~

9.2 ~~10.3~~ Indicators relating to service quality

DBCT Management is required to Publicly Report on the following service quality key performance indicators for the Terminal on a quarterly basis:

- (a) **(System delivery):**
- (1) number of trains requested by the Operator and scheduled by the rail providers to arrive at the Terminal;
 - (2) actual number of trains completing unloading at the Terminal;
 - (3) number of tonnes of coal scheduled to be delivered to the Terminal; and
 - (4) number of tonnes of coal actually delivered to the Terminal,
- for each month of the quarter.
- (b) **(Inloading performance):**
- (1) average train unloading time at the Terminal (on a Terminal job-open to job-close basis); and
 - (2) average train unload time (from permission to unload the train until unloading of the last wagon is complete),
- for each month of the quarter.
- (c) **(Stockyard performance):**
- (1) average stock-build time per parcel; and
 - (2) average stock-residence time per parcel,
- for each month of the quarter.
- (d) **(Out-loading performance):**
- in respect of each outloading conveyor:
- (1) average gross load rate per vessel class – first coal to last coal; and
 - (2) average utilisation of out-load conveyors,
- for each month of the quarter.
- (e) **(Vessel performance):**
- (1) number of vessels (by class);
 - (2) average number of parcels per vessel (by class);
 - (3) total tonnes per vessel (by class); and
 - (4) total tonnes shipped,
- for each month of the quarter.
- (f) **(Vessel queuing)** (vessels which have arrived and are awaiting berthing to load):
- (1) average daily total vessels in queue;
 - (2) average daily number of vessels in queue where relevant coal is not yet available to be railed to the Terminal (“dead ships”);
 - (3) vessel queuing times;

- (4) queue ordering; and
- (5) average waiting time to berth at anchor, for each month of the quarter.
- (g) **(Operating efficiency)** inloading and outloading.
- (h) **(Environmental performance)**:
 - (1) number of times during each month of the quarter that the “management objective” (as provided for in the Terminal’s environmental licence and approvals) in dust deposition was exceeded; and
 - (2) number of times during each month of the quarter that the “acoustic quality objective” (as provided for in the Terminal’s environmental licence and approvals) was exceeded.
- (i) **(Other)** any additional or alternative service quality key performance indicators that the QCA, DBCT Management and Access Holders agree from time to time.

~~10.4~~ **Review of reporting provisions**

~~The QCA may:~~

- ~~(a) review the operation of Section 10.3 from time to time; and~~
- ~~(b) if, as a result of the review, the QCA considers that any additional or alternative service quality key performance indicators should be specified in Section 10.3, the QCA may, notwithstanding Section 10.3(i), require the additional or alternative service quality key performance indicators to be specified.~~

10 ~~11~~ Pricing arrangements

[Drafting Note: This clause will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

10.1 ~~11.1~~ Interpretation of Pricing Provisions

In this undertaking, the following principles of interpretation shall apply:

- (a) **(Single meaning where only Socialisation applies)** for so long as Access to the Terminal continues to be priced on a Socialised basis, such that there is a single Annual Revenue Requirement for the entire Terminal, the Terms and definitions of this Undertaking relevant to pricing apply to all Access collectively; and
- (b) **(Alternative meanings where Differentiation applies)** where, pursuant to Section ~~11.13~~, 10.13, Access to the Terminal is charged to one or more Access Holders on a Differentiation basis, such that multiple Regulated Asset Bases, and Annual Revenue Requirements exist in respect of various Terminal Components, the terms and definitions of this Undertaking relevant to pricing apply to each Terminal Component separately.

10.2 ~~11.2~~ Pricing objectives

In developing Access Charges, DBCT Management’s objectives are to:

- (a) **(Achieve ARR)** achieve the ARR in each Financial Year in accordance with this Undertaking; by way of the Revenue Cap plus any applicable Additional Tonnage Amount;
- (b) **(Efficient utilisation)** provide incentives for efficient utilisation of Terminal Capacity by Access Holders;

- (c) **(Equity)** ensure equitable treatment of Access Holders and Access Seekers;
- (d) **(Efficient investment)** encourage efficient future investment in the Terminal;
- (e) **(Recovery of Operating Costs)** ensure full recovery (but not over-recovery) from Access Holders of Terminal Operating Costs; and
- (f) **(Efficient Operating Costs)** ensure efficient Terminal Operating Costs.

10.3 ~~11.3~~ Access Charges

Access Charges for each Terminal Component will comprise two parts:

- (a) a Capital Charge, being:
 - (1) in respect of Reference Tonnage, the Reference Tariff;
 - (2) in respect of any Excess Tonnage, the Excess Charge;
 - (3) where applicable, the Year End Adjustment and the Provisional Increment Repayment; or
 - (4) in respect of Non-Reference Tonnage, such tariff as is agreed between DBCT Management and an Access Holder; and
- (b) an Operation & Maintenance Charge.

10.4 ~~11.4~~ Reference Tariff

- (a) **(Applies to Reference Tonnage)** A Reference Tariff will apply to all Reference Tonnage, or where Section ~~11.4~~10.1(b) applies, a different Reference Tariff for the Reference Tonnage in respect of each Terminal Component.
- (b) **(Revenue Cap)** Each Reference Tariff for each Terminal Component will be set such that, in each Financial Year, the Revenue Cap for that Terminal Component will be recovered by DBCT Management over the Aggregate Reference Tonnage for that Terminal Component.
- (c) **(TIC)** Each Reference Tariff will comprise a single component Terminal Infrastructure Charge (**TIC**), being an amount per tonne payable by a relevant Access Holder at a relevant time, calculated (and adjusted as required) in accordance with Schedule C, Part A.
- (d) **(Reviews of Reference Tariff, etc)** On each occasion referred to in Schedule C, ~~Part A, Sections 4(c), 4(e) and 4(h).~~
DBCT Management will (and, on each occasion mentioned in Section 12.511.5(o), DBCT Management may, but is not obliged to) submit to the QCA a request for the QCA to approve an appropriate amendment of each relevant ARR, Revenue Cap and Reference Tariff, to the extent that they are affected by the occasion referred to in Schedule C, Part A, Sections ~~4(c) and 4(f)~~
or Section 12.511.5(o) (as the case may be), in accordance with Schedule C, Part A. They will be amended (effective from the relevant date in Schedule C, Part A, Section 4.) when that approval is
given by the QCA.
- (e) **(ARR notified to Access Seekers)** Where a Reference Tariff has been calculated from the ARR, that Reference Tariff will be an acceptable means by which DBCT Management provides Access Seekers with information about the matters listed in

Sections 101(2)(a) to (c) of the QCA Act (as provided for in accordance with Section 101(4) of the QCA Act).

10.5 ~~11.5~~ Excess Charge

- (a) The Excess Charge will apply to all Excess Tonnage.
- (b) The Excess Charge will be calculated in accordance with Schedule C, ~~Part B,~~ Section 3.

10.6 ~~11.6~~ Year End Adjustment

- (a) The Year End Adjustment (if any) will apply where any Excess Tonnage is Handled in a Financial Year.
- (b) The Year End Adjustment will be calculated in accordance with Schedule C, ~~Part B,~~ Section 1.

10.7 ~~11.7~~ Increment

DBCT Management is entitled to add an Increment to the Revenue Cap otherwise applying, in the circumstances outlined in Schedule ~~C,~~ Part B, Section 4.4. It may retain a Provisional Increment pending the outcome of an application for the Increment. The Provisional Increment will be calculated in accordance with Schedule C, ~~Part B,~~ Sub-Section 4(b).

10.8 ~~11.8~~ Provisional Increment Repayment

The Provisional Increment Repayment (if any) will apply where DBCT Management has retained an amount in accordance with Schedule ~~C,~~ Part B, Sub-Section 4(a) (the Provisional Increment) ~~but that amount must subsequently be repaid to relevant Access Holders pursuant to Schedule C, Part B Sub-Section 4(e)~~

10.9 ~~11.9~~ Payment and adjustment of Capital Charges

- (a) **(Interim payments)** Each Access Holder will pay to DBCT Management in respect of its Reference Tonnage a payment in each Month of each Financial Year during the term of its Access Agreement (the **Monthly Payment**) calculated (and adjusted as required) in accordance with Schedule C, ~~Part A,~~
- (b) **(Financial Year end adjustments)** After the end of each Financial Year:
 - (1) each Access Holder will pay any Excess Charge applicable to it in respect of the Financial Year (or the balance of the Excess Charge if any prepayment has been made);
 - (2) DBCT Management will pay any Year End Adjustment in respect of the Financial Year, due to each Access Holder; and
 - (3) DBCT Management will pay any Provisional Increment Repayment in respect of the Financial Year, due to each Access Holder.

10.10 ~~11.10~~ Operation & Maintenance Charge

- (a) **(Terminal Operating Costs recovery)** Terminal Operating Costs will be recovered from each Access Holder through the Operation & Maintenance Charge. The Operation & Maintenance Charge for each Access Holder will be calculated on the basis outlined in the Standard Access Agreement and otherwise in accordance with the Operations & Maintenance Contract.

- (b) Where a Differentiated Expansion Component exists and Terminal Operating Costs are required to be allocated between different Terminal Components, then the Operation & Maintenance Charge for each Access Holder will be calculated in accordance with the following procedure:
- (1) the quantum of Terminal Operating Costs, and the proposed allocation among Terminal Components, will be advised to DBCT Management by the Operator. The Operator will determine the allocation in accordance with Section ~~11.11~~[10.11](#)(a); and
 - (2) DBCT Management will review the quantum and allocation proposed by the Operator and submit the proposed quantum and allocation to the QCA annually for approval, indicating, where relevant, any variation it considers necessary to comply with Section ~~11.10~~[10.10](#)(c)(3);
 - (3) DBCT Management will recover the Operation & Maintenance Charge from Access Holders in accordance with the QCA's decision.
- (c) **(Notifications, payments and adjustments)** DBCT Management will:
- (1) notify Access Holders of estimated Terminal Operating Costs annually in advance;
 - (2) recover such estimated costs monthly;
 - (3) notify Access Holders of any applicable adjustment at the end of each Financial Year – to recover any shortfall or to reimburse Access Holders in the event of over-recovery by DBCT Management; and
 - (4) recover or reimburse at the end of each quarter and at the end of a Financial Year (as the case may be), such amount (if any) as referred to in Section ~~11.10~~[10.10](#)(c)(3).

~~10.11~~[11.11](#) **Cost Allocation**

- (a) **(Cost allocation as per Cost Allocation Manual)** Where this undertaking provides for:
- (1) allocation of Terminal Operating Costs among multiple Terminal Components; or
 - (2) the inclusion in a Regulated Asset Base of Capital Expenditure not related to a Terminal Capacity Expansion, and there are multiple Terminal Components, the cost in question is to be allocated in accordance with the Cost Allocation Manual or, if no Cost Allocation Manual exists, in accordance with the Cost Allocation Principles. Any dispute as to the allocation of costs in accordance with the Cost Allocation Manual may be referred under Section ~~17~~[16](#) of the ~~Undertaking~~.
- (b) **(Request for Cost Allocation Manual)** When the first Price Ruling is made, the QCA shall request that DBCT Management prepare a draft Cost Allocation Manual pursuant to section 159 of the QCA Act.
- (c) **(Preparation of draft Cost Allocation Manual)** DBCT Management will prepare and submit to the QCA for approval a draft Cost Allocation Manual within 60 days of a request from the QCA to do so.
- (d) **(Preparation of revised draft Cost Allocation Manual)** DBCT Management shall, if so requested by the QCA, prepare and submit within 60 days of such request, a revised draft Cost Allocation Manual that satisfies the requirements of the QCA.
- (e) **(Consulting in good faith with the Operator)** DBCT Management shall consult in good faith with the Operator in preparing the Cost Allocation Manual and updating it, from time to time.

- (f) **(Approval of Cost Allocation Manual)** The QCA shall prepare the final Cost Allocation Manual in accordance with section 159 of the QCA Act and publish the Cost Allocation Manual in accordance with section 160 of the QCA Act.
- (g) **(Cost Allocation Manual requirements)** The Cost Allocation Manual should:
- (1) provide a transparent basis for assigning costs to separate Terminal Components in different circumstances; and
 - (2) be consistent with the Cost Allocation Principles.
- (h) **(Cost Allocation Principles):**
- (1) Where costs of a Terminal Capacity Expansion should be Socialised, other Non-Expansion Costs should be included in the Existing Terminal's Regulated Asset Base.
 - (2) Where costs of a Terminal Capacity Expansion should not be Socialised, other Non-Expansion Costs should be allocated:
 - (A) **(Identifiable cost)** if the cost is uniquely identified or directly incurred in relation to a particular Terminal Component, to that Terminal Component's Regulated Asset Base;
 - (B) **(Attributable cost)** if the cost is not an identifiable cost, but there is a reasonable causal relationship between the cost and one or more Terminal Components, to the Regulated Asset Bases for those Terminal Components, in proportion to their reasonably estimated cost drivers; and
 - (C) **(Non-identifiable and non-attributable cost)** if the cost is neither identifiable nor attributable to a particular Terminal Component, on a reasonable basis between the Regulated Asset Bases for the Terminal Components.

10.12 ~~11.12~~ **Limits on price differentiation**

- (a) Subject to paragraph ~~11.12~~[10.12](#)(b), DBCT Management will not differentiate Access Charges between Access Seekers or between Access Seekers and Access Holders of a Terminal Component, other than to reflect differences in costs (direct or indirect) or risks to DBCT Management of providing Access. Where DBCT Management proposes a Capital Charge that varies from the Capital Charge applied in respect of Reference Tonnage for that Terminal Component, it must demonstrate to the Access Seeker that the divergence is justified. In doing so, DBCT Management must provide sufficient information to adequately explain the reasons for the divergence.
- (b) For the avoidance of doubt, DBCT Management may differentiate Access Charges applicable to a Differentiated Expansion Components in accordance with an applicable Price Ruling and associated draft amending access undertaking pursuant to Section ~~12.5~~[11.5](#)(o) and ~~12.5~~[11.5](#)(q).

10.13 ~~11.13~~ **Expansion Pricing Principles**

In assessing whether or not Differentiation should apply in respect of a proposed Terminal Capacity Expansion, the following principles shall apply:

- (a) where Socialisation of a Terminal Capacity Expansion would decrease the Reference Tariff for users of the Existing Terminal, the Terminal Capacity Expansion should be treated as forming part of the Existing Terminal, such that a single Reference Tariff and Annual Revenue Requirement shall apply to the Existing Terminal (including the Terminal Capacity Expansion) (a **Socialised Expansion**).

- (b) where Socialisation of a Terminal Capacity Expansion would increase the Reference Tariff for users of the Existing Terminal (a **Cost Sensitive Expansion**), subject to Section ~~11.13~~[10.13](#)(c), the Terminal Capacity Expansion should be treated as a separate Terminal Component, with its own Regulated Asset Base, Reference Tariff and Annual Revenue Requirement (a Differentiated Expansion Component).
- (c) A Cost Sensitive Expansion may be treated as forming part of the Existing Terminal (and therefore, not treated as a Differentiated Expansion Component) where circumstances exist that justify Socialisation. In determining whether there are circumstances that warrant Socialisation, consideration shall be given to:
- (1) the materiality of the increase in the Existing Terminal's Reference Tariff that would be affected by socialising the Cost Sensitive Expansion;
 - (2) the extent to which assets or infrastructure the subject of the Cost Sensitive Expansion will operate wholly or partly, in an integrated way with the Existing Terminal or as a stand-alone development;
 - (3) the extent to which the Cost Sensitive Expansion is likely to benefit users of the Existing Terminal (for example, such as through higher efficiency, reliability or flexibility of the Existing Terminal);
 - (4) any differences in the risks of providing Access to users of the Existing Terminal in respect of additional Terminal Capacity created by the Cost Sensitive Expansion; and
 - (5) any other factor that the QCA considers relevant.

It is acknowledged that there may be circumstances in which parts and not the whole of a Cost Sensitive Expansion may be Socialised.

11 ~~12~~-Terminal Capacity Expansion

[Drafting Note: Amendments to this clause 11 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

11.1 ~~12.1~~ Procedure for determining Terminal Capacity and System Capacity

- (a) DBCT Management will, at each time required in Section ~~12.1~~[11.1](#)(k), either:
- (1) **(Estimate capacities)** accept an estimation that has been accepted by the expert as provided for in Section ~~12.1~~[11.1](#)(m)(3) of the maximum reasonably achievable capacity (measured in tonnes of coal per Financial Year) of:
 - (A) the Terminal (on a "name-plate capacity" basis) (**Terminal Capacity**), including separately identifying the capacity of:
 - (i) the Existing Terminal (on a "name-plate capacity" basis) (**Existing Terminal Capacity**); and
 - (ii) each Expansion Component (on a "name-plate capacity" basis) (**Expansion Component Capacity**), which for clarity may constitute either Socialised Capacity or Differentially Priced Capacity depending upon the nature of the relevant Expansion Component; and
 - (B) the System (**System Capacity**); or
 - (2) **(Determine capacities after advice and consultation)** (to the extent that there is no estimation as provided for in Section ~~12.1~~[11.1](#)(m)(3) in that regard at the time) acting reasonably and after:

- (A) taking advice from an independent expert appointed by DBCT Management [under this Section 11.1](#); and
- (B) consultation by DBCT Management and that expert with the Operator, Access Holders, any Expansion Parties, and other Service Providers or their respective nominees,

determine Terminal Capacity, Expansion Component Capacity and System Capacity (as applicable) having regard to:

- (i) ~~(C)~~ **(Terminal operating assumptions)** in respect of Terminal Capacity – the following Terminal operating assumptions:
 - a. ~~(i)~~ DBCT Management’s obligations and Access Holders’ entitlements under Access Agreements (including taking into account historical and reasonably estimated rates of utilisation of the Terminal's capacity, but also having regard to reasonably foreseeable future changes in capacity utilisation rates);
 - b. ~~(ii)~~ DBCT Management’s requirement to comply with Good Operating and Maintenance Practice;
 - c. ~~(iii)~~ the Terminal Regulations;
 - d. ~~(iv)~~ an objective of maximum reasonably achievable capacity for the Terminal without unduly increasing vessel waiting times as a result of the operation of the Terminal;
 - e. ~~(v)~~ rail and vessel interfaces with the Terminal;
 - f. ~~(vi)~~ the estimated additional capacity which it is anticipated will become available in a relevant Financial Year as a result of any proposed Terminal Capacity Expansion; and
 - g. ~~(vii)~~ any other matter DBCT Management reasonably considers appropriate;
- (ii) ~~(D)~~ **(Terminal operating assumptions – Differentiated Expansion Component)** in respect of Expansion Component Capacity – the Terminal operating assumptions set out at Section ~~12.1~~ [11.1\(a\)\(2\)\(~~CB~~\(i\)\)](#), to the extent applicable solely to the Differentiated Expansion Component; and
- (iii) ~~(E)~~ **(System operating assumptions)** in respect of System Capacity – the following System operating assumptions (to the extent that such information is available to DBCT Management):
 - a. ~~(i)~~ operating modes of the System;
 - b. ~~(ii)~~ rail infrastructure characteristics (e.g. single track, double track, passing loops and speed restraints);
 - c. ~~(iii)~~ the tonnes to be loaded by or on behalf of an Access Holder at each relevant train load out facility;
 - d. ~~(iv)~~ Terminal Capacity as assessed in accordance with Section ~~12.1~~ [11.1\(a\)\(2\)\(~~CB~~\(i\)\)](#) and the capacity and performance implications arising out of Terminal interfaces with rail unloading and vessel loading;

- e. ~~(v)~~ quantity, configuration and performance characteristics of locomotives and rolling stock;
 - f. ~~(vi)~~ capacity and performance of mine loading facilities;
 - g. ~~(vii)~~ the System Master Plan; and
 - h. ~~(viii)~~ any other matter DBCT Management reasonably considers appropriate.
- (b) **(Additional assumptions)** For clarification, Terminal Capacity, Expansion Component Capacity and System Capacity are to be:
- (1) estimated making a projected allowance (as applicable to either Terminal Capacity and/or Expansion Component Capacity alone or to System Capacity) for interruptions or loss of capacity from maintenance, repairs, inclement weather, breakdowns, derailments, cancellations, loading and unloading issues (including sticky coal), vessel-types (based on a historical analysis);
 - (2) estimated as at the date of estimation and for the Financial Year in which that date falls and for each of the following two Financial Years; and
 - (3) assumed to continue at no lesser rate indefinitely after the periods referred to in Section ~~12.1~~11.1(b)(2), except to the extent that (at the time of making the estimation) DBCT Management or the independent expert are actually aware of a reasonably certain future material decrease in capacity (for example, where DBCT Management is aware of a decrease in capacity caused by a planned shutdown in another part of the System).
- (c) **(Disclosure of process and advice)** Subject to any confidentiality restrictions applying to DBCT Management, DBCT Management must disclose to the ~~QCA~~, Access Holders, Access Seekers, Expansion Parties, the Operator and other Service Providers its decision making process in relation to its estimations of Terminal Capacity, Expansion Component Capacity and System Capacity and provide them with a copy of any independent expert report that DBCT Management receives in relation to estimating those capacities. DBCT Management will not enter into any confidentiality restrictions which would prevent disclosure for the purposes of this Section ~~12.1~~11.1(c) except as may be commercially reasonable and customary to avoid disclosure of commercially sensitive information.
- (d) **(Independent expert)** Any independent expert to be appointed by DBCT Management under this Section ~~12.1~~11.1 will be:
- (1) where a group of Access Holders whose combined Annual Contract Tonnage for the then current Financial Year is greater than 50% of the Aggregate Annual Contract Tonnage for that Financial Year object (in accordance with Section ~~12.1~~11.1(g)) to the independent expert nominated by DBCT Management, an independent expert appointed ~~by the QCA~~ in accordance with Section ~~12.1~~11.1(g); ~~or~~
 - (2) where a majority of the group of Expansion Parties for an Expansion Component object (in accordance with Section ~~12.1~~11.1(g)) to the independent expert nominated by DBCT Management, an independent expert appointed ~~by the QCA~~ in accordance with Section ~~12.1~~11.1(g); or
 - (3) where Section ~~12.1~~11.1(d)(1) and (2) do not apply - an independent expert nominated by DBCT Management.

- (e) **(Notice of proposed independent expert)** DBCT Management will advise all Access Holders (and, where relevant, Expansion Parties) as to the identity of any independent expert it proposes appointing pursuant to Section ~~12.4~~[11.1](#)(a)(2) and request that any objection to that independent expert be given in writing to DBCT Management within 14 days after receipt of DBCT Management's notice.
- (f) **(Appointment if no objection)** If no Access Holder (and, where relevant, if no Funding Access Seeker) objects in writing to the independent expert nominated by DBCT Management within the 14 day period referred to in Section ~~12.4~~[11.1](#)(e), DBCT Management will promptly appoint the independent expert nominated by it.
- (g) **(Procedure if objection to proposed independent expert)** If a group of Access Holders or Expansion Parties determined in accordance with Section ~~12.4~~[11.1](#)(d) objects within the 14 day period provided for in Section ~~12.4~~[11.1](#)(e):
- (1) DBCT Management will promptly request the ~~QCA~~[Resolution Institute](#) to nominate an independent expert, and it will engage the independent expert so nominated ~~by the QCA~~; and
 - (2) the 6 month period referred to in Section ~~12.4~~[11.1](#)(k)(1) will not commence until the independent expert has been nominated by the ~~QCA~~[Resolution Institute](#).
- (h) **(Independent expert to consult)** DBCT Management must require its independent expert to consult (as far as is practicable, and to the extent that consultation has not already occurred in respect of a relevant estimation of Terminal Capacity, Expansion Component Capacity or System Capacity (as applicable)) with the Operator, Access Holders, any Access Seekers and other Service Providers, or their respective nominees with respect to the factors referred to in Sections ~~12.4~~[11.1](#)(a)(2)(~~EB~~)(i), and ~~12.4~~[11.1](#)(a)(2)(~~EB~~)(iii).
- (i) **(Objection to estimation by independent expert)** Despite Section ~~17.16~~, DBCT Management's estimation of Terminal Capacity, Expansion Component Capacity and System Capacity under Section ~~12.4~~[11.1](#)(a) may not be disputed or challenged or otherwise subject to review by or on behalf of Access Holders or Access Seekers:
- (1) except on the basis that it has been determined in bad faith, in breach of the ~~Undertaking~~[Framework](#) or an Access Agreement, or on the basis of a manifest error;
 - (2) unless Access Holders whose combined Annual Contract Tonnage for the then current Financial Year is greater than 50% of the Aggregate Annual Contract Tonnage for that Financial Year each object on the same or similar grounds; or
 - (3) unless Expansion Parties whose combined projected Annual Contract Tonnage would amount to greater than 50% of the projected Expansion Component Capacity, each object on the same or similar grounds.
- (j) **(Determination of Capacity conclusive)** The capacity of the Terminal, Differentiated Expansion Component and System Capacity estimated under Section ~~12.4~~[11.1](#)(a) (or, if applicable, Section ~~17.16~~) will constitute Terminal Capacity, Expansion Component Capacity or System Capacity (as relevant) for the purposes of this ~~Undertaking~~[Framework](#) until it is next reassessed.
- (k) **(Times for re-determination of Capacity)** Terminal Capacity, Expansion Component Capacity and System Capacity will be assessed by DBCT Management in accordance with Section ~~12.4~~[11.1](#)(a) and will be reassessed during the Term of this ~~Undertaking~~[Framework](#):

- (1) during each stage of a Feasibility Study being conducted by DBCT Management in accordance with Section 5.10;
 - (2) (subject to Section ~~12.1~~[11.1](#)(g)(2)) not later than 6 months, or such time as otherwise agreed by the parties, after each of the following:
 - (A) the Completion of each Terminal Capacity Expansion; and
 - (B) the time at which DBCT Management becomes aware of the completion of each material and discrete expansion (such materiality to be determined by DBCT Management acting reasonably) of any other component of the System; or
 - (3) otherwise at DBCT Management’s discretion.
- (l) **(Notification of assessments of Terminal Capacity, Expansion Component Capacity and System Capacity)** DBCT Management must promptly notify ~~the QCA,~~ DBCT Holdings, each Access Holder and each Access Seeker of each capacity assessment undertaken in accordance with this Section ~~12.1~~[11.1](#).
- (m) **(Requirements for expert report process)** The following will apply to an expert report for the purposes of Section ~~12.1~~[11.1](#)(a):
- (1) subject to confidentiality restrictions applying to DBCT Management, DBCT Management must provide to the expert all relevant information which DBCT Management has or to which it has access, to assist the expert to reach their estimation. DBCT Management will not enter into any confidentiality restrictions which would prevent disclosure for the purposes of this Section ~~12.1~~[11.1](#)(m) except as may be commercially reasonable and customary to avoid disclosure of commercially sensitive information;
 - (2) DBCT Management must, as far as practicable, use reasonable endeavours to work cooperatively with each other Service Provider (for example by regularly providing information relevant to System Capacity) and, as far as practicable, using reasonable endeavours to agree on the joint engagement of experts for the purposes of both this ~~Undertaking~~[Framework](#) and in respect of similar obligations by other Service Providers; and
 - (3) if the expert reasonably considers that there is either agreement or broad consensus amongst stakeholders in the Dalrymple Bay Coal Chain as to **Existing Terminal Capacity**, Expansion Component Capacity or System Capacity (such agreement or consensus having been reached having regard to expert reports), the expert must accept that agreement or broad consensus as evidence of **Existing Terminal Capacity**, Expansion Component Capacity or System Capacity (as the case may be) except to the extent that the expert reasonably forms the opinion that there is compelling evidence to the contrary.
- (n) **(Tonnes under Access Agreements must not exceed System Capacity)** DBCT Management must not enter into any Access Agreement if the Aggregate Annual Contract Tonnage would (after including the tonnage under the new Access Agreement) exceed the System Capacity (as determined for a relevant time), unless otherwise required to do so by the Access ~~Undertaking~~[Framework](#) (including pursuant to Section ~~12.3~~[11.3](#)), statute, or an agreement relating to its tenure of the Terminal including the Framework Agreement or the Port Services Agreement. For clarification:
- (1) **(Access Agreements can be conditional on capacity resulting from a Terminal Capacity Expansion)** this does not prohibit DBCT Management from entering into

a Conditional Access Agreement as long as the terms of all such Conditional Access Agreements are such that the increase in Aggregate Annual Contract Tonnage consequent on the Completion of the relevant Terminal Capacity Expansion will nevertheless not cause Aggregate Annual Contract Tonnage to exceed System Capacity (based on the estimated System Capacity at the completion of the relevant expansion); and

- (2) (~~Undertaking Framework~~ **not breached if System Capacity exceeded after good faith reasonable efforts**) DBCT Management will not be in breach of this ~~Undertaking Framework~~ if it has complied with this ~~Undertaking Framework~~ (or made good faith and reasonable attempts to comply) but the re-determination of System Capacity in accordance with Section ~~12.4~~11.1(k) reveals that System Capacity is less than the Aggregate Annual Contract Tonnage at that time.
- (o) (**Protection of DBCT Management**) Notwithstanding any other provision of this ~~Undertaking Framework~~, if DBCT Management complies (or makes a good faith and reasonable attempt to comply) with the provisions of this Section ~~12.4~~11.1, DBCT Management will not have any liability (whether for loss, damage, cost, expense or other remedy) ~~to the QCA or~~ any Access Seeker (and the Standard Access Agreement will provide that DBCT Management will not be liable to an Access Holder which executes it) for any:
- (1) breach of this Section ~~12.4~~11.1;
 - (2) delay which arises as a result of the Aggregate Annual Contract Tonnage (which was expected not to exceed Terminal Capacity, Expansion Component Capacity or System Capacity) subsequently exceeding Terminal Capacity, Expansion Component Capacity or System Capacity for any reason;
 - (3) one or more factors related to utilisation of capacity of the Terminal, or any other part of the System subsequently changes (for example, changes in service levels required pursuant to a right of Access Holders under a Standard Access Agreement, the nature of coal Handled, an Access Holder's use of the Terminal, vessel mix, railway infrastructure, rolling stock or locomotives, rail loading facilities of mines or any other relevant factor (provided that such factor is not a breach by DBCT Management of any other part of this ~~Undertaking Framework~~ or an Access Agreement); or
 - (4) any defect, error or omission on the part of the independent expert appointed under Section ~~12.4~~11.1.
- (p) (**Recovery of independent expert's costs**) The costs of an independent expert appointed under Section ~~12.4~~11.1(d):
- (1) following the Completion of and handover to the Operator of a Terminal Capacity Expansion will be borne by DBCT Management, and may be included in the Regulated Asset Base (of the Existing Terminal or Differentiated Expansion Component, as relevant) as an Other Cost in accordance with Section ~~12.5~~11.5(a)(3)(B); and
 - (2) in all circumstances other than as described in Section ~~12.4~~11.1(p)(1), be borne by DBCT Management.
- (q) (**Provisional allocation pending determination of Capacity**) Notwithstanding any other provision of this ~~Undertaking Framework~~, DBCT Management may, on a provisional basis, allocate after the Completion of a Terminal Capacity Expansion the anticipated increase in Terminal Capacity and Expansion Component Capacity (if relevant

depending on the Terminal Capacity Expansion) until Terminal Capacity, Expansion Component Capacity (if relevant depending on the Terminal Capacity Expansion) and System Capacity is determined in accordance with Section ~~12.1~~[11.1](#)(k).

11.2 ~~12.2~~ Terminal Capacity Expansion consultation

- (a) **(Meeting agendas)** DBCT Management will hold meetings with Access Holders and, where they exist, Expansion Parties not less than twice per Financial Year to consult in good faith upon the following issues:
 - (1) current Terminal Capacity, Expansion Component Capacity and System Capacity;
 - (2) constraints on current Terminal Capacity, Expansion Component Capacity and System Capacity including the impact on vessel waiting times and Access Holder transport costs;
 - (3) future contracts/forecasts that may impact on Terminal Capacity, Expansion Component Capacity and System Capacity;
 - (4) significant issues relevant to Terminal Capacity, Expansion Component Capacity and System Capacity;
 - (5) the timing and nature of the next Terminal Capacity Expansion (if any) and the impact on current capacity requirements, pricing and the Terminal Master Plan and System Master Plan; and
 - (6) any proposed changes to the Terminal Regulations.
- (b) DBCT Management will also hold such meetings to consult in good faith upon these issues in respect of Expansion Component Capacity with Differentially Priced Access Holders for the relevant Expansion Component.
- (c) **(Meeting administration)** DBCT Management will distribute, in a timely manner, agendas, detailed briefing material and a copy of the minutes of each of these meetings to all Access Holders, Expansion Parties, ~~and~~ [DBCT Holdings](#) ~~and the QCA~~.
- (d) **(Separate meetings with Expansion Parties)** For the avoidance of doubt, nothing in this Section ~~12.2~~[11.2](#) limits or restricts DBCT Management from meeting separately with Expansion Parties to the extent that the matters raised relate only to a Differentiated Expansion Component.

11.3 ~~12.3~~ General obligation to undertake Terminal Capacity Expansions

- (a) Subject to Sections ~~12.7~~[11.7](#) and ~~12.8~~[11.8](#) of this ~~Undertaking~~ [Framework](#), DBCT Management will undertake Terminal Capacity Expansions as are necessary to:
 - (1) **(Accommodate growth)** accommodate the actual and reasonably anticipated future growth of demand (having regard to Access Applications received by DBCT Management and other relevant factors) for the use of the Terminal by Access Holders and Access Seekers;
 - (2) **(Eliminate shortfalls in Terminal Capacity)** eliminate sustained shortfalls in actual Terminal Capacity below the aggregate of Annual Contract Tonnages of Access Holders, whatever the reason for such shortfalls;
 - (3) **(Good Operating and Maintenance Practices)** ensure that the Terminal complies with Good Operating and Maintenance Practice in respect of quality standards for such facilities, good environmental practice and applicable environmental standards; and
 - (4) **(Laws)** comply with Approvals and applicable laws,

provided that DBCT Management will nevertheless have regard to the System Master Plan and the expected capacity of other components of the System, with the intention that the capacity of the Terminal will (as far as practicable and economic and can reasonably be anticipated) not significantly and disproportionately exceed System Capacity for more than 12 months after the Completion of a Terminal Capacity Expansion.

- (b) **(Factors to be taken into account)** It is recognised that:
- (1) the name-plate capacity of each individual component of the System will, on a "stand alone" basis at all times, be likely to exceed the aggregate System Capacity to some extent; and
 - (2) DBCT Management does not have any control over any part of the System other than the Terminal, and DBCT Management's estimate of expected capacity of the other components of the System will have limited accuracy (for example, because of changes in or operation of the System or the operation of any upstream components of the System in relation to the Terminal, delays in expansions of other parts of the System (including in the circumstance in which another Service Provider delays an expansion which was provided for in a System Master Plan) and other differences to DBCT Management's assumptions).
- (c) **(Protection of DBCT Management)** Accordingly DBCT Management will not have any liability to ~~the QCA~~ or an Access Seeker (and the Standard Access Agreement will provide that DBCT Management will not be liable to an Access Holder who executes it) if DBCT Management makes a good faith and reasonable attempt to comply with this Section ~~12.3~~, [11.3](#), even if it does not actually comply with this Section ~~12.3~~, [11.3](#).

11.4 ~~12.4~~ Accommodation of Capacity

- (a) **(General obligation to accommodate Access Applications)** Subject to Sections 5.4(j), ~~12.7~~[11.7](#) and ~~12.8~~[11.8](#) of this ~~Undertaking~~[Framework](#), and the proviso in Section ~~12.3~~[11.3](#)(a), DBCT Management will use best endeavours to ensure that as soon as reasonably practical after DBCT Management receives from a reasonably creditworthy Access Seeker a bona fide offer to enter into an Access Agreement that will be unconditional and legally binding and require the Access Seeker to obtain Handling of coal at the Terminal for a period in excess of 5 years (or 10 years or more Handling of coal if acceptance of the offer would require a Capacity Expansion).
- (b) DBCT Management will use its best endeavours to ensure that the Terminal is able to Handle that coal without a material and sustained increase in:
- (1) vessel waiting times; or
 - (2) the average net costs (after taking into account any discounts or rebates available to Access Holders) across all Access Holders of transporting coal from the rail loading points at mine sites to the Terminal for Handling, over any period of three consecutive months,
- attributable to delays caused by the provision of Services in respect of the additional volume. DBCT Management will disclose to all Access Holders, ~~and~~ [and](#) Access Seekers ~~and~~ [and](#) ~~the QCA~~ its process for so calculating vessel waiting times and average net costs to Access Holders.
- (c) **(Bona fide offers and reasonably creditworthy Access Seekers)** Without limiting the circumstances in which DBCT Management may be taken to have received from a

reasonably creditworthy Access Seeker a bona fide offer to enter into an Access Agreement, if:

- (1) DBCT Management receives an offer from an Access Seeker to enter into an Access Agreement on the terms of the Standard Access Agreement, or receives an offer from an Access Seeker to enter into an Access Agreement where any departure of the terms of that offer from the terms of a Standard Access Agreement is not likely to increase cost (direct or indirect) or risks to DBCT Management; and
- (2) the Access Seeker has satisfied DBCT Management (acting reasonably) in accordance with Section 5.9 that the Access Seeker (or any relevant Security provider) has the financial and other relevant resources to enable it to discharge its obligations under the relevant Access Agreement,

then for the purpose of this Section ~~12.4~~, 11.4, DBCT Management will be taken to have received from a reasonably creditworthy Access Seeker a bona fide offer to enter into an Access Agreement.

11.5 ~~12.5~~ Undertaking Terminal Capacity Expansions

- (a) **(Terminal Capacity Expansion application to be lodged with ~~QCA~~Arbitrator)** If DBCT Management proposes to expand the Terminal during the Term of the ~~Undertaking~~Framework (either because it is obliged to do so under this ~~Undertaking~~Framework or wishes to do so without being obliged to do so), then in respect of the particular expansion to the Terminal it will submit to ~~the QCA~~an arbitrator appointed in accordance with Section 16.4 (Expansion Arbitrator), a Terminal Capacity Expansion application, which must include the following information:

- (1) details of the scope of the proposed Terminal Capacity Expansion, including:
 - (A) confirmation of Terminal operating assumptions and System operating assumptions in the FEL 3 Feasibility Study, including confirmation of the capacity of the Existing Terminal and System Capacity prior to the proposed Terminal Capacity Expansion and the proposed Expansion Component Capacity; and either:
 - (i) ~~(B)~~ confirmation that, and details of how, the Terminal Capacity Expansion complies with both the current Terminal Master Plan and System Master Plan; or
 - (ii) ~~(C)~~ a justification acceptable to the ~~QCA~~Expansion Arbitrator as to why it does not, and need not, comply with the Terminal Master Plan or System Master Plan, but will nevertheless be economically and operationally prudent;
- (2) ~~The~~the terms and conditions of any Access Agreements that are conditional on the Terminal Capacity Expansion, including:
 - (A) confirmation that, and details of how, the Conditional Access Agreement complies with the Standard Access Agreement; and
 - (B) a justification acceptable to the ~~QCA~~Expansion Arbitrator as to why the Conditional Access Agreement does not, and need not, comply with the Standard Access Agreement, but will nevertheless be economically and operationally prudent and result in DBCT Management achieving a

regulated return that is commensurate with the cost and risks involved with the Terminal Capacity Expansion;

- (3) the estimated cost of the proposed Terminal Capacity Expansion categorised into:
 - (A) works that are proposed to be managed under the Tender and Contract Management Process (**TCMP**) (**Contract Costs**); and
 - (B) work and costs which are not to be managed under the TCMP (**Other Costs**);
 - (4) the estimated timetable for the proposed Terminal Capacity Expansion;
 - (5) a high level project execution strategy, which will, among other things, identify risks and risk mitigation;
 - (6) either:
 - (A) evidence that the 60/60 Requirement has been complied with; or
 - (B) DBCT Management's justification for the Terminal Capacity Expansion without the 60/60 Requirement having been complied with;
 - (7) the process for the tendering and awarding of contracts, standard form contract terms, and the contract management process for the management of contracts post award (these processes together constitute the **TCMP**);
 - (8) the process by which costs will be expended, tracked and managed if they are not covered by the TCMP; and
 - (9) an application for a Price Ruling in respect of the Terminal Capacity Expansion, if one has not already been made.
- (b) **(Monthly reporting to QCA Expansion Arbitrator)** DBCT Management will also submit to the QCA Expansion Arbitrator (with a copy to each Access Holder) a monthly report setting out:
- (1) the status of each contract awarded under the TCMP, including the degree of completion and the anticipated final cost inclusive of actual and provisioned variations;
 - (2) the status of each element of the Other Costs, including the costs incurred, the degree of completion and the anticipated final costs; and
 - (3) if anticipated final costs vary from the costs initially forecast, details of and the reasons for the variation.
- (c) **(QCA Expansion Arbitrator to confirm Price Ruling following application for Expansion)** Following receipt of an application under 5.12(a)(2), the QCA Expansion Arbitrator will provide to DBCT Management and each Expansion Party notice of, in respect of a relevant Expansion Component:
- (1) where a Price Ruling has been made in accordance with Section 5.12(c), the content of the QCA Expansion Arbitrator's ruling and details of any material changes apparent in the application which may require a new or varied ruling to be made, including the extent to which the circumstances of the Expansion Component vary from the assumptions made in the original Price Ruling;
 - (2) where a Price Ruling has not been made in accordance with 5.12(c), but a Price Ruling Application has been made under Section 5.12(a)(2) or ~~12.5~~11.5(a)(9), a copy of the Price Ruling Application and information on the QCA Expansion

Arbitrator's process for determining a Price Ruling for that Terminal Capacity Expansion.

- (d) **(DBCT Management to provide information to ~~QCA~~the Expansion Arbitrator.)** DBCT Management will provide all information required by the ~~QCA~~Expansion Arbitrator or any advisor to the ~~QCA~~Expansion Arbitrator to enable the ~~QCA~~Expansion Arbitrator to assess the prudence of any proposed or actual Capital Expenditure and Different Terms. ~~Any~~Prior to disclosing any confidential information ~~provided by DBCT Management and nominated as confidential will be handled by the QCA in accordance with the confidentiality provisions of the QCA Act.~~, DBCT Management must ensure that the Expansion Arbitrator (and any advisor to the Expansion Arbitrator) enters into a confidentiality deed with DBCT Management to the effect that that the Expansion Arbitrator (and any advisor to the Expansion Arbitrator) must keep the information confidential and only use that information for the purpose of its engagement under this Section 11.5.
- (e) **(~~QCA~~Expansion Arbitrator's acceptance of prudence of contract costs)**
- (1) ~~Subject to 12.5(e)(3), the QCA~~The Expansion Arbitrator will accept that capital expenditure in respect of a proposed Expansion Component is prudent and will include it into the Regulated Asset Base (of the Existing Terminal, or Differentiated Expansion Component, as applicable) following Completion of the Terminal Capacity Expansion if DBCT Management can demonstrate and the ~~QCA~~Expansion Arbitrator is satisfied that:
- (A) the scope of the works complies with Section ~~12.5~~11.5(f) and the requirements of that Section have been met; and
- (B) the standard and specifications of the works is appropriate, as provided for in Section ~~12.5~~11.5(g) and the requirements of that Section have been met; and
- (C) the works were undertaken in accordance with the approved TCMP or were otherwise reasonable, as provided for in Sections ~~12.5~~11.5(i), ~~12.5~~11.5(j), ~~12.5~~11.5(k) and ~~12.5~~11.5(l) and the requirements of those Sections have been met.
- (2) In the event that the ~~QCA~~Expansion Arbitrator considers that any elements specified in Section ~~12.5~~11.5(e)(1) are not satisfactorily met, the ~~QCA~~Expansion Arbitrator will undertake an assessment of the prudence of the capital expenditure as if the works were Other Costs, as provided for in Section ~~12.5~~11.5(m). In undertaking this assessment, the ~~QCA~~Expansion Arbitrator will take into account the extent to which DBCT Management has achieved compliance with the expansion approval process outlined in this Section ~~12.5, 11.5~~, 11.5, including consistency with any assumptions associated with a Price Ruling.
- ~~(3) Any dispute in relation to whether the QCA should be satisfied as to any of the elements specified in Section 12.5(e)(1) is to be resolved in accordance with Section 17.4.~~
- (f) **(~~QCA~~Expansion Arbitrator's acceptance of scope of works)**
- (1) The ~~QCA~~Expansion Arbitrator will accept the scope of the proposed Terminal Capacity Expansion if it is satisfied that:

- (A) the scope is consistent with the current Terminal Master Plan and System Master Plan and applicable laws;
 - (B) the 60/60 Requirement has been complied with; and
 - (C) (together with any other relevant expansions of one or more components of the System) the Terminal Capacity Expansion will result in an increase in System Capacity and will not be expected to result in Terminal Capacity significantly and disproportionately exceeding System Capacity for more than 12 months after Completion of a Terminal Capacity Expansion.
- (2) The [QCA Expansion Arbitrator](#) will accept or not accept the scope within 20 Business Days of being provided with all of the information it requires to assess the proposed works and the criteria listed in Section ~~12.5~~[11.5](#)(f)(1). If the [QCA Expansion Arbitrator](#) does not accept the scope of the proposed works, it will give reasons in writing.
- (g) **([QCA Expansion Arbitrator](#)'s acceptance of standard and specifications of works)**
- (1) The [QCA Expansion Arbitrator](#) will review the standard and specifications of works relating to a Terminal Capacity Expansion and all relevant contract terms to ensure that the works do not involve any unnecessary works or contain design standards that exceed those standards necessary to comply with Clause 12.1 of the Port Services Agreement, or, in the case of contract terms, are not likely to materially adversely impact on a prudent balance between price and risk.
 - (2) The [QCA Expansion Arbitrator](#) will accept or not accept on a contract by contract basis the standard, specifications, and contract terms for the works within 20 Business Days of receipt of the technical specifications, design drawings and contract terms for the works and any other information needed by the [QCA Expansion Arbitrator](#) to review the standard, specifications and contract terms for the works. If the [QCA Expansion Arbitrator](#) does not accept the standard, specifications and contract terms of the works, it will give reasons in writing.
 - (3) If DBCT Management amends the submitted technical specifications and/or design drawings and/or material contract terms after an approval by the [QCA Expansion Arbitrator](#), DBCT Management will immediately advise the [QCA Expansion Arbitrator](#) of the changes. The [QCA Expansion Arbitrator](#) will accept or not accept the changes.
- (h) **(60/60 Requirement)**
- (1) **(What is the 60/60 Requirement)** In this Section ~~12.5~~[11.5](#), the "60/60 Requirement" is satisfied when:
 - (A) DBCT Management has executed Access Agreements from Access Holders, each of which provides for the Handling of coal for a period of at least 10 years duration for at least 60% of the proposed Terminal Capacity increment;~~and~~;
 - (B) 60% of all Access Holders and Expansion Parties (as determined by their Annual Contract Tonnages reduced by the relevant exclusions set out in Section ~~12.5~~[11.5](#)(h)(1)(C)) do not oppose the Terminal Capacity Expansion, having been given the information and notice in Section ~~12.5~~[11.5](#)(h)(2) at least 15 Business Days before it is determined whether or not the 60/60 Requirement has been satisfied.

- (C) The relevant exclusions are the tonnages of any Access Holder of existing capacity at the Terminal where the Access Holder is:
- (i) legally and beneficially, the same entity as; or
 - (ii) a related body corporate of an Access Holder that is legally and beneficially, the same entity as,

an Expansion Party that is within Section ~~12.5~~11.5(h)(1)(A). For clarification, where an Expansion Party or Access Holder is, or acts on behalf of, a joint venture, the Expansion Party or Access Holder will only be "legally and beneficially" the same, in respect of both an Access Agreement (or Existing User Agreement) and an Access Application or two or more Access Agreements (or Existing User Agreements) and Access Applications, where each of the entities comprising the joint venture relating to each relevant Access Agreement (or Existing User Agreement) and Access Application is the same (or a related body corporate of the same) entity in each context.

- (2) **(DBCT Management to provide information for 60/60 Requirement process)**
 DBCT Management will provide the Access Holders and Expansion Parties referred to in Section ~~12.5~~11.5(h)(1)(B) relevant to a proposed Terminal Capacity Expansion with the following information, for the purposes of determining whether the 60/60 Requirement can be complied with in respect of a proposed Terminal Capacity Expansion:
- (A) outline details of the scope of the proposed Terminal Capacity Expansion works;
 - (B) details of how the Terminal Capacity Expansion complies with the current Terminal Master Plan and System Master Plan;
 - (C) without limitation to Section ~~5.10~~5.10, provide a copy of the capacity assessment undertaken in accordance with Section ~~12.1~~11.1 which separately identifies the capacity of the Existing Terminal and the proposed Expansion Component Capacity;
 - (D) cost estimates for the proposed Terminal Capacity Expansion and each element of the Terminal Capacity Expansion, including contingency, financing and escalation allowances;
 - (E) a schedule of each element of the proposed Terminal Capacity Expansion;
 - (F) the projected total Terminal Capacity and System Capacity following the Terminal Capacity Expansion;
 - (G) a high level project execution strategy, which strategy will, among other things, identify risks and risk mitigation;
 - (H) a schedule of likely reductions in Terminal Capacity and System Capacity during construction;
 - (I) an outline of Existing User Agreement tonnages, Access Agreement tonnages, Conditional Access Agreement tonnages and Access Application tonnages and contract periods;
 - (J) an estimate of what effect the proposed Terminal Capacity Expansion will have on each Terminal Component's Capital Charges and Operation and Maintenance Charges;

- (K) a notice that the above information is being expressly provided in contemplation of the 60/60 Requirement (even if the notice was given prior to the Commencement Date);
 - (L) where a Price Ruling has been made in respect of a relevant Terminal Capacity Expansion, the content of the [QCA Expansion Arbitrator's](#) ruling; and
 - (M) where a Price Ruling has not yet been made in respect of a relevant Terminal Capacity Expansion, the application for a Price Ruling filed with the [QCA Expansion Arbitrator](#) under Section ~~12.5~~[11.5](#)(a)(9).
- (3) **(60/60 Requirement conclusive)** Once evidence of compliance with the 60/60 Requirement has been provided and accepted by the [QCA Expansion Arbitrator](#) it will not be subject to further review (provided that the evidence presented was not misleading or deceptive and there has been no dishonesty or manifest error).
- (4) **(60/60 Requirement determines deemed need for Terminal Capacity Expansion)** If Section ~~12.5~~[11.5](#)(a)(6)(A) applies, the [QCA Expansion Arbitrator](#) will confirm the sufficiency (or sufficiencies) of evidence of the 60/60 Requirement within 20 Business Days of receipt of the Terminal Capacity Expansion application. If the [QCA Expansion Arbitrator](#) provides such confirmation, it will be deemed to have accepted the need for the Terminal Capacity Expansion.
- (5) **([QCA Expansion Arbitrator](#) review if 60/60 Requirement not met)** If Section ~~12.5~~[11.5](#)(a)(6)(B) applies, the [QCA Expansion Arbitrator](#) will, within 3 months of receipt of the Terminal Capacity Expansion application, review whether the Terminal should be expanded in the way proposed by DBCT Management. If the [QCA Expansion Arbitrator](#) does not accept that the Terminal should be expanded in the way proposed by DBCT Management, it will give reasons in writing.
- (i) **(Tender and Contract Management Processes)**
- (1) **(General principles for [QCA Expansion Arbitrator](#) approval)** The [QCA Expansion Arbitrator](#) will approve DBCT Management's TCMP if it is satisfied that it is consistent with the following general principles, namely that the TCMP:
- (A) is in accordance with good industry practice;
 - (B) will generate an efficient and competitive outcome;
 - (C) will avoid conflict of interest or collusion amongst tenderers;
 - (D) is prudent in the circumstances of the Terminal Capacity Expansion project; and
 - (E) will avoid unreasonable exposure to contract variation claims.
- (2) **(Detailed considerations for [QCA Expansion Arbitrator](#) approval)** In particular, in considering whether or not to approve DBCT Management's TCMP, the [QCA Expansion Arbitrator](#) will consider whether, (amongst other things):
- (A) there is a clear process for the calling of tenders, including having clear specifications for tenders, and processes for mitigating conflicts of interest (except when it is assessed that calling tenders is likely to be less advantageous than an alternative means of negotiating a contract);
 - (B) (where applicable) there is a tender assessment process which contains clear and appropriate processes for determining the successful tender,

with any decisions to approve a tender that is not the lowest tender being appropriately justified and documented;

- (C) the basis of payment for works is clearly specified and the basis for undertaking the works is in accordance with good commercial practice;
 - (D) there is a process for managing contracts before and after award that accords with good commercial practice for a project of the type and scale of the Terminal Capacity Expansion and provides appropriate guidance on the criteria that DBCT Management should apply to decisions regarding the management of the Terminal Capacity Expansion, including but not limited to:
 - (i) safety during construction and operation;
 - (ii) compliance with environmental requirements during construction and operation;
 - (iii) minimising disruption to operating capacity during construction;
 - (iv) accommodation of the reasonable requests of Access Holders and Expansion Parties to change the scope and sequence of construction to suit their needs;
 - (v) a prudent balance between:
 - (A) a higher price in return for more certainty as to final cost;
 - (B) a lower price accepting that final cost may be less certain; and
 - (C) costs, schedule and minimising disruption to operating capacity during construction;
 - (vi) minimising whole of asset life costs including future maintenance and operating costs; and
 - (vii) minimising total project cost which may at times not be consistent with minimisation of individual contract costs;
 - (E) there is a process for managing contract variations and/or escalation that occurs post award of a contract, requiring that reasonable consideration be given to managing the risk of contract variations and/or escalation and the allocation of potential risks during the management of the contract and requiring the provision of clear documentary evidence regarding the nature and reasonableness of any variation and/or escalation; and
 - (F) DBCT Management has engaged an auditor in accordance with Section ~~12.5~~11.5(l) to monitor compliance with the TCMP.
- (3) **(Notification of TCMP decision by QCA Expansion Arbitrator)** The QCA Expansion Arbitrator will within 20 Business Days of the QCA Expansion Arbitrator receiving all the information it requires to assess the TCMP give DBCT Management a notice in writing whether it will approve or not approve the TCMP, setting out:
- (A) reasons for its decision; and
 - (B) if requested, the way the TCMP should be amended.
- (4) **(Amendment of TCMP)** DBCT Management may at any time and from time to time request amendments to an approved TCMP by giving written notice to the

QCA Expansion Arbitrator. Promptly following receipt of a request to amend the TCMP the QCA Expansion Arbitrator will approve or not approve the amendments. In considering such amendments the QCA Expansion Arbitrator will apply Sections ~~12.5~~11.5(i)(1), ~~12.5~~11.5(i)(2) and ~~12.5~~11.5(i)(3).

- (j) **(Indicators of prudent contract value)** The QCA Expansion Arbitrator will accept that the value of a contract as awarded is prudent and will include it into the relevant Regulated Asset Base if:
- (1) the QCA Expansion Arbitrator has approved DBCT Management's TCMP in accordance with Section ~~12.5~~11.5(i);
 - (2) the QCA Expansion Arbitrator is satisfied that contract provisions regarding contract variations and escalation accord with good commercial practice; and
 - (3) the auditor engaged in accordance with Section ~~12.5~~11.5(l) certifies that the works have been conducted in accordance with the approved TCMP.
- (k) **(Indicators of prudent variations and escalations)** The QCA Expansion Arbitrator will accept that contract variations and/or escalations post award of a contract are prudent and will include them into the relevant Regulated Asset Base if:
- (1) **(Compliance with TCMP)** a contract which has been accepted as prudent under Section ~~12.5~~11.5(j) has been managed in accordance with the approved TCMP;
 - (2) **(Auditor certification)** the auditor engaged in accordance with Section ~~12.5~~11.5(l) has certified that contract variations and/or escalations have been handled in a manner consistent with the relevant contract provisions; and
 - (3) **(Variations and escalations)** the QCA Expansion Arbitrator is satisfied that the cost of contract variations and/or escalations is otherwise appropriate, having regard to the following:
 - (A) whether adequate consideration was given to properly managing the risk of contract variations and/or escalation or the allocation of potential risks during the awarding and management of the contract;
 - (B) whether the contract has been appropriately managed when regard is had for matters outlined in Section ~~12.5~~11.5(i)(2)(D);
 - (C) whether the contract variations and/or escalations are appropriately justified; and
 - (D) whether the contract has been managed with a regard to a prudent balance between costs, schedule and minimising disruption to operating capacity during construction.
- (l) **(Independent external audit)** As part of the implementation of the approved TCMP, DBCT Management will engage an independent external auditor to audit the compliance of DBCT Management's tender and contract management processes with the TCMP approved under this Section ~~12.5~~11.5. The process in this regard will be as follows:
- (1) **(Appointment)** DBCT Management will appoint the auditor, subject to obtaining the QCA Expansion Arbitrator's prior approval of the selection of the auditor and the QCA Expansion Arbitrator's prior approval of the terms and conditions of the engagement of the auditor;
 - (2) **(Acknowledgement of duty)** the auditor will be required to acknowledge and accept that the auditor owes a separate contractual duty of care to the

[QCA Expansion Arbitrator](#) in the provision of the audit and, in the event of a conflict between the auditor's obligations to DBCT Management and its duty of care to the [QCA Expansion Arbitrator](#), the auditor's duty of care to the [QCA Expansion Arbitrator](#) will take precedence;

- (3) **(Audit process to be agreed and approved)** the auditor must agree the processes for conducting an audit with DBCT Management and obtain the [QCA Expansion Arbitrator's](#) approval of the audit process. The audit process will consist of a proposed work program, including audit costs (which shall be payable by DBCT Management and included in the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated), for the execution of the audit;
 - (4) **(Provision of information to auditor)** DBCT Management will, within a nominated timeframe that is determined by the auditor to be reasonable after consultation with DBCT Management, provide any relevant information the auditor reasonably requires for the purpose of conducting the audit;
 - (5) **(Confidentiality deed)** if required by DBCT Management, the auditor will enter into a confidentiality deed with DBCT Management in relation to any information provided by DBCT Management to the effect that it must keep the information confidential and only use that information for the purpose of conducting the audit and completing the audit report detailed below;
 - (6) **(Audit reports)** the auditor will compile an audit report identifying whether DBCT Management has complied in all material respects with the approved TCMP including in relation to contract variations and/or escalation. If the auditor identifies that DBCT Management has not complied in all material respects with the approved TCMP, then the audit report is also to contain details on the relevant non-compliance, any reasons stated by DBCT Management for the relevant non-compliance, and whether the non-compliance was reasonable in the circumstances;
 - (7) **(Progress reports)** the auditor will provide progress reports on the audit process every 6 months. The auditor will also provide a copy of the audit report to DBCT Management and the [QCA Expansion Arbitrator](#) upon completion of the audit. The [QCA Expansion Arbitrator](#) may ~~publish~~have the audit report published on DBCT Management's website if it considers it appropriate; and
 - (8) **(~~QCA Arbitrator~~ may require additional detail)** if the [QCA Expansion Arbitrator](#) forms the view that any of the auditor's reports (whether progress reports or a final report) are lacking in detail or otherwise deficient, the [QCA Expansion Arbitrator](#) may direct DBCT Management to instruct the auditor to review their report and, in doing so, to address the concerns of the [QCA Expansion Arbitrator](#)
- =
- (m) **(Prudency of Other Costs)**
- (1) **([QCA Expansion Arbitrator](#) to assess prudency)** The [QCA Expansion Arbitrator](#) will undertake an assessment of the prudency of Other Costs, and costs to which Section ~~12.5~~11.5(e)(2) applies, after the relevant costs have been expended, ~~in accordance with its usual practice for the assessment of the prudency of capital expenditure undertaken by regulated entities.~~
 - (2) **(Considerations relating to prudency)** In assessing whether actual capital expenditure is prudent, the [QCA Expansion Arbitrator](#) will have regard for the

scope of the works undertaken, the standard of the works undertaken and the reasonableness of the cost of works undertaken.

- (3) **(Factors relevant to scope of work)** In assessing the scope of the works and any associated ancillary services undertaken, the ~~QCA~~[Expansion Arbitrator](#) will have regard to (amongst other things):
- (A) the scope of the proposed Terminal Capacity Expansion;
 - (B) the current Terminal Master Plan and System Master Plan (or to the extent that there is no current System Master Plan, the considerations DBCT Management is required to have regard to under Section ~~15.2~~[14.2\(c\)](#));
 - (C) the extent of current contracted demand, likely future demand and any spare capacity considered appropriate, and the need for capital works to accommodate that demand;
 - (D) the appropriateness of DBCT Management’s processes to evaluate and select proposed capital works, including the extent to which alternatives are evaluated as part of the process;
 - (E) the extent to which capital projects that were undertaken were subjected to DBCT Management’s evaluation and selection process; and
 - (F) the extent to which consultation has occurred with relevant stakeholders about the proposed capital works.
- (4) **(Factors relevant to standard and specifications)** In assessing the standard and specifications of the works undertaken, the ~~QCA~~[Expansion Arbitrator](#) will ensure that the proposed works do not involve any unnecessary works or contain design standards that exceed those standards necessary to comply with Clause 12.1 of the Port Services Agreement and section 11, Schedule E of this ~~Undertaking~~[Framework](#).
- (5) **(Factors relevant to reasonableness)** In assessing the reasonableness of the cost of works undertaken, the ~~QCA~~[Expansion Arbitrator](#) will have regard to, (among other things):
- (A) the level of such costs and risks relative to the scale, nature, cost and complexity of the project;
 - (B) the circumstances prevailing in the markets for engineering, equipment supply and construction;
 - (C) the manner in which the Terminal Capacity Expansion has been managed, including but not limited to the manner in which DBCT Management has balanced the needs of:
 - (i) safety during construction and operation;
 - (ii) compliance with environmental requirements during construction and operation;
 - (iii) minimising disruption to operating capacity during construction;
 - (iv) accommodating the reasonable requests of Access Holders to change the scope and sequence of the works undertaken to suit their needs;
 - (v) a prudent balance between:

- (A) a higher price in return for more certainty as to final cost;
 - (B) a lower price, accepting that final cost may be less certain; and
 - (C) costs, schedule and minimising disruption to operating capacity during construction;
- (vi) minimising whole of asset life costs including future maintenance and operating costs; and
 - (vii) minimising the total cost of the Terminal Capacity Expansion which may at times not be consistent with minimisation of individual costs.
- (6) **(Assessing capital expenditure)** In assessing the prudence of capital expenditure undertaken, the [QCA Expansion Arbitrator](#) will take advice as necessary from independent advisors using appropriate benchmarks and experience, and consult as necessary with relevant stakeholders (the cost of which advisers will be borne by DBCT Management at the discretion of the [QCA Expansion Arbitrator](#)).
- (7) **(Audit costs)** The costs of the external auditor referred to in Section ~~12.5~~[11.5](#)(l) and the advisers referred to in Section ~~12.5~~[11.5](#)(m)(6) (where payable by DBCT Management) will form part of the Other Costs.
- (8) **(Inclusion in asset base)** The [QCA Expansion Arbitrator](#) will include all prudent capital expenditure into the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated).
- (n) **(Preliminary assessment of Other Costs)** If requested by DBCT Management, the [QCA Expansion Arbitrator](#) will undertake a preliminary assessment of the reasonableness of the Other Costs and shall advise DBCT Management of the results of such assessment. The [QCA Expansion Arbitrator](#) will not be bound by this assessment when determining the prudence of actual capital expenditure and whether the capital expenditure should be included in the Regulated Asset Base (of the Existing Terminal, or Differentiated Expansion Component as applicable).
- (o) **(Interim Reference Tariffs determined before Completion of Terminal Capacity Expansion)** Prior to the Completion of a Terminal Capacity Expansion DBCT Management must submit a draft amending access undertaking in accordance with Schedule C, Part A ~~Error! Reference source not found.~~, Section ~~5~~[5](#) ~~Error! Reference source not found.~~ of the ~~Undertaking~~ to provide for:
- (1) an interim ARR, Revenue Cap and Reference Tariff (which interim ARR, Revenue Cap and Reference Tariff is based on forecast costs) to apply to the Expansion Component from the first day of the Month following the Month in which a Terminal Capacity Expansion is Completed and handed over to the Operator, until approval by the QCA of an amended ARR, Revenue Cap and Reference Tariff for the Expansion Component which are based on the actual costs of the Terminal Capacity Expansion; and
 - (2) a mechanism for the adjustment of Access Charges for the Expansion Component (to the extent that they are affected by a Terminal Capacity Expansion) so as to reconcile the difference between Access Charges which are based on forecast costs and Access Charges which are based on actual costs, with the purpose that DBCT Management and Reference Tonnage Access Holders will be placed in the same position they would have been in had the Access Charges which were

payable in respect of the Expansion Component were originally based on the actual costs of the Terminal Capacity Expansion and not the forecast costs.

- (p) **(Consistency of Interim Reference Tariff with earlier pricing reviews)** Where a draft amending access undertaking is submitted in accordance with Section ~~12.5~~[11.5](#)(o)(1) above, the interim ARR, Revenue Cap, Reference Tariff and Access Charges to apply to the Expansion Component shall:
- (1) be calculated in accordance with Schedule C, ~~Part A~~[Error! Reference source not found.](#), Section ~~5~~[Error! Reference source not found.](#) of the ~~Undertaking~~;
 - (2) include any information about queuing and how the relevant queue is to be managed; and
 - (3) be consistent with any relevant Price Ruling.
- (q) **(Adjustment of Interim Reference Tariff etc following Completion and determination of actual costs)** Promptly following the Completion of a Terminal Capacity Expansion and the determination of the actual costs of that Capacity Expansion, DBCT Management must submit a draft amending access undertaking which shall:
- (1) be calculated in accordance with Schedule C, ~~Part A~~[Error! Reference source not found.](#), Section ~~5~~[Error! Reference source not found.](#) of the ~~Undertaking~~[Framework](#);
 - (2) include any updated information as required by section ~~12.5~~[11.5](#)(o);
 - (3) be consistent with any applicable Price Ruling,
- and which draft amending access undertaking may take the form of a variation to any draft submitted pursuant to Section ~~12.5~~[11.5](#)(o) if it is not yet approved by the QCA.

11.6 ~~12.6~~ Return on capital applicable to Terminal Capacity Expansions

- (a) **(WACC(2))** In the event of a Terminal Capacity Expansion, costs incurred in the Terminal Capacity Expansion and approved by the ~~QCA~~[Expansion Arbitrator](#) pursuant to Section ~~12.5~~[11.5](#), including construction related financing costs, (which will include a return on capital over the construction period on the Terminal Capacity Expansion expenditure incurred), will be included in the Expansion Component's Regulated Asset Base upon which the ARR and Reference Tariff are determined. The return on capital over the construction period to be included in the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated) will be calculated at the WACC(2) Rate.
- (b) **(WACC(3))** The return on capital to apply to the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated), when calculating the ARR and Reference Tariffs to apply from the first day of the Month following the Completion and handover to the Operator of the Terminal Capacity Expansion, will be calculated at the WACC(3) Rate.
- (c) **(WACC(1))** The return on capital to apply to other components of the Regulated Asset Base (of the Existing Terminal if Socialised, or Differentiated Expansion Component if Differentiated) will continue to be calculated at the WACC(1) Rate.

11.7 ~~12.7~~ Unreasonable and uneconomic proposed Terminal Capacity Expansions

If, having regard to:

- (a) the actual or anticipated long-term demand for the Services;

- (b) the extent to which a Terminal Capacity Expansion under the relevant stage of the Terminal Master Plan would produce capacity in excess of demand;
- (c) the cost of the Terminal Capacity Expansion;
- (d) the extent to which DBCT Management can demonstrate on reasonable evidence that the costs of the Terminal Capacity Expansion would be unlikely to be accepted by the QCA as forming part of the cost base for the purposes of determining Access Charges in respect of that Terminal Capacity Expansion; and
- (e) the long-term nature of DBCT Management's investment in the Terminal, the cost to DBCT Management of complying with Sections ~~12.3, 12.4~~[11.3, 11.4](#) and ~~12.5~~[11.5](#) would be unreasonable and uneconomic, DBCT Management may submit to DBCT Holdings a written proposal that:
 - (f) provides details of the above matters; and
 - (g) proposes a modification to or temporary delay in the Terminal Capacity Expansion that would otherwise be required to be undertaken under this Section ~~12.11~~[11.11](#), on terms and conditions that are not inconsistent with the objectives in Clause 2.2 of the Port Services Agreement,

and DBCT Management and DBCT Holdings will consult with one another, the State, Access Holders and Access Seekers, in good faith in respect of the proposal. DBCT Holdings will not unreasonably withhold or delay its agreement to such modification or delay. DBCT Management will be relieved of its obligations under this Section ~~12.11~~ to the extent that DBCT Holdings agrees to modify or delay a Terminal Capacity Expansion (whether such agreement is given under the ~~Undertaking~~[Framework](#) or the Port Services Agreement).

11.8 ~~12.8~~Inability to proceed with a proposed Terminal Capacity Expansion

If DBCT Management would otherwise be required to proceed with a Terminal Capacity Expansion but, despite its best endeavours, is:

- (a) unable to procure a relevant tenure to or interest in land or seabed necessary for such Terminal Capacity Expansion;
- (b) unable to procure an approval in respect of the occupation or operation of the Terminal, that is required for DBCT Management to lawfully undertake any construction or development otherwise required by a Terminal Capacity Expansion under this Section ~~12.11~~[11.11](#); or
- (c) reasonably of the view that it is not possible to increase Terminal Capacity,

then the obligations of DBCT Management under this Section ~~12.11~~[11.11](#) will be suspended to the extent affected by that inability while that inability continues. DBCT Management will continue to use its best endeavours to (as applicable) procure that approval (including amending, resubmitting or substituting the application and amending the relevant design or work program for the construction or development to procure the approval), procure the interest or tenure, or identify a means of increasing Terminal Capacity.

11.9 ~~12.9~~Terminal Capacity Expansions to comply with Terminal Master Plan

If DBCT Management wishes to undertake a Terminal Capacity Expansion under this Section ~~12.11~~[11.11](#), it will— do so by undertaking the next applicable stage or stages of development contemplated by the Terminal Master Plan (which is intended to be integrated with the System Master Plan) that are necessary to at least provide the necessary relevant additional Handling capacity.

11.1012-10 Non-expansion Capital Expenditure

- (a) **(Good Operating and Maintenance Practice and Port Services Agreement)** DBCT Management will incur Capital Expenditure which does not relate to a Capacity Expansion as is necessary to ensure:
 - (1) that the Terminal complies with Good Operating and Maintenance Practice; and
 - (2) that DBCT Management complies with its obligations under the Port Services Agreement.

- (b) **(Streamlined approval of Capital Expenditure)** The QCA will be obliged to accept that Capital Expenditure (which does not relate to a Terminal Capacity Expansion) is prudent and include it in the relevant Regulated Asset Base:
 - (1) provided that DBCT Management confirms, to the reasonable satisfaction of the QCA, that the expenditure incurred falls within the definition of Capital Expenditure;
 - (2) if:
 - (A) the Capital Expenditure is unanimously approved by all Access Holders whose Reference Tariff is calculated by reference to the relevant Regulated Asset Base(s); or
 - (B) no Access Holder at the relevant time objected to the Capital Expenditure within 20 Business Days after receiving written notice of the estimated Capital Expenditure from DBCT Management which expressly drew their attention to this Section; and
 - (3) if the Operator has recommended in writing the incurring of the Capital Expenditure.

- (c) **(Inclusion of Capital Expenditure where specific criteria satisfied)** The QCA will accept into the relevant Regulated Asset Base Capital Expenditure which:
 - (1) does not relate to a Terminal Capacity Expansion; and
 - (2) does not comply with all the conditions in Section ~~12.10~~ [11.10](#)(b),
if the QCA forms the view that such expenditure is prudent having regard to (among other things):
 - (3) the need for the work to be undertaken for the efficient operation and use of the Terminal having regard to demand, cost benefit and other relevant factors;
 - (4) the scope of the work undertaken;
 - (5) the standard of the work undertaken;
 - (6) the circumstances prevailing in the markets for engineering, equipment supply and construction;
 - (7) safety during construction and operation;
 - (8) compliance with environmental requirements during construction and operation;
 - (9) minimising whole of asset life costs; and
 - (10) the advice of independent advisors using appropriate benchmarks and experience and which advisors are appointed (and paid for) ~~by the QCA or paid for~~ by DBCT Management.

12 ~~13~~ Terms and conditions of Access

12.1 ~~13.1~~ Access Agreements

- (a) **(Standard Access Agreement guide for all access)** The granting of Access will be underpinned by the Standard Access Agreement.
- (b) **(Parties to Access Agreements)** The parties to each Access Agreement will include DBCT Management, DBCT Trustee and the relevant Access Holder.
- (c) **(Consistency with Standard Access Agreement)** If the Access Seeker so requires (although DBCT Management and the Access Seeker are able to agree otherwise), the Access Agreement will, in all material respects be consistent with the Standard Access Agreement.
- (d) **(Different terms)** DBCT Management or an Access Seeker may seek Access on terms which are different (Different Terms) from the Standard Access Agreement, ~~but if either does so:~~
- ~~(1) DBCT Management may, acting reasonably:~~
- ~~(A) decline to agree to any such Different Term (for example if accepting the Different Term would create obligations which would be impractical for it to comply with or incur unreasonable expense which it could not recoup from the Access Seeker or cause it to breach another Access Agreement or Existing User Agreement or materially disadvantage other Access Holders); and~~
- ~~(B) require that charges other than the Reference Tariff apply if the Different Terms result in a risk profile or costs (direct or indirect) to it different from those that would have applied under the Standard Access Agreement; or~~
- ~~(2) an Access Seeker may, acting reasonably:~~
- ~~(A) decline to agree to any such Different Term (for example, if accepting the Different Term would result in a material and adverse risk or cost position that is inconsistent with an appropriate and symmetrical risk and cost allocation between the contracting parties; and~~
- ~~(B) require that charges other than the Reference Tariff apply if the Different Terms result in a risk profile or costs (direct or indirect) to it different from those that would have applied under the Standard Access Agreement.~~
- ~~and if the parties cannot agree on any such matter, it may be referred to the QCA for determination.~~
- (e) **(Standard Access Agreement is guide for access negotiations)** For Access required on terms other than the Standard Access Agreement, the terms of the Standard Access Agreement will provide guidance as to the terms and conditions that are to be included in the relevant Access Agreement.
- ~~(f) **(Different Terms in a Conditional Access Agreement)** If an Access Seeker is unwilling to agree to any Different Terms required by DBCT Management in respect of the Conditional Access Agreement and DBCT Management or the Access Seeker Disputes the Different Terms, the Conditional Access Agreement to be executed will take effect subject to any new or amended Different Terms which the QCA determines or approves arising out of the Dispute.~~

- (f) ~~(g)~~ **(Execution copies to be prepared)** Once an Access Seeker has notified DBCT Management that it is satisfied, ~~subject to Section 13.1(f),~~ with the terms and conditions of the Access Agreement as drafted, DBCT Management will, as soon as reasonably practicable, provide a final Access Agreement to the Access Seeker for execution.
- (g) ~~(h)~~ **(Prompt execution)** The parties will use reasonable efforts to duly execute the final Access Agreement as soon as practicable after negotiations are finalised.

12.2 ~~13.2~~ Minimum Term of Access Agreements

- (a) **(10 years where Terminal Capacity Expansion required)**
 - (1) An Access Agreement which will, if entered into by DBCT Management, require a Terminal Capacity Expansion, must:
 - (A) provide for the Handling of coal for a minimum term of 10 years; and
 - (B) not allow the Access Holder to voluntarily reduce the Annual Contract Tonnage earlier than the end of that 10 year period, except for any right of DBCT Management to terminate for default.
 - (2) A series of Access Agreements which will, if entered into by DBCT Management with an Access Seeker, require a Terminal Capacity Expansion must:
 - (A) provide for the Handling of coal for a minimum Weighted Average Term of 10 years; and
 - (B) not allow the Access Holder to voluntarily reduce the Annual Contract Tonnage under any Access Agreement in the series earlier than the tenth anniversary of commencement of the term of the latest-dated Access Agreement in the series, except for any right of DBCT Management to terminate for default.
- (b) **(Replacement Agreements for existing mines)** An Access Agreement in respect of an existing mine for which there is already an Access Agreement or Existing User Agreement may be for any term, but:
 - (1) if it is for less than 5 years that term and the relevant tonnages must correspond with the expected remaining life of that mine; and
 - (2) no option to extend the term may be granted under it if the term is for less than 10 years.
- (c) **(Constraints on term for new mine)** The term of an Access Agreement relating to a new mine (including a mine where production is being resumed after a full closure or a sustained period of dormancy), may be for any term, but
 - (1) if it is for a term of less than 5 years, DBCT Management may reserve the right to terminate it on not less than 12 months' notice if:
 - (A) DBCT Management executes an Access Agreement for a period in excess of 5 years, commencing during that term; and
 - (B) DBCT Management would have been unable to execute that new Access Agreement without a Terminal Capacity Expansion of the Terminal, had the first mentioned Access Agreement not been terminated at that time; and
 - (2) no option to extend the term may be granted under it if the agreement provides for the Handling of coal for a term of less than 10 years.
- (d) **(Increased Tonnage or term is deemed new Access Agreement)** For clarification, increasing the term of, or Annual Contract Tonnage under, an Access Agreement or

Existing User Agreement will be taken to constitute a separate Access Agreement in respect of the increased term or tonnage for the purposes of this Section ~~13.2~~[12.2](#) (except to the extent that an Access Holder under an Existing User Agreement has a contractual right to require the increase, on terms which are inconsistent with this paragraph).

- (e) **(Clarification re options)** Reference to an Access Agreement in this Section ~~13.2~~[12.2](#) does not include an Access Agreement resulting from the exercise of an option to renew or extend the term under a previous access agreement.

13 ~~14~~ Whole of supply chain efficiency

13.1 ~~14.1~~ Engagement in Dalrymple Bay Coal Chain efficiency improvement

DBCT Management will, on a “best endeavours” basis, engage with other stakeholders to develop and implement mechanisms to improve the overall efficiency of the Dalrymple Bay Coal Chain (including forums established pursuant to or arising out of a Memorandum of Understanding dated 1 April 2008 between stakeholders in the DBCT Coal Chain or any subsequent agreement or arrangement replacing or pursuant to that Memorandum of Understanding).

~~14.2 Amend Undertaking to comply with Agreed Supply Chain Outcome~~

~~If DBCT Management and each Access Holder reach agreement on mechanisms to improve the overall efficiency of the Dalrymple Bay Coal Chain, DBCT Management will:~~

- ~~(a) consult with the Access Holders regarding the amendments to this Undertaking reasonably required to implement the agreed mechanisms (to the extent relevant to the Services, the Terminal or this Undertaking); and~~
- ~~(b) submit to the QCA for approval a draft amending access undertaking incorporating the amendments to this Undertaking which are reasonably required to implement the agreed mechanisms (to the extent relevant to the Services, the Terminal or this Undertaking).~~

14 ~~15~~ Master plans

14.1 ~~15.1~~ Terminal Master Plan

- (a) **(What the Terminal Master Plan is)** The Terminal Master Plan is the framework and reasoning for the expansion of the Terminal in the most logical and efficient way. It is intended to be a part of, and integrated with, the System Master Plan (and to the extent that at any time there is no System Master Plan, having regard to DBCT Management’s knowledge of the System and System Capacity for the relevant period).
- (b) **(Schedule F)** Until changed pursuant to the ~~Undertaking~~[Framework](#) and the Port Services Agreement, the Terminal Master Plan is the Terminal Master Plan in Schedule F.
- (c) **(Annual review)** DBCT Management must review the Terminal Master Plan at least annually and otherwise in accordance with its obligations under the Port Services Agreement.
- (d) **(Consultation)** Without limiting Section ~~15.1~~[14.1](#)(c) DBCT Management must consult with all other Service Providers, Access Holders, Access Seekers and the Operator in respect of any proposed amendment to the Terminal Master Plan.

- (e) **(DBCT Management to make copies available)** DBCT Management must make a copy of the Terminal Master Plan available to each other Service Provider and to each Access Holder and Access Seeker, and the Operator ~~and the QCA~~ (which may be by way of reference to a website) promptly after each amendment of the Terminal Master Plan.

14.2 ~~15.2~~ System Master Plan

- (a) **(Participate in System Master Planning)** DBCT Management must use its reasonable endeavours to:
- (1) (to the extent that it has not already occurred at the Commencement Date) reach agreement with each other Service Provider and DBCT Holdings (after consultation with those stakeholders and with all Access Holders and Access Seekers and the Operator) on a System Master Plan; and
 - (2) review (and if necessary revise) that System Master Plan by agreement with each other Service Provider, following ongoing consultation with all the above mentioned stakeholders.
- (b) **(Withdrawal from System Master Planning)** DBCT Management may at any time, acting reasonably propose amendments to an existing or proposed System Master Plan. If after a reasonable time each other Service Provider does not agree to the amendments proposed by DBCT Management, DBCT Management may withdraw its agreement in respect of that System Master Plan in which case there will be assumed to be no System Master Plan for the purposes of this ~~Undertaking~~ Framework. DBCT Management will publish on its website its reasons for withdrawing its agreement to a System Master Plan.
- (c) **(If no System Master Plan)** If at any time for any reason there is (or is deemed to be) no System Master Plan in force, where a provision of this ~~Undertaking~~ Framework requires DBCT Management (or ~~the QCA~~) an independent expert / an Arbitrator / Expansion Arbitrator (as relevant) to have regard to a System Master Plan, DBCT Management (or ~~the QCA~~) an independent expert / an Arbitrator / Expansion Arbitrator (as relevant) will have regard to the Terminal Master Plan together with what it reasonably considers to be the present and likely future state of the other relevant components of the System and what DBCT Management (or ~~the QCA~~) an independent expert / an Arbitrator / Expansion Arbitrator (as relevant) reasonably understands to be generally accepted System operating assumptions.
- (d) **(Protection of DBCT Management)** DBCT Management will not be liable to ~~the QCA or~~ an Access Seeker (and the Standard Access Agreement will provide that DBCT Management will not be liable to an Access Holder who executes it) if DBCT Management makes a good faith and reasonable attempt to comply with this Section ~~15.14~~ 14.2.
- (e) **(DBCT Management's obligations in System Master Planning process)** The following apply to DBCT Management in relation to its endeavours to agree a System Master Plan pursuant to Section ~~15.2~~ 14.2 (a) and ~~15.2~~ 14.2 (b):
- (1) DBCT Management must fully and promptly provide to all other relevant Stakeholders all information (to the extent that it is available to DBCT Management) which might reasonably be considered to be relevant for the purpose of determining a System Master Plan (but this does not require DBCT Management to disclose any information which could reasonably be considered to be commercially sensitive to it or any Access Holder or Access Seeker); and

- (2) DBCT Management must, as far as practicable, work cooperatively with each other Service Provider (for example regularly provide information relevant to System Capacity and, as far as practicable, using reasonable endeavours to agree on the joint engagement of experts for the purpose of the Undertaking [Framework](#) and similar obligations by other Service Providers).

~~16~~ **Transitional arrangements**

Nothing in this Undertaking requires a party to an Existing User Agreement to vary a term or provision of that Existing User Agreement.

15 [Not Used](#)

16 ~~17~~ [Governing Law and](#) **Dispute resolution**

[\[Drafting Note: Consequential amendments to the dispute resolution provisions in this clause 16 may be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018\]](#)

[Governing Law](#)

[This Framework is governed by the laws in force in the State of Queensland.](#)

16.1 ~~17.1~~ **Disputes**

- (a) **(Disputes under this Undertaking [Framework](#))** If any dispute or question arises under this [Undertaking Framework](#) or in relation to the negotiation of Access between an Access Seeker or ~~Access Holder~~ and DBCT Management (**Dispute**) then, unless otherwise expressly agreed by both parties [in writing](#), such Dispute will be resolved in [the manner specified in this Framework \(where applicable\) and in](#) accordance with this Section ~~17~~ and either, [Either](#) party may give to the other party to the Dispute notice in writing (**Dispute Notice**) specifying the Dispute and requiring that it be dealt with in the manner [specified in this Framework \(where applicable\) and as](#) set out in this Section ~~17~~.[16](#).

- (b) **(Disputes under Access Agreements)** Unless otherwise agreed by the parties, Disputes under an Access Agreement or Existing User Agreement will be dealt with in accordance with the provisions of that Access Agreement or Existing User Agreement and are not dealt with under this [Undertaking Framework](#).

[\(c\) \(Dispute under Deed Poll\) The courts of Queensland have exclusive jurisdiction to determine any disputes arising under the Deed Poll.](#)

16.2 ~~17.2~~ **Chief Executive resolution**

- (a) **(Reference to CEOs)** Unless otherwise agreed by both parties or provided for in this [Undertaking Framework \(including where the Framework provides that a Dispute or other matter is to be referred to or determined by an Independent Expert \(or Expert Determination\)\)](#), any Dispute will be referred in the first instance and in any event within 10 Business Days of the giving of the Dispute Notice to the Chief Executive of DBCT Management (or his or her nominee) and the Chief Executive of the Access Seeker (or his or her nominee) for resolution.

- (b) ~~(Reference to expert)~~ In the event that:

- (1) resolution is not reached within 10 Business Days of referral; or

- (2) either Chief Executive appoints a nominee in accordance with this Section ~~17.16~~ that is unacceptable to the other party,

~~the relevant Dispute may, by agreement between DBCT Management and the Access Seeker or Access Holder, be referred for resolution by an expert in accordance with Section 17. Failing such agreement, either party may refer the Dispute to the QCA in accordance with Section 17.~~

~~17.3 Expert determination~~

~~unless otherwise agreed by the parties, where this Framework provides that the Dispute is to be referred to Expert Determination (or determination by an Independent Expert) the Dispute will be referred to an Independent Expert in accordance with Section 16.3. All other Disputes will be referred to Arbitration in accordance with Section 16.4.~~

16.3 Expert Determination

Where a matter is referred to ~~an expert~~ Expert Determination (or determination by an Independent Expert) in accordance with Section ~~17.2~~ 16.2 or as otherwise specified in accordance with this ~~Undertaking~~ Framework, then the following will apply:

- (a) **(Appointment)** An ~~expert~~ Independent Expert may be appointed by the parties, or where agreement cannot be reached by the parties within ~~20~~ five Business Days, ~~in the case of financial matters, by the President for the time being of the Australian Society of Certified Practising Accountants and, in the case of non financial matters, the President for the time being of the Institution of Engineers, Australia;~~ by the Resolution Institute.
- (b) **(Criteria for ~~expert~~ Independent Expert)** In any event the ~~expert~~ Independent Expert must:
- (1) have appropriate qualifications and practical experience having regard to the nature of the Dispute;
 - (2) have no interest or duty which conflicts or may conflict with his or her function as ~~expert~~ Independent Expert, he or she being required to fully disclose any such interest or duty before his or her appointment; and
 - (3) not be a current or immediate past employee of the Access Seeker or DBCT Management or of a Related Body Corporate of either of them;
- (c) **(Acceptance of appointment)** The ~~expert~~ Independent Expert appointed pursuant to this Section ~~17.3~~ 16.3 must not act until the ~~expert~~ Independent Expert has given written notice of the acceptance of his or her appointment to both parties;
- (d) **(Provision of information to ~~expert~~ Independent Expert)** The parties must upon request by the ~~expert~~ Independent Expert, provide or make available to the ~~expert~~ Independent Expert:
- (1) all information in their possession or control (other than Confidential Information);
 - (2) all Confidential Information (subject to entry into arrangements to preserve confidentiality which are acceptable to all relevant parties, acting reasonably); and
 - (3) all other assistance,
- that the ~~expert~~ Independent Expert may reasonably require. Any such information or assistance must be provided as soon as reasonably practicable. Any determination

made by an ~~expert~~ [Independent Expert](#) in relation to a Dispute must be consistent with the provisions of this ~~Undertaking~~ [Framework](#);

- (e) **(Determination to be given to each party)** The ~~expert~~ [Independent Expert](#) will provide both parties with a copy of the [written](#) determination in relation to the Dispute within a reasonable time after his or her appointment;
- (f) **(Confidentiality)** The ~~expert~~ [Independent Expert](#) appointed pursuant to this Section ~~17.3~~ [16.3](#) is required to undertake to the parties in writing to keep confidential all matters coming to his or her knowledge by reason of this appointment and performance of his or her duties;
- (g) **(Not arbitration)** Any person nominated as an ~~expert~~ [Independent Expert](#) pursuant to this Section ~~17.3~~ [16.3](#) is deemed to be and must act as an ~~expert~~ [Independent Expert](#) and not as an arbitrator. The law relating to arbitration including, without limitation, the *Commercial Arbitration Act 2013* (Qld) as it may be amended from time to time, does not apply to the ~~expert~~ [Independent Expert](#) or to the determination or to the procedures by which the ~~expert~~ [Independent Expert](#) may reach that determination;
- (h) **([Independent Expert's decision final](#))** In the absence of manifest error, the decision of the ~~expert~~ [Independent Expert](#) is final and binding upon the parties. If a party believes that there was a manifest error it may refer the matter to the [QCA Arbitrator](#) for a determination [in accordance with Section 16.4](#). If the [QCA Arbitrator](#) determines that there was a manifest error, then the parties may agree to refer the Dispute to another ~~expert~~ [Independent Expert](#) in accordance with this Section ~~17.3~~ [16.3](#), or failing such agreement, either party may refer the Dispute to the [QCA Arbitrator](#) for resolution in accordance with Section ~~17.4~~; and [16.4](#).
- (i) **(Costs of ~~expert~~ [Independent Expert](#))** The costs of the ~~expert~~ [Independent Expert](#) and the reasonable costs of the parties are to be borne by the parties in such proportions as determined by the ~~expert~~ [Independent Expert](#). If two or more Access Holders [Seekers](#) are parties to a Dispute involving substantially the same issues and there are no special circumstances making it necessary or desirable for them to be separately represented, it will only be reasonable for those Access Holders [Seekers](#) in aggregate to recover the costs of being collectively represented in any Dispute.

16.4 ~~17.4~~ Determination by the [QCA Arbitration](#)

- (a) ~~(Division 5 Part 5 process)~~ If a Dispute is referred to the QCA in accordance with this Undertaking, then Division 5 of Part 5 of the QCA Act will apply. The QCA must not make an access determination that is inconsistent with this Undertaking (unless all parties agree and no other relevant stakeholder is adversely affected). [All Disputes referred to Arbitration \(or determination by an Arbitrator\) under this Framework must be conducted in accordance with this Section 16.4.](#)
- (b) ~~(Process in other cases)~~ If an issue is referred to the QCA for determination as specified in accordance with this Undertaking but does not constitute a Dispute for the purposes of Division 5 of Part 5 of the QCA Act, then the QCA will make a determination through any process that it considers appropriate, provided that: [The Dispute shall be submitted to Arbitration in accordance with, and subject to, the Resolution Institute Arbitration Rules.](#)
- (c) [The Arbitration must be effected by a single suitably qualified and experienced arbitrator who is either:](#)
 - (1) [agreed upon between the parties; or](#)

- (2) in default of such agreement within five Business Days after the Dispute is referred for Arbitration, nominated by the Resolution Institute.
- (d) Any party to the Arbitration may be represented before the Arbitrator by a member of the legal profession without the need for leave of the Arbitrator.
- (e) In making a determination, the Arbitrator must have regard to the terms of the Framework and to the following matters:
 - (1) ~~prior to considering the issue, the QCA advises both parties of the process that it will use to make the determination and both parties are given the opportunity to advise the QCA of any concerns they may have with that process and receive a response from the QCA as to how it will deal with such concerns, if at all; and~~the Framework Objective;
 - (2) ~~the QCA must not make an access determination that is inconsistent with this Undertaking (unless all parties agree and no other relevant stakeholder is adversely affected).~~DBCT Management's binding legal obligations and obligations under law;
 - (3) DBCT Management's legitimate business interests and investment in the Terminal;
 - (4) the legitimate business interests of persons who have, or may acquire, rights to use the Terminal;
 - (5) the public interest, including the benefit to the public in having competitive markets;
 - (6) the value of the service to:
 - (A) the Access Seeker;
 - (B) a class of Access Seekers or Access Holders;
 - (7) the direct costs to DBCT Management of providing Access to the Terminal, including any costs of a Terminal Capacity Expansion, but not costs associated with losses arising from increased competition;
 - (8) the economic value to DBCT Management of any Terminal Capacity Expansion, or other additional investment in the Terminal, that DBCT Management or an Access Seeker or an Access Holder has undertaken or agreed to undertake;
 - (9) the quality of the Services;
 - (10) the operational and technical requirements necessary for the safe and reliable operation of the Terminal;
 - (11) the economically efficient operation of the Terminal;
 - (12) any other matters to which the Arbitrator thinks it is appropriate to have regard.
- (f) Any arbitration commenced under this Framework may be consolidated with any other arbitration commenced under:
 - (i) this Framework (or agreements referred to in the Framework); and / or
 - (ii) an Access Agreement,regardless of the parties involved, provided that the issue(s) which each arbitrator has been asked to determine concern common questions of fact or law. Such consolidated arbitration shall be determined by the arbitrator appointed for the arbitration proceeding that was commenced first in time.
- (g) The venue for any Arbitration will be Brisbane, Queensland.

- (h) Unless otherwise determined by the Arbitrator, the costs of the Arbitration shall be paid by the unsuccessful party.

16.5 Urgent matters

Nothing in this Section 16 prevents a party from seeking urgent injunctive relief from a court.

17 Limitations to Losses and Damages

Subject to the terms of an Access Agreement, Funding Agreement, Underwriting Agreement or any other agreement entered into with DBCT Management as contemplated by this Framework, and notwithstanding any other Section of this Framework:

- (a) damages is not a remedy for any breach of this Framework;
 - (b) the only remedy available for any breach of this Framework is specific performance; and
 - (c) ~~(Costs awarded as QCA determines)~~ The costs of the QCA and the reasonable costs of the parties are to be borne by the parties in such proportions as determined by the QCA. If two or more Access Holders are parties to a Dispute involving substantially the same issues and there are no special circumstances making it necessary or desirable for them to be separately represented, it will only be reasonable for those Access Holders in aggregate to recover the costs of being collectively represented in any Dispute. DBCT Management is not liable to Access Holders, Access Seekers or Rail Operators for any indirect Loss or Consequential Loss arising in connection with this Framework.
-

18 Severability

- (a) Subject to Section 18(b), if a provision of this Framework is illegal or unenforceable in any relevant jurisdiction, it may be severed for the purposes of that jurisdiction without affecting the enforceability of the other provisions of this Framework.
- (b) Section 18(a) does not apply if severing the provision:
 - (1) materially alters the scope and nature of this Framework; or
 - (2) would be contrary to public policy.

Schedule A – Access Application Form and Renewal Application Form

Access Application Form

[Note: this form to be issued on Access Seeker’s letterhead]

To: Chief Executive Officer
DBCT Management

DBCT Access Application

TAKE NOTICE that the Access Seeker named below applies for Access to the Services at Dalrymple Bay Coal Terminal pursuant to section 5.2 of the Access ~~Undertaking~~[Framework](#).

Name of Access Seeker	
Origin of Coal (Mine Name)	
Street address	
Telephone	
Attention	
Email address	

The Access Seeker warrants that it has:

- (a) rights to below rail infrastructure; and/or
- (b) made or will promptly make an application to the relevant railway infrastructure service provider to obtain rights to rail infrastructure (which it reasonably expects will be granted if this Access Application is granted); and/or
- (c) otherwise made arrangements,

to ensure that rail access is sufficient to deliver to the Terminal the tonnages which are the subject of this Access Application.

Category of Access Application:	
A	A new Access Seeker <i>(please (1) complete Schedule A attached and (2) provide evidence of solvency or security offered to enable DBCT Management to assess creditworthiness).</i> <input type="checkbox"/>
B	An existing Access Holder seeking additional capacity (including an extension of the Term) pursuant to a mechanism in its Access Agreement (as contemplated by section 5.11 of the Access Undertaking Framework) <input type="checkbox"/>
C	An existing Access Holder seeking additional capacity (including an extension of the Term) other than in the circumstances contemplated by Section 5.11 of the Access Undertaking Framework . <input type="checkbox"/> <i>For existing Access Holders making a category B or C application, please complete the declaration below or Schedule A attached:</i>
	I confirm that all details required by Schedule A attached in relation to the Services required at DBCT, and any Security required, will be as per our existing Access Agreement <i>[tick box at right]</i> . <input type="checkbox"/> <i>[Note: If box is not ticked, please complete Schedule A attached]</i>
Name	DBCT Management use only Received Date: Access Application Date: <i>[per section 5.4(b) of the Access UndertakingFramework]</i>
Position	
Signed	
Date	

[The Access Seeker unconditionally and irrevocably agrees:](#)

- (a) [to comply with the requirements, obligations and processes in:](#)
 - a. [the Framework relating to it or its Access Application; and](#)
 - b. [the Deed Poll, including the conditions set out in clauses 8.4, 9, 10 and 11 of the Deed Poll; and](#)
- (b) [that the Access Application is governed by the laws in force in the State of Queensland.](#)

Schedule A to the Access Application of [insert name]

(Note – where the Access Seeker is an Existing Access Holder and the details are relevantly the same as the Services being provided under the Access Agreement, state “as existing”. Cross reference to further sheets to be attached where there is insufficient room in the table below.

1	Name and contact details	As above
2	Stockpiling requirements	
3	Blending requirements	
4	Number of products	
5	Date of commencement of delivery of coal to the Terminal	
6	Description of each type of coal (including coal qualities such as moisture content, dust extinction moisture level, “stickiness”, and contamination levels and any special requirements the Access Seeker has in relation to its coal, including any special equipment or particular Handling processes) to be delivered to the Terminal	
7	Net tonnes of coal per annum requested for each Financial Year where access is requested	Year Mtpa
8	Proposed number of trains and wagons per train for each week from the proposed date of commencement of the delivery of coal to the Terminal to the end of the first full Financial Year:	
9	Proposed gross tonnes per wagon	
10	To the extent possible, the number, type and respective gross and deadweight tonnages of vessels, on a month by month basis, expected to ship the Access Seeker’s coal from the proposed date of the commencement of the delivery of coal to the Terminal to the end of the first full Financial Year, including details of the numbers of single and part vessel consignments.	
11	Requirements for trial shipments (if any)	
12	<ul style="list-style-type: none"> • A report prepared by a ‘competent person’ (as defined in the JORC Code) in accordance with the JORC Code and the Coal Guidelines which provides an estimate of Marketable Coal Reserves and Coal Resources as at the date the report is prepared (which must be within 12 months of the date of the Access Application) which are to be allocated for shipment under the Access Seeker’s Access Agreement. The estimate must be calculated in accordance with the JORC Code and the Coal Guidelines. The report and the key documents used to develop the report must be verified by a ‘competent person’ (as defined in the JORC Code). • An explanation of how the estimate of Marketable Coal Reserves and Coal Resources in the report is consistent with having sufficient: <ul style="list-style-type: none"> • Marketable Coal Reserves for the net tonnes of coal per annum requested for each of the first 5 Financial Years in item 7 in respect of which Access is applied for; and • Coal Resources, together with the Marketable Coal Reserves, for the net tonnes of coal per annum requested for each Financial Year in item 7. 	
13	<ul style="list-style-type: none"> • A description of the coal mine project that will be used as the source of coal to be delivered by the Access Seeker to the Terminal (Source Mine Project). • The project timeline (including key milestones) for the construction, commissioning and production phases of the Source Mine Project. • An explanation of how the Source Mine Project is currently tracking against the project timeline and a description of the current stage of the Source Mine Project. • An explanation of how the project timeline referred to above is consistent with the date for commencement of delivery of coal to the Terminal (as specified in item 5). • An assessment of the prospects of the Access Seeker obtaining any debt or equity finance required in order for the Source Mine Project to achieve the key milestones referred to in the project timeline including commencement of the production phase. • The Access Seeker’s progress in obtaining the necessary approvals for the Source Mine Project. 	

Name	Signed
Position	
Date	

Access Renewal Form

[Note: this form to be issued on Access Seeker’s letterhead]

To: Chief Executive Officer
DBCT Management

DBCT Renewal Application

TAKE NOTICE that the Access Seeker named below applies to renew its Access Application for Access to the Services at Dalrymple Bay Coal Terminal pursuant to section 5.3A of the Access ~~Undertaking~~[Framework](#).

Name of Access Seeker	
Origin of Coal (Mine Name)	
Street address	
Telephone	
Attention	
Email address	

The Access Seeker warrants that it has:

- (a) rights to below rail infrastructure; and/or
- (b) made or will promptly make an application to the relevant railway infrastructure service provider to obtain rights to rail infrastructure (which it reasonably expects will be granted if this Renewal Application is granted); and/or
- (c) otherwise made arrangements,

to ensure that rail access is sufficient to deliver to the Terminal the tonnages which are the subject of this Renewal Application.

Category of Renewal Application	
A	<p>A renewal of an Access Application which was submitted by a new Access Seeker <i>(please complete the declaration below or (1) complete Schedule A attached and (2) provide evidence of solvency or security offered to enable DBCT Management to assess creditworthiness)</i>. <input type="checkbox"/></p> <p>I confirm that all details required by Schedule A attached in relation to the Services required at DBCT, and any Security required, will be as per our current Access Application <i>[tick box at right]</i>. <i>[Note: If box is not ticked, please complete Schedule A attached]</i> <input type="checkbox"/></p>
B	<p>A renewal of an Access Application which was submitted by an existing Access Holder seeking additional capacity (including an extension of the Term) pursuant to a mechanism in its Access Agreement (as contemplated by section 5.11 of the Access UndertakingFramework). <input type="checkbox"/></p>
C	<p>A renewal of an Access Application which was submitted by an existing Access Holder seeking additional capacity (including an extension of the Term) other than in the circumstances contemplated by section 5.11 of the Access UndertakingFramework. <input type="checkbox"/></p> <p><i>For existing Access Holders making a category B or C Renewal Application, please complete the declaration below or Schedule A attached:</i></p> <p>I confirm that all details required by Schedule A attached in relation to the Services required at DBCT, and any Security required, will be as per our current Access Application and existing Access Agreement <i>[tick box at right]</i>. <input type="checkbox"/></p> <p style="text-align: right;"><i>[Note: If box is not ticked, please complete Schedule A attached]</i></p>
Name	DBCT Management use only Received Date:
Position	
Signed	
Date	

[The Access Seeker unconditionally and irrevocably agrees to:](#)

- (a) [to comply with the requirements, obligations and processes in:](#)
 - a. [the Framework relating to it or its Access Application and Access Renewal Form; and](#)
 - b. [the Deed Poll, including the conditions set out in clauses 8.4, 9, 10 and 11 of the Deed Poll; and](#)

- (a) [the Access Application and Access Renewal Form are governed by the laws in force in the State of Queensland.](#)

Schedule A to the Renewal Application of [insert name]

(Note – where the Access Seeker is an Existing Access Holder and the details are relevantly the same as the Services being provided under the Access Agreement, state “as existing”. Cross reference to further sheets to be attached where there is insufficient room in the table below.)

1	Name and contact details	As above
2	Stockpiling requirements	
3	Blending requirements	
4	Number of products	
5	Date of commencement of delivery of coal to the Terminal	
6	Description of each type of coal (including coal qualities such as moisture content, dust extinction moisture level, “stickiness”, and contamination levels and any special requirements the Access Seeker has in relation to its coal, including any special equipment or particular Handling processes) to be delivered to the Terminal	
7	Net tonnes of coal per annum requested for each Financial Year where access is requested	Year Mtpa
8	Proposed number of trains and wagons per train for each week from the proposed date of commencement of the delivery of coal to the Terminal to the end of the first full Financial Year	
9	Proposed gross tonnes per wagon	
10	To the extent possible, the number, type and respective gross and deadweight tonnages of vessels, on a month by month basis, expected to ship the Access Seeker’s coal from the proposed date of the commencement of the delivery of coal to the Terminal to the end of the first full Financial Year, including details of the numbers of single and part vessel consignments	
11	Requirements for trial shipments (if any)	
12	<ul style="list-style-type: none"> • A report prepared by a ‘competent person’ (as defined in the JORC Code) in accordance with the JORC Code and the Coal Guidelines which provides an estimate of Marketable Coal Reserves and Coal Resources as at the date the report is prepared (which must be within 12 months of the date of the Renewal Application) which are to be allocated for shipment under the Access Seeker’s Access Agreement. The estimate must be calculated in accordance with the JORC Code and the Coal Guidelines. The report and the key documents used to develop the report must be verified by a ‘competent person’ (as defined in the JORC Code). • An explanation of how the estimate of Coal Resources in the report is consistent with being able to economically extract the net tonnes of coal per annum requested for each Financial Year in item 7 by the relevant Financial Years (including the proportion which is ‘Marketable Coal Reserves’ as defined in the JORC Code, and the Access Seeker’s approach to converting those Coal Resources to Marketable Coal Reserves). • An explanation of how the estimate of Marketable Coal Reserves and Coal Resources in the report is consistent with having sufficient: <ul style="list-style-type: none"> • Marketable Coal Reserves for the net tonnes of coal per annum requested for the first five Financial Year in item 7 in respect of which Access applied for; and • Coal Resources, together with the Marketable Coal Reserves, for the net tonnes of coal per annum requested for each Financial Year in item 7. 	
13	<ul style="list-style-type: none"> • A description of the coal mine project that will be used as the source of coal to be delivered by the Access Seeker to the Terminal (Source Mine Project). • The project timeline (including key milestones) for the construction, commissioning and production phases of the Source Mine Project. • An explanation of how the Source Mine Project is currently tracking against the project timeline and a description of the current stage of the Source Mine Project. • An explanation of how the project timeline referred to above is consistent with the date for commencement of delivery of coal to the Terminal (as specified in item 5). • An assessment of the prospects of the Access Seeker obtaining any debt or equity finance required in order for the Source Mine Project to achieve the key milestones referred to in the project timeline including commencement of the production phase. • The Access Seeker’s progress in obtaining the necessary approvals for the Source Mine Project. 	

Name	Signed
Position	
Date	

Schedule B – Standard Access Agreement

[Standard Access Agreement attached separately]

~~Schedule C – Revenue Cap/Pricing Structure (Reference Tonnage only)~~ Schedule C – [Pricing - Placeholder]

~~For the avoidance of doubt, the terms and provisions of this Schedule should be interpreted in accordance with Section 11.1 of the Undertaking.~~

~~Part A – Rules for calculating Terminal Infrastructure Charge and Monthly Payment~~

~~1 – Monthly Payment (MP)~~

~~Each Access Holder “u” with Reference Tonnage (RTA_{Hu}) must pay to DBCT Management a Monthly Payment in respect of that Reference Tonnage in each Month “m” of each Financial Year (MP_{u,m}), calculated as follows:-~~

$$MP_{u,m} = TIC \times MRT_{u,m}$$

~~where:-~~

~~TIC is the Terminal Infrastructure Charge applicable for a relevant Financial Year to the Existing Terminal or Differentiated Expansion Component (as relevant) as calculated under Section 3, Part A, Schedule C; and~~

~~MRT_{u,m} is the number of tonnes which is the proportion of the Reference Tonnage applicable to each RTA_{Hu} in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) each Month “m” of a Financial Year. Where the rate of the Reference Tonnage for an Access Holder does not vary in a Financial Year and applies to the full Financial Year, the MRT_{u,m} for the RTA_{Hu} will be one twelfth of the their Reference Tonnage for the relevant Financial Year. Where the rate of the Reference Tonnage for the RTA_{Hu} varies during a Financial Year, the MRT_{u,m} will vary from Month to Month to reflect one twelfth of the annualised rate of the Reference Tonnage at that time.~~

~~The Monthly Payment will be adjusted during a Financial Year where the TIC is adjusted in accordance with Schedule C, Part A, Sections 4 and 5.~~

~~2 – Determination of Revenue Cap~~

~~The Revenue Cap (RC) for each Financial Year (or where there is a Review Event, for each period “i” in the Financial Year) is calculated as follows:~~

$$RC = \frac{ARR \times ART}{NCT} + INCR \text{—ETS}$$

~~where:~~

~~ARR is the Annual Revenue Requirement;~~

~~ART is the Aggregate Reference Tonnage;~~

~~NCT is the Notional Contracted Tonnage; and~~

~~INCR is the sum of any relevant increments approved by the QCA in respect of prior Financial Years pursuant to Schedule C, Part B, Sub-Section 4(d), in each case, in respect of the Existing Terminal or Differentiated Expansion Component (as relevant).~~

~~ETS is, where the Revenue Cap is being altered by a Review Event resulting from an Early Termination of an Access Agreement, the value of security which was held by DBCT Management in respect of that Access Agreement at the time of Early Termination, to the~~

extent that ~~DBCT Management is entitled under that Access Agreement to call on that security.~~

~~3 Terminal Infrastructure Charge~~

- ~~(a) Where no Review Event occurs after 1 July in a Financial Year, the relevant Terminal Infrastructure Charge (TIC) for that Financial Year (being a charge per tonne for Reference Tonnage) will be calculated as follows:-~~

$$\text{TIC} = \frac{RC}{ART}$$

~~where:-~~

~~RC is the relevant Revenue Cap; and~~

~~ART is the relevant Aggregate Reference Tonnage.~~

- ~~(b) Where a Review Event occurs after 1 July in a Financial Year, the relevant Terminal Infrastructure Charge (per tonne of Reference Tonnage) to apply for each period i in that Financial Year (TIC_i) will be calculated as follows:-~~

$$\text{TIC}_i = \frac{RC_i}{ART_i}$$

~~where:-~~

~~RC_i is the relevant portion of the Revenue Cap to apply for period i in the Financial Year; and~~

~~ART_i is the relevant portion of the Aggregate Reference Tonnage applying to the relevant period i in the Financial Year.~~

~~4 Determination of ARR~~

- ~~(a) The ARR that will apply in each Financial Year will be calculated based on:~~
- ~~(1) principles set out by the QCA in its Final Decision on the Dalrymple Bay Coal Terminal Draft Access Undertaking dated 21 November 2016 and the Cost Allocation Manual (or where none exists, the Cost Allocation Principles);~~
 - ~~(2) any amendment to the Access Undertaking or the relevant ARR, Revenue Cap or Reference Tariff made pursuant to Sub Sections 4(c) and (e) below; and~~
 - ~~(3) any amendment to the relevant ARR, Revenue Cap and Reference Tariff required to reflect the fees charged to DBCT Management by the QCA in respect of that or any prior period (to the extent not previously recovered) pursuant to the Queensland Competition Authority Regulation 2007 or section 150L of the QCA Act in providing regulatory services in connection with the Terminal. An amendment under this Sub Section may be submitted to the QCA at the same time as the relevant ARR, Revenue Cap and Reference Tariff under Sub Section 4(b) below, or effected as a later amendment to the relevant ARR, Revenue Cap and Reference Tariff during the relevant Financial Year under Sub Sections 4(h) or (i) below.~~

Annual amendment of the ARR, Revenue Cap and Reference Tariff

- ~~(b) By each 15 May after the Commencement Date, DBCT Management, after consultation with Access Holders, will submit each relevant ARR to apply for the next Financial Year to the QCA for approval.~~
- ~~(c) The QCA must approve each relevant ARR submitted by DBCT Management if it considers it has been calculated in accordance with Sub Section 4(a) above.~~
- ~~(d) Each Reference Tariff will be amended annually on 1 July to reflect the new relevant ARR and any variation to reflect the relevant Increment, Aggregate Reference Tonnage and the Notional Contract Tonnage applicable for that Financial Year.~~

Amendment of the ARR, Revenue Cap and Reference Tariff if a Review Event occurs

- ~~(e) If a Review Event occurs, and where described in Section 12.5(o), DBCT Management will submit to the QCA for approval:
 - ~~(1) in the case of a Review Event referred to in paragraphs (a), (b) or (e)(1)(A) of the definition of Review Event, a request to amend; or~~
 - ~~(2) in the case of a Review Event referred to in paragraphs (c), (d) or (e) other than (e)(1)(A) of the definition of Review Event or in the case of Section 12.5(o), a draft amending access undertaking to make any necessary amendments to, any one or more of each relevant ARR, Revenue Cap and Reference Tariff to the extent required because of the Review Event. The QCA may approve a request to amend any one or more of each relevant ARR, the Revenue Cap and the Reference Tariff or the draft amending access undertaking (as the case may be) in accordance with this Sub Section only if it considers it appropriate having regard to the pricing objectives in Section 11.2 of this Undertaking.~~~~
- ~~(f) Any amendment made pursuant to Sub Section 4(e) above will be effective from the first day of the Month following the Month in which the Review Event occurs, except for those Review Events of the kind described at paragraph (e) of the Review Event definition, which will be effective from the relevant 1 July.~~
- ~~(g) For clarification, if a review under Sub Section 4(c) above occurs simultaneously with a review under Sub Section 4(e) they will be reviewed together and become effective on the relevant 1 July.~~

Amendment of the ARR, Revenue Cap and Reference Tariff to include fees for regulatory services

- ~~(h) DBCT Management may submit to the QCA a request to amend the relevant ARR, Revenue Cap and Reference Tariff to the extent required pursuant to Sub Section 4(a)(3) above. The QCA may approve a request to amend in accordance with this Sub Section if the amendment is in accordance with Sub Section 4(a)(3) above. Any amendment made pursuant to this Sub Section will be effective from the first day of the Month following the Month in which the request to amend is submitted to the QCA.~~
- ~~(i) In the event that DBCT Management does not submit a request to the QCA pursuant to Sub Section 4(h) above, in circumstances where the QCA deems amendment to the relevant ARR, Revenue Cap and Reference Tariff are required pursuant to Sub Section 4(a)(3) above, the QCA may give notice to DBCT Management requiring it to submit a request pursuant to Sub Section 4(h). If DBCT Management does not submit a request (pursuant to Sub Section 4(h)) within 14 days of said notice, the QCA may effect amendment to the relevant ARR, Revenue Cap and Reference Tariff in accordance with~~

~~Sub-Section 4(a)(3). Any amendment made pursuant to this Sub-Section will be effective from the first day of the Month following the Month in which notice is given to DBCT Management requiring it to submit a request pursuant to Sub-Section 4(h).~~

~~5 Reconciliation of ARR, Revenue Cap and Reference Tariff between the forecast costs of a Terminal Capacity Expansion and the actual costs of a Terminal Capacity Expansion~~

~~(a) The objects of Sub-Sections 5(b) to 5(f) are:~~

- ~~(1) to provide for an interim ARR, Revenue Cap and Reference Tariff (which interim ARR, Revenue Cap and Reference Tariff is based on forecast costs) to apply to an Expansion Component from the first day of the Month following the Month in which a Terminal Capacity Expansion is Completed until approval by the QCA of an amended ARR, Revenue Cap and Reference Tariff for the Expansion Component which are based on the actual costs of the relevant Terminal Capacity Expansion;~~
- ~~(2) to provide a mechanism for additional actual costs of a Terminal Capacity Expansion to be incorporated into the relevant Regulated Asset Base where those additional actual costs are not determined as at the date of submission (based on actual costs) of a draft amending access undertaking for the Terminal Capacity Expansion; and~~
- ~~(3) to provide a mechanism for the adjustment of Access Charges for the Expansion Component (to the extent that they are affected by a Terminal Capacity Expansion) so as to reconcile, in respect of a Terminal Capacity Expansion, the difference between Access Charges which include forecast costs and Access Charges which include the actual costs of a Terminal Capacity Expansion with the purpose that DBCT Management and Reference Tonnage Access Holders will (subject to the interest calculation provided for in Sub-Section 5(e)(2) be placed in the same position they would have been in had the Access Charges for the Expansion Component which were payable were originally based on the actual costs of the Terminal Capacity Expansion and not the forecast costs.~~

~~(b) In accordance with Section 12.5(o), DBCT Management must submit a draft amending access undertaking promptly prior to Completion of a Terminal Capacity Expansion that proposes amendments to the:~~

- ~~(1) ARR;~~
- ~~(2) Revenue Cap; and~~
- ~~(3) Reference Tariff,~~

~~for the Expansion Component, on an interim basis so as to incorporate the reasonable forecast costs of the Terminal Capacity Expansion and reflect the QCA's Price Ruling.~~

~~(c) In accordance with Section 12.5(q), DBCT Management will submit a further draft amending access undertaking within such time as is approved by the QCA. That draft amending access undertaking will propose amendments to the:~~

- ~~(1) ARR;~~
- ~~(2) Revenue Cap; and~~
- ~~(3) Reference Tariff,~~

~~for the Expansion Component consistent with Sections 11.1, 11.11 and 11.13 of this Undertaking, where necessary to:~~

- ~~(4) reverse the effects of the amendments referred to in Sub-Section 5(b), that incorporated the reasonable forecast costs of the relevant Terminal Capacity Expansion; and~~
- ~~(5) (subject to Sub-Section 5(e) and Section 12.5(e) of the Undertaking) instead incorporate the actual costs of the relevant Terminal Capacity Expansion.~~
- ~~(d) Promptly, and in any event within sixty days, after approval by the QCA of a draft amending access undertaking referred to in Sub-Sections 5(c), DBCT Management will, for each relevant Reference Tonnage Access Holder, and in consultation with the QCA, calculate for the relevant Terminal Capacity Expansion the difference between:

 - ~~(1) the Access Charges payable in the Interim Reference Tariff Period, which Access Charges are calculated using the reasonable forecast costs of the Terminal Capacity Expansion referred to in Sub-Section 5(b); and~~
 - ~~(2) the Access Charges payable in the Interim Reference Tariff Period, which Access Charges are calculated using the actual costs of the Terminal Capacity Expansion referred to in Sub-Sections 5(c),~~

~~where "Interim Reference Tariff Period" means the period on and from the first day of the Month following the Month in which the relevant Terminal Capacity Expansion is Completed to (but excluding) the first day of the Month following the Month in which the QCA approves the Reference Tariff referred to in Sub-Sections 5(c).~~~~

~~DBCT Management will advise each relevant Reference Tonnage Access Holder and the QCA of the calculation referred to in Sub-Section 5(d), promptly, and in any event within one hundred and twenty days, after each date on which the QCA approves the Reference Tariff referred to in Sub-Sections 5(c).~~

- ~~(e) DBCT Management will, in the Month following the Month in which the calculation referred to in Sub-Section 5(d) (as the case may be) is advised to the QCA, recover or repay in a single payment:

 - ~~(1) the difference referred to in Sub-Section 5(d) (as the case may be); and~~
 - ~~(2) interest on the difference calculated on a Monthly basis from the date the applicable portion of the difference would have been payable under the relevant Access Agreement (had the amended Reference Tariff referred to in Sub-Sections 5(c) applied) to the date of payment of the difference referred to in Sub-Section 5(d) by DBCT Management or the relevant Reference Tonnage Access Holder (as applicable) calculated at a rate equal to a WACC(3) Rate compounded Monthly.~~~~
- ~~(f) Where Sub-Sections 5(c) or 5(d) specify a time period by which DBCT Management will do something, the QCA may, on one or more occasions, at its discretion, grant an extension to any time period or due date that applies provided that an application for that extension has been received by the QCA before the expiration of the time period in question.~~

Part B – End of Year Adjustments

1 Year End Adjustment (YEA)

The Year End Adjustment (if any) payable to each Access Holder “u” with Reference Tonnage (YEA_u) will be calculated in respect of each Financial Year as follows:-

$$YEA_u = \frac{RT_u}{ART} \times RP$$

where:-

RT_u is the Reference Tonnage for the Access Holder for the Financial Year in respect of the Existing Terminal or Differentiated Expansion Component (as relevant);

ART is the Aggregate Reference Tonnage for the Financial Year in respect of the Existing Terminal or Differentiated Expansion Component (as relevant); and

RP is the Rebate Pool for the Financial Year calculated at Schedule C, Part B, Section 2.

2 Rebate Pool

The Rebate Pool (RP) for each Financial Year will be calculated as follows:-

$$RP = (\max(\sum_{u=1}^n EC_u - PI - ATA, 0))$$

where:-

EC_u is the Excess Charge (if any) for each RTAH_u for the Financial Year calculated at Schedule C, Part B, Section 3 in respect of the Existing Terminal or Differentiated Expansion Component (as relevant);

n is the number of RTAHs which together hold all ART for the Financial Year in respect of the Existing Terminal or Differentiated Expansion Component (as relevant);

PI is the Provisional Increment calculated at Schedule C, Part B, Sub-Section 4(b) for the Financial Year in respect of the Existing Terminal or Differentiated Expansion Component (as relevant); and

ATA is the Additional Tonnage Amount calculated at Schedule C, Part B, Section 5 for the Financial Year in respect of the Existing Terminal or Differentiated Expansion Component (as relevant).

3 Excess Charge (EC)

(a) Where no Review Event occurs after 1 July in a Financial Year, the Excess Charge (if any) payable by each RTAH_u (EC_u) shall be calculated as follows:-

$$EC_u = \left\{ \begin{array}{l} TIC \times \max[(TS_u - RT_u), 0] + \\ TIC \times 25\% \times \max[(TS_u - RT_u \times 110\%), 0] + \\ TIC \times 25\% \times \max[(TS_u - RT_u \times 125\%), 0] \end{array} \right\}$$

where:-

TIC is the Terminal Infrastructure Charge in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for that Financial Year calculated at Schedule C, Part A, Section 3;

~~TS_u is the actual tonnes of coal shipped through the Terminal by a RTAHu during the Financial Year that are Reference Tonnage or Excess Tonnage in respect of the Existing Terminal or Differentiated Expansion Component (as relevant); and~~

~~RT_u is the Reference Tonnage for the RTAHu for the Financial Year in respect of the Existing Terminal or Differentiated Expansion Component (as relevant).~~

~~(b) Where a Review Event occurs after 1 July in a Financial Year, the Excess Charge (if any) payable by each RTAHu (EC_u) in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) shall be calculated as follows:-~~

$$EC_u = \left\{ \begin{array}{l} TIC_A \times \max[(TS_u - RT_u), 0] + \\ TIC_A \times 25\% \times \max[(TS_u - RT_u \times 110\%), 0] + \\ TIC_A \times 25\% \times \max[(TS_u - RT_u \times 125\%), 0] \end{array} \right\}$$

~~where:-~~

~~(c) TIC_A is the annualised Terminal Infrastructure Charge in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for that Financial Year calculated at Schedule C, Part B, Section 6;~~

~~TS_u is the actual tonnes of coal shipped through the Terminal by a RTAHu during the Financial Year that are Reference Tonnage or Excess Tonnage in respect of the Existing Terminal or Differentiated Expansion Component (as relevant); and~~

~~RT_u is the Reference Tonnage for the RTAHu in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year.~~

4 Increment

~~(a) If the Reference Tonnage Handled for all Access Holders plus the Excess Tonnage Handled for all Access Holders in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) in a Financial Year exceeds the Aggregate Reference Tonnage in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) (**Over shipment**), DBCT Management will initially hold (or be entitled to hold – if it has not actually been paid the relevant amount) a portion of the revenue attributable to the Over shipment of up to and including 2% of the relevant Revenue Cap (the **Provisional Increment**) calculated in accordance with Sub-Section 4(b) below.~~

~~(b) Where:-~~

~~(1) there has been no Review Event after 1 July during the Financial Year the Provisional Increment is calculated as follows:~~

$$PI = \max(\min(TIC \times TRTS - RC, 2\% \times RC), 0)$$

~~where:-~~

~~TIC is the Terminal Infrastructure Charge in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year calculated at Schedule C, Part A, Section 3;~~

~~$TRTS$ is the Reference Tonnage Handled for all Access Holders plus the Excess Tonnage Handled for all Access Holders in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) in the Financial Year (and is the sum of all TS_u for each RTAHu); and~~

~~RC is the Revenue Cap in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year.~~

~~(2) there has been a Review Event after 1 July during the Financial Year the Provisional Increment is calculated as follows:~~

$$PI = \max(\min(TIC_A \times TRTS - RC, 2\% \times RC), 0)$$

~~where:-~~

~~TIC_A is the annualised Terminal Infrastructure Charge in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year calculated at Schedule C, Part B, Section 6;~~

~~TRTS is the Reference Tonnage Handled for all Access Holders plus the Excess Tonnage Handled for all Access Holders in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) in the Financial Year (and is the sum of all TS_u for each RTAH_u); and~~

~~RC is the Revenue Cap in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year.~~

~~For clarification, DBCT Management may elect not to make a claim for an Increment in respect of a Financial Year, and to treat the Provisional Increment as nil.~~

- ~~(c) DBCT Management may submit an application to the QCA seeking to permanently retain the Provisional Increment, within 60 days of Financial Year end. If the QCA is reasonably satisfied that some or all of the over recovery is a direct result of DBCT Management itself or through its contractors (other than the Operator) engaging in activities which have improved capital or operational productivity of the Terminal then the QCA may approve the retention by DBCT Management of all or part of the Provisional Increment (the amount so approved being the **Increment**).~~
- ~~(d) If the QCA approves an Increment, the relevant Revenue Cap otherwise applicable will be increased commencing from the next Financial Year and for each Financial Year (or part thereof) thereafter until the Terminating Date by the amount of the Increment (or a proportion of it, if the final period in the Term is not a whole Financial Year).~~
- ~~(e) If the QCA does not approve DBCT Management's application (in whole or in part) or DBCT Management does not submit an application to the QCA as outlined above, DBCT Management will distribute any retained portion of the Provisional Increment (the **Provisional Increment Repayment**) to Reference Tonnage Access Holders in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) within 14 days of the QCA's decision (or, if no application is made, then no later than 14 days after the last date on which the application could have been made), in proportion to their respective Reference Tonnages for the relevant Financial Year.~~

5 ~~Additional Tonnage Amount (ATA)~~

(a) ~~Where no Review Event occurs after 1 July in a Financial Year, the Additional Tonnage Amount (ATA) will be calculated as follows:~~

$$ATA = TIC \times AT$$

where:-

~~TIC is the Terminal Infrastructure Charge in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year calculated at Schedule C, Part A, Section 3; and~~

~~AT is the Additional Tonnage in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year~~

(b) ~~Where a Review Event occurs after 1 July in a Financial Year, the Additional Tonnage Amount (ATA) will be calculated as follows:~~

$$ATA = TIC_A \times AT$$

where:-

~~TIC_A is the annualised Terminal Infrastructure Charge in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year calculated at Schedule C, Part B, Section 6; and~~

~~AT is the Additional Tonnage in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year.~~

6 ~~Annualised Terminal Infrastructure Charge (TIC_A)~~

~~If there is a Review Event after 1 July in a Financial Year, the annualised Terminal Infrastructure Charge (TIC_A) for that Financial Year will be calculated as follows:-~~

$$TIC_A = \sum_{i=1}^n \left(\frac{TIC_i \times RTP_i}{ART} \right)$$

where:

~~TIC_i is the Terminal Infrastructure Charge in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for each period i in the Financial Year calculated at Schedule C, Part A, Section 3;~~

~~RTP_i is that part of the Reference Tonnage for all RTAUs in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) relating to each period i in the Financial Year (for example, if the Aggregate Reference Tonnage rate in period "i" is 50Mtpa and the period "i" is of 6 Months duration then RTP_i would be 25 Mt);~~

~~ART is the Aggregate Reference Tonnage in respect of the Existing Terminal or Differentiated Expansion Component (as relevant) for the Financial Year (for example, if there are two periods "i" in a Financial Year, each of 6 Months duration, and the Aggregate Reference Tonnage rate in each of the periods is 50 Mtpa and 60 Mtpa respectively, then the ART for the Financial Year would be 55Mt); and~~

~~n is the number of periods "i" in the Financial Year.~~

Part C ~~Transitional charges from 2010AU~~

~~For the avoidance of doubt, and without limitation to Section 11.11 of the 2010 access undertaking, promptly following the Commencement Date, DBCT Management must undertake the reconciliation of Capital Charges and determine a final true up amount as contemplated by Section 11.11 and Part C of that undertaking.~~

[Drafting Note: Please refer to Appendix 7 of DBCTM's submission, which sets out the pricing framework. Drafting to give effect to the pricing framework is being developed and this schedule will be updated to reflect the pricing framework]

Schedule D – Confidentiality deed

This confidentiality deed

is made on

between the following parties:

1. **DBCT Management Pty Limited**
ACN 097 698 916
of Level 15, Waterfront Place, 1 Eagle Street, Brisbane QLD 4000
(**DBCT Management**)
2. **[insert name of receiving party]**
[insert ABN/ACN/ARBN]
of [insert address]
(**Access Seeker**)

Recitals

- A. DBCT Management and the Access Seeker wish to negotiate the terms of an Access Agreement under which DBCT Management will provide Access to the Services.
- B. The parties have agreed to the disclosure of certain Confidential Information to each other in order to assist them to reach a negotiated outcome on the terms and conditions of Access to the Services.
- C. The parties have agreed that any Confidential Information is provided on the terms of this deed and that they will not use or disclose the Confidential Information except as provided in this deed.

This deed witnesses

that in consideration of, among other things, the mutual promises contained in this deed, the parties agree:

1 Definitions and interpretation

1.1 Definitions

In this deed:

Access Undertaking Framework means the Dalrymple Bay Coal Terminal Access Undertaking prepared in accordance with the requirements of the *Queensland Competition Authority Act 1997* (Qld) and approved on 16 February 2017 [Framework dated 9 September 2020](#) as varied or replaced from time to time;

Confidential Information means any information, data or other matter disclosed to a party by or on behalf of another party where:

- (a) the disclosure of the information, data or other matter by the Recipient might reasonably be expected to affect the commercial affairs of the owner of the information, data or other matter; or
- (b) the information, data or other matter is marked or otherwise clearly identified as confidential by a party when disclosed,
provided that such information, data or other matter:
- (c) is not already in the public domain;

- (d) does not become available to the public through means other than a breach of this confidentiality deed or of the confidentiality provisions of the Access ~~Undertaking~~[Framework](#);
- (e) was not in the other party's lawful possession prior to such disclosure; or
- (f) is not received by the other party independently from a third party free to disclose such information, data or other matter,

and provided further that the information, data or other matter will cease to be Confidential Information if the information has ceased to retain its confidential nature, for example because:

- (g) the disclosure of the information, data or other matter by the Recipient would no longer reasonably be expected to affect the commercial affairs of the owner of the information, data or other matter;
- (h) the information, data or other matter is now in the public domain through means other than a breach of this confidentiality deed or of the confidentiality provisions of the Access ~~Undertaking~~[Framework](#); or
- (i) the information, data or other matter has been received by the Recipient independently from a third party free to disclose the information, data or other matter.

Corporations Act means the *Corporations Act 2001* (Cth);

Discloser means a person who discloses Confidential Information to a Recipient pursuant to negotiations for Access under Part 5 of the Access ~~Undertaking~~[Framework](#);

Document includes any note, memorandum, record, report, financial information, summary, analysis, calculation, strategic assessment, market survey, business plan, computer program, computer record, circuit, circuit layout, drawing, specification, material or any other means by which information may be stored or reproduced;

Express Purpose means to assist the Recipient to reach a negotiated outcome with the Discloser as to the terms and conditions of Access;

Recipient means a person who receives Confidential Information pursuant to negotiations for Access under Part 5 of the Access ~~Undertaking~~[Framework](#); and

Specified Person means:

- (a) an officer or employee of a Recipient;
- (b) a professional adviser to a Recipient;
- (c) a financier of a Recipient;
- (d) a professional adviser to a financier of a Recipient;
- (e) an officer, employee, or a professional adviser to a related body corporate of a Recipient; or
- (f) an officer or employee of the Operator,

who has a specific need to have access to the Confidential Information for the Express Purpose.

1.2 Interpretation

- (a) Terms defined in the Access ~~Undertaking~~[Framework](#) have the same meaning in this deed unless otherwise defined.
- (b) Headings are for convenience only and do not affect interpretation.

- (c) In this deed, unless the context otherwise requires:
- (1) words importing the singular include the plural and vice versa;
 - (2) a reference to any thing (including, but not limited to, any right) includes a part of that thing but nothing in this Clause 1.2(c)(2) implies that performance of part of an obligation constitutes performance of the obligation;
 - (3) the term “related body corporate” has the meaning given to that term under the Corporations Act;
 - (4) the term “associate” has the meaning given to that term in Section 15 of the Corporations Act;
 - (5) an expression importing a natural person includes any company, partnership, joint venture, association, corporation or other body corporate and any government agency; and
 - (6) a reference to a person includes that person’s successors and legal personal representatives.

2 Confidentiality

The Recipient must:

- (a) hold the Confidential Information in strict confidence and not disclose, or cause or permit the disclosure of, the Confidential Information, except as permitted under this deed or with the prior written consent of the Discloser;
- (b) not disclose, or cause or permit the disclosure to any person of, any opinion in respect of the Confidential Information or a Document created in accordance with Clause 3(c), except as permitted under this deed;
- (c) keep the Confidential Information and any Documents created in accordance with Clause 3(c) in a way such that it is reasonably protected from any use, disclosure or access which is inconsistent with this deed;
- (d) promptly notify the Discloser if it suspects, or becomes aware of, any unauthorised use, storage, copying or disclosure of the Confidential Information;
- (e) do anything reasonably required by the Discloser to prevent or stop a breach or threatened breach of this deed or an infringement or threatened infringement of the Discloser’s rights arising out of this deed by any person, whether by court proceedings or otherwise; and
- (f) maintain such procedures as are reasonably necessary to ensure compliance with this deed by the Recipient and each Specified Person and, upon request, provide the Discloser details of the procedures adopted.

3 Permitted use and disclosure

The Recipient may:

- (a) only use the Confidential Information for the Express Purpose;
- (b) not make use of the Confidential Information to the commercial, financial or competitive disadvantage of the Discloser (but this does not preclude the Recipient from using the Confidential Information in negotiations with the Discloser or in any

~~dispute proceedings, submissions to the Queensland Competition Authority or other proceeding contemplated in the Access Undertaking or the Queensland Competition Authority Act 1997 (Qld);~~

- (c) create, or cause or permit to be created, a Document which reproduces, is based on, utilises or relates to Confidential Information only if that creation is solely for the Express Purpose; and
- (d) only disclose Confidential Information (including as contained in a Document created in accordance with Clause 3(c)) to a Specified Person, and may only make such disclosure solely for the Express Purpose.

4 Return and destruction of information

- (a) If requested by the Discloser, the Recipient must promptly return to the Discloser, or destroy or delete as the Discloser directs, all original Documents and copies which:
 - (1) are or contain Confidential Information; and
 - (2) reproduce, are based on, utilise or relate to Confidential Information.
- (b) If a Document or a copy referred to in Clause 4(a) contains information which is Confidential Information of the Recipient, then the Recipient is not required to return that Document but must destroy or delete the portion of the Document containing the Confidential Information of the Discloser.
- (c) Nothing in this clause 4 requires the destruction or return of documentation contained in any board papers or information retained by a professional adviser in accordance with usual professional practice.

5 Operation of this deed

- (a) This deed continues without limitation in time but, subject to Clause 5(b), does not apply to any Confidential Information that:
 - (1) the Recipient or a Specified Person is required to disclose by any applicable law or legally binding order of any court, government, semi-government authority, administrative or judicial body, or a requirement of a stock exchange or regulator;
 - (2) is in the public domain other than as a result of a breach of this deed;
 - (3) was at the time of disclosure already in the lawful possession of the Recipient; or
 - (4) is received by the Recipient from a person (other than a Discloser or any employee, officer, agent or adviser of a Discloser) legally entitled to possess that information and provide it to the Recipient.
- (b) If the Recipient or a Specified Person must make a disclosure referred to in Clause 5(a)(1):
 - (1) the Recipient must only disclose, and must ensure that the Specified Person only discloses the minimum Confidential Information required to comply with the applicable law, order or requirement; and
 - (2) before making such disclosure, the Recipient must:

- (A) give the Discloser reasonable written notice of:
 - (i) the full circumstances of the required disclosure; and
 - (ii) the Confidential Information which it, or the Specified Person, proposes to disclose; and
 - (B) consult with the Discloser as to the form of the disclosure.
-

6 Acknowledgment

The Recipient acknowledges that:

- (a) the Confidential Information is secret and highly confidential to the Discloser;
 - (b) this deed does not convey any proprietary or other interest in the Confidential Information to the Recipient or any Specified Person;
 - (c) disclosure of Confidential Information in breach of this deed could cause considerable commercial and financial detriment to the Discloser;
 - (d) damages may be inadequate compensation for breach of this deed and, subject to the court's discretion, the Discloser may restrain by an injunction or similar remedy, any conduct or threatened conduct which is or would be a breach of this deed; and
 - (e) some or all of the Confidential Information may be relevant to the price or value of securities of the Discloser. The Recipient undertakes that it will not deal in those securities in breach of the insider trading provisions of the Corporations Act.
-

7 Recipient to ensure others comply

The Recipient must:

- (a) inform each Specified Person of the Recipient's obligations under this deed;
 - (b) procure that each Specified Person strictly observes all of the Recipient's obligations under this deed as if those obligations were imposed on that person; and
 - (c) generally ensure that no officer, employee, adviser or agent of the Recipient does anything which, if done by the Recipient, would be inconsistent with this deed.
-

8 Indemnity

The Recipient indemnifies the Discloser in respect of any claim, action, damage, loss, cost, charge, expense, outgoing or payment which the Discloser suffers, incurs or is liable for in respect of:

- (a) any breach of this deed by the Recipient;
 - (b) any failure by the Recipient to ensure compliance by any Specified Person with the terms of this deed; or
 - (c) any infringement of the Discloser's rights in respect of the Confidential Information by the Recipient or a Specified Person.
-

9 Disclaimer

- (a) Neither the Discloser, nor any of its related bodies corporate nor any of their respective officers, employees or advisers:

- (1) makes any representation or warranty:
 - (A) as to the accuracy or completeness of the Confidential Information;
 - (B) that the Confidential Information has been audited, verified or prepared with reasonable care; or
 - (C) that the Confidential Information is the totality of the information that a prospective Access Seeker may require in order to negotiate an Access Agreement;
 - (2) accepts any responsibility for any interpretation, opinion or conclusion that the Recipient or a Specified Person may form as a result of examining the Confidential Information;
 - (3) accepts any responsibility to inform the Recipient of any matter arising or coming to the Discloser's notice which may affect or qualify any Confidential Information which the Discloser provides to the Recipient; and
 - (4) is liable, and the Recipient covenants not to make any claim or commence or pursue any proceedings against any of them, for any loss of any kind (including, without limitation, damages, costs, interest, loss of profits, or special loss or damage) arising from:
 - (A) an error, inaccuracy, incompleteness or similar defect in the Confidential Information; or
 - (B) any default, negligence or lack of care in relation to the preparation or provision of the Confidential Information.
- (b) The Recipient acknowledges that it is making an independent assessment of the Confidential Information and that it will carry out, and rely solely on, its own investigation and analyses in relation to the Confidential Information.
 - (c) Any reliance by the Recipient, or any Specified Person, on any Confidential Information, or any use of any Confidential Information, is solely at its own risk.

10 Governing law and jurisdiction

- (a) This deed is governed by the laws of Queensland.
- (b) ~~The parties irrevocably submit to the exclusive jurisdiction of the courts of Queensland.~~ Any dispute arising out of or in connection with this deed shall be resolved in accordance with the dispute resolution provisions contained in section 16 of the Access Framework.

11 Waivers

- (a) Waiver of any right, power, authority, discretion or remedy arising on default under this deed must be in writing and signed by the party granting the waiver.
- (b) A failure or delay in exercise, or partial exercise, of a right, power, authority, discretion or remedy created or arising on default under this deed does not result in a waiver of that right, power, authority, discretion or remedy.

12 Variation

Any variation of this deed must be in writing and signed by the parties.

13 Entire agreement

This deed is the entire agreement between the parties in respect of its subject matter.

Executed as a deed:

**Signed sealed and delivered by
DBCT Management**

by:

Director/Secretary

Director

Name (please print)

Name (please print)

**Signed sealed and delivered by
*[insert Access Seeker]***

by:

Director/Secretary

Director

Name (please print) Name (please print)

Schedule E – Services

1 Train scheduling

DBCT Management must (subject to availability of trains and factors beyond its control) co-ordinate cargo assembly windows at the terminal to receive coal parcels and provide train operators and Access Holders with details of cargo receipt windows suitable for terminal acceptance of trains and ensure sufficient unloading capacity is made available at the Terminal, to allow each Access Holder to ship its Annual Contract Tonnage of coal in each Financial Year.

2 Train unloading

If a train carrying an Access Holder's coal arrives at the Terminal within its designated cargo build window, DBCT Management must ensure that the train is unloaded at a rate (consistent with the type and condition of the coal) consistent with achieving Handling of the Annual Contract Tonnage of coal for an Access Holder.

3 Reclaiming and vessel loading

DBCT Management must:

- (a) make the Terminal available for berthing by vessels (which are satisfactory in all respects to receive coal) nominated by each Access Holder, such that not less than the Annual Contract Tonnage can be Handled by DBCT Management on behalf of that Access Holder in each Financial Year (as long as the vessel and/or cargo mix required by the Access Holder (or its customer) does not unreasonably impact on the efficiency of the Terminal). It is agreed that historical vessel or cargo mixes prior to 30 June 2005 will be taken generally not to have unreasonably impacted on efficiency; and
- (b) load each Access Holder's coal into a vessel which is nominated by the Access Holder and is available for loading so as to achieve the objective in paragraph 3(a).

4 Incidental services

DBCT Management must provide the following services incidental to coal Handling (unless provided directly by the Operator):

- sampling and survey services;
- vessel monitoring;
- co-ordination with ships' agents, masters, customers and other relevant entities;
- crew disembarkation services; and
- wharfage and line services.

5 Miscellaneous services

If required by an Access Holder or any Approval or statutory authority notified to DBCT Management, DBCT Management must, in accordance with Good Operating and Maintenance Practice, provide the following miscellaneous services to the Access Holder:

- moisture adding;
- compacting;
- surfactant adding;
- dozing;

- blending (subject to Section 6(d) below); and
- any other services reasonably requested from time to time in writing by an Access Holder to DBCT Management, provided that such services will not unreasonably impact on the efficiency or capacity of the Terminal.

6 Stockpiling and blending

- (a) DBCT Management must provide to each Access Holder sufficient stockpile areas to allow cargo assembly (i.e. assembly of cargo for a nominated vessel with an appropriate arrival time) for vessels onto which the Access Holder's coal is to be loaded.
- (b) Remnant management areas will be determined by the Operator in areas of the Terminal which are not required for cargo assembly and which can be made available for dedicated stockpiling without materially affecting efficiency of the Terminal. DBCT Management must ensure that each Access Holder is offered the opportunity to use a proportion of that stockpiling area which accords with its proportion of the Aggregate Annual Contract Tonnage under all Access Agreements and Existing User Agreements.
- (c) The stockpiling rights in Section 6(a) and 6(b) are subject to any other obligation of DBCT Management under any Access Agreement or Existing User Agreement with another Access Holder entered into prior to 1 July 2004 (to the extent that such obligation has not been waived).
- (d) DBCT Management must blend coal if so requested, but subject to requirements in the Terminal Regulations from time to time, which may:
 - (1) require coal to be blended before it is received at the Terminal, where reasonably practicable;
 - (2) require coal to be blended into a stockpile where reasonably practicable (rather than being blended from stockpile); and
 - (3) limit the proportions in which coal may be blended (to limit the increase in consumption of capacity of the Terminal consumed because of blending).
- (e) DBCT Management must transfer each Access Holder's coal from the train unloading facility at the Terminal to the relevant stockpile area or a cargo assembly area and stockpile an Access Holder's coal in that area (except to the extent that a quality plan under the Terminal Regulations has been agreed to which provides for direct loading from train to vessel).

7 Prevention of contamination

DBCT Management must take all practicable measures to maintain the integrity of each Access Holder's coal at the Terminal, including (without limitation) by:

- (a) avoiding contamination of the Access Holder's coal, including (without limitation) contamination with other coal or waste material; and
- (b) minimising handling and associated degradation of the Access Holder's coal.

8 Data provision

DBCT Management must provide such information and access to systems as are reasonable to inform Access Holders of relevant data relating to handling of their coal.

9 Co-ordination

Subject to the Access Holder providing relevant information to DBCT Management within a reasonable time, DBCT Management must:

- (a) ensure, as far as practicable, that it discharges its obligations in this Schedule in accordance with the requirements of the Access Holder's reasonable quality plans, reasonable shipping programs and contracts as notified to DBCT Management and the Operator from time to time consistent with Terminal Regulations; and
- (b) (subject to the foregoing and having regard to equity amongst Access Holders) use its best endeavours to minimise the aggregate cost to the Access Holder arising out of Handling at the Terminal (including demurrage costs and rail freight).

10 Terminal Regulations, Force Majeure, Laws and Operation & Maintenance Contract

The provision of each of the above Services by DBCT Management is subject to (and DBCT Management's obligations are modified to the extent of):

- (a) any relevant provisions of the Terminal Regulations in so far as they;
 - (1) require scheduling of Access Holder's railing in and shipment of coal in ways which promote Terminal and System efficiency and endeavours to achieve the objective of even shipments by Access Holders;
 - (2) temporarily reduce the tonnage of coal which may be Handled or Services provided, during such periods as capacity of the Terminal or relevant Services becomes restricted, provided that such reductions and restrictions affect all Access Holders equitably (but this does not relieve the Access Holder or DBCT Management respectively from any liability which they might have in respect of causing capacity or Services to have become restricted);
 - (3) prescribe requirements for trains, unloading of trains, stockpiling and cargo assembly of vessels, arrival of vessels, loading of vessels, pre-loading requirements and order of loading and unloading and other matters where possible (including matters of the type dealt with in the Terminal Regulations as at the Commencement Date) which promotes the efficient, safe and equitable utilisations of Terminal Capacity and System Capacity and Terminal Services;
 - (4) require Access Holders to co-operate with the Operator and other Access Holders in relation to scheduling, loading, unloading, priorities and other matters relating to the operation of the Terminal; and
 - (5) allow the exercise of discretions on the part of the Operator in limited cases, where it is reasonable to do so, to optimise Terminal or System efficiency and the power is required to be exercised in good faith and in a non-discriminatory way;
- (b) in respect of an Access Holder, any specific provision of their Access Agreement or Existing User Agreement including any provisions relating to an event of force majeure;
- (c) DBCT Management:
 - (1) being able to require the Operator under the Operation & Maintenance Contract to provide such services; and

- (2) without limiting Section 10(c) any specific provision in the Operation & Maintenance Contract including any provisions relating to an event of force majeure.

The provision of the above Services by DBCT Management must be carried out in accordance with Good Operating and Maintenance Practice and all applicable laws.

11 Standard for Services

- (a) The provision of the above Services by DBCT Management must be carried out with due skill, care and diligence in accordance with this ~~Undertaking~~[Framework](#), the Terminal Regulations, Good Operating and Maintenance Practice and all applicable laws.
- (b) When providing the above Services, DBCT Management must take into account the following factors, where relevant:
 - (1) lowest total whole of life cost;
 - (2) reliability and economy of performance;
 - (3) maximising the effective life of the Terminal; and
 - (4) DBCT Management's non-discrimination obligations under this ~~Undertaking~~[Framework](#).

Schedule F – Terminal Master Plan

[Terminal Master Plan attached separately]

[\[Drafting Note: DBCTM's 2018 Master Plan is attached at Appendix 19 of DBCTM's submission dated 30 May 2018\]](#)

Schedule G – Definitions and Interpretation

[Drafting Note: Amendments to this Schedule G will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018. Shaded terms in particular are pricing-related terms that will be reviewed. Consequential changes to other terms may also be required.]

1. Definitions

In this Undertaking Framework:

2017 Access Undertaking means the Dalrymple Bay Coal Terminal Access Undertaking prepared in accordance with the requirements of the *Queensland Competition Authority Act 1997 (Qld)* and approved on 16 February 2017.

60/60 Requirement has the meaning given in Section ~~12.5~~11.5(h).

Access means access under an Access Agreement or Existing User Agreement to the Services to be provided by DBCT Management at the Terminal.

Access Agreement means an access agreement between DBCT Management and an Access Holder negotiated under Section- 5 of this Undertaking Framework (or otherwise entered into during the Term) including an Existing User Agreement, and a Differentially Priced Access Agreement, as the context provides.

Access Applicant means a person who has submitted to DBCT Management a valid Access Application that has been confirmed by DBCT Management as compliant with Section 5.2 and has not lapsed, expired or otherwise been validly rejected by DBCT Management.

Access Application means:

- (a) an application for Access made or deemed to have been made under Section 5.2 of this Undertaking Framework;
- (b) for the purposes of Sections 5.3A, ~~5.4, 5.7, 5.8, 5.9,~~5.4, 5.7, 5.8, 5.9, and Section ~~17~~16 only – an Access Application which was duly submitted to DBCT Management prior to the Commencement Date under and in accordance with ~~a previous access undertaking~~the 2017 Access Undertaking for the Terminal and which has not been dealt with on the Commencement Date. For clarification, the time of the submission of the Schedule A information (before or after the Commencement Date) will not affect the date on which the application is taken to have been received by DBCT Management; and
- (c) for the purposes of Section 5.4 only – an application of the kind referred to in Section 5.10(q)(9)(B) which is made after the Commencement Date,

as renewed from time to time in accordance with this Undertaking Framework.

Access Application Date means:

- (a) where paragraph (b) of this definition does not apply, the date that the Access Application was received by DBCT Management; or
- (b) the date that the Access Application was deemed to be made if the Access Application was substantially altered in accordance with Section 5.3A or ~~5.7,~~5.7.

Access Charges means amounts payable by an Access Holder under an Access Agreement or Existing User Agreement for the Services.

Access Holder means a party who has an entitlement to Access under an Access Agreement or an Existing User Agreement.

Access Seeker means a party seeking Access, or increased Access, to the Services and includes a party to a Conditional Access Agreement.

Access Transfer has the meaning given in Section 5.13 of this [Undertaking Framework](#).

Additional Tonnage means, in respect of a relevant Financial Year, the aggregate of all Excess Tonnage of all Access Holders in that Financial Year which, because of Terminal Capacity, could not have been Handled unless there had been an Early Termination. For clarification, the Additional Tonnage cannot exceed the relevant annual tonnages the subject of Early Termination.

Additional Tonnage Amount or **ATA** has the meaning given in Schedule C, [Part B, Section 5](#).

~~**Aggregate Annual Contract Tonnage** means, in respect of a relevant Financial Year:~~

- (a) in respect of an Expansion Component, the sum of the Annual Contract Tonnages for only the Differentially Priced Access Holders in respect of that Expansion Component; and
- (b) in respect of the Base Terminal, the sum of the Annual Contract Tonnages for all Access Holders other than Differentially Priced Access Holders in that Financial Year.

Aggregate Reference Tonnage means, in respect of a relevant Financial Year:

- (a) in respect of an Expansion Component, the sum of the Reference Tonnages for only the Differentially Priced Access Holders in respect of that Expansion Component; and
- (b) in respect of the Base Terminal, the sum of the Reference Tonnages for all Access Holders other than Differentially Priced Access Holders in that Financial Year.

Alternative Proposed Standard Funding/Underwriting Agreement means the alternative proposed Standard Funding Agreement or alternative proposed Standard Underwriting Agreement as specified ~~by the QCA~~ under Section 5.10(q)(7).

Annual Contract Tonnage means, for an Access Holder in a relevant Financial Year, the number of Tonnes of coal in that Financial Year that the Access Holder is entitled to have Handled under its Access Agreement:

- (a) including tonnage which an Access Holder is entitled to have Handled but which may not, at a practical level, be able to be Handled due to circumstances such as a force majeure event or relevant provisions of Terminal Regulations and any tonnage which an Access Holder would be entitled to have Handled but for the suspension of the Access Holder's right to have the tonnage Handled under an Access Agreement; but
- (b) excluding ad-hoc over shipments which may be permitted subject to available capacity.

Annual Revenue Requirement or **ARR** means, in respect of a relevant Financial Year, the amount of revenue which the QCA determines that DBCT Management is entitled to earn in that Financial Year to fully recover the costs incurred in providing Access to the Services (including an adequate rate of return on the value of assets employed but excluding Terminal Operating Costs), assuming that the Aggregate Annual Contract Tonnage for that Financial Year was all contracted as Reference Tonnage.

Approval means any and all licences, approvals, consent or permits required from any Government Agency or third party for the construction, occupation, development or operation of the Terminal for the provision of the Services, performance of the Leases, or the Port Services Agreement, including but not limited to:

- (a) environmental approvals and licences;
- (b) planning and development approvals and licences; and
- (c) local government approvals and licences.

Approval Date means ~~16 February 2017.~~

Arbitration means [an arbitration commenced under section 16.4.](#)

Arbitrator means [an arbitrator appointed under Section 16.4.](#)

Available System Capacity means, in respect of a relevant time, the amount of System Capacity at that time not contracted to be Handled. It is derived by subtracting the Aggregate Annual Contract Tonnage as at the relevant time from System Capacity at that time. Where that subtraction results in a negative number, it will be taken to be "nil". Where Available System Capacity is to be determined in respect of a future time DBCT Management will estimate it taking all relevant factors into account (including System Capacity expected to arise out of a System Capacity Expansion which has been or can reasonably be expected to be committed to at the time of the estimation).

~~**Brookfield Group** means the group of companies that are Controlled by Brookfield Asset Management Inc.~~

Business Day means a day other than a Saturday, a Sunday, or a public holiday in Brisbane.

Capital Charge means the components of Access Charges that are not an Operation & Maintenance Charge.

Capital Expenditure means expenditure (incurred by DBCT Management) which:

- (a) relates to replacement or expansion of any part of the Terminal;
- (b) relates to refurbishment or upgrade of any part of the Terminal which can reasonably be expected to extend the life of the relevant part beyond its original useful life or is undertaken for environmental or safety reasons;
- (c) otherwise relates to the refurbishment or upgrade of Terminal plant and/or infrastructure which is reasonably expected to improve whole of life cost, or is incurred with the agreement of the Operator; or
- (d) is ancillary or incidental to paragraphs (a), (b) or (c),

but not expenditure recovered through HCF or HCV (as those terms are defined in the Standard Access Agreement).

Coal Guidelines means the 'Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves' published by the Coalfields Geology Council of New South Wales and the Queensland Resources Council or its successor document, as updated from time to time.

Coal Resources has the meaning given to it in the JORC Code.

Commencement Date means ~~1 July 2016.~~ [the day following the Expiry Date.](#)

Completion means, in respect of relevant works comprising a Terminal Capacity Expansion:

- (a) the works are electrically and mechanically complete; and
 - (b) testing and commissioning has been satisfactorily completed (including load commissioning),
- but where punchlist items (being items intended to be carried out after practical completion and commencement of full operation of the relevant items) are not necessarily complete, and **Complete** and **Completed** have corresponding meanings.

Conditional Access Agreement has the meaning given to it in Section 5.4(j) of this ~~Undertaking~~ [Framework](#).

Confidential Information means any information, data or other matter disclosed to a person by, or on behalf of, another person where:

- (a) the disclosure of the information, data or other matter by the recipient might reasonably be expected to affect the commercial affairs of the owner of the information, data or other matter; or
- (b) the information, data or other matter is marked or otherwise clearly identified as confidential by a party when disclosed;

provided that such information, data or other matter:

- (c) is not already in the public domain;
- (d) does not become available to the public through means other than a breach of the confidentiality provisions in this ~~Undertaking~~[Framework](#) or a breach of any confidentiality deed contemplated in Section ~~87~~ of this ~~Undertaking~~[Framework](#);
- (e) was not in the other party's lawful possession prior to such disclosure; or
- (f) is not received by the other party independently from a third party free to disclose such information, data or other matter;

and provided further that the information, data or other matter will cease to be Confidential Information if the information, data or other matter has ceased to retain its confidential nature, for example because:

- (g) the disclosure of the information, data or other matter by the recipient would no longer reasonably be expected to affect the commercial affairs of the owner of the information, data or other matter;
- (h) the information, data or other matter has entered in the public domain through means other than a breach of the confidentiality provisions in this ~~Undertaking~~[Framework](#) or a breach of any confidentiality deed contemplated in Section ~~87~~ of this ~~Undertaking~~[Framework](#); or
- (i) the information, data or other matter has been received by the recipient independently from a third party free to disclose the information, data or other matter.

Consequential Loss means any one or more of the following:

- (a) Loss of profits; or
- (b) Loss of opportunity to make profits; or
- (c) Loss of business opportunity; or
- (d) special exemplary or punitive damages; or
- (e) any Loss which does not directly and naturally flow in the normal course of events from the occurrence of the event giving rise to the liability for such Loss, whether or not such Loss was in the contemplation of the relevant party at the relevant time,

including any of the above types of Loss arising from an interruption to a business or activity.

Construction Period Risk Free Rate means the rate calculated by averaging the yield of the 10 year Commonwealth Government bond over the 20 Business Days preceding the earlier of:

- (a) the first draw down date on floating rate construction debt financing; or
- (b) the interest rate set date on a fixed rate construction debt financing;

effected by DBCT Management in respect of a relevant Terminal Capacity Expansion.

Control has the meaning given to that term in the *Corporations Act 2001* (Cth) and **Controlled** has a corresponding meaning.

~~**Cost Allocation Manual** means a cost allocation manual prepared by the QCA under s159 of the QCA Act for use by DBCT Management.~~

Cost Allocation Principles has the meaning given in Section ~~11.11(h)~~[10](#).

Cost Sensitive Expansion has the meaning given in Section ~~11.13(c)~~[10](#).

Dalrymple Bay Coal Chain means all infrastructure relating to raiing and shipping of coal (from mine outloaders to Terminal shiploaders and adjacent infrastructure), excluding Hay Point, generally referred to as the *Dalrymple Bay Coal Chain*, (unless all relevant stakeholders otherwise agree).

DBCT Holdings means DBCT Holdings Pty Limited ACN 096 395 783 and its successors and assigns, including persons taking by way of novation.

DBCT Management means DBCT Management Pty Ltd ACN 097 698 916 and its successors and permitted assigns, including persons taking by way of novation.

DBCT Trustee means DBCT Investor Services Pty Ltd ACN 052 156 082 as trustee of the DBCT Trust.

Deed Poll means the irrevocable deed poll dated [insert] given by DBCT Management under which it covenants to comply with the Framework.

Different Terms has the meaning given in Section ~~13.1~~[12.1](#)(d).

Differentiation, in respect of a Terminal Capacity Expansion, means the exclusion of costs associated with an expansion from an existing Terminal Component's Regulated Asset Base, so as to create a separate Regulated Asset Base, Annual Revenue Requirement and Reference Tariff for the purpose of calculating Capital Charges in respect of the Terminal Capacity Expansion. Where expansion costs are differentiated, they are not shared by the users of existing Terminal Components and **Differentiated** has a corresponding meaning.

Differentiated Expansion Component has the meaning giving in Section ~~11.13~~[10](#) [10.13](#)(b).

Differentially Priced Access Agreement means an Access Agreement under which the Access Charges are to be differentially priced and Services are to be provided by DBCT Management from capacity created by an Expansion Component.

Differentially Priced Access Holder means an Access Holder who is party to a Differentially Priced Access Agreement.

Differentially Priced Capacity means capacity associated with a Differentiated Expansion Component.

Differentiated Queue has the meaning set out in Section 5.4(q).

Dispute has the meaning given to that term in Section ~~17.1~~[16.1](#).

Dispute Notice has the meaning given to that term in Section ~~17.1~~[16.1](#).

Early Termination means the termination of an Access Agreement or Existing User Agreement (**Terminated Agreement**) before its originally scheduled expiry date (but not where that occurred as a result of the exercise of a contractual right to terminate which was included in the Terminated Agreement when it was entered into, other than a right to do so for default in payment or insolvency of the Access Holder or default by DBCT Management. For the purpose of this definition, termination for default in payment or insolvency will be taken to have occurred if DBCT Management terminates the Terminated Agreement on other grounds but in circumstances where a default in payment or the insolvency of the Access Holder could have been reasonably expected within a reasonably short time thereafter had that termination not occurred).

Effective Date has the meaning given in the Standard Access Agreement.

Excess Charge has the meaning given in Section ~~11.5~~[10](#).

Excess Tonnage means, in respect of an Access Holder, the number of tonnes of the Access Holder's coal (excluding Non-Reference Tonnage) Handled in a Financial Year which is more than the Access Holder's Reference Tonnage for that Financial Year.

Execution Date has the meaning given in the Standard Access Agreement.

Existing Terminal means the Terminal as it exists at the Commencement Date together with each Socialised Expansion of that existing Terminal.

Existing Terminal Capacity has the meaning given in Section ~~12.1~~[11.1](#)(a)(1).

Existing User Agreement means an agreement which is in force as at the Commencement Date by which DBCT Management has granted an Access Holder an entitlement to have coal Handled through the Terminal.

[Expansion Arbitrator](#) has the meaning given in clause 11.5(a).

Expansion Component means in respect of a Terminal Capacity Expansion, the Terminal Component the subject of the expansion, as determined in accordance with this ~~Undertaking~~[Framework](#).

Expansion Component Capacity means, for an Expansion Component, the maximum reasonably achievable capacity of that Expansion Component (measured in tonnes per Financial Year) as estimated pursuant to Section ~~12.1~~[11.1](#).

Expansion Parties means, in respect of an Expansion Component, any Funding Access Seeker or any party to a Conditional Access Agreement associated with that Expansion Component.

Expansion Pricing Principles means the principles set out in Section ~~11.13~~[\[10\]](#).

[Expert Determination](#) means an expert determination process commenced under Section 16.3.

[Expiry Date](#) means 8 September 2020.

Feasibility Studies means in relation to a proposed Terminal Capacity Expansion, a FEL 1 Feasibility Study, FEL 2 Feasibility Study and FEL 3 Feasibility Study.

FEL 1 Feasibility Study means in respect of a proposed Terminal Capacity Expansion, a study that:

- (a) estimates Terminal Capacity and System Capacity in accordance with Section ~~12.1~~[11.1](#) of the ~~Undertaking~~[Framework](#);
- (b) identifies possible Terminal Expansion Components that will create additional Terminal Capacity, including any potential system capacity expansions that may be required to create complementary additional System Capacity;
- (c) makes a preliminary assessment of the available Terminal capacity that will be created by the Terminal Expansion Components;
- (d) makes a preliminary assessment of the available Terminal capacity that will be created by the Terminal capacity expansion
- (e) unless otherwise agreed by DBCT Management and the relevant Funding Access Seeker, includes an indicative assessment of:
 - (1) project objectives in relation to the creation of additional Terminal Capacity; and
 - (2) the possible Terminal Expansion Components:
 - (A) a broad cost estimate with a +/- 50% accuracy (or such other accuracy where agreed with the Funding Access Seekers (acting reasonably));
 - (B) a preliminary financial analysis and risk assessment; and
 - (C) indicative timeframes for developing and completing the possible Terminal Components; and

- (3) includes a proposed scope, budget, duration and deliverables for a FEL 2 Feasibility Study including the reasons for selecting the possible Terminal Components that will be considered during that FEL 2 Feasibility Study.

FEL 2 Feasibility Study means in respect of a proposed Terminal Capacity Expansion, a study that:

- (a) re-confirms Terminal operating assumptions and System operating assumptions undertaken in the FEL 1 Feasibility Study and, if they differ from the previous study, re-estimates Terminal Capacity and System Capacity in accordance with Section ~~12.1~~11.1 of the ~~Undertaking~~Framework;
- (b) confirms the project objectives in relation to the creation of additional Terminal Capacity and the possible Terminal Expansion Components that will create the additional Terminal Capacity;
- (c) assesses each of the possible Terminal Components in respect of:
 - (1) the technical and operating requirements for that Terminal Capacity Expansion;
 - (2) an indicative assessment of the additional Capacity that might reasonably be expected by implementing that Terminal Capacity Expansion; and
 - (3) a preliminary risk assessment for that Terminal Capacity Expansion;
- (d) includes preliminary survey and geotechnical investigation to support the level of design and cost accuracy required for the study;
- (e) identifies the preferred Terminal Capacity Expansion to be studied under a FEL 3 Feasibility Study; and
- (f) provides:
 - (1) a high level engineering assessment of the preferred Terminal Capacity Expansion;
 - (2) analysis of the technical and economic feasibility of the preferred Terminal Capacity Expansion and identifies why it is preferred;
 - (3) a project budget, with a +/-20% level of accuracy (or such other accuracy where agreed with the Funding Access Seekers (acting reasonably));
 - (4) an indicative design and construct schedule for the preferred Terminal Capacity Expansion that includes time tolerances; and
 - (5) potential benefits (including additional Terminal Capacity, maintenance and operating benefits) of the preferred Terminal Capacity Expansion; and
- (g) includes a proposed scope, budget, duration and deliverables for a FEL 3 Feasibility Study,
- (h) includes an assessment of the available Terminal Capacity that will be created by the Terminal Capacity Expansion; and
- (i) includes an assessment of the available Terminal Capacity that will be created by the preferred Terminal Expansion Component.

FEL 3 Feasibility Study means in respect of a proposed Terminal Capacity Expansion, a study that, in relation to the preferred Terminal Capacity Expansion identified in a FEL 2 Feasibility Study :

- (a) re-confirms Terminal operating assumptions and System operating assumptions undertaken in the FEL 1 or FEL2 Feasibility Study and, if they differ from the previous studies, re-estimates Terminal Capacity and System Capacity in accordance with Section ~~12.1~~11.1 of the ~~Undertaking~~Framework;
- (b) details the project objective for the preferred Terminal Capacity Expansion;

- (c) provides a detailed assessment of technical and operating requirements of the preferred Terminal Capacity Expansion;
- (d) includes survey and geotechnical investigations to support the level of design and cost accuracy;
- (e) provides a detailed design for the preferred Terminal Capacity Expansion;
- (f) provides the following details of the preferred Terminal Capacity Expansion's scope:
 - (1) an optimised project configuration that would provide the targeted additional Terminal Capacity to be created by the preferred Terminal Capacity Expansion;
 - (2) a detailed cost estimate with a +/-10% level of accuracy (or such other accuracy where agreed with the Funding Access Seekers (acting reasonably));
 - (3) a detailed design and construction project schedule;
 - (4) the basis on which the project contingency was determined;
 - (5) a financial evaluation, including (if applicable) the estimated impact on the relevant Reference Tariff;
 - (6) a procurement methodology and report on any previous approaches to the construction market that are relevant to the preferred Terminal Capacity Expansion;
 - (7) a project management plan comprised of:
 - (A) resource management plan;
 - (B) cost management plan;
 - (C) design management plan
 - (D) quality management plan;
 - (E) safety management plan;
 - (F) schedule management plan;
 - (G) risk management plan;
 - (H) project packaging and delivery strategy;
 - (I) procurement management plan;
 - (J) interface management plan;
 - (K) change management plan;
 - (L) environmental management plan;
 - (M) project phases, milestones and deliverables;
 - (N) project risk assessment report; and
 - (O) regulators notification, if needed, and
 - (8) provides a detailed capacity assessment on the available Terminal Capacity to be created by the preferred Terminal Expansion Component and the associated impact, if any, on the capacity rating of the base Terminal,

and including the outcomes of any analysis and decisions made in relation to the above matters (with reasons, where applicable).

Financial Year means 1 July in a calendar year to 30 June in the next following calendar year. Where the context allows, it also includes a period shorter than 12 months – from the Commencement Date to the next 30 June, inclusive, and from the last 1 July during the Term to the Terminating Date inclusive - but where that period is less than 12 months, any provision of this

Undertaking Framework which, in respect of a Financial Year, assumes a full 12 months period, will be taken to be modified proportionately.

Framework means [this Access Framework \(including its schedules\) as amended from time to time.](#)

Framework Agreement means the framework agreement between DBCT Holdings, the State, PCQ, DBCT Trustee, DBCT Management and others dated 31 August 2001.

Framework Objective has the meaning given in [clause 1.31.3\(a\).](#)

Funding Access Seeker means an Access Seeker that has entered into a Funding Agreement or Underwriting Agreement with DBCT Management.

Funding Agreement means an agreement on such terms as DBCT Management reasonably requires, including in relation to the provision of such security to DBCT Management as it reasonably requires, pursuant to which an Access Applicant must fund the reasonable and proper costs of:

- (a) a FEL 1 Feasibility Study; and
- (b) after a satisfactory outcome from a FEL 1 Feasibility Study, a FEL 2 Feasibility Study and a FEL 3 Feasibility Study, in respect of a proposed Terminal Capacity Expansion.

Good Operating and Maintenance Practice means adherence to a standard of practice which includes the exercise of that degree of skill, diligence, prudence and foresight which would reasonably be expected from a competent, experienced and qualified operator of a facility comparable with the Terminal.

Government Agency means a minister, government, government department or another government body, a governmental, semi-governmental or judicial person or a person (whether autonomous or not) charged with the administration of any applicable law.

Handle means the receiving by rail, unloading, stacking, storing, reclaiming and loading of vessels with coal and any other relevant Services required by the Access Holder using any of the infrastructure at the Terminal.

Increment has the meaning given in [\[Schedule C, Part B, Sub-Section 4\(c\)\].](#)

Independent Expert means [an independent expert appointed under Section 16.3.](#)

Indicative Access Proposal has the meaning given to that term in Section ~~5.5~~ [5.5.](#)

Insolvent means, for an Access Seeker, where one of the following events has happened in relation to the Access Seeker:

- (a) it is unable to pay all its debts as and when they become due and payable or it has failed to comply with a statutory demand as provided in Section 459F(1) of the *Corporations Act 2001* (Cth);
- (b) a resolution is passed to place it in voluntary liquidation or to appoint an administrator;
- (c) an application is made to a court for it to be wound up and the application is not dismissed or withdrawn within 14 days;
- (d) the appointment of a controller (as defined in the *Corporations Act 2001* (Cth)) of any of its assets, if that appointment is made and not terminated within 14 days after it is made; or
- (e) it resolves to enter into or enters into any form of arrangement (formal or informal) with its creditors or any of them, including a deed of company arrangement.

Interim Reference Tariff Period has the meaning given in Schedule C, ~~Part A~~ [Sub-Section 5\(d\).](#)

JORC Code the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia, as updated from time to time.

Leases means the Primary Leases and the Secondary Leases.

Lease Term has the meaning ascribed to that term in the Framework Agreement.

Loss means any damage, loss (including loss of reputation), cost, expense, fine, penalty or liability incurred by the person concerned, however it arises and whether it is present or future, fixed or unascertained, actual or contingent.

Marketable Coal Reserves has the meaning given to it in the JORC Code.

Month means a calendar month.

Monthly Payment has the meaning given to it in Section ~~11.9~~ 10.9(a).

Negotiation Cessation Notice means a notice given in accordance with the provisions of Section ~~5.8~~ 5.8.

Non-Expansion Costs means Terminal Operating Costs and Capital Expenditure not related to the development of a Terminal Capacity Expansion.

Non-Reference Tonnage means, for an Access Holder, that portion of the Access Holder's Annual Contract Tonnage that is not Reference Tonnage.

Notice has the meaning given to that term in Section 5.4(e)(1).

Notified Access Seeker has the meaning given to that term in Section 5.4(e).

Notifying Access Seeker has the meaning given to that term in Section 5.4(e).

Notional Contracted Tonnage or **NCT** means, in respect of a Financial Year the Aggregate Annual Contract Tonnage.

Operation & Maintenance Charge means the component of Access Charges under which DBCT Management recovers the Terminal Operating Costs from Access Holders and is calculated in accordance with Section ~~11.10~~ 10.

Operation & Maintenance Contract or **OMC** means the contract between DBCT Management, the DBCT Trustee and the Operator under which the Operator is engaged by DBCT Management to operate and maintain the Terminal on a day to day basis. The terms of the OMC are summarised for convenience in Schedule ~~H~~ H.

Operator means Dalrymple Bay Coal Terminal Pty Limited ACN 010 268 167.

Other Costs has the meaning given in Section ~~12.5~~ 11.5(a)(3)(B).

Over-shipment has the meaning given in Schedule C, ~~Part B~~ Sub-Section 4(a).

PCQ means ~~Ports Corporation of Queensland Limited~~ ACN 126 302 994.

Port Services Agreement has the meaning ascribed to that term in the Framework Agreement.

Price Ruling has the meaning given in Section 5.12(a).

Pricing Method means the method of pricing Access created by a Terminal Capacity Expansion, being either Socialised or Differential.

Primary Leases has the meaning ascribed to that term in the Framework Agreement.

Proposed Standard Funding/Underwriting Agreement means the proposed Standard Funding Agreement or proposed Standard Underwriting Agreement (as applicable) by DBCT Management under Section 5.10(q)(1).

Provisional Increment has the meaning given in Schedule C, ~~Part B~~, Sub-Section 4(a).

Provisional Increment Repayment has the meaning given in Schedule C, ~~Part B~~, Sub-Section 4(e).

Publicly Report means to upload information onto DBCT Management's website so that it is publicly accessible.

QCA means the Queensland Competition Authority, a statutory authority established under the QCA Act.

QCA Act means the Queensland Competition Authority Act 1997 (Qld).

Queue has the meaning given in Section 5.4(a)-.

Rail Operator means an entity that:

- (a) provides above rail services to an Access Holder for the purpose of transporting coal to the Terminal; or
- (b) is nominated by an Access Seeker as likely to provide above rail services to that Access Seeker for the purpose of transporting coal to the Terminal.

Reference Tariff means each reference tariff approved by the QCA for the purposes of this ~~Undertaking~~ Framework, as amended from time to time, in accordance with this ~~Undertaking~~ Framework.

Reference Terms means terms and conditions which are in all material respects the same as the terms and conditions in the Standard Access Agreement relating to the calculation of charges. (For clarification, it is expected that Reference Terms will usually only apply under an Access Agreement where the terms of that Access Agreement are, in respect of the risk profile and costs (direct and indirect) to DBCT Management, the same as the terms of the Standard Access Agreement).

Reference Tonnage means:

- (a) for an Access Holder under an Existing User Agreement, that portion of the Access Holder's Annual Contract Tonnage that is charged on the basis of terms that in all material respects align with the Reference Terms; and
- (b) for an Access Holder under an Access Agreement, that portion of the Access Holder's Annual Contract Tonnage which is charged in accordance with the Reference Terms.

Reference Tonnage Access Holder or **RTAH** means an Access Holder to the extent that its Annual Contract Tonnage is Reference Tonnage.

Related Body Corporate has the meaning given to that term in the Corporations Act 2001 (Cth).

Related Entity has the meaning given to that term in the Corporations Act 2001 (Cth).

Regulated Asset Base means, as relevant in respect of the any Terminal Component:

- (a) in respect of a Differentiated Expansion Component, the Regulated Asset Base for that Differentiated Expansion Component as approved by the QCA in accordance with this ~~Undertaking~~ Framework; and
- (b) in respect of the Existing Terminal, the Regulated Asset Base for the Existing Terminal (which at the Commencement Date is the only Regulated Asset Base) as approved by the QCA in accordance with this ~~Undertaking~~ Framework.

~~**Related Body Corporate** has the meaning given to that term in the Corporations Act 2001 (Cth).~~

~~**Related Entity** has the meaning given to that term in the Corporations Act 2001 (Cth).~~

Renewal Application has the meaning given in Section 5.3A.

Revenue Cap is the amount DBCT Management is entitled to earn from Reference Tonnage and is calculated in accordance with Schedule C. ~~Part A, Section 2.~~ [11.10](#)

Review Event means, for any Terminal Component, any one or more of the following events:

- (a) a change in Reference Tonnage;
- (b) a change in Non-Reference Tonnage;
- (c) Completion and handover to the Operator of the whole of a discrete phase of a Terminal Capacity Expansion;
- (d) receipt of insurance proceeds, damages or other compensation for loss, damage or destruction of an asset comprised in the Terminal Component, to the extent that those moneys are not applied in repair, reinstatement or replacement; and
- (e) each 1 July, in respect of:
 - (1) Capital Expenditure incurred in any prior period (including Capital Expenditure in any period preceding the Commencement Date provided such Capital Expenditure has not already been included in the relevant Regulated Asset Base) which does not relate to a Terminal Capacity Expansion and is paid by DBCT Management after Completion and handover of the relevant works, including:
 - (A) Capital Expenditure referred to in Section ~~12.10~~ [11.10\(b\)](#);
 - (B) Capital Expenditure referred to in Section ~~12.10~~ [11.10\(c\)](#);
 - (2) sale of assets comprised in the Terminal Component during the preceding 12 months;
 - (3) the prudent cost of a FEL 3 Feasibility Study to the extent not included in Capital Expenditure the subject of a Capacity Expansion;
 - (4) the cost of a Feasibility Study referred to in Section 5.10(m)(1) or 5.10(m)(2), to the extent not funded by Access Seekers; and
 - (5) the prudent cost of a Feasibility Study referred to in Section 5.10(o), to the extent not funded by Access Seekers (but limited to 20% of the prudent cost of the Feasibility Study if the proposed Terminal Capacity Expansion does not proceed).

Secondary Leases has the meaning ascribed to that term in the Framework Agreement.

Security means any form of security or guarantee required to be provided by an Access Seeker or Access Holder to DBCT Management pursuant to Section ~~5.9~~ [5.9](#).

Service Provider means:

- (a) DBCT Management, as the provider of Services at the Terminal;
- (b) each provider at a relevant time of railway infrastructure ("below rail") for any part of the System;
- (c) each provider at a relevant time of railway freight services ("above rail") for any part of the System.

Services means the services set out in Schedule E of this ~~Undertaking~~ [Framework](#).

Socialisation, in respect of a Terminal Capacity Expansion, means the inclusion of costs associated with the expansion in an existing Terminal Component's Regulated Asset Base (as determined by the QCA), so as to avoid the creation of a separate Regulated Asset Base, Annual Revenue Requirement and Reference Tariff in respect of the expansion. Where expansion costs are

socialised, they are shared by existing users of the Terminal Component into which the costs are socialised and **Socialised** has a corresponding meaning.

Socialised Terminal Capacity means capacity associated with a Socialised Expansion.

Socialised Expansion has the meaning given in Section ~~11.13(a)~~ [11.10](#).

Standard Funding Agreement means the standard Funding Agreement ~~approved by the QCA~~ in accordance with Section 5.10(q). [1](#)

Standard Underwriting Agreement means the standard Underwriting Agreement approved ~~by the QCA~~ in accordance with Section 5.10(q). [1](#)

Standard Access Agreement means the standard access agreement set out in Schedule B of this Undertaking. [Framework](#).

State means the State of Queensland.

Supply Chain Business means an entity (or group of entities) which:

- (a) provides, or proposes to provide, above rail services in Queensland which access the Terminal;
- (b) owns or holds an interest in, or proposes to acquire such an interest in, coal-producing mines in Queensland that export coal via the Terminal;
- (c) purchases coal that has been produced in Australia and exports that coal via the Terminal;
- (d) provides shipping services from the Terminal; or
- (e) trades in capacity at the Terminal.

System means, in respect of the Dalrymple Bay Coal Chain, the following components of infrastructure relating to the transport of coal from mines whose coal is Handled by the Terminal:

- (a) rail loading facility of mines whose coal is Handled by the Terminal;
- (b) railway infrastructure in the Dalrymple Bay Coal Chain;
- (c) railway locomotives and rolling stock used in the Dalrymple Bay Coal Chain; and
- (d) Terminal unloading, stacking, loading and other Handling facilities,

and all interfaces between such components.

System Capacity means at a relevant time, the maximum reasonably achievable estimated capacity of the System (measured in tonnes per financial year) as determined pursuant to Section ~~12.4~~ [11.1](#) in respect of that time. Where System Capacity is required to be estimated in respect of a future time (for example, for the purposes of Section 5.4) DBCT Management will estimate it taking all relevant factors into account (including System Capacity expected to arise out of a System Capacity Expansion which has been or can reasonably be expected to be committed to at the time of the estimation).

System Capacity Expansion means the construction, upgrade, refinement, purchase, installation and/or erection of new works or items or modifications to existing works or items intended to materially increase the System Capacity.

System Master Plan means, at a relevant time, the master plan (if any) determined pursuant to Section ~~15~~ [14](#).

TCMP has the meaning given in Section ~~12.5~~ [11.5](#)(a)(7).

Term means the period between (and including each of) the Commencement Date and the Terminating Date.

Terminal means the land and port infrastructure located at the Port of Hay Point which is owned by DBCT Holdings or the State and leased to DBCT Trustee and/or DBCT Management, and known as the Dalrymple Bay Coal Terminal, and includes the following:

- (a) loading and unloading equipment;
- (b) stacking, reclaiming, conveying and other handling equipment;
- (c) wharves and piers;
- (d) deepwater berths; and
- (e) shiploaders,

and for the avoidance of doubt, includes the Existing Terminal and any Differentiated Expansion Component.

Terminal Capacity means the maximum reasonably achievable capacity of the Terminal (measured in tonnes per Financial Year) as estimated pursuant to Section ~~12.1~~[11.1](#).

Terminal Capacity Expansion means the construction, upgrade, refinement, purchase, installation and/or erection of new works or items or modifications to existing works or items intended to materially increase the **Terminal Capacity**.

Terminal Capacity Expansion Risk Free Rate means the rate calculated by averaging the yield of the 10 year Commonwealth Government bond over the 20 Business Days preceding the date of Completion and handover to the Operator of the relevant Terminal Capacity Expansion.

Terminal Component means each of:

- (a) the Existing Terminal; and
- (b) the Differentiated Expansion Component,

which shall each have their own Annual Revenue Requirement.

Terminal Infrastructure Charge or **TIC** has the meaning given in Section ~~11.4(e)~~[10](#).

Terminal Master Plan (a copy of the version which was current at the Commencement Date is attached at Schedule F) means the master plan approved by DBCT Holdings under the Port Services Agreement, and related engineering and other reports, as amended from time to time with the approval of DBCT Holdings under the Port Services Agreement.

Terminal Operating Costs means any amounts:

- (a) reasonably incurred or charged by the Operator (including any margin payable to the Operator under the Operation & Maintenance Contract);
- (b) in the nature of an operating expense for the Terminal and reasonably incurred or charged by DBCT Management with the express written consent of not less than 66% of Access Holders by contract tonnage; and
- (c) reasonably incurred by DBCT Management in exercising its rights under the Operation & Maintenance Contract to step in or take work out of the hands of the Operator (as a result of a default by the Operator),

but excluding Capital Expenditure other than minor capital expenditure not exceeding \$3 million per Financial Year.

Terminal Regulations means regulations in force from time to time governing procedures for the operation of the Terminal and provision of the Services under an Access Agreement or Existing User Agreement.

Terminating Date means the ~~earliest of the following dates~~[earlier of:](#)

- (a) ~~1 July 2021; and~~[the date which is 10 years from the Commencement Date; and](#)

- (b) the date ~~that the handling~~ on which use of coal at the Terminal ceases is taken to be a ~~“declared service” for the purposes of the QCA Act~~ service declared under Part 5, Division 2 of the Queensland Competition Authority Act 1997 (Qld).

Tonnage means the volume of Access supplied under an Access Agreement, determined by reference to the volume of coal Handled or contracted to be Handled.

~~**Trading SCB** means a Supply Chain Business in the Brookfield Group that solely engages in the trading of secondary capacity at the Terminal and which includes, as at the Commencement Date, Brookfield Port Capacity Pty Ltd ACN 134 741 567.~~

~~**Undertaking** means this Access Undertaking (as amended from time to time) which is an access undertaking for the purposes of the QCA Act.~~

Underwriting Agreement means an agreement on such terms as DBCT Management reasonably requires, including in relation to the provision of such security to DBCT Management as it reasonably requires, which gives DBCT Management the right to call for, and requires an Access Applicant to fund in response to such call, the reasonable and proper costs of:

- (a) a FEL 1 Feasibility Study; and
- (b) after a satisfactory outcome from a FEL 1 Feasibility Study, a FEL 2 Feasibility Study, in respect of a proposed Terminal Capacity Expansion, if the proposed Terminal Capacity Expansion does not proceed.

WACC(1) Rate means 5.82%, being the weighted average cost of capital set by the QCA in its final decision on this Undertaking.

WACC(2) Rate means a rate equivalent to the Construction Period Risk Free Rate plus 4.00%.

WACC(3) Rate means a rate equivalent to the Terminal Capacity Expansion Risk Free Rate plus 4.00%.

Year End Adjustment or YEA has the meaning given in Section ~~11.6.~~ [10].

2. Interpretation

In this ~~Undertaking~~ Framework unless the context otherwise requires:

- (a) reference to any statute or statutory provision includes any modification or re-enactment of, or any legislative provisions substituted for, and all legislation and statutory instruments issued under such legislation or such provision;
- (b) words denoting the singular include the plural and vice versa;
- (c) words denoting persons or individuals include corporations, associations, trustees, instrumentalities and partnerships and vice versa;
- (d) words denoting any gender include all genders;
- (e) references to parties, Parts, Sections, Annexures and Schedules are references to parties, Parts, Sections, Annexures and Schedules to this ~~Undertaking~~ Framework as modified or varied from time to time;
- (f) references to any document, deed or agreement include references to such document or agreement as amended, novated, supplemented, varied or replaced from time to time;
- (g) references to any party to this ~~Undertaking~~ Framework or any other document, deed or agreement include its successors, permitted assigns, or permitted subcontractors and the obligations of any party extends to those persons;
- (h) all references to dates and times are to Brisbane time;
- (i) all references to "\$" and "dollars" are to the lawful currency of Australia;

- (j) a reference to “including” shall be construed as “including, but not limited to,” and “include” and “includes” shall be construed similarly;
- (k) where a provision provides that a party “may” do something, “may” shall be construed as discretionary and without obligation;
- (l) where any word or phrase is given a defined meaning, any other grammatical form of that word or phrase has a corresponding meaning;
- (m) where there is a requirement under this ~~Undertaking~~[Framework](#) to consider whether Access Holders are being treated or will be affected equitably, the party so considering must have regard to (amongst other things) the Access Holders’ respective Annual Contract Tonnages and the extent to which (if at all) Differential Pricing applies to the Annual Contract Tonnages the subject of each Access Agreement; ~~and~~
- (n) where measurement of coal “Handled” is being made in respect of a period, the tonnage loaded into vessels will be taken to be the tonnage Handled in that period.; ~~and~~[and](#)
- (o) ~~Headings~~[headings](#) are for convenience only and do not affect interpretation of this ~~Undertaking~~[Framework](#).

Schedule H – ~~Undertaking by Trading SCB~~

This deed poll is given on _____ by:

~~[Trading SCB name] ACN [number] of [address] (Trading SCB)~~

in favour of:

~~DBCT Management Pty Limited ACN 097 098 916 of Level 15, Waterfront Place, 1 Eagle Street, Brisbane QLD 4000 (DBCT Management);~~

~~each Access Holder (as that term is defined in the Access Undertaking) from time to time;~~

~~each Access Seeker (as that term is defined in the Access Undertaking) from time to time;~~

~~each Rail Operator (as that term is defined in the Access Undertaking) from time to time; and~~

~~the Queensland Competition Authority~~

Recitals

~~A. Under the Access Undertaking, DBCT Management must procure an undertaking from Trading SCB in the form of this undertaking.~~

~~B. At the request of DBCT Management, Trading SCB has agreed to enter into this deed poll to ensure that DBCT Management complies with the relevant provisions of the Access Undertaking.~~

~~This deed witnesses that the Trading SCB agrees to the following terms:~~

~~1 Ring fencing~~

~~1.1 Non-discrimination~~

~~In carrying out Secondary Capacity Trading, Trading SCB will not:~~

- ~~(a) engage in conduct for the purpose of preventing or hindering an Access Holder's or Access Seeker's Access;~~
- ~~(b) unfairly differentiate between Access Seekers, Access Holders or Rail Operators.~~

~~1.2 Confidentiality~~

- ~~(a) Trading SCB will enter into a confidentiality deed poll, substantially in the form specified in Annexure A, in favour of any Trading SCB Customer that discloses, or notifies Trading SCB that it intends to disclose, Confidential Information to Trading SCB.~~
- ~~(b) Trading SCB will not disclose to a Trading SCB Customer that acquires Access from Trading SCB the identity of the Trading SCB Customer that assigned that Access (or any part thereof) to Trading SCB.~~
- ~~(c) Trading SCB acknowledges that DBCT Management will not disclose Confidential Information of a Trading SCB Customer to Trading SCB without the prior written consent of the Trading SCB Customer.~~

~~2 Compliance~~

- ~~(a) If an Access Holder, Access Seeker, the QCA or a Rail Operator considers that Trading SCB may have breached one or more of its obligations under this deed the relevant entity (**Complainant**) may lodge a written complaint with Trading SCB.~~
- ~~(b) Unless otherwise notified in writing by the Complainant, the written complaint and any accompanying information (whether documentary or otherwise) will be Confidential Information until it ceases to be Confidential Information.~~
- ~~(c) Trading SCB will provide to the QCA, as soon as practicable, a copy of any complaint it receives pursuant to clause 2.1(a) and identify the complaint as Confidential Information.~~
- ~~(d) Trading SCB will:~~

- ~~(1) investigate complaints received pursuant to clause 2.1(a); and~~
- ~~(2) advise the Complainant and the QCA in writing of the outcome of that investigation and Trading SCB's proposed response, if any, and use reasonable endeavours to do so within 20 Business Days after receiving such a complaint.~~
- ~~(e) If the Complainant is not satisfied with the outcome of Trading SCB's investigation, the Complainant can apply to the QCA seeking an audit of the relevant subject of the complaint. The QCA will consider such a request and determine whether to require Trading SCB to conduct an audit.~~
- ~~(f) If the QCA requires Trading SCB to conduct an audit in accordance with clause 2.1(e), Trading SCB must promptly engage the Auditor to carry out the audit and provide the QCA with a report on the outcomes of that audit within a reasonable period of time, identifying any information contained in that report which is Confidential Information.~~
- ~~(g) If the QCA is of the view that the outcomes of the audit required under clause 2.1(e) show that Trading SCB has not complied with this deed, it may require Trading SCB to provide a rectification plan to address the issue and implement the rectification plan within a reasonable period of time.~~
- ~~(h) The QCA may advise the Complainant of:~~
- ~~(1) whether any audit referred to in clause 2.1(f) has demonstrated that Trading SCB has or has not complied with this deed; and~~
- ~~(2) whether Trading SCB has been required to provide a rectification plan to address the relevant issue in accordance with clause 2.1(g),~~
- ~~provided that the QCA must not disclose any Confidential Information.~~
- ~~(i) Trading SCB will bear the costs of the audit unless the QCA determines that the complaint made by the Complainant is vexatious or has not been made in good faith in which case:~~
- ~~(1) Trading SCB will not be liable for the costs of the audit; and~~
- ~~(2) the Complainant will bear the costs of the audit.~~

~~3 Governing law and jurisdiction~~

- ~~(a) This deed is governed by the laws of Queensland.~~
- ~~(b) The parties irrevocably submit to the exclusive jurisdiction of the courts of Queensland.~~

~~4 Definitions and interpretation~~

~~4.1 Definitions~~

In this deed:

~~**Access Undertaking** means the Dalrymple Bay Coal Terminal Access Undertaking prepared in accordance with the requirements of the *Queensland Competition Authority Act 1997* (Qld) and approved on 16 February 2017 as varied or replaced from time to time.~~

~~**Secondary Capacity Trading** means the carrying out of any one or more of the following activities by Trading SCB:~~

- ~~(a) acquiring contracted Access from Access Holders;~~
- ~~(b) aggregating contracted Access which Trading SCB has acquired from Access Holders; and~~
- ~~(c) selling the contracted Access which Trading SCB has acquired from Access Holders to Access Seekers or Access Holders.~~

~~**Trading SCB Customer** means a customer, or any person who is negotiating to become a customer, of Trading SCB in respect of Secondary Capacity Trading.~~

~~4.2 Interpretation~~

- ~~(a) Terms defined in the Access Undertaking have the same meaning in this deed unless otherwise defined.~~
- ~~(b) Headings are for convenience only and do not affect interpretation.~~

~~(c) In this deed, unless the context otherwise requires:~~

- ~~(1) words importing the singular include the plural and vice versa;~~
- ~~(2) a reference to anything (including, but not limited to, any right) includes a part of that thing but nothing in this clause 4.2(c)(2) implies that performance of part of an obligation constitutes performance of the obligation;~~
- ~~(3) an expression importing a natural person includes any company, partnership, joint venture, association, corporation or other body corporate and any government agency; and~~
- ~~(4) a reference to a person includes that person's successors and legal personal representatives.~~

Executed as a deed poll

Signed sealed and delivered by
~~[Trading SCB] [ACN]~~
By:

sign here



Director/Secretary

 Director

*print
name*

~~Annexure A – Confidentiality deed poll~~

~~Deed poll~~

~~Confidentiality deed poll~~

~~{Trading SCB}~~

~~DBCT Management Pty Ltd~~

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~~Signing page 7~~

Confidentiality deed poll

Date 

This deed poll is made
by

Recipient ~~{Trading SCB}~~
 ACN ~~{number}~~ of ~~{address}~~
 ~~{Trading SCB}~~

and

DBCT Management **DBCT Management Pty Ltd**
 ACN 097 698 916 of Level 15, 1 Eagle St, Brisbane QLD 4001
 {DBCT Management}

in favour of

Discloser **{User}**
 ACN ~~{number}~~ of ~~{address}~~
 ~~{User alias}~~

Recitals

- ~~1— The Discloser has consented to DBCT Management disclosing Confidential Information to the Recipient for the Express Purpose and for no other purpose.~~
- ~~2— The Discloser may disclose additional Confidential Information directly to the Recipient for the Express Purpose.~~
- ~~3— The Recipient agrees that the Confidential Information is provided to it on the terms of this deed poll and that it will not use or disclose the Confidential Information except as provided in this deed poll.~~

This deed poll witnesses as follows:

1 Definitions and interpretation

1.1 Definitions

The meanings of the terms used in this deed poll are set out below.

Term	Meaning
Capacity	up to [insert] mtpa of capacity at Dalrymple Bay Coal Terminal
Confidential Information	all information which: <ol style="list-style-type: none"> 1— is disclosed to the Recipient or a Specified Person (whether before or after the date of this deed poll) by the Discloser or DBCT Management; 2— relates directly or indirectly to the Discloser or its past, existing or future business, operations, administration or strategic plans; and 3— is in oral or visual form, or is recorded or stored in a Document, and includes, without limitation, the fact that: <ol style="list-style-type: none"> 4— Confidential Information is being made available by the Discloser to the Recipient or the Specified Persons; and 5— discussions or negotiations have occurred, are occurring or may occur between the Recipient and the Discloser, or their respective advisers or representatives, in relation to a possible Capacity transfer.
Corporations Act	the <i>Corporations Act 2001</i> (Cth).
Discloser	[Insert User alias].
Document	includes any note, memorandum, record, report, financial information, summary, analysis, calculation, strategic assessment, market survey, business plan, computer program, computer record, circuit, circuit layout, drawing, specification, material or any other means by which information may be stored or reproduced.
Express Purpose	a possible transfer of all or part of the Capacity from the Discloser to the Recipient
Recipient	Trading SCB.
Specified Person	an officer, employee or adviser of the Recipient who has a specific need to have access to the Confidential Information for the Express Purpose.

1.2 Interpretation

(a) Headings are for convenience only and do not affect interpretation.

(b) In this deed poll, unless the context otherwise requires:

- (1) words importing the singular include the plural and vice versa;
- (2) a reference to anything (including, but not limited to, any right) includes a part of that thing but nothing in this clause 1.2(b)(2) implies that performance of part of an obligation constitutes performance of the obligation;
- (3) the term 'related body corporate' has the meaning given to that term under the Corporations Act;
- (4) the term 'associate' has the meaning given to that term in section 15 of the Corporations Act;
- (5) an expression importing a natural person includes any company, partnership, joint venture, association, corporation or other body corporate and any government agency; and
- (6) a reference to a person includes that person's successors and legal personal representatives.

2 Confidentiality

The Recipient must:

- ~~(a) hold the Confidential Information in strict confidence and not disclose, or cause or permit the disclosure of, the Confidential Information, except as permitted under this deed poll or with the prior written consent of the Discloser (which may be withheld in the Discloser's ultimate discretion);~~
- ~~(b) keep the Confidential Information secure and protected from any use, disclosure or access which is inconsistent with this deed poll;~~
- ~~(c) promptly notify the Discloser if it suspects, or becomes aware of, any unauthorised use, storage, copying or disclosure of the Confidential Information; and~~
- ~~(d) maintain such procedures as are necessary to ensure compliance with this deed poll by the Recipient and each Specified Person and, upon request, provide the Discloser details of the procedures adopted.~~

3 Permitted use and disclosure

- ~~(a) The Recipient must only use the Confidential Information for the Express Purpose.~~
- ~~(b) The Recipient may:
 - ~~(1) only disclose Confidential Information to a Specified Person, and must only make such disclosure solely for the Express Purpose; and~~
 - ~~(2) disclose Confidential Information to the Queensland Competition Authority.~~~~
- ~~(c) DBCT Management must only disclose Confidential Information to the Recipient, and must only make such disclosure solely for the Express Purpose.~~

4 Benefit of this deed poll

~~This deed poll is made by the Recipient and DBCT Management in favour of, and for the benefit of the Discloser.~~

5 Return and destruction of information

~~If requested by the Discloser, the Recipient must, within 7 days, return to the Discloser, or destroy or delete as the Discloser directs, all original Documents and copies which:~~

- ~~(a) are or contain Confidential Information; and~~
- ~~(b) reproduce, are based on, utilise or relate to Confidential Information,
 - ~~provided however that the Recipient may keep one copy of the Confidential Information for its records.~~~~

6 Operation of this deed poll

- ~~(a) Subject to clause 6(c), this deed poll continues without limitation as to time.~~
- ~~(b) This deed poll does not apply to any Confidential Information that:
 - ~~(1) the Recipient or a Specified Person is required to disclose by any applicable law or legally binding order of any court, government, semi government authority, administrative or judicial body, or a requirement of a stock exchange or regulator (including the Queensland Competition Authority); or~~
 - ~~(2) is in the public domain other than as a result of a breach of this deed poll.~~~~
- ~~(c) If the Recipient or a Specified Person must make a disclosure referred to in clause 6(b)(1):~~

- ~~(1) the Recipient must disclose, and must ensure that the Specified Person discloses only the minimum Confidential Information required to comply with the applicable law, order or requirement; and~~
- ~~(2) before making such disclosure, the Recipient must give the Discloser reasonable written notice of the full circumstances of the required disclosure together with the Confidential Information which it, or the Specified Person, proposes to disclose and consult with the Discloser as to the form of the disclosure.~~

~~(d) Nothing in this deed poll requires the Discloser to disclose Confidential Information to the Recipient.~~

~~7 Acknowledgment~~

The Recipient acknowledges that:

- ~~(a) the Confidential Information is secret and highly confidential to the Discloser;~~
- ~~(b) disclosure of Confidential Information in breach of this deed poll could cause considerable commercial and financial detriment to the Discloser;~~
- ~~(c) damages may be inadequate compensation for breach of this deed poll and, subject to the court's discretion, the Discloser may restrain by an injunction or similar remedy, any conduct or threatened conduct which is or would be a breach of this deed poll.~~

~~8 Recipient to ensure others comply~~

The Recipient must:

- ~~(a) inform each Specified Person of the Recipient's obligations under this deed poll;~~
- ~~(b) procure that each Specified Person strictly observes all of the Recipient's obligations under this deed poll as if those obligations were imposed on that person; and~~
- ~~(c) ensure that no officer, employee, adviser or agent of the Recipient does anything which, if done by the Recipient, would be inconsistent with this deed poll.~~

~~9 Disclaimer~~

- ~~(a) The Recipient acknowledges that neither the Discloser, nor any of its related bodies corporate nor any of their respective officers, employees or advisers:
 - ~~(1) makes any representation or warranty as to the accuracy or completeness of the Confidential Information;~~
 - ~~(2) accepts any responsibility for any interpretation, opinion or conclusion that the Recipient or a Specified Person may form as a result of examining the Confidential Information; and~~
 - ~~(3) accepts any responsibility to inform the Recipient of any matter arising or coming to the Discloser's notice which may affect or qualify any Confidential Information which the Discloser provides to the Recipient.~~~~
- ~~(b) The Recipient acknowledges that it is making an independent assessment of the Confidential Information and that it will:
 - ~~(1) carry out, and rely solely on, its own investigation and analyses in relation to the Confidential Information; and~~
 - ~~(2) verify all information on which it intends to rely to its own satisfaction.~~~~
- ~~(c) The Recipient acknowledges that reliance by the Recipient, or any Specified Person, on any Confidential Information, or any use of any Confidential Information, is solely at its own risk.~~

~~10 Governing law and jurisdiction~~

~~(a) This deed poll is governed by the laws of Queensland.~~

~~(b) The Recipient irrevocably submits to the exclusive jurisdiction of the courts of Queensland.~~

~~11 Waivers~~

~~(a) Waiver of any right, power, authority, discretion or remedy arising on default under this deed poll must be in writing and signed by the party granting the waiver.~~

~~(b) A failure or delay in exercise, or partial exercise, of a right, power, authority, discretion or remedy created or arising on default under this deed poll does not result in a waiver of that right, power, authority, discretion or remedy.~~

Signing page


Executed as a deed poll

Signed sealed and delivered by
{Trading SCB}
By:

sign here



Director/Secretary

 Director/Secretary


*print
name*

Signed sealed and delivered by
DBCT Management Pty Ltd
By:

sign here



Director/Secretary

 Director/Secretary

*print
name*

Schedule I—Terms of Operation and Maintenance Contract

Parties	<p>DBCT Management Pty Ltd (DBCTM), DBCT Investor Services Pty Limited as trustee of the DBCT Trust (DBCT Trustee) and the operator, Dalrymple Bay Coal Terminal Pty Limited (Operator).</p> <p>The Operation and Maintenance Contract (Contract) defines the relationships between the parties and their rights and obligations.</p>
Term	<p>The Contract will expire on 30 June 2021 [date] unless terminated earlier. Other than for default of DBCTM (refer further below), the Operator cannot terminate the Contract before this date.</p> <ul style="list-style-type: none"> • If DBCTM wishes to terminate the Contract other than for the Operator's default, DBCTM must give 5 years' prior notice of termination; and • If an access undertaking is in place and the Operator wishes to terminate other than for DBCTM's default, the Operator can terminate by giving not less than two years notice to DBCTM. If the period of notice given will expire during the term of an access undertaking, the notice period will be extended and take on the from earlier of expiry of the access undertaking or 5 years after the date that a notice of termination is given.
Intentions of the parties	<p>The parties' intentions include (among other things):</p> <ul style="list-style-type: none"> • The Operator will be responsible for day-to-day operation and maintenance of the Terminal; • The Operator must ensure that its performance of services is coordinated in accordance with the relevant access undertaking in force at the time to the extent that no act or omission by the Operator would cause DBCTM to be in breach of a provision of the access undertaking; and • Subject to DBCTM's rights under the Contract (for example in relation to default by the Operator), DBCTM will not intervene in the day-to-day operation and maintenance of the Terminal.
Operator's engagement	<p>DBCTM has engaged the Operator to perform the services. The Operator is an independent contractor and not an agent of DBCTM. The services include all things necessary for the operation, maintenance and management of the Terminal.</p>
Operational Services to be performed by the Operator	<p>Operation of the Terminal specifically includes the following services:</p> <ul style="list-style-type: none"> • coordinate the ordering and scheduling of trains; • train unloading; • coal stockpile management, reclamation and handling; • coal blending if required by users of the Terminal; • vessel ordering; and • the loading of ships in accordance with the Terminal Regulations. In the absence of other applicable provisions in the Terminal Regulations, the Operator must normally load ships in order of arrival (subject to there being relevant coal at the Terminal and all prerequisites to loading having been complied with). <p>These services must be provided in accordance with the approved access undertaking and user agreements and are to be further detailed in an Appendix to the specification included in the Contract.</p>
Maintenance Services to be performed by the Operator	<p>The Operator must maintain the Terminal and each component of the Terminal at its operating capacity as specified in the Contract. This specifically includes:</p> <ul style="list-style-type: none"> • planned maintenance and repair in accordance with an annual operation, maintenance and capital plan (prepared by the Operator); • unplanned maintenance and repair as required (for example following equipment breakdown); • condition monitoring and maintenance management; and • upkeep of the Terminal, including activities such as maintenance of access roads and dust suppression.
Standard of Operator's	<p>The Operator must operate and maintain the Terminal in order to ensure it is capable of operating:</p>

performance	<ul style="list-style-type: none"> • at its rated design capacity; • in accordance with good operating and maintenance practice; and • in good and substantial repair. <p>The Operator must ensure that the Terminal is maintained and operated so as to achieve, as far as practical, the best and most cost effective outcome, taking account, as appropriate, of:</p> <ul style="list-style-type: none"> • lowest total whole of life cost; • reliability and economy of performance; • maximising the effective life of the Terminal; • good operating and maintenance practice; • in the case of competing interests between users, fairness; and • the obligations of DBCT Management under the access undertaking and any user agreements. These obligations are subject to DBCTM having expended appropriate capital if relevant. <p>The Operator must provide everything that is necessary for performance of the services, other than any things specified in the Contract as to be provided by DBCTM. The Operator's supply obligations include the supply of water and power to the Terminal. The Operator is also required to supply and maintain spares for the Terminal.</p> <p>The Operator can subcontract parts of the Services without DBCTM's consent, however remains liable for the standard of performance. The Operator is specifically required to supervise the execution of all Services.</p>
Annual operation, maintenance and capital plan	<p>The Operator must, in consultation with DBCTM, prepare and submit an annual operation, maintenance and capital plan by 15 May. The plan will identify the proposed budget for the next financial year and will foreshadow the likely plan and budget for the subsequent two years (i.e. provide a three year budget snapshot).</p>
Payments to the Operator	<p>DBCTM pays the Operator all reasonably incurred costs of performing the services (that is, operating and maintaining the Terminal in accordance with the Contract) plus a margin.</p> <p>The Operator is also entitled to be paid:</p> <ul style="list-style-type: none"> • reimbursement of capital expended by the Operator, subject to certain conditions (outlined below in capital works); • consulting fees in respect of capital works (refer further below in relation to capital works); and • a project management commission if the Operator project manages a non-expansion capital project. <p>The Contract acknowledges that it is intended that amounts paid to the Operator will be recovered by DBCTM from users under their user agreements. The Operator has obligations to assist DBCTM to facilitate this pass through.</p>
Terminal Regulations	<p>Both the Operator and DBCTM are required to comply with the Terminal Regulations.</p> <p>The Operator may propose amendments to the Terminal Regulations for DBCTM's consent, which DBCTM must not unreasonably withhold but which will be subject to the requirements of the access undertaking in relation to such amendments.</p> <p>DBCTM must require each Terminal user pursuant to their user agreement(s) to comply with the Terminal regulations as applicable from time to time.</p>
Access to the Terminal	<p>DBCTM has granted the Operator a licence to use, occupy and control the Terminal as is necessary to perform the services in accordance with the Contract.</p> <p>The Operator must give DBCTM and its personnel such access to the Terminal as they reasonably require from time to time. However, such access is subject to compliance with the Operator's applicable procedures (including safety requirements). DBCTM must also take reasonable measures not to impede the Operator's performance of the services.</p>
Care of and risk in the Terminal	<p>The Operator has care of the Terminal and assumes the risk of damage to the Terminal and all things located at it (including coal). The Operator must insure the Terminal in accordance with the insurance program detailed in the Contract.</p>
Safety and	<p>The Operator has primary responsibility for the management of safety at the Terminal and for</p>

environmental compliance	<p>compliance with legal requirements with respect to safety at the Terminal.</p> <p>The Operator also has primary responsibility for the compliance of the Terminal with all relevant environmental laws and requirements. Among other things, the Operator is required to obtain and maintain all required approvals from authorities with respect to the performance of the services.</p>
Records and audits	<p>The Operator must maintain records (including financial records) relating to the services.</p> <p>From time to time, DBCTM may appoint a suitably qualified person to conduct an audit of the records maintained by the Operator and/or of the Operator's relevant systems and procedures.</p> <p>The Operator must work with DBCTM to ensure that DBCTM is able to comply with its reporting obligations under the approved access undertaking.</p>
Continuous improvement	<p>The Operator must work with DBCTM in undertaking reviews to identify and develop options for improved efficiency of the Terminal as well as of the coal transport chain. The parties have coordination obligations in relation to the implementation of the findings of such reviews.</p>
Capital works	<p>Either the Operator or DBCTM can propose that capital works are undertaken. The Operator has obligations to participate in planning for proposed capital works. The Operator is entitled to be paid consulting fees (which are separate and additional to its usual monthly payments) for this participation.</p> <p>If capital works are to proceed, DBCTM and the Operator may agree that the capital works will be implemented by the Operator, DBCTM or another contractor.</p> <p>There is a handover process which applies once capital works have been completed. From the time of handover, the capital works become part of the Terminal and the Operator's obligations to provide the services extend to include that part of the Terminal.</p>
Force majeure	<p>The Contract defines events of force majeure. If a party is affected by such an event, it may be granted relief from performance of its affected obligations under the Contract, subject to compliance with certain requirements.</p>
Dispute resolution	<p>The Contract specifies a dispute resolution procedure which includes the following provisions:</p> <ul style="list-style-type: none"> • If a dispute between DBCTM and the Operator arises out of or in connection with the Contract, then either party may give the other party a notice of dispute. • Neither party may commence any court proceedings or arbitration in respect of any dispute which is the subject of a notice of dispute until the party has complied with the dispute resolution procedure specified in the Contract. • Within 14 days after service of a notice of dispute, the senior executives of each party must confer at least once to attempt to resolve the dispute and failing resolution, to consider and, if possible, agree on methods of resolving the dispute by other means. • If the dispute cannot be resolved by the senior executives after a further period of 14 days or if at any time either party considers that the other party is not making reasonable efforts to resolve the dispute, either party may refer the dispute to conciliation. • If the dispute is not resolved by conciliation within a period of 14 days after nomination of the conciliator, the parties may agree to refer the dispute to arbitration or either party may pursue any other means of dispute resolution including litigation. • The Contract will specify procedures with respect to conciliation and arbitration. • The dispute resolution procedure does not prevent any party from seeking urgent interlocutory or declaratory relief from a court of competent jurisdiction where, in that party's reasonable opinion, that action is necessary to protect its rights.
Change in control of the Operator	<p>There is a deemed assignment of the Contract if:</p> <ul style="list-style-type: none"> • a person who is not a user or its related body corporate acquires an interest in the Operator; or • a user or its related body corporate acquires an interest in the Operator which exceeds its proportionate usage of the Terminal. <p>The Contract may not be assigned without DBCTM's approval.</p>
Termination for default by	<p>Each party has termination rights if the other defaults under the Contract. The rights differ between the parties, but allow the non-defaulting party to require rectification or require the</p>

either party	defaulting party to show cause, before the non-defaulting party may terminate the Contract.

Appendix 3 DBCT Access Agreement

USER AGREEMENT [2020] Access Framework

Date:

[Note: The DBCT Access Framework and Standard Access Agreement (SAA) provided with DBCTM's submission dated 30 May 2018 should be read in conjunction with Appendix 7 of DBCTM's submission, which sets out the pricing framework that will apply under the DBCT Access Framework and SAA. Drafting to give effect to the pricing framework is being developed. Placeholders are included in this version of the SAA for the drafting to give effect to the pricing framework. Further consequential changes may also be required (such as to the defined terms in this version of the SAA) in drafting changes to give effect to the pricing framework.]

DBCT MANAGEMENT PTY LIMITED

("DBCT Management")

DBCT INVESTOR SERVICES PTY LTD as trustee of the DBCT Trust

("DBCT Guarantor")

[Insert User name]

("User")

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Draft

This Agreement is made on the Execution Date

BETWEEN **DBCT MANAGEMENT PTY LIMITED ABN 16 097 698 916**
 ("DBCT Management")

AND **THE USER DESCRIBED IN SCHEDULE 1 ("User")**

AND **DBCT INVESTOR SERVICES PTY LTD ABN 11 052 156 082, as**
 trustee of the DBCT TRUST ("DBCT Guarantor")

RECITALS

- A. DBCT Management is the lessee of the Terminal under long term leases.
- B. The Operator operates and maintains the Terminal on behalf of DBCT Management.
- C. The User wishes to use the Terminal to Ship its Coal.
- D. DBCT Management has agreed to grant Access to the User on the terms and conditions contained in this Agreement.

IT IS AGREED

1. DEFINITIONS AND INTERPRETATIONS

1.1 Definitions

Unless the subject or context is inconsistent, each of the capitalised terms used in this Agreement has the meaning assigned to it in Schedule 9.

1.2 Interpretation

The rules set out in Schedule 9 apply to and govern the interpretation of this Agreement.

2. TERM

[Subject to clause 29.1], this Agreement commences on the Effective Date and continues in force until the end of the Term specified in Item 6 of Schedule 1 (unless terminated earlier pursuant to clause 14.2 or clause 14.3).

3. HANDLING OF COAL

3.1 Agreement to provide Access

- (a) DBCT Management grants Access to the User on the terms of this Agreement.
- (b) The User unconditionally and irrevocably agrees to comply with the requirements, obligations and processes in:
 - (i) the Framework; and

- (ii) the Deed Poll, including the conditions set out in clauses 8.4, 9, 10 and 11 of the Deed Poll.

3.2 Provision and operation of the Terminal

In granting to the User the Access referred to in clause 3.1, DBCT Management must, subject to this Agreement:

- (a) make the Terminal available and operate it to enable the Annual Contract Tonnage (subject to delivery to the Terminal and the availability of vessels) to be Handled at the Terminal in each Financial Year; and
- (b) provide Services as required by the User.

3.3 Delivery by rail

The User must ensure that its Coal is delivered to the Terminal by rail utilising rolling stock which is compatible with and (as far as it is practicable for the User to control) efficiently utilises the unloading facilities at the Terminal.

3.4 User to use reasonable endeavours to Ship its Annual Contract Tonnage

The User must use all reasonable endeavours to Ship its Annual Contract Tonnage through the Terminal in each Financial Year.

3.5 Even Shipments

The User must work towards, and must use all reasonable endeavours to achieve, the Shipping of its Coal through the Terminal at an even rate throughout each Financial Year (and, where Item 7 in Schedule 1 provides for a specific tonnage in respect of a nominated shorter period at some time during the Term, then at an even rate throughout that shorter period). The parties recognise that vessel arrival times, rail scheduling, maintenance and other factors can result in some short-term, routine unevenness to an even rate of Shipping.

3.6 Terminal Regulations

- (a) DBCT Management must comply with, and will use its best endeavours to ensure that the Operator complies with, the Terminal Regulations in force from time to time.
- (b) The User must observe the Terminal Regulations, in force from time to time, as a condition of access to and the right to have its Coal Handled at the Terminal.
- (c) The User acknowledges that Terminal Regulations may include terms which:-
 - (i) require scheduling of Access Holders' railing in and Handling of Coal in ways which promote Terminal efficiency and endeavour to achieve the objective set out in clause 3.5;
 - (ii) temporarily reduce the tonnage of Coal which may be Handled or Services provided under this Agreement, during such periods as capacity of the Terminal or relevant Services becomes restricted, provided that such reductions and restrictions affect all Access Holders equitably (but this does not relieve the User or DBCT Management respectively from any liability which they might have in respect of the capacity or Services having become restricted);
 - (iii) prescribe requirements for cargo building windows, unloading of trains, stockpiling and cargo assembly, vessels, arrival of vessels, loading of vessels, pre-loading requirements, order of loading and unloading and other matters where possible (including matters of the type dealt with in the Terminal

- Regulations at the Effective Date) which promote the efficient, safe and equitable utilisation of capacity at the Terminal and Terminal Services;
- (iv) require Access Holders to co-operate with the Operator and other Access Holders in relation to scheduling, loading, unloading, priorities and other matters relating to the operation of the Terminal; and
 - (v) allow the exercise of discretions on the part of the Operator in limited cases, where it is reasonable to do so, to optimise Terminal efficiency (such power to be exercised in good faith and in a non-discriminatory way).
- (d) The User acknowledges and agrees that the Operator may, from time to time, by written notice to DBCT Management, propose amendments to the Terminal Regulations regarding operational issues.
- (e) If the Operator submits to DBCT Management a proposed amendment to the Terminal Regulations DBCT Management must:
- (i) promptly notify the User of any proposed amendments to Terminal Regulations;
 - (ii) provide the User with a copy of such proposed amendments to the Terminal Regulations (which may be by displaying it on DBCT Management's website);
 - (iii) conduct reasonable consultation with the User in relation to the proposed amendment; and
 - (iv) following the completion of such reasonable consultation, notify the User of:
 - (A) the wording of the proposed amendment;
 - (B) whether it has given its consent to the proposed amendment;
 - (C) the detailed reasons for its decision to give (or not give) consent to the proposed amendment; and
 - (D) that there is a 30 day period for notifying DBCT Management of any objections to the decision to consent or not consent (as applicable) to the amendment.
- (f) A proposed amendment to the Terminal Regulations will not be implemented unless:
- (i) DBCT Management has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with the Access Framework; and
 - (ii) one of the following has occurred:
 - (A) DBCT Management has consented to the proposed amendment to the Terminal Regulations and no Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent being provided to the proposed amendments within 30 days of being notified of the amendments by DBCT Management;
 - (B) DBCT Management has consented to the proposed amendments to the Terminal Regulations and while an Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent being provided to the proposed amendments within 30 days being notified of the amendments by DBCT Management, and the

Independent Expert appointed to hear the objection (in accordance with clause 3.6(j)) has rejected that objection; or

- (C) DBCT Management has not consented to the proposed amendments to the Terminal Regulations, but an Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent not being provided, and the Independent Expert appointed to hear the objection (in accordance with clause 3.6(l)) has upheld that objection.
- (g) DBCT Management will only give its consent to a proposed amendment to the Terminal Regulations under clauses 3.6(f)(ii)(A) or 3.6(f)(ii)(B) if it has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with the Access Framework and, taking into account the results of such consultation, it reasonably considers that:
- (i) the amendments relate to operational issues;
 - (ii) the amended Terminal Regulations, as a whole, will operate equitably amongst Access Holders, Access Seekers (should they become Access Holders) and Expansion Parties (should they become Access Holders) and, where the relevant amendments affect Rail Operators, amongst affected Rail Operators;
 - (iii) the amendments are consistent with the Access Framework, and any Access Agreements; and
 - (iv) the amendments are reasonably necessary for the operation of the Terminal in accordance with applicable laws and regulatory standards, Good Operating and Maintenance Practice or any costs or obligations imposed are justified by the efficiency benefits arising from those costs or obligations.
- (h) If DBCT Management does not provide its consent to a proposed amendment to the Terminal Regulations, the User may object to DBCT Management's refusal to provide consent if it reasonably considers that:
- (i) the amendments relate to operational issues;
 - (ii) the amended Terminal Regulations, as a whole, will operate equitably amongst Access Holders, Access Seekers (should they become Access Holders) and Expansion Parties (should they become Access Holders) and, where the relevant amendments affect Rail Operators, amongst affected Rail Operators;
 - (iii) the amendments are consistent with the Access Framework and this Agreement; and
 - (iv) the amendments are reasonably necessary for the operation of the Terminal in accordance with applicable laws and regulatory standards. Good Operating and Maintenance Practice or any costs or obligations imposed are justified by the efficiency benefits arising from those costs or obligations.
- (i) DBCT Management must notify all Access Holders, Access Seekers, Expansion Parties and Rail Operators of any amendments to the Terminal Regulations that have been approved and must provide a copy of the amended Terminal Regulations to these parties (which may be by way of reference to the website on which the amended Terminal Regulations are available in accordance with 3.6(o)).
- (j) If:

- (i) DBCT Management has given its consent to a proposed amendment to the Terminal Regulations; and
- (ii) the User objects to the proposed amendment on the basis that it reasonably considers that the criteria specified in clauses 3.6(g)(i) to 3.6(g)(iv) are not satisfied,

then the User may, within 30 days after being notified of DBCT Management's consent, notify DBCT Management of its objection to the consent to the proposed amendment, such objection to be determined by an Independent Expert.

- (k) If, in response to an objection notified to the Independent Expert by the User under clause 3.6(j), the Independent Expert determines that the criteria specified in clauses 3.6(g)(i) to 3.6(g)(iv) are not satisfied, then:
 - (i) the proposed amendment and DBCT Management's consent to the proposed amendment will be taken to have been withdrawn; and
 - (ii) the proposed amendment will not be made.
- (l) If:
 - (i) DBCT Management has refused to give its consent to a proposed amendment to the Terminal Regulations; and
 - (ii) the User objects to DBCT Management not providing consent to the proposed amendment on the basis that it reasonably considers that the criteria specified in clauses 3.6(g)(i) to 3.6(g)(iv) are satisfied,

then the User may, within 30 days of being notified of the amendments by DBCT Management, notify DBCT Management of its objection to DBCT Management not providing consent for the proposed amendment, such objection to be determined by an Independent Expert.

- (m) If, in response to an objection notified to the Independent Expert by the User under clause 3.6(l), the Independent Expert determines that the criteria in in clauses 3.6(g)(i) to 3.6(g)(iv) are satisfied, then:
 - (i) DBCT Management's consent to the proposed amendment will be deemed to have been given; and
 - (ii) the proposed amendment will be made.
- (n) Subject to DBCT Management complying with 3.6(f), DBCT Management will not be liable to the User on any basis whatsoever as a result of DBCT Management consenting to an amendment to the Terminal Regulations or the due implementation and observance of an amendment to the Terminal Regulations, as long as DBCT Management had in all respects acted reasonably and in good faith and (acting reasonably and in good faith) had formed the opinion required by clause 3.6(g). For clarification, this does not affect DBCT Management's obligation to do anything required on its part to cause the termination or consequential amendment of a Terminal Regulation after any determination that the Terminal Regulation breaches this Agreement or the Access Framework.
- (o) DBCT Management must make a copy of the Terminal Regulations available to the User (which may be by displaying it on DBCT Management's website).

3.7 Addressing disproportionate use of Terminal capacity and risk minimisation

- (a) If at any time DBCT Management, acting reasonably and on the recommendation of the Operator, considers that:

- (i) the User is disproportionately consuming the capacity of the Terminal (when compared with other Access Holders on a per tonne basis) and other Access Holders are materially adversely affected as a result; or
- (ii) the provision of the User's Coal to the Terminal or Handling of that Coal at the Terminal creates a disproportionate risk to the Terminal (when compared with Coal of other Access Holders),

and that it is reasonably practicable for the User to reduce that disproportionate consumption of capacity or disproportionate risk, DBCT Management may give written notice to the User to that effect.

- (b) If DBCT Management gives notice to the User pursuant to clause 3.7(a) the User must:
 - (i) meet with DBCT Management (or with the Operator if DBCT Management gives notice that the Operator is authorised to act as its nominee) to attempt to agree on an appropriate action plan; and
 - (ii) promptly, and in any event, within 60 days of the meeting referred to in clause 3.7(a)(i), develop and implement an action plan agreed between the parties or (if there is no agreement, but it is consistent with clause 3.7(c)) an action plan required by DBCT Management.
- (c) DBCT Management is not entitled to require anything in an action plan which would be:
 - (i) unreasonable or uneconomic for the User in all the circumstances; or
 - (ii) inconsistent with what is generally accepted as good operating practice in the prevailing circumstances.
- (d) A dispute between DBCT Management (or the Operator) and the User in respect of this clause 3.7 may be referred to dispute resolution in accordance with clause 15.

4. PAYMENT OF CHARGES AND ADJUSTMENTS

[Drafting Note: This clause will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

4.1 Interpretation of Pricing Provisions

In this Agreement, the following principles of interpretation shall apply:

- (a) for so long as there is a single Terminal Component, the terms and definitions of this Agreement relevant to pricing apply to all Access collectively; and
- (b) where there are multiple Terminal Components, the terms and definitions of this Agreement relevant to pricing apply to each Terminal Component separately.

For the avoidance of doubt, the Access contracted under this Agreement relates to [the Existing Terminal / a Differentiated Expansion Component].

4.2 Charges payable regardless of remedies

The charges payable pursuant to this clause 4 must be paid by the User promptly when due, regardless of any remedies which might be available to the User pursuant to clause 13 or otherwise:

- (a) except to the extent that clause 5.3 applies;
- (b) unless and until, and to the extent that, it is determined through dispute resolution or agreed that the charges are not payable pursuant to clause 13.4(b); and

- (c) unless a relevant Delay is caused by Wilful Default by DBCT Management (clause 13.5).

4.3 Access Charges

Access Charges for each Terminal Component will comprise two parts:

- (a) a Capital Charge, being:
- (i) in respect of Reference Tonnage, the TIC;
 - (ii) in respect of Excess Tonnage, the Excess Charge; and
 - (iii) where applicable, the Year End Adjustment and the Provisional Increment Repayment; and
- (b) a charge to recoup the costs of operation and maintenance of the Terminal, being:
- (i) the Handling Charge – Fixed;
 - (ii) the Handling Charge – Variable; and
 - (iii) where applicable, charges for Miscellaneous Services.

4.4 User to pay TIC

The User must pay the TIC to DBCT Management for each tonne of Annual Contract Tonnage by monthly instalments (each a Monthly Payment) in accordance with clause 5.1(b).

4.5 User to Pay Excess Charge

- (a) Subject to clause 4.5(b) the User must pay to DBCT Management the Excess Charge applied to Excess Tonnage (if any) Handled by DBCT Management during the Financial Year annually in arrears in accordance with clause 5.1(b).
- (b) If required by DBCT Management, the User must pay to DBCT Management (in addition to the Monthly Payment) an amount equal to the TIC, for each tonne of Excess Tonnage Handled by DBCT Management during a relevant Financial Year, as a prepayment against the Excess Charge payable annually in arrears pursuant to clause 4.5(a). Any such prepayment will be payable in arrears, after invoice, in accordance with clause 5.1(b).

4.6 DBCT Management to pay Year End Adjustment

If any one or more of the Access Holders (including the User) Ship Excess Tonnage in a Financial Year, DBCT Management must pay the User (and other Access Holders) the Year End Adjustment in accordance with clause 5.1(e).

4.7 DBCT Management to pay Provisional Increment Repayment

DBCT Management must pay the User (and other Access Holders) the Provisional Increment Repayment (if any) in accordance with clause 5.1(f).

4.8 User to pay Handling Charge - Fixed

- (a) The User must pay HCF to DBCT Management, calculated in accordance with clause 6.2.
- (b) On an interim basis (subject to end-of-Financial Year reconciliations and adjustments pursuant to clause 5.1(d)) the User must pay DBCT Management monthly instalments each equal to one-twelfth of the annual HCF reasonably estimated by DBCT Management at the commencement of the relevant Financial Year.

4.9 User to pay Handling Charges - Variable

- (a) The User must pay HCV to DBCT Management, calculated in accordance with clause 6.3.
- (b) On an interim basis (subject to end-of-Financial Year reconciliations and adjustments pursuant to clauses 5.1(c)(iii) and 5.1(d)) the User must pay DBCT Management monthly instalments each equal to one-twelfth of the annual HCV reasonably estimated by DBCT Management at the commencement of the relevant Financial Year.

4.10 User to pay Miscellaneous Services charges

The User must pay DBCT Management for Miscellaneous Services provided at the Terminal where such services are charged separately from HCF and HCV, at the rates applicable pursuant to clause 6.4.

4.11 DBCT Management's business interruption insurance

Any insurance premium which relates to business interruption cover for DBCT Management will not form part of any HCV, HCF or Miscellaneous Charge. (For clarification, this is because of the obligation of Access Holders whose Access Agreement is on Reference Terms to continue paying Access Charges whilst an event of Force Majeure continues - clause 13.3(b)).

5. ACCOUNTS

[Drafting Note: This clause will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

5.1 Calculation, rendering and payment of tax invoices

- (a) DBCT Management and the User must give each other appropriate tax invoices or adjustment notes for any charge payable by the User to DBCT Management or any amounts payable by DBCT Management to the User under clause 4.
- (b) With respect to the Monthly Payment, HCF, HCV, charges for Miscellaneous Services and the Excess Charge, the User must pay each tax invoice duly given to it by DBCT Management by no later than that date (the "Due Date") which is 30 days after the date of receipt of that tax invoice.
- (c) Tax invoices may only be rendered by DBCT Management as follows:
 - (i) monthly in arrears for the Monthly Payment, and monthly instalments of HCF, HCV and charges for Miscellaneous Services; and
 - (ii) in arrears at any time after the departure of a vessel loaded with Excess Tonnage, in respect of any prepayment relating to that Excess Tonnage and required pursuant to clause 4.5(b); and
 - (iii) annually in arrears in respect of any part of the Excess Charge not prepaid under clause 5.1(c)(ii).
- (d) With respect to the annual reconciliation and adjustment of HCF and HCV:
 - (i) DBCT Management must calculate and notify the User of any adjustment required against interim amounts paid in respect of HCF and HCV within one month from the end of the Financial Year to which it relates.
 - (ii) DBCT Management or the User (as applicable) must then give the other an appropriate tax invoice reflecting the payment to be made pursuant to any adjustment under clause 5.1(d)(i) on or before the date 14 days after the amount of the adjustment is notified to the User by DBCT Management (or, if

later, within 14 days after the resolution of any dispute over the calculations of adjustments, including any dispute referred to in clause 5.1(d)(iv)).

(iii) The parties must pay the adjustment relevant under this clause 5.1(d) within 14 days after the receipt of a relevant tax invoice pursuant to clause 5.1(d)(ii).

(iv) If the adjustment contemplated under this clause 5.1(d) is wholly or partially impacted by a dispute (as between two or more of the User, another Access Holder and DBCT Management), no amount need be paid in respect of that disputed amount until that dispute has been resolved but, as far as it is practicable, undisputed amounts must be promptly paid (with tax invoices being given accordingly, but the giving of a tax invoice in respect of the undisputed part of a payment will not prejudice the dispute). DBCT Management and the User must use reasonable endeavours to attempt to expeditiously resolve any such dispute to which they are a party.

(e) With respect to the Year End Adjustment:

(i) DBCT Management must calculate and notify the User of any Year End Adjustment within one month from the end of the Financial Year to which it relates.

(ii) The User must render the appropriate tax invoice reflecting the payment to be made (if any) pursuant to the Year End Adjustment on or before the date 14 days after the amount (if any) of the Year End Adjustment is notified to the User by DBCT Management (or, if later, within 14 days after the resolution of any dispute over the calculation of adjustments, including any dispute referred to in clause 5.1(e)(iv)).

(iii) DBCT Management must pay the amount (if any) of the Year End Adjustment within 14 days after receipt of a relevant tax invoice pursuant to clause 5.1(e)(ii).

(iv) If the Year End Adjustment is wholly or partially impacted by a dispute (as between two or more of the User, another Access Holder and DBCT Management), no amount need be paid in respect of that disputed amount until that dispute has been resolved but, as far as it is practicable, undisputed amounts must be promptly paid (with tax invoices being given accordingly, but the giving of a tax invoice in respect of the undisputed part of a payment will not prejudice the dispute). DBCT Management and the User must use reasonable endeavours to attempt to expeditiously resolve any such dispute to which they are a party.

(f) With respect to the Provisional Increment Repayment, if DBCT Management has applied to the QCA to retain the Provisional Increment in respect of any Financial Year and the QCA subsequently determines that DBCT Management is entitled to an Increment for that Financial Year which is a lesser amount than the Provisional Increment or is not entitled to an Increment for that Financial Year, then DBCT Management must promptly notify the User of the Provisional Increment Repayment payable to the User, and pay that amount to the User within 7 days after receiving a tax invoice from the User for that amount.

5.2 Interest on late payments

(a) If the User does not pay a tax invoice by the Due Date, DBCT Management, without prejudice to its other rights under this Agreement, may charge interest to the User on the amount owed computed from the Due Date to the actual date of payment at the Default

Interest Rate, and unpaid interest may be compounded and itself incur interest, on a monthly basis until payment at a rate equal to 1/12th of the Default Interest Rate.

- (b) If DBCT Management does not make a payment to the User on the date due for such payment or does not notify the User of the amount of an adjustment to be paid by DBCT Management by the required date to do so, the User, without prejudice to its rights under this Agreement, may charge interest to DBCT Management on the amount owed computed from the date due for such payment (or the date on which payment would have become due had the adjustment been duly notified) to the actual date of payment at the Default Interest Rate, and unpaid interest may be compounded and itself incur interest on a monthly basis until payment at a rate equal to 1/12th of the Default Interest Rate.

5.3 Disputes over accounts

- (a) Subject to clauses 5.1(d)(iv) and 5.1(e)(iv) if the User disputes the amount of a tax invoice from DBCT Management on the basis that it contains a manifest administrative error or is incorrectly calculated, then the User must pay:
- (i) the whole of the undisputed part of the tax invoice by the Due Date; and
 - (ii) 50% of the disputed portion, pending resolution of that dispute (and the User will not be in default for non-payment, if it does so).
- (b) Payment in accordance with clause 5.3(a) will not prejudice the User's rights under clause 15.
- (c) If following the resolution of a dispute, DBCT Management refunds that portion of the disputed tax invoice which has been paid or the User pays the unpaid portion of a disputed tax invoice, then DBCT Management or the User shall pay interest at the No Fault Interest Rate on the refunded amount (in the case of DBCT Management) or the paid amount (in the case of the User) computed from the date on which the disputed amount was originally due to the date the adjustment is paid.

6. HANDLING CHARGES

[Drafting Note: Consequential amendments to this clause 6 may be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

6.1 Utilisation Advice

- (a) As soon as practicable after the Execution Date, the User must give a Utilisation Advice to each of DBCT Management and the Operator relating to the balance of the then current Financial Year (on a monthly basis) and the next 3 full Financial Years of the Term (on an annual basis).
- (b) By no later than 15 February in each Financial Year, the User must give a Utilisation Advice to each of DBCT Management and the Operator relating to the next full Financial Year (on a monthly basis) and the 3 full Financial Years of the Term following that next Financial Year (on an annual basis).
- (c) In the five Business Days preceding each 1 July, 1 October, 1 January and 1 April in each Financial Year, the User must update DBCT Management and the Operator with a revised Utilisation Advice relating to that Financial Year, together with projections of similar information for the 12 month period commencing on the date of that update.
- (d) The User will be under no liability to DBCT Management if the actual number, types or tonnages of vessels or the amount of Coal is or are greater or fewer than the number,

types, tonnages or amounts estimated in this clause or estimated in any advice given pursuant to this clause 6.1.

6.2 HCF

- (a) HCF for each Financial Year is calculated as follows:-

$$HCF = [OFC + DC + MC] \times \frac{ACT}{TACT}$$

Where:-

OFC is the aggregate of all Fixed Operating Costs for the Financial Year in respect of the relevant Terminal Component;

DC is other expenditure (not being Capital Expenditure) incurred by the Operator for the operation and maintenance of the relevant Terminal Component (including any Operator's margin) for that Financial Year and reimbursable by DBCT Management pursuant to the Operation & Maintenance Contract;

MC is the minor Capital Expenditure for the relevant Terminal Component (not included in DC) in the relevant Financial Year, to a maximum of \$3 million;

ACT is the higher of the User's Annual Contract Tonnage or the tonnage of Coal actually Shipped by it in the relevant Financial Year; and

TACT is the total of the annual contract tonnages (or if an Access Holder's actual tonnage Shipped is greater than its annual contract tonnage, the actual tonnage Shipped) of all Access Holders for each relevant Financial Year in respect of the relevant Terminal Component.

For clarification, tonnages referred to in this clause include Reference Tonnages and Non-Reference Tonnages.

- (b) As soon as practicable after each 31 May, having consulted with the Operator, DBCT Management must advise the User in writing of the estimated HCF payable by the User during the forthcoming Financial Year in respect of the relevant Terminal Component.

6.3 HCV

- (a) HCV for each Financial Year is calculated as follows:-

$$HCV = \frac{OVC}{TTCS} \times \text{the actual number of tonnes of Coal Shipped by the User pursuant to this Agreement in the relevant Financial Year.}$$

Where:-

OVC is the aggregate of all Variable Operating Costs in respect of the Handling of all Coal through the relevant Terminal Component for a Financial Year; and

TTCS is the total number of tonnes of Coal Shipped through the relevant Terminal Component during that Financial Year.

For clarification, tonnages referred to in this clause include Reference Tonnages and Non-Reference Tonnages.

- (b) As soon as practicable after each 31 May, and having consulted with the Operator, DBCT Management must advise the User in writing of the estimated HCV payable by the User during the forthcoming Financial Year in respect of the relevant Terminal Component.

6.4 Miscellaneous Services

- (a) Charges for Miscellaneous Services must be an amount which the Operator reasonably estimates as:-
- (i) relevant reasonable additional costs to be incurred by the Operator as a result of the Miscellaneous Services including the Operator's profit margin; and
 - (ii) any other additional costs likely to be incurred by other Access Holders (for example, additional demurrage) as a result of the delays in Handling other Coal, arising out of the Miscellaneous Services.
- (b) Any charges recovered under this clause 6.4 or an equivalent clause in another User Agreement must be deducted from operating costs and the Operator's margin in respect of those operating costs for the purposes of calculating HCF and HCV.
- (c) The parties recognise that the Operator has historically charged Access Holders directly for some services provided at the Terminal, and nothing in this Agreement precludes that practice from continuing.

7. REVIEW OF CAPITAL CHARGES

[Drafting Note: This clause will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

7.1 Reviews annually and when a Review Event occurs

Subject to clauses 7.2 and 7.3, the Capital Charge will be amended from time to time throughout the Term in accordance with Schedule 2.

7.2 Reviews on Agreement Revision Dates

- (a) All charges under this Agreement and the method of calculating, paying and reconciling them (including the terms of Schedule 2) and any consequential changes in drafting of provisions will be reviewed in their entirety, effective from each Agreement Revision Date, in accordance with the following provisions of this clause 7.2.
- (b) Each review pursuant to clause 7.2(a) will determine the types, calculation, payment and reconciliation of charges payable by the User pursuant to this Agreement, and may have regard to (amongst other things):
- (i) the terms of the Access Undertaking (if any) effective from the relevant Agreement Revision Date;
 - (ii) the relevant Reference Tariff (if any) effective from the relevant Agreement Revision Date; and
 - (iii) if relevant, the differences in risk profile and cost to DBCT Management (direct and indirect) between the terms and conditions of this Agreement and the terms and conditions of the Standard Access Agreement at the relevant Agreement Revision Date,
- and is intended to be undertaken at the same time, in conjunction with, and on the same basis as reviews under other User Agreements which are in terms similar to this Agreement where a similar review is due at the same time.
- (c) DBCT Management and the User must commence each review pursuant to clause 7.2(a) no later than 18 months prior to the scheduled relevant Agreement Revision Date, and:

- (i) the parties must endeavour to agree as early as it is practicable to do so (if possible, by no later than the Agreement Revision Date) on the basis and amount of new charges to apply from the relevant Agreement Revision Date;
 - (ii) if the parties do not reach agreement by the date 6 months prior to the scheduled Agreement Revision Date, either party may refer the determination of the issues to arbitration in accordance with this clause 7.2, and if the arbitrator is the QCA, the parties must request the arbitrator to progress the arbitration in conjunction with the process at that time for development of a new Access Undertaking (with the intention that reviewed charges will be determined no later than the commencement of the new Access Undertaking);
 - (iii) if there is no agreement or determination by the relevant Agreement Revision Date then:
 - (A) the charges (and method of paying and reconciling them) applying prior to that Agreement Revision Date will continue to apply until otherwise agreed or determined; and
 - (B) any determination or agreement will (unless the parties otherwise agree) operate retrospectively from the relevant Agreement Revision Date and, as soon as practicable after the determination or agreement, an adjustment will be paid by the relevant party (based on the amounts which have been paid to that date on an interim basis and the amounts which are agreed or determined to be payable from the Agreement Revision Date to the date the adjustment is paid) together with interest on the amount of the adjustment at the No Fault Interest Rate. The amount of interest will be determined by reconciling the amounts and timings of payments made on an interim basis with amounts payable and timing of those payments which would have applied in accordance with the agreement or determination.
- (d) If the matter is referred under clause 7.2(c)(ii) to arbitration, then arbitration must be effected as follows:
- (i) by the QCA in such manner as it sees fit, after consultation with the parties; or
 - (ii) if the QCA is unwilling or unable to act, by a single arbitrator agreed upon between the parties; or
 - (iii) in default of agreement under clause 7.2(c)(ii) within 10 days after the matter is referred to arbitration, by a single arbitrator selected by the Chair of the Queensland Chapter of the Institute of Arbitrators and Mediators, Australia.
- (e) If a matter is referred to arbitration under clause 7.2(d)(ii) or clause 7.2(d)(iii), then the arbitrator must have regard to the following matters:
- (i) an appropriate asset valuation of the Terminal and the relevant Terminal Component;
 - (ii) an appropriate rate of return for DBCT Management;
 - (iii) the terms of this Agreement;
 - (iv) the expected future tonnages of Coal anticipated to be Handled through the Terminal and the relevant Terminal Component;
 - (v) any other matter agreed to by the User and DBCT Management and notified by them in writing to the arbitrator;

- (vi) any other matter which is submitted by either the User or DBCT Management and accepted by the arbitrator as being relevant; and
 - (vii) the then current approach of the QCA in respect of appropriate charges for services comparable to the Services (with the intent that the arbitration should produce an outcome similar to that which might have been expected had the QCA determined it).
- (f) Apart from an arbitration conducted under clause 7.2(d)(i) (which will be conducted in accordance with the rules and procedures required by the QCA), the arbitration must be conducted in accordance with clause 15.4.
- (g) If an Agreement Revision Date occurs, the parties will, in addition to reviewing the charges under this clause 7.2, meet together in good faith to negotiate any amendments to this Agreement which they consider to be relevant as a result of the changed circumstances following that Agreement Revision Date. Neither party will have any obligation to reach agreement on any revised terms.

7.3 Review to "user-pays" model

If:

- (a) all (or all but one) of the Access Holders who have Reference Tonnage in respect of the Terminal Component ("**Reference Tonnage Access Holders**") at the time agree to a revised methodology for calculating the relevant TIC (including any consequential changes to any other charges and to provisions in this Agreement in respect of the determination of charges) (the "**Formula**"); and
- (b) the Formula has no adverse impact on:
 - (i) DBCT Management's risk;
 - (ii) the pricing of Non-Reference Tonnage in respect of the Terminal Component;
 - (iii) the pricing of Tonnage in respect of each other Terminal Component; and
 - (iv) the net amount which DBCT Management would be entitled to earn and retain under this Agreement and other User Agreements,
 had the provisions in Schedule 2 remained unchanged; and
- (c) the Formula is broadly in line (with further refinements) with the principles outlined in the submission by the DBCT User Group to the QCA in their submission dated 5 September 2003 for a "user pays" model of charging TIC; and
- (d) the application of the Formula at the time it is introduced is not expected to result in differences of more than 20% from the average amount of the relevant TIC, in amounts payable as TIC by either relevant Reference Tonnage Access Holders with good performance or Reference Tonnage Access Holders with poor performance; and
- (e) either:
 - (i) no relevant Reference Tonnage Access Holder (including, if applicable, the User) who has been notified of the proposal to adopt the Formula has within 30 days after the Formula is formally agreed to by the Reference Tonnage Access Holders referred to in clause 7.3(a) and that agreement is notified to all relevant Reference Tonnage Access Holders, made a submission to the QCA that the Formula does not comply with the foregoing principles in this clause 7.3; or
 - (ii) if such a submission has been made within the period in clause 7.3(e)(i), the QCA has notified DBCT Management and the User that it considers (on the

basis of the material supplied to it) the Formula does substantially comply with the foregoing principles in this clause 7.3,

then (unless DBCT Management does not agree, which it must not do without good cause) from the commencement of the next Financial Year, the relevant TIC and other relevant charges will be determined in accordance with the Formula and Schedule 2 (and any other relevant provisions in this Agreement) will be deemed to be amended accordingly.

8. SET-OFF

8.1 DBCT Management may set-off

Unless otherwise stated, DBCT Management may set-off against any amount payable to the User under this Agreement any amount which is due and payable by the User to DBCT Management under this Agreement.

8.2 Amount set-off deemed to have been paid

Any amount set-off by DBCT Management is deemed to have been paid by the User and the amount against which the set-off has been effected is deemed to have been paid by DBCT Management to the User.

8.3 User may set-off

Unless otherwise stated, the User may set-off against any amount payable to DBCT Management under this Agreement any amount which is due and payable by DBCT Management to the User under this Agreement.

8.4 Amount set-off deemed to have been paid

Any amount set-off by the User is deemed to have been paid by DBCT Management and the amount against which the set-off has been effected is deemed to have been paid by the User to DBCT Management.

9. DETERMINATION OF TONNAGE

9.1 Certificate of weight and Cargo Manifest

The User must:

- (a) commission an independent surveyor to issue a certificate of weight of each cargo of the User's Coal loaded on a vessel at the Terminal, based on vessel draught measurements at the Port, or otherwise cause the weight of each cargo to be determined and certified in another way which is independent and acceptable to DBCT Management (acting reasonably) and (if DBCT Management so requires) adopted by all Access Holders;
- (b) send the Cargo Manifest (which must include a statement as to the weight so certified under clause 9.1(a)) to DBCT Management (with a copy to the Operator) upon completion of the loading of each vessel with a cargo of the User's Coal; and
- (c) ensure that a Product Shipment Notice is attached to each Cargo Manifest.

9.2 Basis of calculation

DBCT Management must use the information contained in each Cargo Manifest and Product Shipment Notice as the basis of calculating charges payable under this Agreement.

9.3 Further account

- (a) If at any time:-
- (i) DBCT Management can demonstrate that an account previously sent to the User was incorrectly calculated, or based on incorrect information, so that DBCT Management was paid less than it was entitled to, DBCT Management may calculate and send to the User a further tax invoice for the difference owed to DBCT Management; and
 - (ii) the User can demonstrate that an account previously sent to the User was incorrectly calculated, or based on incorrect information, so that DBCT Management was paid more than it was entitled to, DBCT Management must upon request by the User and delivery of a tax invoice or adjustment note, either pay to the User the difference owed to the User or issue a credit note to the User for the difference owed to the User.
- (b) In addition to payment of the amount referred to under 9.3(a) ("**Applicable Amount**"), DBCT Management (in the case of clause 9.3(a)(i)) or the User (in the case of clause 9.3(a)(ii)) shall be entitled to interest on the Applicable Amount calculated at the No Fault Interest Rate and calculated from the date on which the incorrectly calculated invoice was paid to the date on which the Applicable Amount was actually paid.

10. EXPANSION OF TERMINAL

10.1 Actions preliminary to decision to expand the Terminal

Before making any decision to Expand the Terminal, DBCT Management must:

- (a) advise the User of the reasons for, extent, timing and estimated cost of any Expansion Component under consideration;
- (b) consult the User as to whether changes in the User's Annual Contract Tonnage or the method of operation of the Terminal, including the User's arrangements for Shipping its Coal, would avoid or delay the need for the Expansion Component or reduce the extent or estimated cost of the Expansion Component; and
- (c) consider how to maximise the utilisation of the Terminal.

Nothing in this clause 10.1 limits any provision of the Access Framework.

10.2 Minimisation of interference

DBCT Management must use all reasonable endeavours to carry out any Expansion of or other work at the Terminal and any infrastructure connected to the Terminal so as to minimise interference with the Handling of the User's Coal.

10.3 Terminal and System Capacity

- (a) DBCT Management will from time to time estimate Terminal Capacity (and Expansion Component Capacity, including Socialised Terminal Capacity or Differentially Priced Capacity for each Expansion Component, as applicable) and System Capacity in accordance with the Access Framework (or if there is no provision for doing so in an Access Framework at a relevant time, in accordance with the process applying under the last access undertaking or framework in which such a process was provided for).
- (b) DBCT Management must reassess Terminal Capacity, each relevant Expansion Component Capacity and System Capacity before entering into any new User Agreement or otherwise increasing the aggregate tonnage of Coal contracted to be Handled through the Terminal, unless it considers that none of the factors to be taken

into account in determining Terminal Capacity, any relevant Expansion Component Capacity and System Capacity have materially changed since the most recent determination of Terminal Capacity, any relevant Expansion Component Capacity and System Capacity and that determination was made less than 12 months previously.

- (c) DBCT Management must not enter into any User Agreement if the Aggregate Annual Contract Tonnage would (after including the tonnage under the new User Agreement if it was entered into) exceed the System Capacity (as determined for the relevant time), unless otherwise required or permitted to do so by the Access Framework, law or an agreement relating to its tenure of the Terminal (including the Framework Agreement and the Port Services Agreement). For clarification:
- (i) without limiting clause 19, this does not prohibit DBCT Management from entering into a Conditional Access Agreement, as long as the terms of all such Conditional Access Agreements are such that the increase in Aggregate Annual Contract Tonnage consequent on such Expansion occurring will nevertheless not cause Aggregate Annual Contract Tonnage to exceed System Capacity (based on the estimated System Capacity at the completion of the relevant expansion); and
 - (ii) DBCT Management will not be in breach of this Agreement if it has complied with the Access Framework (or made good faith and reasonable attempts to comply) but an assessment of System Capacity (after the assessment required by the Access Framework following the completion of a relevant Expansion) reveals that System Capacity is less than the Aggregate Annual Contract Tonnage at that time.
- (d) Notwithstanding any other provisions of this Agreement, if DBCT Management complies (or makes a good faith and reasonable attempt to comply) with the provisions of this clause 10.3, DBCT Management will not have any liability (whether for loss, damage, cost, expense or other remedy) nor will it be liable to the User for any:
- (i) breach of this clause 10.3;
 - (ii) delay which arises as a result of the Aggregate Annual Contract Tonnage (which was expected not to exceed Terminal Capacity or System Capacity) subsequently exceeding Terminal Capacity or System Capacity for any reason;
 - (iii) one or more factors related to utilisation of capacity of the Terminal or any other part of the System which subsequently changes (for example, changes in service levels required pursuant to a right of Access Holders under a Standard Access Agreement, the nature of coal Handled, an Access Holder's use of the Terminal, vessel mix, railway infrastructure, rolling stock or locomotives, rail loading facilities of mines or any other relevant factor) provided that such factor is not a breach by DBCT Management of any other part of the Access Framework, this Agreement or any other User Agreement; or
 - (iv) defect, error or omission on the part of the independent expert appointed under the Access Framework to assist with the assessment of Terminal Capacity, each relevant Expansion Component Capacity (including Socialised Terminal Capacity and Differentially Priced Capacity) and System Capacity.
- (e) Subject to the provisions of this Agreement and to the requirements and provisions of the Access Framework, any statute and any agreement in respect of the tenure of the Terminal (including the Framework Agreement and the Port Services Agreement), DBCT Management agrees with the User that any request by the User for an increase in

Annual Contract Tonnage pursuant to clause 11.1 will be agreed to, to the extent that it does not cause System Capacity to be exceeded.

11. CHANGES TO ANNUAL CONTRACT TONNAGE

[Drafting Note: Consequential amendments to this clause 11 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

11.1 Adjustments at User's request

- (a) The User may only adjust its Annual Contract Tonnage pursuant to this clause 11.1 or clause 12.2.
- (b) [From the date 5 years after the commencement of the Shipment (or increased rate of Shipment) of Coal arising out of the Current Expansion - **add these words for a User Agreement under which Coal is Shipped for 10 years or more and which necessitated an Expansion**] The User may without penalty reduce the Annual Contract Tonnage by giving not less than five years notice to DBCT Management of the extent and the period of the reduction required.
- (c) If the User wishes to increase the Annual Contract Tonnage (for all or any part of the remainder of the Term), either:-
 - (i) from the Annual Contract Tonnage at the Effective Date; or
 - (ii) from a lesser or greater Annual Contract Tonnage previously adjusted under this clause 11.1,
 then the User may so notify DBCT Management, which may:-
 - (iii) subject to the availability of unallocated Terminal Capacity and System Capacity and the provisions of clauses 10.3 and 29.3, the Access Framework, any statute, and any agreement in respect of the tenure of the Terminal as it existed at 1 July 2005 (including the Port Services Agreement and the Framework Agreement), allow the User to increase the Annual Contract Tonnage (wholly or partially) to the respective amounts and periods requested; or
 - (iv) advise the User that no increase can occur, because it would cause Terminal Capacity or System Capacity to be exceeded.
- (d) Nothing in this clause limits any other rights which the User may have as an Access Seeker under the Access Framework or in clause 11.2 or clause 12.3.

11.2 Shipping Coal in excess of Annual Contract Tonnage

The User may from time to time (subject to the availability of unused capacity) Ship Coal in excess of its Annual Contract Tonnage, provided that:

- (a) this does not cause any additional expense or unreasonable interference to another Access Holder;
- (b) the User pays the Excess Charge in respect of each tonne of Coal so Handled; and
- (c) the User pays an adjusted handling charge having regard to the increased tonnes of Coal so Handled.

If the User is entitled to Ship Reference Tonnage and Non-Reference Tonnage, the additional Coal Handled under this clause 11.2 will be Handled as Excess Tonnage.

11.3 User not using Annual Contract Tonnage

If, in the reasonable opinion of DBCT Management, a User has not Shipped and is unlikely to Ship its Annual Contract Tonnage over a sustained period and such failure is not due to a Force Majeure event at the Terminal or a failure by DBCT Management to Ship the User's Coal, then the following will apply:-

- (a) DBCT Management may notify the User that DBCT Management has formed the opinion that the User has not Shipped and is unlikely to Ship its Annual Contract Tonnage over a sustained period and that there is a reasonable expectation of demand from other Access Holders or Access Seekers for the User's underutilised tonnage;
- (b) the User must make submissions as to whether the User has not Shipped and is unlikely to Ship its Annual Contract Tonnage over a sustained period within 21 days of receiving the notice from DBCT Management;
- (c) if the User fails to produce reasonable evidence that demonstrates that it is likely in future to substantially Ship the whole of its Annual Contract Tonnage, then DBCT Management may notify the User that it intends to appropriately reduce the User's Annual Contract Tonnage;
- (d) if the User considers that DBCT Management has not complied with the requirements of this clause in reducing the User's Annual Contract Tonnage, then the User may, within 21 days of receiving notice under clause 11.3(c), refer the matter to dispute resolution in accordance with clause 15;
- (e) DBCT Management must not implement a reduction in Annual Contract Tonnage until the expiration of the period for resolution of a dispute referred to in clause 11.3(d); and
- (f) if DBCT Management reduces the Annual Contract Tonnage under this clause 11.3 and the User has Non-Reference Tonnage and Reference Tonnage, the reduction must first be applied to the Non-Reference Tonnage.

11.4 Capacity to be taken into account only once

If the User notifies DBCT Management that the User is unable to, and forgoes its right to, Ship all or part of its Annual Contract Tonnage (the "**Notified Tonnage**") through the Terminal for any period (the "**Notified Period**"), then, for the purpose of charges otherwise payable by the User for the Notified Period, the User's Annual Contract Tonnage will be taken to be reduced by such part of the Notified Tonnage in respect of which DBCT Management grants additional annual contract tonnage to another Access Holder (for the same or comparable charges to those reduced under this clause) and which DBCT Management would not have been able to grant (due to lack of capacity) but for the User foregoing its right to Ship the Notified Tonnage through the Terminal.

11.5 Reduction in tonnes Handled where User fails to obtain rail access

- (a) Before the User is entitled to have coal Handled pursuant to this Agreement, it must produce evidence reasonably satisfactory to DBCT Management that the Annual Contract Tonnage under this Agreement is matched by an entitlement held by the User (or a person on its behalf) to railway track access relating to the coal the subject of this User Agreement:
 - (i) for the whole of the Term; or
 - (ii) for any relevant shorter period.
- (b) If the User only produces such evidence of access to railway track entitlement pursuant to clause 11.5(a)(ii) for a period shorter than the entire Term, it must continue to provide evidence of such access before the commencement of each successive period during the Term for which such evidence has not previously been produced, and the

provisions of clause 11.5(c) will apply in respect of each of the first and each successive such period during the Term.

- (c) To the extent the tonnage in respect of which the User is able to demonstrate an entitlement to railway track access for a relevant period is less than the Annual Contract Tonnage for that period, the Annual Contract Tonnage will (despite any other provisions of this Agreement):
- (i) be deemed to be reduced to that lesser tonnage, for all purposes relevant to the entitlement to have coal Handled at the Terminal pursuant to this Agreement during such period; but
 - (ii) will remain unchanged for all other purposes pursuant to this Agreement, and specifically for the purposes of the liability of the User to pay Access Charges and any other amount payable pursuant to this Agreement based on the actual Annual Contract Tonnage.
- (d) DBCT Management will in good faith make an assessment of the tonnage of coal able to be railed to the Terminal pursuant to an entitlement to railway track access (which would normally be expressed as a number of train paths for any relevant period) and (subject to clause 15) the tonnage so determined shall be the tonnage which is adopted for the purpose of comparison with the Annual Contract Tonnage for a period for the purposes of this clause 11.5.
- (e) Where a relevant period is not a whole Financial Year or not two or more whole Financial Years, references in this clause to Annual Contract Tonnage over that period will mean that part of the Annual Contract Tonnage which accrues over that period, assuming it accrues throughout each Financial Year in equal increments.

12. ASSIGNMENT

12.1 DBCT Management may assign

After consultation with the User, DBCT Management may assign all or any part of its benefits under this Agreement to any person who is responsible and has the expertise and financial capacity needed to operate and maintain the Terminal and comply with the obligations of DBCT Management under this Agreement.

12.2 User may assign

With the prior consent of DBCT Management, which consent will not be unreasonably withheld, a User may assign all or part of its rights or entitlements under this Agreement (including, in particular, all or part of its Annual Contract Tonnage) permanently or temporarily on the following basis:

- (a) the assignment will not be effective unless:- the assignee enters into a deed (prepared by DBCT Management at the expense of such assignee) with DBCT Management substantially in the form contained in Schedule 6 by which DBCT Management and the assignee agree to be bound by the terms, conditions and obligations of this Agreement or the assignee's User Agreement (as DBCT Management, acting reasonably, determines) in respect of the assigned rights or entitlements as if the assignee were the User in respect of those assigned rights and entitlements;
- (b) when the assignment takes effect, the User will be discharged from all terms, conditions and obligations of this Agreement (except to the extent that they accrued prior to the assignment) in respect of the rights and entitlements assigned; and

- (c) if the User assigns only part of its rights or entitlements to another person, this Agreement will be treated from that time as if it were only an Agreement in respect of the unassigned rights or entitlements.

For clarification, "assign" and "assignment" includes novation or variation to the parties' respective User Agreements.

12.3 Response to requests for consent to assignment by User

- (a) DBCT Management will not be required to consent to a proposed assignment of rights or entitlements under 12.2 (whether by way of assignment or novation), but DBCT Management must consent to any such proposed transfer unless DBCT Management (acting reasonably) is satisfied that:
- (i) the assignor is in material breach of this Agreement;
 - (ii) the assignee:
 - (A) is not of good financial standing, creditworthy and able to fully discharge the financial obligations of the Access Holder under the relevant Access Agreement or the assignee otherwise provides security in a form acceptable to DBCT Management (acting reasonably) for the performance of the obligations under this Agreement in respect of the transferred rights or entitlements;
 - (B) is incapable of performing the obligations of the Access Holder under the Access Agreement in respect of the transferred rights or entitlements, including complying with the Terminal Regulations; or
 - (C) is unable to reasonably demonstrate that the rights or entitlements to be transferred under the relevant Access Agreement are matched by an entitlement to railway track access held by the assignee or a person on its behalf.
- (b) The assignor must provide all information reasonably required by DBCT Management to assess the criteria specified in clause 12.3(a) to DBCT Management in a timely manner.
- (c) DBCT Management must take all steps necessary to assess and respond to any request for a transfer as soon as reasonably practicable.
- (d) An Access Holder or an Access Seeker may refer as a dispute to arbitration under clause 15 of this Agreement:
- (A) any refusal by DBCT Management to consent to a transfer;
 - (B) any failure to agree the reasonable terms governing an Access Agreement which is the subject of a transfer; and
 - (C) any failure by DBCT Management in assessing or responding to a request for transfer in a timely manner.

12.4 Change of control of User

- (a) The User must obtain DBCT Management's consent (not to be unreasonably withheld or delayed) to any Change of Control in the User. DBCT Management's consent may be subject to reasonable conditions (including the provision of reasonable security) and the User must comply with any conditions.

- (b) Any dispute in respect of the reasonableness of any refusal by DBCT to consent to a Change of Control, or of any conditions sought by DBCT Management under this clause 12.4, may be referred as a dispute under clause 15.

12.5 Permission to third party to Ship

With the prior consent of DBCT Management (which will not be unreasonably refused, particularly if the third party is another Access Holder), the User may permit a third party to Ship Coal through the Terminal treating that cargo as part of the User's Annual Contract Tonnage, without complying with clause 12.2. In such case:

- (a) the User will remain liable for the performance of its obligations under this Agreement in respect of all Coal so Handled, and for all purposes that Coal will be taken to be the Coal of the User Handled pursuant to this Agreement;
- (b) the User must give DBCT Management and the Operator a notice in the form of Schedule 7 (which will constitute a request for DBCT Management's consent) not less than 14 days prior to the scheduled departure of the relevant vessel, but DBCT Management must accept such shorter period of notice as causes no unreasonable adverse consequences to it, the Operator or other Access Holders;
- (c) the cargo must be made in accordance with the notice provided under clause 12.5(b) (provided that DBCT Management and the Operator do not refuse consent to the request made); and
- (d) the Product Shipment Notice attached to the Cargo Manifest provided by the User under clause 9.1 must disclose the name or names of any third party so using the User's Annual Contract Tonnage, and the tonnages of Coal so Handled for that third party.

13. REMEDIES

13.1 DBCT Management's remedies in the event of Delay

- (a) To the extent that the User is responsible for a Delay, or a Delay arises from events external to the Terminal, DBCT Management's remedies will be limited to its entitlement to payment of the charges provided for in clause 4 of this Agreement.
- (b) Nothing in this clause 13.1 precludes DBCT Management from applying for an injunction, declaration or specific performance in respect of the User's obligations under this Agreement.

13.2 User's remedies in the event of Delay

To the extent that the User is not responsible for a Delay and to the extent that a Delay does not arise from events external to the Terminal, the User's remedies against DBCT Management in respect of the Delay are limited as set out below:

- (a) If the Delay is a Permissible Delay, DBCT Management will have no liability to the User in respect of any Claim for Loss arising from the Delay;
- (b) If the Delay arises from Force Majeure affecting DBCT Management's ability to comply with its obligations, clause 13.3 applies;
- (c) If the Delay arises from Wilful Default by DBCT Management, clause 13.5 applies; and
- (d) In all other circumstances, and without prejudice to its right to dispute responsibility for the Delay, the User must continue to meet its payment obligations under clause 4 unless and until the adjudication of an arbitrator, order of the Court or agreement between the parties, determines responsibility for the Delay, in which case clause 13.4 applies.

Nothing in this clause 13.2 precludes the User from applying for an injunction, declaration or specific performance in respect of DBCT Management's obligations under this Agreement.

13.3 Force Majeure

- (a) If DBCT Management is affected by an event of Force Majeure, such that it will be unable to fulfil all or part of its obligations under the Agreement (the "**Affected Obligations**"), and anticipates Delays exceeding 48 hours, it must notify the User within 7 days after the occurrence of the event, providing full details of:
 - (i) the Affected Obligations and Delays expected;
 - (ii) the action that DBCT Management has taken and proposes to take to remedy the situation; and
 - (iii) DBCT Management's estimate of the time during which it will be unable to carry out the affected obligations due to the event of Force Majeure.
- (b) DBCT Management's Affected Obligations under this Agreement shall be suspended (without it being in default) to the extent of and for the period that the performance of such obligations are affected by an event of Force Majeure, provided that it complies with clause 13.3(c). However, the User's obligations to pay the Charges in clause 4 will not abate during a period where DBCT Management is affected by an event of Force Majeure.
- (c) DBCT Management must:
 - (i) use all reasonable efforts (including the expenditure of reasonable sums of money) to mitigate the effect of the event of Force Majeure upon its performance of this Agreement; and
 - (ii) keep the User informed (not less than fortnightly) of the steps being taken to mitigate the effect upon the performance of this Agreement, including an estimate of the continued duration of the Delay.

13.4 User's rights for Delays attributable to other circumstances

In the circumstances in clause 13.2(d), DBCT Management's liability to the User is limited to:

- (a) the Third Party Amount; plus
- (b) if the adjudication of an arbitrator, order of a court or agreement between the parties determines that the Delay was at least 66% DBCT Management's Personal Responsibility, and to the extent that there is any shortfall in the recovery by the User of its Direct Loss from the Third Party Amount - the User's Direct Loss in respect of the Delay, but not exceeding the percentage of the User's Direct Loss equivalent to the percentage of DBCT Management's Personal Responsibility.

13.5 Wilful Default by DBCT Management

If a Delay is caused by Wilful Default by DBCT Management, the User:

- (a) is relieved to that extent of any corresponding payment obligations under clause 4;
- (b) may terminate this Agreement pursuant to clause 14.3; and
- (c) may sue DBCT Management for damages for breach of contract.

13.6 Long Term Delays

- (a) This clause 13.6 sets out certain rights and obligations of the parties in respect of Delays, including Long Term Delays. This clause 13.6 is:

- (i) in addition to, and does not limit any other provision of this Agreement; and
 - (ii) does not limit or affect any other right which a party may have against another party in respect of an act or omission of the other party.
- (b) If Loss, damage or destruction occurs in respect of the Terminal, DBCT Management must promptly claim and thereafter promptly apply all relevant available insurance proceeds towards reinstatement of the damaged property, unless (having regard to factors such as the reasonably foreseeable ongoing needs for Handling at the Terminal) DBCT Management considers that reinstatement is not in the interests of stakeholders and no less than 60% of Access Holders (by tonnage) and DBCT Holdings all agree that reinstatement should not occur.
- (c) If Long-Term Delays occur, such that the capacity of the Terminal (as demonstrated by its performance) on a sustained on-going basis is less than 95% of the Aggregate Annual Contract Tonnage at that time (the difference being referred to as the "Shortfall"), then DBCT Management must undertake an Expansion of the Terminal sufficient to eliminate the Shortfall if (and on the same basis as) DBCT Management would have been obliged under the terms of the Access Framework (in particular considering sections 11.3, 11.4, 11.7, and 11.8 of the Access Framework) to undertake an Expansion had the amount of the Shortfall been the annual contract tonnage sought by new Access Seekers whose offers to enter into User Agreements prima facie triggered the requirement for an Expansion. For clarification, DBCT Management will not be obliged to undertake an Expansion under this Agreement:
- (i) if such Expansion is unreasonable and uneconomic pursuant to section 11.7 of the Access Framework; or
 - (ii) if section 11.8 of the Access Framework applies.
- (d) If at any time:
- (i) the capacity of the Terminal on a sustained ongoing basis is reduced to the order of 10%, or less, of the Aggregate Annual Contract Tonnage of all Access Holders at the time;
 - (ii) the reduction of capacity referred to in clause 13.6(d)(i) above, is not attributable to an act or omission of the User; and
 - (iii) DBCT Management does not, within a reasonable time after a written request by the User to do so ("reasonable" being assessed according to the extent of works needed to redress the situation), commence and expeditiously proceed with the works necessary to reinstate the Terminal to a capacity sufficient to meet the reasonably expected sustained ongoing demand for Handling of Coal (whether or not DBCT Management has an obligation to undertake such works),

the User may terminate this Agreement, on giving not less than 30 days' notice to DBCT Management to that effect in writing. Neither party will be liable to the other arising from such a termination (other than a liability which arises prior to the date of termination).

13.7 Limitation period for notice of Claims by User

- (a) The User shall not be entitled to make any Claim against DBCT Management in respect of any Delay unless written notice of the Claim specifically reserving the User's rights under clause 13.2 has been given to DBCT Management by the date 4 months after the end of the Financial Year in which the Delay first occurred (or, if a material fact of a decisive character relating to the right to Claim against DBCT Management was not

within the means of knowledge of the User until after that time, within 2 months of the date on which the User first becomes aware of that material fact). Any subsequent Loss arising directly or indirectly from the cause of the first occurrence may be included in the Claim without further notice being given, but a separate notice must be given for each different and unrelated cause from which it is alleged a Claim arises.

- (b) This clause 13.7 does not apply to a Claim to the extent that it is made under clause 13.6.

14. TERMINATION

14.1 Suspension

If the User is in default in the due and punctual performance of an obligation under this Agreement and:

- (a) in respect of the User's default of an obligation to pay money or to provide any Security required pursuant to clause 29, such default has not been remedied within 30 days after DBCT Management has given written notice to the User of the default; or
- (b) in respect of the User's default of a material obligation (other than an obligation to pay money or provide Security), such default has not been remedied, or the User has not expeditiously commenced to remedy it, within 60 days after DBCT Management has given written notice to the User of the default,

then, without prejudice to DBCT Management's other rights under this Agreement, DBCT Management may (by written notice to the User pursuant to this clause) suspend the User's rights to have its Coal Handled under this Agreement until payment (including interest under clause 5.2) is made, Security is provided or the other relevant default is remedied or commenced to be expeditiously remedied. If such suspension occurs, the User's obligations based on its Annual Contract Tonnage (for example charges based on those amounts) will be unchanged, but DBCT Management's obligations to Handle those amounts for the relevant Financial Year will be reduced proportionately.

14.2 Termination by DBCT Management

Subject to clause 14.5, if DBCT Management has duly given notice that it has suspended the User's rights to have its Coal Handled (but not the User's obligations) under this Agreement pursuant to clause 14.1 and if the default still has not been remedied after a further period of 14 days from the notice of suspension, DBCT Management may terminate this Agreement forthwith by further notice to the User pursuant to this clause.

14.3 Termination by User

Subject to clause 14.5, the User may terminate this Agreement by written notice to DBCT Management as follows:-

- (a) if DBCT Management is in default in the due and punctual performance of an obligation to pay money under this Agreement and such default has not been remedied for a period of 30 days after the User has given to DBCT Management written notice specifying the default and requiring the default to be remedied; or
- (b) if DBCT Management is in default in the due and punctual performance of a material obligation under this Agreement (not being an obligation to pay money or a Delay) and such default has not been remedied or DBCT Management has not expeditiously commenced to remedy such default within a period of 60 days after the User has given to DBCT Management written notice specifying the default and requiring the default to be remedied.

14.4 Abandonment of Coal on termination

The User must remove any of its Coal remaining in the Terminal within three months from the termination of this Agreement, whether by expiry or otherwise, failing which the Coal will be deemed abandoned.

14.5 Disputes about defaults

If an event or circumstance is alleged to constitute a default referred to in clause 14.2 or clause 14.3 and is the subject of a dispute under clause 15, then DBCT Management or the User (as applicable) shall not exercise any right to suspend or terminate this Agreement unless and until the default has not been rectified within a reasonable time (being not less than 14 days) after the end of the resolution process in clause 15.

15. GOVERNING LAW AND DISPUTE RESOLUTION

[Drafting Note: Consequential amendments to the dispute resolution provisions in this clause 15 may be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

15.1 Governing law

This Agreement is governed by the laws in force in the State of Queensland.

15.2 Disputes

- (a) **(Disputes under this Agreement)** If a dispute between DBCT Management and the User arises out of or in connection with this Agreement, then, unless otherwise agreed by the parties in writing, such dispute will be resolved in accordance with this clause 15. Either party may give to the other party a notice of dispute in writing identifying and providing details of the dispute.
- (b) **(Disputes under the Framework)** If any dispute or question arises under the Framework, or in relation to the negotiation of Access between an Access Seeker or Access Holder and DBCT Management, such dispute will be resolved in the manner specified in the Framework.
- (c) **(Dispute under Deed Poll)** The courts of Queensland have exclusive jurisdiction to determine any dispute arising under the Deed Poll.

15.3 Further steps required before arbitration

- (a) Subject to clause 15.5, no party may commence arbitration in respect of any dispute notified or notifiable under this clause 15 until that party has complied with the requirements of this clause 15.3.
- (b) Within 14 days after service of a notice of dispute, the senior executives of DBCT Management and the User (or people for the time being acting in that role) must confer at least once to attempt to resolve the dispute, and failing resolution of the dispute to consider and if possible agree on methods of resolving the dispute by other means.

If the dispute cannot be so resolved after a further period of 14 days or if at any time either DBCT Management or the User considers that the other party is not making reasonable efforts to resolve the dispute, either party may refer such dispute to arbitration in accordance with clause 15.4.

15.4 Arbitration procedure

- (a) Any disputes that are not otherwise resolved in accordance with this clause 15 will be submitted to arbitration in accordance with, and subject to, the Resolution Institute Arbitration Rules (**Rules**).
- (b) The arbitration must be effected by a single suitably qualified and experienced arbitrator who is either:
 - (i) agreed upon between the parties; or
 - (ii) in default of such agreement within 10 days after the dispute is referred to arbitration, nominated by the Resolution Institute.
- (c) Any party to the arbitration may be represented before the arbitrator by a member of the legal profession without the need for leave of the arbitrator.
- (d) Any arbitration commenced under this Agreement may be consolidated with any other arbitration commenced under:
 - (i) this Agreement; and / or
 - (ii) the Framework (or any agreement referred to in the Framework),
 regardless of the parties involved, provided that the issue(s) which each arbitrator has been asked to determine concern common questions of fact or law. Such consolidated arbitration shall be determined by the arbitrator appointed for the arbitration proceeding that was commenced first in time.
- (e) The venue for any arbitration will be Brisbane, Queensland.
- (f) Unless otherwise determined by the arbitrator, the costs of the arbitration shall be paid by the unsuccessful party.

15.5 Interlocutory relief

This clause 15 does not prevent any party from seeking urgent interlocutory or declaratory relief from a court of competent jurisdiction.

15.6 Dispute not to affect performance of obligations

The parties are not relieved from performing their obligations under this agreement because of the existence of a dispute.

16. WARRANTIES

[Drafting Note: Consequential amendments to this clause 16 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

16.1 Warranties by DBCT Management

DBCT Management agrees and acknowledges that:

- (a) Subject to:
 - (i) an event of Force Majeure;
 - (ii) Maintenance Work; and
 - (iii) any decision to cease or reduce Maintenance Work for a component of the Terminal on the basis that it is more cost-efficient to replace it and it is to be replaced,

- each Terminal Component will be maintained to be available to operate to at least its rated design capacity;
- (b) it will ensure that the Terminal is maintained in accordance with Good Operating and Maintenance Practice;
 - (c) it will consult with the User in relation to the appointment of any replacement Operator of the Terminal and will promptly on request negotiate amendments to this Agreement to reflect the terms of any new Access Framework, from the time (should it occur) that Dalrymple Bay Coal Terminal Pty Ltd ceases to be the Operator;
 - (d) DBCT Management will not differentiate Access Charges between Access Holders or between Access Holders and Access Seekers, other than:
 - (i) to reflect differences in cost (direct or indirect) or risks to DBCT Management of providing access to Services; or
 - (ii) as otherwise permitted or required by the Access Framework (including for the avoidance of doubt, Differentiation based pricing);
 - (e) the User will (at no charge, but at its own cost) be granted reasonable access to the Terminal for reasonable purposes, including customer goodwill inspections, performance of shipping agent functions, Coal sampling and User inspections of Operations, provided that on each occasion the User complies with the Operator's site rules, DBCT Management's reasonable visitor notification requirements and the User is accompanied by an authorised person at such times while on the Terminal site as DBCT Management or the Operator reasonably requires (provided that they make such a representative available, having been given reasonable notice by the User).

16.2 Warranties by the parties

Each party warrants to the others that it has the requisite power to enter into this Agreement from the Execution Date.

17. USER COMMITTEE AND IMPROVEMENT PROGRAM

17.1 Participation in User Committee

DBCT Management and the User agree to participate in a committee consisting of one representative of each of DBCT Management, the Operator and each Access Holder (the "**User Committee**").

17.2 Terms of reference of User Committee

The User Committee is established for the following purposes:

- (a) to provide a forum for consultation between all participants on matters relating to the operation and performance of the Terminal, including (without limitation) any factors relating to any participant which may impact on the future performance or efficiency of the Terminal;
- (b) to enable consultation between all participants on current and planned Terminal facilities, including all proposals for any enhancement of the Terminal; and
- (c) to consult on matters relating to the Terminal Regulations, including (without limitation) any proposed changes to the Terminal Regulations.

17.3 Frequency of meetings

DBCT Management and the User acknowledge that it is intended that the User Committee meet on a Quarterly basis and at such further times as participants in the User Committee agree.

17.4 Representation

DBCT Management and the User will each appoint, and acknowledge that each other prospective member of the User Committee is entitled to appoint, a person to represent its respective interests on the User Committee (each a "**Representative**"). If a Representative is not available to attend a meeting of the User Committee, the relevant member of the User Committee may nominate an alternate person to represent its interests at the User Committee.

17.5 Chairperson

The User agrees that the Representative appointed by DBCT Management will act as chairman of the User Committee.

17.6 Role of the Operator

DBCT Management must, as far as the Operation & Maintenance Contract allows, procure that the Operator provides appropriate support to the User Committee, including the provision of any relevant operational reports, as the User Committee may reasonably request the Operator to provide from time to time.

18. NOT USED

19. EXPANSION TONNES

[A Conditional Access Agreement in which all or part of the Annual Contract Tonnage does not apply until an Expansion (the 'Current Expansion') has occurred, in circumstances where that Expansion will form part of the Terminal under this Agreement once completed, will include a clause, an outline of terms of which are as follows:]

- (a) Subject to clause 19(e), the Annual Contract Tonnage will be [increased by] [*insert*] Mtpa for the period commencing on the first day of the Month following completion and successful commissioning of the Current Expansion until the end of that Financial Year, and thereafter in each subsequent Financial Year. The target date for this to occur is [*insert*].
- (b) DBCT Management must provide at least monthly progress reports to the User in relation to the Current Expansion and such further progress reports as may reasonably be required as the Current Expansion nears completion.
- (c) DBCT Management's obligation to commence Handling, and the User's obligation to commence paying charges, in respect of the additional Annual Contract Tonnage arising out of the Current Expansion or any part thereof (as applicable) only begins on the first day of the Month following the date that DBCT Management gives the User a notice that the User is:
 - (i) awarded the additional Annual Contract Tonnage or any part thereof (as applicable); and
 - (ii) entitled to have the additional Annual Contract Tonnage or any part thereof (as applicable) handled at the Terminal.
- (d) DBCT Management must use reasonable endeavours to have the Current Expansion completed as close as practicable to the target date referred to in clause 19(a), but it will

not be required to expend additional amounts to overcome delays caused by third parties or otherwise beyond the reasonable control of DBCT Management.

- (e) DBCT Management will proportionately reduce the Annual Contract Tonnage under this Agreement and the annual contract tonnages under all other User Agreements entered into with the intention of utilising additional capacity arising out of the Current Expansion, if the actual Terminal Capacity following completion of the Current Expansion is less than the estimate of (expanded) Terminal Capacity made at the time this Agreement was entered into. That reduction will be by the proportion which the additional Terminal Capacity resulting from the Current Expansion as estimated at the time this Agreement was entered into bears to the actual additional Terminal Capacity arising from the Current Expansion. In relation to:
- (i) Socialised Terminal Capacity, the allocation of proportionately reduced capacity will occur after first deducting any capacity required from the Current Expansion to "make up" any shortfall between already existing aggregate annual contract tonnages and actual Terminal Capacity which existed prior to the Current Expansion; and
 - (ii) Differentially Priced Capacity resulting from the Current Expansion will be allocated to meet the full entitlements under this Agreement and any other User Agreements associated with the Differentially Priced Capacity.

20. OPTIONS

If the period during which Coal is to be Shipped during the Term is 10 years or more, the following clauses apply:

- (a) The User has an option to extend the Term for 5 years or more (or a lesser period, if it coincides with an expected end-of-mine-life), as nominated by the User at the time of exercise, exercisable at any time up to 12 months prior to the end of the Term (including the Term as already extended by the exercise of an option under this clause 20(a) for 5 years or more).
- (b) If DBCT Management receives an Access Application for additional capacity which cannot be met without a Terminal Capacity Expansion if the option in clause 20(a) and other relevant options are exercised, it may notify the User, requiring it to respond within 90 days, either exercising the option in clause 20(a) in respect of all or part of an extended Term and/or tonnage the subject of the option, or waiving it.
- (c) DBCT Management must give notices under clause 20(b) to relevant Access Holders with options, in order of the earliest expiring User Agreement, for the purposes of deciding which option date is to be accelerated first. Where an Access Holder/s with the earliest expiring date exercise/s its/their option by the accelerated date, DBCT Management may then go to the next Access Holder/s in order of expiring agreements until there has been a waiver of sufficient options to ensure that the bona fide request can be accepted without the necessity for a Terminal Capacity Expansion. Access Holders whose terms expire within 6 months of each other will, for the purposes of this clause 20, be deemed to have terms which expire on the same date, and must be given notices at the same time.
- (d) Where more than one Access Holder has tonnages which expire (or which are deemed to expire) on the same date, those Access Holders which do not exercise their accelerated option will lose the amount of tonnes the subject of the option proportionately with their respective annual contract tonnages immediately prior to the end of the current term. (For example, if a bona fide request for 5 Mtpa is received and Access Holders with 10, 5, 2 and 3 Mtpa of contracted tonnages do not exercise their

options, then the options for those Access Holders will be reduced by 2.5, 1.25, 0.5 and 0.75 Mtpa respectively).

- (e) If the Access Application referred to in clause 20(b) is not converted into a User Agreement within 3 months after the above process is completed, the status quo existing before notice from DBCT Management will be re-instated (i.e. options will not be taken to have been forfeited merely because the accelerated date for exercise has not been complied with, and any accelerated exercise of an option will be taken not to have occurred).

21. GST

- (a) Any reference in this clause to a term defined or used in the A New Tax System (Goods and Services Tax) Act 1999 is, unless the context indicates otherwise, a reference to that term as defined or used in that Act.
- (b) Unless expressly included, the consideration for any supply made under or in connection with this Agreement does not include an amount on account of GST in respect of the supply ("**GST Exclusive Consideration**") except as provided under this clause.
- (c) Any amount referred to in this Agreement (other than an amount referred to in clause 21(f)) which is relevant in determining a payment to be made by one of the parties to the other is, unless indicated otherwise, a reference to that amount expressed on a GST exclusive basis.
- (d) To the extent that GST is payable in respect of any supply made by a party ("**Supplier**") under or in connection with this Agreement, the consideration to be provided under this Agreement for that supply (unless it is expressly stated to include GST) is increased by an amount equal to the GST Exclusive Consideration (or its GST exclusive market value if applicable) multiplied by the rate at which GST is imposed in respect of the supply.
- (e) The recipient must pay the additional amount payable under clause 21(d) to the Supplier at the same time as the GST Exclusive Consideration is otherwise required to be provided.
- (f) Whenever an adjustment event occurs in relation to any taxable supply made under or in connection with this Agreement the Supplier must determine the net GST in relation to the supply (taking into account any adjustment) and if the net GST differs from the amount previously paid under clause 21(d), the amount of the difference must be paid by, refunded to or credited to the recipient, as applicable.
- (g) If one of the parties to this Agreement is entitled to be reimbursed or indemnified for a Loss, cost, expense or outgoing incurred in connection with this Agreement, then the amount of the reimbursement or indemnity payment must first be reduced by an amount equal to any input tax credit to which the party being reimbursed or indemnified (or its representative member) is entitled in relation to that Loss, cost, expense or outgoing and then, if the amount of the payment is consideration or part consideration for a taxable supply, it must be increased on account of GST in accordance with clause 21(f).

22. NOTICES

22.1 Notices and other communications

All notices and other communications provided for or permitted under this Agreement must be in writing and must be given by mail, or facsimile transmission as follows:-

(a) if to DBCT Management, to:-

Address: Level 15, 1 Eagle Street, Brisbane, Qld 4000

Attention: Chief Executive Officer

Fax No.: 07 3002 3101

Email: anthony.timbrell@dbctm.com.au

(b) if to the User, to it at the address set out in Schedule 1,

or to such other address or person as either party may specify by notice in writing to the other.

22.2 Deemed to have been given or made

All such notices or communications are deemed to have been duly given or made:-

- (a) on the date upon which the notice or communication would, in the ordinary course of the post, have been delivered to the address to which it was posted;
- (b) when delivered; or
- (c) if sent by facsimile transmission, at the conclusion of an apparently successful transmission,

but if the delivery or facsimile is effected on a day that is not a Business Day or after 5pm in the place of receipt on a Business Day, it will be taken to have been given or made on the next Business Day.

23. SURVIVAL OF REMEDIES

The remedies of the parties arising by law, by the terms of this Agreement or otherwise are cumulative and will survive the termination of this Agreement by effluxion of time or otherwise.

24. WAIVER

A waiver by either party of any default in the strict and literal performance of or compliance with any provision of this Agreement will not be deemed to be a waiver of strict and literal performance of and compliance with any other provision of this Agreement nor to be a waiver of, or in any manner release the other party from, strict compliance with any provision, in the future nor will any delay or omission of either party to exercise any right under this Agreement in any manner impair the exercise of any such right accruing to it thereafter.

25. COSTS

Whether or not any of the transactions contemplated by this Agreement are consummated, each party must pay its own fees and expenses of and incidental to the negotiation, preparation and execution of this Agreement. The User will pay on demand any stamp duty payable on this Agreement.

26. ENTIRE AGREEMENT

26.1 Full and Complete Understanding

This Agreement constitutes the full and complete understanding between the parties with respect to the subject matter of this Agreement. There is no other oral understanding, agreement, warranty or representation whether express or implied in any way extending, defining or otherwise relating to the provisions of this Agreement or binding on the parties with respect to any of the matters to which this Agreement relates.

26.2 No inducement

Each of the parties covenants and irrevocably acknowledges that it has not been induced to enter into this Agreement by any statement, warranty, representation, understanding, act, omission, fact, matter, thing or conduct by or on behalf of any person including the other party, other than as expressly recorded in this Agreement.

26.3 Provision is to remain in full force and effect

The provisions of this clause 26 will operate and remain in full force and effect. No other fact, matter or circumstance, including breach of the provisions of the *Competition and Consumer Act 2010* (Cth) by a party to this Agreement, will interfere with or in any way derogate from the operation and effect of this clause.

27. SEVERANCE

If any term of this Agreement is for any reason acknowledged by the parties, or adjudged by a court of competent jurisdiction or held by any competent government authority to be invalid, illegal or unenforceable, such term or provision will be severed from the remainder of the provisions of this Agreement and will be deemed never to have been part of this Agreement and the remainder of the provisions of this Agreement will subsist and remain in full force and effect, unless a basic purpose or purposes of this Agreement would thereby be defeated.

28. JOINT VENTURE LIABILITY

[insert as relevant]

28.1 Definitions

In this clause:

- (a) “**Financial Obligation**” means an obligation of a party under or arising out of this Agreement to pay or cause to be paid an amount of money, including a liability for damages for a breach of a Performance Obligation;
- (b) “**Joint Venture**” means the joint venture between the Joint Venturers, details of which are set out in Item 3 of Schedule 1;
- (c) “**Joint Venture Percentage**” means the respective percentage interest of each Joint Venturer in the Joint Venture, as set out in Item 3 of Schedule 1;
- (d) “**Joint Venturers**” means each of the entities set out in Item 3 of Schedule 1 as holding a Joint Venture Percentage.
- (e) “**Performance Obligation**” means any obligation of a party arising under this Agreement, other than a Financial Obligation.

28.2 User agent for Joint Venturers

- (a) The User enters into this Agreement as agent for and on behalf of the Joint Venturers, and the User warrants that it is duly authorised to do so.
- (b) The User will not be personally liable under this Agreement in its capacity as agent for the Joint Venturers.

OR

[Joint Venturers comprise a single party]

The Joint Venturers comprising the User will be a single party to this Agreement, but their respective rights against and liabilities to DBCT Management and DBCT Guarantor will be determined in accordance with this clause 28.]

28.3 Financial Obligations of Joint Venturers are several

Subject to clauses 28.4 and 28.5 (and any other provision of this Agreement which may expressly provide otherwise), the liability of each Joint Venturer in respect of each Financial Obligation of the User is several, and each Joint Venturer will only be liable for an amount owing by the User equivalent to its Joint Venture Percentage of that amount.

28.4 Rights and Performance Obligations of Joint Venturers are joint

- (a) Each right of the User under this Agreement can only be exercised by the User or by ~~the User or by~~ *[delete highlighted words where the Joint Venturers are all signatories in their own right]* the Joint Venturers jointly.
- (b) Each Joint Venturer will be jointly liable in respect of each Performance Obligation of the User (other than any Performance Obligation expressed to be imposed on an individual Joint Venturer).

28.5 Individual Joint Venturer default

- (a) If:
 - (i) a Joint Venturer defaults in respect of the performance of a Financial Obligation of the User;
 - (ii) the other Joint Venturers are not in default in respect of that Financial Obligation; and
 - (iii) *[where there is a single User, as agent for the Joint Venturers]* the User gives a notice to DBCT Management, copied to the defaulting Joint Venturer, identifying the defaulting Joint Venturer and its default,

OR

- (iv) *[where the Joint Venturers are all signatories in their own right]* the other Joint Venturers give a notice to DBCT Management, copied to the defaulting Joint Venturer, identifying the defaulting Joint Venturer and its default,

then that defaulting Joint Venturer (unless it disputes the default in writing to DBCT Management within 7 days of receiving a copy of the notice) will be solely liable, to the extent of the default, in the performance of that Financial Obligation.

- (b) Any notice given pursuant to clause 28.5(a)(iii) and not disputed by the defaulting Joint Venturer within the time prescribed is conclusive evidence that the defaulting Joint Venturer specified in the notice is in default to the extent stated and the notice binds all parties unless and until revoked or amended by the User.
- (c) If more than one (but not all) Joint Venturers default and are subject to a notice under clause 28.5(a)(iii), they will be severally liable in proportion to their respective relevant Joint Venture Percentages.
- (d) Nothing in this clause 28 affects DBCT Management's rights under clauses 14.1 and 14.2 of this Agreement.

28.6 Clarifications

For clarification:

- (a) any assignment by a Joint Venturer of any part of its Joint Venture Percentage in respect of this Agreement will be an assignment to which clause 12.2 applies, but in such a case references in that clause to the "User" and "assignee" respectively will be taken to refer only to the relevant Joint Venturer and the intended assignee from it;
- (b) any assignment by the User which is merely the substitution of a new agent for the Joint Venture (where there is no change in the Joint Venturers or the Joint Venture Percentages) will be consented to by DBCT Management unless it has reasonable grounds to object to the proposed new agent (for example, it is insolvent or has a history of default).

29. GUARANTEES OF USER

29.1 User to provide Security [*insert if provision of security is a condition precedent*]

[**Notwithstanding clause 2**], it is a condition precedent to this Agreement that the User must provide to DBCT Management, the Security in Schedule 8, effective not later than the Effective Date, to secure the obligations of the User to DBCT Management under this Agreement.

29.2 Failure to provide Security [*insert if relevant*]

If the User does not provide the Security referred to in clause 29.1, then this Agreement will have no force or effect.

29.3 Guarantee if User does not remain in good financial standing

- (a) If after the Execution Date:
 - (i) the User applies to DBCT Management to increase the Annual Contract Tonnage;
 - (ii) in the reasonable opinion of DBCT Management, there is a likelihood that the User (or, if applicable, a provider of Security) may have ceased or will cease to be reputable or of good financial standing; or
 - (iii) a Security previously given in connection with this Agreement is due to expire within 90 days,

the User must provide such information to DBCT Management as may be reasonably requested by DBCT Management by notice to establish that the User (or, as applicable, a provider of Security) is reputable and of good financial standing. DBCT Management must keep any such information in the strictest confidence, except that DBCT Management may disclose such information on a confidential basis to its financiers and consultants who require such information to assess the solvency and creditworthiness of the User or provider of Security.

- (b) If, after the Execution Date, in the reasonable opinion of DBCT Management:
 - (i) the User (or, as applicable, a provider of Security) has ceased to be reputable or of good financial standing with the capability to fulfil all of its obligations under (or in respect of) this Agreement; or
 - (ii) [*where this Agreement concerns Access to a Differentiated Expansion Component*] there is a materially increased risk that the circumstances in 29.3(b)(i) will occur prior to the earlier of the Terminating Date and the end of the Term,

then the User must provide, within 20 Business Days after written notice from DBCT Management, to DBCT Management, a Security which:-

- (iii) secures (to an extent reasonable in the circumstances) the obligations under this Agreement of the User to DBCT Management;
 - (iv) is from an entity which, in the reasonable opinion of DBCT Management, is reputable and of good financial standing and with the capability to fulfil or cause the fulfilment of all of the financial obligations of the User under this Agreement; and
 - (v) is in a form, and for an amount and period, satisfactory to DBCT Management (acting reasonably).
- (c) If the User does not provide such Security within 20 Business Days of receiving such written notice from DBCT Management, then the User will be in breach of a material obligation under this Agreement.
- (d) The User is entitled to dispute a conclusion by DBCT Management on which a notice under clauses 29.3(a) or 29.3(b) is based.

29.4 Request to remove or reduce Security

- (a) If the User has provided a Security pursuant to this clause 29 and considers that its financial circumstances have improved or any other relevant circumstances have changed since the provision of the Security, it may request DBCT Management to release or reduce the Security.
- (b) The User must provide to DBCT Management such evidence of its financial circumstances, or other relevant circumstances, as DBCT Management reasonably requests, before DBCT Management is obliged to consider the request.
- (c) DBCT Management must not unreasonably refuse any such request, but it may have regard to (amongst other things) the circumstances in which the Security was originally provided, changes in circumstances since that time, and any reasonable custom and practice of DBCT Management in respect of requiring security from new Access Holders.

30. GUARANTEE OF DBCT MANAGEMENT'S OBLIGATIONS

30.1 Guarantee

DBCT Guarantor irrevocably and unconditionally guarantees to the User on demand payment of all amounts payable by DBCT Management under or arising out of this Agreement (including all amounts for which DBCT Management may become liable in respect of any breach of this Agreement).

30.2 Unconditional nature of guarantee

DBCT Guarantor agrees that DBCT Guarantor's obligations under this Agreement are unconditional (irrespective of the validity, regularity or enforceability of any provision of this Agreement or the absence of any action to enforce the same or the waiver or the consent of the User in respect of any provision of this Agreement or the recovery of any judgment against DBCT Management or any action to enforce the same or any variation of the terms of this Agreement or any other dealings, transactions or arrangements between the User and DBCT Management or other circumstances which might otherwise constitute a legal or equitable discharge of or defence to a surety). This guarantee shall be a continuing guarantee which shall not be discharged except by a complete performance of all obligations of DBCT Management under this Agreement.

30.3 Guarantee not affected by changed circumstances

The liability of DBCT Guarantor under this Agreement will not be lessened, affected or impaired by any time or indulgence granted to DBCT Management by the User or any dealings or transactions between the User and DBCT Management (whether or not DBCT Guarantor is a party or cognisant of the same) or by the dissolution of DBCT Management or any change in the status, functions, control or ownership of DBCT Management or any consolidation, merger, conveyance or transfer by DBCT Management or any waiver, variation or novation of this Agreement or other dealings, transactions or arrangements between the User and DBCT Management which might otherwise constitute a discharge to a surety.

30.4 Capacity of DBCT Guarantor

- (a) DBCT Guarantor enters into this Agreement as trustee of the DBCT Trust and in no other capacity.
- (b) Any liability of DBCT Guarantor arising from this Agreement can be enforced against DBCT Guarantor only to the extent to which it can be satisfied out of the property of the DBCT Trust and out of which the DBCT Guarantor is actually indemnified for the liability. This provision applies despite any other provision of this Agreement.
- (c) A person entitled to the benefit of this Agreement may not sue DBCT Guarantor personally or seek the appointment of a liquidator, administrator, receiver or similar person to DBCT Guarantor personally or prove any liquidation, administration or arrangement of or affecting DBCT Guarantor personally.
- (d) The provisions of this clause 30.4 do not apply to any obligation or liability of DBCT Guarantor to the extent that it is not satisfied because under its constitution or deed of trust or by operation of law there is a reduction in the extent of DBCT Guarantor's indemnification over the assets of the DBCT Trust, as a result of DBCT Guarantor's fraud, negligence, breach of trust or breach of duty.
- (e) All of the provisions of this clause 30 are subject to this clause 30.4.

31. LIMITATIONS TO LOSSES AND DAMAGES

31.1 No indirect Loss or Consequential Loss

Notwithstanding any other provision of this Agreement, DBCT Management is not liable to the User for any indirect Loss or Consequential Loss.

SCHEDULE 1 - REFERENCE SCHEDULE

Item	Reference	Definition/Details								
1	DBCT Management	DBCT Management Pty Limited ABN 16 097 698 916								
2	DBCT Guarantor	DBCT Investor Services Pty Ltd ABN 11 052 156 082 as trustee for the DBCT Trust								
3	User	<i>[Insert name, address for notices and contact details]</i>								
4	Execution Date									
5	Effective Date									
6	Term	[] years* (* note: if this Agreement provides for the Shipping of Coal for 10 years or more the Option and rolling 12 month extension process in Clause 20 applies)								
7	Annual Contract Tonnage	<table> <thead> <tr> <th>Year</th> <th>Tonnage</th> </tr> </thead> <tbody> <tr> <td>20xx</td> <td>AAA</td> </tr> <tr> <td>20yy</td> <td>BBB</td> </tr> <tr> <td>20zz etc</td> <td>CCC</td> </tr> </tbody> </table>	Year	Tonnage	20xx	AAA	20yy	BBB	20zz etc	CCC
Year	Tonnage									
20xx	AAA									
20yy	BBB									
20zz etc	CCC									
8	Terminal Component	<p><i>[For an Agreement which is entered by an Expansion Party in respect of one or more Expansion Component(s) only, insert details of the Expansion Component(s)]</i></p> <p><i>[For an Agreement which is entered in respect of the Existing Terminal (excluding Expansion Components), identify the Existing Terminal excluding any Expansion Components]</i></p>								

SCHEDULE 2 - CALCULATION OF CHARGES - PLACEHOLDER

[Drafting Note: Please refer to Appendix 7 of DBCTM's submission, which sets out the pricing framework. Drafting to give effect to the pricing framework is being developed and this schedule will be updated to reflect the pricing framework.]

SCHEDULE 3 - SERVICES

1. **Train scheduling**

DBCT Management must (subject to availability of trains and factors beyond its control) co-ordinate cargo assembly windows at the terminal to receive Coal parcels and provide train operators and Users with details of cargo receipt windows suitable for terminal acceptance of trains and ensure sufficient unloading capacity is made available at the Terminal, to allow each Access Holder to ship its Annual Contract Tonnage of Coal in each Financial Year.

2. **Train unloading**

If a train carrying an Access Holder's Coal arrives at the Terminal within its designated cargo build window, DBCT Management must ensure that the train is unloaded at a rate (consistent with the type and condition of the Coal) consistent with achieving Handling of the Annual Contract Tonnage of Coal for an Access Holder.

3. **Reclaiming and vessel loading**

DBCT Management must:

- (a) make the Terminal available for berthing by vessels (which are satisfactory in all respects to receive Coal) nominated by the User, such that not less than the Annual Contract Tonnage can be Handled by DBCT Management in each Financial Year (as long as the vessel and/or cargo mix required by the User or its customer does not unreasonably impact on the efficiency of the Terminal). It is agreed that historical vessel or cargo mixes prior to 30 June 2005 will be taken generally not to have unreasonably impacted on efficiency; and
- (b) load the User's Coal into a vessel which is nominated by the User and is available for loading so as to achieve the objective in section 3(a).

4. **Incidental services**

DBCT Management must provide the following services, incidental to Coal handling (unless provided directly by the Operator):

- sampling and survey services;
- vessel monitoring;
- co-ordination with ships' agents, masters, customers and other relevant entities;
- crew disembarkation services; and
- wharfage and line services.

5. **Miscellaneous services**

If required by the User or any approval or statutory authority notified to DBCT Management, DBCT Management must provide the following Miscellaneous Services to the User:

- moisture adding;
- compacting;

- surfactant adding;
- dozing;
- blending (subject to section 6(d) below); and
- any other services reasonably requested from time to time in writing by the User to DBCT Management, provided that such services will not unreasonably impact on the efficiency or capacity of the Terminal.

6. **Stockpiling and blending**

- (a) DBCT Management must provide to the User sufficient stockpile areas to allow cargo assembly (i.e. assembly of cargo for a nominated vessel with an appropriate arrival time) for vessels onto which the User's Coal is to be loaded.
- (b) Remnant management areas will be determined by the Operator in areas of the Terminal which are not required for cargo assembly and which can be made available for dedicated stockpiling without materially affecting efficiency of the Terminal. DBCT Management must ensure that the User is offered the opportunity to use a proportion of that stockpiling area which accords with its proportion of the total annual contract tonnage under all User Agreements.
- (c) The stockpiling rights in sections 6(a) and 6(b) are subject to any other obligation of DBCT Management under any User Agreement with another Access Holder entered into prior to 1 July 2004 (to the extent that such obligation has not been waived).
- (d) DBCT Management must blend Coal if so requested, but subject to requirements in the Terminal Regulations from time to time, which may:
 - (i) require Coal to be blended before it is received at the Terminal, where reasonably practicable;
 - (ii) require Coal to be blended into a stockpile where reasonably practicable (rather than being blended from stockpile); and
 - (iii) limit the proportions in which Coal may be blended (to limit the increase in consumption of capacity of the Terminal consumed because of blending).
- (e) DBCT Management must transfer the User's Coal from the train unloading facility at the Terminal to the relevant stockpile area or a cargo assembly area and stockpile the User's Coal in that area (except to the extent that a quality plan under the Terminal Regulations has been agreed to which provides for direct loading from train to vessel).

7. **Prevention of contamination**

DBCT Management must take all practicable measures to maintain the integrity of the User's Coal at the Terminal, including (without limitation) by:

- (a) avoiding contamination of the User's Coal, including (without limitation) contamination with other Coal or waste material; and
- (b) minimising handling and associated degradation of the User's Coal.

8. **Data provision**

DBCT Management must provide such information and access to systems as are reasonable to inform Access Holders of relevant data relating to handling of their Coal.

9. Co-ordination

Subject to the User providing relevant information to DBCT Management within a reasonable time, DBCT Management must:

- (a) ensure, as far as practicable, that it discharges its obligations in this Schedule in accordance with the requirements of the User's reasonable quality plans, reasonable shipping programs and contracts as notified to DBCT Management and the Operator from time to time consistent with Terminal Regulations, and
- (b) (subject to the foregoing and having regard to equity amongst Access Holders) use its best endeavours to minimise the aggregate cost to the User arising out of Handling at the Terminal (including Demurrage Costs and rail freight).

10. Terminal Regulations, Force Majeure, Laws and Operation & Maintenance Contract

The provision of each of the above services by DBCT Management is subject to (and DBCT Management's obligations are modified to the extent of):

- (a) any relevant provisions of the Terminal Regulations;
- (b) any specific provision of this Agreement including any provisions relating to an event of Force Majeure;
- (c) the ability of DBCT Management to require the Operator under the Operation & Maintenance Contract to provide the Services; and
- (d) without limiting section 10(c) any specific provision in the Operation & Maintenance Contract including any provisions relating to an event of force majeure.

11. Standard for Services

- (a) The provision of the above Services by DBCT Management must be carried out in accordance with due skill, care and diligence in accordance with the Access Framework, the Terminal Regulations, Good Operating and Maintenance Practice and all applicable Laws.
- (b) When providing the above Services, DBCT Management must take into account the following factors, where relevant:
 - (i) lowest total whole of life cost;
 - (ii) reliability and economy of performance;
 - (iii) maximising the effective life of the Terminal; and
 - (iv) DBCT Management's non-discrimination obligations under the Access Framework.

SCHEDULE 4 – UTILISATION ADVICE

(clause 6.1)

Calendar Year:														
Mine:														
	Annual Forecast	Updated Forecast				Additional Information								Comments / Exceptions
						Planned Mine Outages	Rail Ent.*	Ship Mix**						
Forecast Due Date	15-Feb	1 Jul	1 Oct	1 Jan	1 Apr			Handi	S-Pan.	M-Pan.	S-Cape.	M-Cape.	Unk	(Include comments on any special requirements, or exceptions from existing practice for the period)
Units	'000t	'0005	'000t	'000t	'000t	days	'000t	'000t	'000t	'000t	'000t	'000t	'000t	
Apr	----	----	----	----	----									
May	----	----	----	----	----									
Jun	----	----	----	----	----									
Jul			----	----	----									
Aug			----	----	----									
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Jan	----	----	----	----											
Feb	----	----	----	----											
Mar	----	----	----	----											
Total	0.0	0.0	0.0	0.0	0.0										
Next Fin Y (1)															
Next Fin Y (2)															
Next Fin Y (3)															

* This Utilisation Advice will satisfy the User's obligations under Clause 6.1 of the User Agreement and DBCT Management acknowledges that the User will be under no liability to DBCT Management if the actual number, types or tonnages of vessels or the amount of Coal is greater or fewer than the number, types, tonnages or amounts estimated in this Utilisation Advice.

+ Annual raiing capacity is to be provided subject to the consent of the contractor providing rail haulage services to the User (which the User will endeavour to obtain)

++ Handi = Handimax, S-Pan = single parcel Panamax, M-Pan = multi-parcel Panamax, S-Cape = single parcel Capes & VLC, M-Cape = multi-parcel Cape & VLC, Unk. = Unknown (or same as historic if all tonnage included in this column)

SCHEDULE 5 - PRODUCT SHIPMENT NOTICE

(clause 9.1) [Drafting Note: Consequential amendments to this Schedule 5 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

TO	:	North Queensland Bulk Ports Corporation Limited (Fax:)
		DBCT Management Pty Ltd (Fax: 07 3002 3101)
FROM	:	<i>[User shipping coal]</i>
SUBJECT	:	Product Shipment Notice – DBCT
DATE	:	
PAGE	:	1 (including this cover page)

Ship Name:	
Date Departed:	
Shipping Number:	
Mine Name:	
User Agreement Name:	
Party liable for User Agreement charges:	
Total Number of Tonnes:	
Reference Tonnes:	
Non-Reference Tonnes:	
(Add additional references for more than one class of Non-Reference Tonnage)	

(This total **MUST** agree with Manifest. If the Manifest covers multiple cargoes, separate Product Shipment Notices for each cargo must be completed)

Does Manifest include more than one cargo?

No
Yes

User: _____

Date: _____

**SCHEDULE 6 - TEMPLATE FOR ASSIGNMENT OF ANNUAL CONTRACT
TONNAGE**

(clause 12.2)

Deed of Variation

DBCT Management Pty Limited

[User 1 full name]

and

[Assignee full name]

This Deed of Variation

is made on _____ between the following parties:

- 1 **DBCT Management Pty Limited**
ACN 097 698 916)
of Level 15, 1 Eagle Street, Brisbane, Queensland
(DBCT Management)
- 2 **The User named in item 1 of the Schedule**
([User 1])
- 3 **The person named in item 3 of the Schedule**
([Assignee])

Recitals [Option 1 – Select this option where the Assignee **is not** an existing User.]

- A. DBCT Management is the owner of a long term lease of the Terminal.
- B. [User 1] is a party to a User Agreement with DBCT Management, and under the User Agreement DBCT Management grants [User 1] a right to have an Annual Contract Tonnage of Coal Handled at the Terminal.
- C. [User 1]'s entitlement to Ship Coal through the Terminal in the Swap Period under [User 1]'s User Agreement exceeds its requirements by the Swap Contract Tonnage.
- D. [Assignee] wishes to Ship Coal through the Terminal in the Swap Period under a User Agreement.
- E. [User 1] wishes to vary the Annual Contract Tonnage in its User Agreement so that [Assignee] is entitled to Ship the Swap Contract Tonnage through the Terminal in the Swap Period, and [User 1]'s entitlement to Ship Coal under [User 1]'s User Agreement is reduced accordingly.
- F. [Assignee] wishes to enter into a User Agreement with DBCT Management to Ship the Swap Contract Tonnage through the Terminal in the Swap Period.
- G. DBCT Management has agreed to consent to the variation to [User 1]'s User Agreement to achieve that objective, on the terms of this deed.

Recitals [Option 2 – Select this option where the Assignee **is** an existing User.]

- A. DBCT Management is the owner of a long term lease of the Terminal.

- B. [User 1] and [Assignee] are each a party to a User Agreement with DBCT Management, and under each User Agreement DBCT Management grants them a right to have an Annual Contract Tonnage of Coal Handled at the Terminal.
- C. [User 1]'s entitlement to Ship Coal through the Terminal in the Swap Period under [User 1]'s User Agreement exceeds its requirements by the Swap Contract Tonnage.
- D. [Assignee] wishes to Ship more Coal through the Terminal in the Swap Period than its entitlement under [Assignee]'s User Agreement.
- E. [User 1] and [Assignee] wish to vary the Annual Contract Tonnages in their respective User Agreements so that [Assignee] is entitled to Ship the Swap Contract Tonnage through the Terminal in the Swap Period (in addition to its existing Annual Contract Tonnage), and [User 1]'s entitlement to Ship Coal under [User 1]'s User Agreement is reduced accordingly.
- F. DBCT Management has agreed to consent to the variations to the User Agreements to achieve that objective, on the terms of this deed.

The deed witnesses

that in consideration of, among other things, the mutual promises contained in this deed, the parties agree:

1 Definitions and interpretation

1.1 Definitions

[Drafting Note: Consequential amendments to this clause 1 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

Effective Date means the date set out in item 7 of the Schedule.

Swap Contract Tonnage means the absolute tonnages (or respective tonnages for respective periods) set out in item 6 of the Schedule. Where the Swap Period relates to part, but not all, of a Financial Year, the Swap Contract Tonnage in respect of that period is expressed:

- (a) as an annualised rate for that period - for the purposes of calculating the Monthly Charges for the Swap Period under the User Agreement and determining the rate at which Shipping is permitted in that period; and
- (b) as an absolute amount in respect of that period - which amount will be the amount to be taken into account in the Year End Adjustment, to the extent that it relates to Annual Contract Tonnage for the relevant Financial Year.

Swap Period means the period set out in item 5 of the Schedule.

[User 1]'s User Agreement means an agreement between DBCT Management and **[User 1]** bearing the date set out in item 2 of the Schedule.

[[Assignee]]'s User Agreement means an agreement between DBCT Management and **[Assignee]** bearing the date set out in item 4 of the Schedule and DBCT Management. **[Drafting Note: Select this option if the Assignee is an existing User.]**

[[Assignee]]'s User Agreement means a User Agreement to be entered into between DBCT Management and **[Assignee]**. **[Drafting Note: Select this option if the Assignee is not an existing User.]**

User Agreement means one or more of **[User 1]**'s User Agreement and **[Assignee]**'s User Agreement as the context requires.

1.2 Interpretation

- (a) Terms which are defined in the User Agreement/s or Terminal Regulations have the same meaning in this deed (except where the context otherwise requires).
- (b) The interpretation provisions of the User Agreement/s apply in respect of the interpretation of this deed, as if set out in this deed.

2 Variations to User Agreement/s

2.1 **[User 1]**'s User Agreement

As of the Effective Date, the Annual Contract Tonnage in **[User 1]**'s User Agreement is reduced by the Swap Contract Tonnage for the Swap Period.

2.2 **[Assignee]**'s User Agreement

As of the Effective Date, the Annual Contract Tonnage in **[Assignee]**'s User Agreement will be the Swap Contract Tonnage for the Swap Period. **[Drafting Note: Delete this paragraph if the Assignee is not an existing User.]**

As of the Effective Date, the Annual Contract Tonnage in the **[Assignee]**'s User Agreement is increased by the Swap Contract Tonnage for the Swap Period. **[Drafting Note: Delete this paragraph if the Assignee is an existing User.]**

2.3 Revised Consolidated Annual Contract Tonnages

DBCT Management will provide to **[User 1]** and **[Assignee]** respectively a revised, consolidated table of Annual Contract Tonnages for the Term of their User Agreement, to reflect the amendments [and new entitlements] pursuant to this deed. In the absence of manifest error, that table will be taken to replace the table of Annual Contract Tonnages previously applicable under the relevant User Agreement (if applicable). **[Drafting Note: Delete words in square brackets if the Assignee is an existing User.]**

2.4 Calculation of Entitlement under the Terminal Regulations

For the avoidance of any doubt, it is intended that [Assignee] will become entitled to the "Entitlement" under the Queue Management Procedures currently in place under the Terminal Regulations which [User 1] would (but for this deed) have previously been entitled to in relation to the Swap Contract Tonnage for the Swap Period, but that neither parties' Entitlements outside the Swap Period (if any) will be affected. ***[Note: only required if Terminal Regulations include a Queue Management System at the time this deed is entered into]***

2.5 Transitional

- (a) The parties recognise that certain determinations (for example, the annualised amount of HCF and HCV) may have been made to date in respect of a current Financial Year before the variations in this deed were agreed.
- (b) DBCT Management shall, as soon as practicable, cause appropriate adjustments to be made in respect to the amounts charged under [[User 1]'s User Agreement/the respective User Agreements], to reflect the variations arising out of this deed. ***[Drafting Note: Select the relevant option depending in whether the Assignee is an existing User.]***
- (c) Nothing in this deed requires DBCT Management or the Operator to pay or repay amounts other than adjustments of the kind already contemplated by [[User 1]'s User Agreement/the User Agreements]. In particular, DBCT Management is not as a result of the variations effected by this deed required to accelerate a payment, or to make a payment to either of the other parties which, in aggregate, is more than it would have otherwise have been required to make but for this deed. ***[Drafting Note: Select the relevant option depending in whether the Assignee is an existing User.]***

2.6 User Agreements still in force

Except as set out in clauses 2.1 and 2.2 of this deed, the parties agree and acknowledge that all other provisions of [User 1]'s User Agreement/the User Agreements] remain in full force and effect. ***[Drafting Note: Select the relevant option depending in whether the Assignee is an existing User.]***

3 Costs and stamp duty etc

- (a) [User 1] and [Assignee] will each bear their own costs and expenses in respect of the negotiation, preparation and execution of this deed.
- (b) [Assignee] will be liable for the costs and expenses (including legal costs) of DBCT Management in respect of the negotiation, preparation and execution of this deed, and any stamp duty and

other duties, taxes or other amounts payable as a result of this deed.

4 Governing law

This deed is governed by the laws of Queensland.

5 Counterparts

This deed may be executed in any number of counterparts. All counterparts taken together will be taken to constitute one instrument.

Schedule to Deed of Variation

(clause 12.2 Standard Access Agreement)

Item

1.	User reducing Annual Contract Tonnage	<i>[insert User 1 full name]</i>
2.	[User 1] 's User Agreement (date)	<i>[insert date]</i>
3.	User [increasing / acquiring] Annual Contract Tonnage [Drafting Note: Select the relevant option depending on whether the Assignee is an existing User.]	<i>[insert Assignee's full name] [insert date]</i>
4.	[Assignee] 's User Agreement (date)	<i>[insert date] [Drafting Note: Insert 'Not applicable' if the Assignee is not an existing User.]</i>
5.	Swap Period	<i>[insert start and end dates of Swap Period]</i>
6.	Swap Contract Tonnage	<i>[insert absolute no. of tonnes swapped for each relevant period and annualised rate for each period]Mt</i> (Annualised rate*:[____] Mtpa)
7.	Effective Date	<i>[insert date of agreement to swap]</i>

* Annualised rate = (Swap Contract Tonnage / No. of days in Swap Period) x 365

Executed as a deed:

**Signed sealed and delivered by
DBCT Management Pty Limited:**

Secretary/Director

Director

Name (please print)

Name (please print)

**Signed sealed and delivered by
[User 1 full name]:**

Secretary/Director

Director

Name (please print)

Name (please print)

**Signed sealed and delivered by
[Assignee full name]:**

Secretary/Director

Director

Name (please print)

Name (please print)

SCHEDULE 7 - TEMPLATE REQUEST FOR THIRD PARTY PERMISSION TO SHIP

(clause 12.5)

TO : Dalrymple Bay Coal Terminal Pty Ltd (Fax: 07 4956 3353)
 DBCT Management Pty Ltd (Fax: 07 3002 3101)

FROM : *[Principal's name*
Beneficiary's name]

SUBJECT : Request for Permission for Third Party to Ship Coal

DATE :

User offering the Capacity (Principal):	
Company accepting the Capacity (Beneficiary):	
Period pertaining to the swap:	
Total Number of Tonnes:	
Nominated Vessel (where known):	
Is this a: (a) Transfer (i.e. a one-way transaction) that will not be repaid; or <input type="checkbox"/> (b) Swap (i.e. a two-way transaction) that will be repaid? <input type="checkbox"/> Repayment date: / / When is repayment expected?	

Acceptance of this request is subject to receipt of separate Product Shipment Notice (PSN) for all cargos. Invoicing will be in strict accordance with User Agreement terms (i.e. all charges will be to the Principal).

 Principal
 Date of Request:

 Beneficiary
 Date of Request:

Request Approved:

 DBCT Management Pty Ltd
 Date of Approval:

SCHEDULE 8 - SECURITY

(clause 29)

[Insert details, if applicable]

[eg The User must provide the following Security from an entity which, in the reasonable opinion of DBCT Management, is reputable and of good financial standing, with the capability to fulfil all of the obligations of the User under this Agreement.]

SCHEDULE 9 - DEFINITIONS AND INTERPRETATION

[Drafting Note: Amendments to this Schedule 9 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018. Shaded terms in particular are pricing-related terms that will be reviewed.]

Definitions

"**Access**" means access to and the provision of the Services under a User Agreement.

"**Access Agreement**" has the meaning given in the Access Framework.

"**Access Application**" has the meaning given in the Access Framework.

"**Access Charges**" means amounts payable by a Access Holder under a User Agreement for Access.

"**Access Holder**" means a person who has an entitlement to Access under a User Agreement.

"**Access Seekers**" has the meaning given in the Access Framework.

"**Access Framework**" means the access framework (including its schedules) applying to DBCT Management from time to time relating to provision of the Services by it, as implemented under the Deed Poll.

"**Additional Tonnage**" means, in respect of all Access Holders in a relevant Financial Year, the aggregate of all Excess Tonnage for that Financial Year which, because of Terminal Capacity, could not have been Handled unless there had been an Early Termination. For clarification, the Additional Tonnage cannot exceed the relevant annual tonnages the subject of Early Termination.

"**Aggregate Annual Contract Tonnage**" means, in respect of a relevant Financial Year, the sum of the tonnages contracted to be Handled under all User Agreements for all Access Holders for that Financial Year.

"**Aggregate Reference Tonnage**" has the meaning given in the Access Framework.

"**Agreement**" means this agreement, including all schedules attached to it.

"**Agreement Revision Date**" means:

- (a) the date of commencement of each Access Undertaking for the Terminal after the first Access Undertaking;
- (b) the date a Price Ruling is made that a Current Expansion will be a Differentiated Expansion Component under Section 5.12(c) of the Access Undertaking; and
- (c) if an Access Undertaking ceases to be relevant to the Terminal, then the date 5 years after the immediately previous Agreement Revision Date but if two such dates would otherwise occur within 12 months of each other, the parties may agree that one will be disregarded.

"**Annual Contract Tonnage**" means the maximum quantity of Coal that the User is entitled to deliver to and have Handled through the Terminal in a relevant Financial Year under this Agreement in accordance with Item 7 of Schedule 1 (as amended from time to time pursuant to this Agreement):

- (a) including tonnage which the User is entitled to have Handled but which may not, at a practical level, be able to be Handled due to circumstances such as a force majeure event or relevant provisions of Terminal Regulations and any tonnage which the User

would be entitled to have Handled but for the suspension of the User's right to have the tonnage Handled under this Agreement; but

- (b) excluding ad-hoc over shipments which may be permitted subject to available capacity.

For clarification, where a Financial Year or any relevant period is less than twelve months, or the annualised rate of Annual Contract Tonnage varies during a Financial Year, the Annual Contract Tonnage will be expressed as the relevant annualised rate at a point in time for the purposes of calculating the charges payable each Month, but will nevertheless be the absolute amount of tonnes which the User is entitled to have Handled over the entire Financial Year for purposes such as the determination of any Year End Adjustment, any Excess Charge, any annual reconciliation of HCF and the tonnages included in the Aggregate Annual Contract Tonnage.

"Annual Revenue Requirement or ARR" has the meaning given in the Access Undertaking.

"Business Day" means any day other than a Saturday, a Sunday, or a public holiday in Brisbane.

"Capital Charge" has the meaning given in the Access Undertaking.

"Capital Expenditure" means expenditure which:

- (a) relates to replacement or Expansion of any part of the Terminal;
- (b) relates to the refurbishment or upgrade of any part of the Terminal which can reasonably be expected to extend the life of the relevant part beyond its original useful life; or
- (c) otherwise relates to the refurbishment or upgrade of Terminal plant and/or infrastructure which is reasonably expected to improve whole of life cost or is incurred with the agreement of the Operator,

but not expenditure recovered through HCF or HCV.

"Cargo Manifest" means the manifest referred to in clause 9.

"Cash Rate Target" means, at a relevant time, the cash rate target then prevailing and published by the Reserve Bank of Australia on its website (www.rba.gov.au) at that time.

"Change of Control" will occur in the User if at any time during the term of this Agreement, any person obtains, or ceases to hold, directly or indirectly:

- (a) beneficial ownership of 50% or more (in aggregate) of the voting shares in the corporation; or
- (b) effective control of the board of directors of the corporation, other than as a result of the transfer of securities in a corporation listed on any recognised stock exchange.

"Claim" means any action, proceeding, allegation, demand or claim in any form for relief or compensation of any nature.

"Coal" means coal, coke, and other like materials as are approved by DBCT Management.

"Commencement Date" has the meaning given in the Access Framework.

"Conditional Access Agreement" has the meaning given in the Access Framework.

"Consequential Loss" means any one or more of the following:

- (a) Loss of profits; or
- (b) Loss of opportunity to make profits; or
- (c) Loss of business opportunity; or
- (d) special exemplary or punitive damages; or

- (e) any Loss which does not directly and naturally flow in the normal course of events from the occurrence of the event giving rise to the liability for such Loss, whether or not such Loss was in the contemplation of the parties at the time of entry into this agreement,

including any of the above types of Loss arising from an interruption to a business or activity.

["Current Expansion" means *(to be inserted as applicable)*].

"Deed Poll" means the irrevocable deed poll dated [*insert*] given by DBCT Management under which it covenants to comply with the Framework.

"Default Interest Rate" means, at a relevant time, the rate per annum equal to the Cash Rate Target at that time plus 3.5%.

"DBCT Management's Personal Responsibility" means DBCT Management's personal liability as a result of its own acts or omissions, independently of and excluding any liability which it might have directly or indirectly arising from the acts or omissions of the Operator or third parties (including contractors and subcontractors of DBCT Management).

"Delay" means any delay, inability or failure (for any reason, including breach of this Agreement or negligence) to Ship or Handle Coal in the tonnages and at the rates contemplated in this Agreement. For the User, this includes a failure to deliver Coal to the Terminal or an inability to schedule vessels to load Coal. For DBCT Management, this includes the inability to provide Services at the Terminal (in whole or part) for any reason when Coal would otherwise have been made available by the User.

"Demurrage Costs" means the average cost across all Access Holders of demurrage in respect of the loading of Coal on vessels at the Terminal over any period of 3 consecutive months (as estimated by the Operator in accordance with its historical practice of estimating notional demurrage costs).

"Differentially Priced Capacity" has the meaning given in the Access Framework.

"Differentiated Expansion Component" has the meaning given in the Access Framework.

"Differentiation" and **"Differentiated"** has the meaning given in the Access Framework.

"Direct Loss" means charges actually paid pursuant to this Agreement in respect of the period of the Delay. For the purposes of clause 13.4, the User's Losses arising out of a Delay will be taken to include the amount of the relevant Direct Losses.

"Due Date" has the meaning given in clause 5.1.

"Early Termination" means the termination of a User Agreement (the **"Terminated Agreement"**) before its originally scheduled expiry date (but not where that occurred as a result of the exercise of a contractual right to terminate which was included in the Terminated Agreement when it was entered into, other than a right to do so for default in payment or insolvency of the Access Holder, or default by DBCT Management. For the purpose of this definition, termination for default in payment or insolvency will be taken to have occurred if DBCT Management terminates the Terminated Agreement on other grounds but in circumstances where a default in payment or the insolvency of the Access Holder could have been reasonably expected within a reasonably short time thereafter had that termination not occurred).

"Effective Date" means, [subject to prior satisfaction of the condition precedent in clause 29.1,] the date set out as such in Schedule 1.

"Excess Charge" means the component of the Capital Charge payable in respect of Excess Tonnage, calculated in accordance with Schedule 2, Part B, Section [x].

"Excess Tonnage" means the number of tonnes of the User's Coal (excluding Non-Reference Tonnage) Handled in a Financial Year which is more than the User's Annual Contract Tonnage for the Financial Year.

"Execution Date" is the date described as such in Schedule 1 and will be completed as the day this Agreement is executed by the last of the parties to execute it.

"Existing Terminal" has the meaning given in the Access Framework.

"Existing User Agreement" has the meaning given in the Access Framework.

"Expansion" means the construction, purchase, installation or erection of new works intended to increase the Terminal Capacity.

"Expansion Component" has the meaning given in the Access Framework.

"Expansion Component Capacity" has the meaning given in the Access Framework.

"Expansion Party" has the meaning given in the Access Framework.

"Financial Year" means:-

- (a) the First Financial Year; and
- (b) each 12-month period from July 1 of one calendar year to June 30 of the next ensuing calendar year; and
- (c) any period from the last July 1 in the Term until the end of the Term.

"First Financial Year" means the period from the Effective Date to the next following 30 June.

"Fixed Operating Costs" means the aggregate of all amounts:

- (a) reasonably incurred or charged by the Operator (including any margin payable to the Operator under the Operation & Maintenance Contract);
- (b) reasonably incurred or charged by DBCT Management with the express written consent of not less than two thirds of Access Holders by contract tonnage; and
- (c) reasonably incurred by DBCT Management in exercising its rights under the Operation & Maintenance Contract to step in or take work out of the hands of the Operator (as a result of a default by the Operator),

to the extent that they represent a fixed cost of operating the Terminal.

"Force Majeure" means any event or circumstance not within the control of DBCT Management, and which, by the exercise of a reasonable standard of care and diligence, DBCT Management could not have overcome. Any act or omission of the Operator will be assumed to be beyond the control of DBCT Management, unless it has been specifically directed by DBCT Management and carried out by the Operator in the manner in which it can reasonably be inferred that DBCT Management intended.

"Formula" has the meaning given in clause 7.3.

"Framework Agreement" means the framework agreement between DBCT Holdings Pty Ltd, the State of Queensland, DBCT Management and others dated 31 August 2001.

"Good Operating and Maintenance Practice" means, in the performance of any obligation under this Agreement, adherence to a standard of practice which includes the exercise of that degree of skill, diligence, prudence and foresight which would reasonably be expected from a competent, experienced and qualified operator of a facility comparable with the Terminal.

"GST Exclusive Consideration" has meaning given to it in clause 21(b).

"Handle" means the receiving by rail, unloading, stacking, storing, reclaiming and loading of vessels with Coal, including any other relevant Services required by the User using infrastructure at the Terminal.

"HCF" or "Handling Charge - Fixed" means the charge determined under clause 6.2.

"HCV" or **"Handling Charge - Variable"** means the charge determined under clause 6.3.

"Increment" has the meaning given in Schedule 2, Part B, Section [x].

"Independent Expert" means an independent expert appointed under clause [16.3] of the Access Framework.

"Law" means any law, statute, by-law, regulation, rule, order, ordinance, proclamation, or delegated or subordinated legislation of the Commonwealth or of any State or Territory of Australia or of any local government.

"Long Term Delays" means ongoing, sustained Delays that arise out of physical loss, destruction or damage at the Terminal.

"Loss" means any damage, loss (including loss of reputation), cost, expense, fine, penalty or liability incurred by the person concerned, however it arises and whether it is present or future, fixed or unascertained, actual or contingent.

"Maintenance Work" means any work involving maintenance of or repairs to (including repair by replacement) any part of the Terminal, including any inspections or investigations required by Good Operating and Maintenance Practice.

"Miscellaneous Services" means:

- (a) services requested by the User from time to time which services are nominated in Schedule 3 as Miscellaneous Services; or
- (b) services to the extent that they are materially different (in nature, extent or cost) to the Services provided to other Access Holders at the Terminal including as a result of the nature of the User's Coal (or any contaminants in it) or requirements in respect of its handling, storage, blending, unloading or loading which result in materially additional costs or delays.

"Month" means a calendar month.

"Monthly Payment" means the monthly instalment of the TIC payable pursuant to clause 4.4, calculated (and adjusted as required) in accordance with Schedule 2, Part A, Section [x].

"Mtpa" means million tonnes per annum.

"No Fault Interest Rate" means, at a relevant time, the rate per annum equal to the Cash Rate Target at that time plus 0.2%.

"Non-Reference Tonnage" has the meaning given in the Access Framework;

"Notified Period" has the meaning given in clause 11.4.

"Notified Tonnage" has the meaning given in clause 11.4.

"Notional Contracted Tonnage" means, in respect of a Financial Year the Aggregate Annual Contract Tonnage.

"Operation & Maintenance Contract" means the agreement under which the Operator agrees to operate and maintain the Terminal on a day to day basis, and includes any other agreement in substitution for it under which DBCT Management agrees with a person to operate the Terminal.

"Operator" means Dalrymple Bay Coal Terminal Pty Ltd ACN 010 268 167 or such other contractor engaged by DBCT Management under the Operation & Maintenance Contract.

"Over-shipment" has the meaning given in Schedule 2, Part B, Section [x].

"Permissible Delay" means:

- (a) any Delay from which DBCT Management is released from liability pursuant to clauses 3.6(1) or 10.3; or

- (b) any Delay which is imposed by DBCT Management, acting reasonably:
- (i) because it considers it necessary for the safety of any person or to prevent material damage to property (except where the threat to the person or property arises out of Wilful Default or reckless neglect on the part of DBCT Management); or
 - (ii) to facilitate the performance of Maintenance Work (other than Maintenance Work to the extent it is necessitated by Wilful Default or reckless neglect on the part of DBCT Management) or of an Expansion in accordance with clause 10.2.

"Port" means both the harbour of Hay Point proclaimed by the Governor-in-Council by Order-in-Council dated 30 October 1983, and all real property held by DBCT Management as part of or relating to that Port.

"Port Services Agreement" has the meaning given in the Framework Agreement.

"Product Shipment Notice" means a notice in the form of Schedule 5.

"Provisional Increment" has the meaning given in Schedule 2, Part B, Section [x].

"Provisional Increment Repayment" has the meaning given in Schedule 2, Part B, Section [x].

"QCA" means the Queensland Competition Authority established under the QCA Act or any other relevant body from time to time having substantially similar powers in respect of the Terminal, including the power to arbitrate disputes over charges payable for access to services or to otherwise determine such charges.

"QCA Act" means the Queensland Competition Authority Act 1997 (Qld).

"Quarter" means:

- (a) each 3 month period commencing on 1 July, 1 October, 1 January and 1 April; and
- (b) in respect of the first quarter, commencing on the Effective Date and ending on the day before the commencement of the next quarter.

"Rail Operator" has the meaning given in the Access Framework.

"Reference Tariff" has the meaning given in the Access Framework.

"Reference Terms" has the meaning given in the Access Framework. For clarification, the terms of this Agreement will be taken to be Reference Terms.

"Reference Tonnage" has the meaning given in the Access Framework.

"Reference Tonnage Access Holder" has the meaning given in the Access Framework.

"Representative" has the meaning given to it in clause 17.4

"Revenue Cap" is the amount DBCT Management is entitled to earn from Reference Tonnage and is calculated in accordance with Schedule 2, Part A, Section [x].

"Review Event" has the meaning given to it in the Access Framework.

"Rules" has the meaning given in clause 15.4(a)

"Security" means any form of security or guarantee required to be provided or in fact provided pursuant to clause 29.

"Services" means the services described in Schedule 3.

"Ship" means the delivery of Coal to the Terminal by rail and the arrangement of vessels by the User such that DBCT Management is able to Handle the User's Annual Contract Tonnage.

"Socialised Terminal Capacity" has the meaning given in the Access Framework.

"Standard Access Agreement" has the meaning given in the Access Framework.

"Supplier" has the meaning given to it in clause 21(d).

"System" has the meaning given in the Access Framework.

"System Capacity" has the meaning given in the Access Framework.

"Term" means the term of this Agreement as specified in Item 6 of Schedule 1, as extended in accordance with this Agreement.

"Terminal" means the Terminal Component of the land and port infrastructure located at the Port of Hay Point which is owned by DBCT Holdings Pty Ltd or the State of Queensland and leased to DBCT Guarantor and/or DBCT Management, and known as the Dalrymple Bay Coal Terminal, and includes the following which form part of the Terminal Component:

- (a) loading and unloading equipment;
- (b) stacking, reclaiming, conveying and other handling equipment;
- (c) wharves and piers;
- (d) deepwater berths; and
- (e) shiploaders.

"Terminal Capacity" has the meaning given in the Access Framework.

"Terminal Component" means the part of the Terminal as specified in Item 8 of Schedule 1.

"Terminal Infrastructure Charge" or **"TIC"** means the component of the Capital Charge (per tonne) payable on the Annual Contract Tonnage, calculated in accordance with Schedule 2, Part A, Section [x].

"Terminal Regulations" means regulations in force and available on DBCT Management's website governing procedures for the operation of the Terminal existing as at the commencement of this Agreement as amended from time to time in accordance with the Access Framework.

"Terminating Date" has the meaning given in the Access Framework.

"Third Party Amount" means the amount for which DBCT Management is actually indemnified by the Operator and/or another third party (including a liability insurer) in respect of liability for any Claim made by the User, less DBCT Management's costs of recovery of that amount. For clarification, if a Delay affects more than one Access Holder, then the aggregate amount of any payment received by DBCT Management which related to a common Third Party Amount claimed by such affected Access Holders will be distributed to them in the proportions of their respective annual contracted tonnages.

"User" means the person specified in item 3 of Schedule 1.

"User Agreement" means an agreement for the provision of Access to the Services.

"User Committee" has the meaning given to it in clause 17.1.

"Utilisation Advice" means a notice in the form in Schedule 4 given by the User to DBCT Management under clause 6.1.

"Variable Operating Costs" means the aggregate of all amounts:

- (a) reasonably incurred or charged by the Operator (including any margin payable to the Operator under the Operation & Maintenance Contract);
- (b) reasonably incurred or charged by DBCT Management with the express written consent of not less than two thirds of Access Holders by contract tonnage; and

- (c) reasonably incurred by DBCT Management in exercising its rights under the Operation & Maintenance Contract to step in or take work out of the hands of the Operator (as a result of a default by the Operator),

to the extent that they represent a variable cost of operating the Terminal.

“Vessel Nomination” means a vessel nomination notice given by the User under the Terminal Regulations for the purpose of finalising the relevant nominated parcel and vessel details for a proposed shipment.

"Wilful Default" means a deliberate act or omission which will result in (and can reasonably be expected to have been intended to result in) a breach of this Agreement and which, as soon as practicable, but in any event within 30 days after written notice (particularising the alleged breach) is given to the party alleged to be in default, is not either:

- (a) acknowledged by the defaulting party and rectified; or
- (b) disputed by the party allegedly in default and referred to dispute resolution in accordance with clause 15, but if the notice of default is ultimately determined by arbitration or order of a court or agreement to have been justified, then rectified as soon as practicable but in any event within 30 days of the adjudication or agreement.

For the purposes of this definition, rectification will be taken to have occurred within the time period stated above, even if not actually completed within that time period, if rectification is reasonably practicable and commences within the stated period and proceeds at all times expeditiously.

“Year 10” of this Agreement means the Financial Year commencing on 1 July **[insert year]**.

"Year End Adjustment" means the adjustment calculated in respect of a Financial Year pursuant to Schedule 2, Part B, Section [x].

Interpretation

1. In this Agreement headings are for convenience only and do not affect its interpretation.
2. Except to the extent that the context otherwise requires:
 - (a) reference to any statute or statutory provision includes any modification or re-enactment of, or any legislative provisions substituted for, and all legislation and statutory instruments issued under such legislation or such provision;
 - (b) words denoting the singular include the plural and vice versa;
 - (c) words denoting persons or individuals include corporations, associations, trustees, instrumentalities and partnerships and vice versa;
 - (d) words denoting any gender include all genders;
 - (e) references to parties, clauses and Schedules are references to parties, clauses and Schedules to this Agreement as modified or varied from time to time;
 - (f) references to any document, deed or agreement include references to such document or agreement as amended, novated, supplemented, varied or replaced from time to time;
 - (g) references to any party to this Agreement or any other document, deed or agreement include its successors or permitted assigns;
 - (h) all references to dates and times are to Brisbane time;
 - (i) all references to "\$" and "dollars" are to the lawful currency of Australia;

- (j) a reference to "including" shall be construed as "including, but not limited to," and "include" and "includes" shall be construed similarly;
- (k) where a provision provides that a party "may" do something, "may" shall be construed as discretionary and without obligation;
- (l) where any word or phrase is given a defined meaning, any other grammatical form of that word or phrase has a corresponding meaning;
- (m) where a provision provides that a party will act reasonably or prudently, that shall (where the context permits) be construed in the context of DBCT Management's obligation to act in accordance with Good Operating and Maintenance Practice;
- (n) where there is a requirement under this Agreement to consider whether the User or Access Holders are being treated or will be affected equitably, the party so considering must have regard to (amongst other things) the Access Holder's respective annual contract tonnage; and
- (o) where measurement of Coal "Handled" (or in the context of the User, "Shipped") is being made in respect of a period, the tonnage loaded into vessels as determined in accordance with clause 9 will be taken to be the tonnage Handled (or, as the context requires, Shipped) in that period.

3. Payments on Business Days

Where the day on which any payment of money under this Agreement is to be made is not a Business Day, the payment may be made on the next Business Day.

4. Change to index

- (a) If the index used in any formula is not published at the time it is to take effect but will subsequently be published, then the formula will not be applied until such index is available, and the result of applying such formula at such later date shall be backdated to the date of effect.
- (b) If an index used in any formula under this Agreement is suspended or discontinued, then:
 - (i) it shall be replaced by the index substituted for it; or
 - (ii) if the index is not substituted by another index, the parties shall, acting in good faith, meet to agree a replacement index. If the parties cannot agree upon a replacement index within 28 days, then either party may refer the issue to dispute resolution in accordance with clause 15.

EXECUTION

Executed as an agreement

Signed for
DBCT
Management Pty Limited
by its representative
in the presence of:

Witness

Director

Name (please print)

Name (please print)

Signed for
DBCT Investor Services Pty Ltd
as trustee for the DBCT Trust
by its representative
in the presence of:

Witness

Director

Name (please print)

Name (please print)

Signed for
[Insert User name]:
by its representative
in the presence of:

Witness

Representative

Name (please print)

Name (please print)

Appendix 4 DBCT Access Agreement — markup

USER AGREEMENT 2016[2020] Access Undertaking Framework

Date:

[Note: The DBCT Access Framework and Standard Access Agreement (SAA) provided with DBCTM's submission dated 30 May 2018 should be read in conjunction with Appendix 7 of DBCTM's submission, which sets out the pricing framework that will apply under the DBCT Access Framework and SAA. Drafting to give effect to the pricing framework is being developed. Placeholders are included in this version of the SAA for the drafting to give effect to the pricing framework. Further consequential changes may also be required (such as to the defined terms in this version of the SAA) in drafting changes to give effect to the pricing framework.]

DBCT MANAGEMENT PTY LIMITED

("DBCT Management")

DBCT INVESTOR SERVICES PTY LTD as trustee of the DBCT Trust

("DBCT Guarantor")

[Insert User name]

("User")

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Draft

This Agreement is made on the Execution Date

BETWEEN DBCT MANAGEMENT PTY LIMITED ABN 16 097 698 916 ("DBCT Management")

AND THE USER DESCRIBED IN SCHEDULE 1 ("User")

AND DBCT INVESTOR SERVICES PTY LTD ABN 11 052 156 082, as trustee of the DBCT TRUST ("DBCT Guarantor")

RECITALS

- A. DBCT Management is the lessee of the Terminal under long term leases.
- B. The Operator operates and maintains the Terminal on behalf of DBCT Management.
- C. The User wishes to use the Terminal to Ship its Coal.
- D. DBCT Management has agreed to grant Access to the User on the terms and conditions contained in this Agreement.

IT IS AGREED

1. DEFINITIONS AND INTERPRETATIONS

1.1 Definitions

Unless the subject or context is inconsistent, each of the capitalised terms used in this Agreement has the meaning assigned to it in Schedule 9.

1.2 Interpretation

The rules set out in Schedule 9 apply to and govern the interpretation of this Agreement.

2. TERM

[Subject to clause 29.1], this Agreement commences on the Effective Date and continues in force until the end of the Term specified in Item 6 of Schedule 1 (unless terminated earlier pursuant to clause 14.2 or clause 14.3).

3. HANDLING OF COAL

3.1 Agreement to provide Access

- (a) DBCT Management grants Access to the User on the terms of this Agreement.
- (b) [The User unconditionally and irrevocably agrees to comply with the requirements, obligations and processes in:](#)
 - (i) [the Framework; and](#)

- (ii) [the Deed Poll, including the conditions set out in clauses 8.4, 9, 10 and 11 of the Deed Poll.](#)

3.2 Provision and operation of the Terminal

In granting to the User the Access referred to in clause 3.1, DBCT Management must, subject to this Agreement:

- (a) make the Terminal available and operate it to enable the Annual Contract Tonnage (subject to delivery to the Terminal and the availability of vessels) to be Handled at the Terminal in each Financial Year; and
- (b) provide Services as required by the User.

3.3 Delivery by rail

The User must ensure that its Coal is delivered to the Terminal by rail utilising rolling stock which is compatible with and (as far as it is practicable for the User to control) efficiently utilises the unloading facilities at the Terminal.

3.4 User to use reasonable endeavours to Ship its Annual Contract Tonnage

The User must use all reasonable endeavours to Ship its Annual Contract Tonnage through the Terminal in each Financial Year.

3.5 Even Shipments

The User must work towards, and must use all reasonable endeavours to achieve, the Shipping of its Coal through the Terminal at an even rate throughout each Financial Year (and, where Item 7 in Schedule 1 provides for a specific tonnage in respect of a nominated shorter period at some time during the Term, then at an even rate throughout that shorter period). The parties recognise that vessel arrival times, rail scheduling, maintenance and other factors can result in some short-term, routine unevenness to an even rate of Shipping.

3.6 Terminal Regulations

- (a) DBCT Management must comply with, and will use its best endeavours to ensure that the Operator complies with, the Terminal Regulations in force from time to time.
- (b) The User must observe the Terminal Regulations, in force from time to time, as a condition of access to and the right to have its Coal Handled at the Terminal.
- (c) The User acknowledges that Terminal Regulations may include terms which:-
 - (i) require scheduling of Access Holders' railing in and Handling of Coal in ways which promote Terminal efficiency and endeavour to achieve the objective set out in clause 3.5;
 - (ii) temporarily reduce the tonnage of Coal which may be Handled or Services provided under this Agreement, during such periods as capacity of the Terminal or relevant Services becomes restricted, provided that such reductions and restrictions affect all Access Holders equitably (but this does not relieve the User or DBCT Management respectively from any liability which they might have in respect of the capacity or Services having become restricted);
 - (iii) prescribe requirements for cargo building windows, unloading of trains, stockpiling and cargo assembly, vessels, arrival of vessels, loading of vessels, pre-loading requirements, order of loading and unloading and other matters where possible (including matters of the type dealt with in the Terminal

- Regulations at the ~~Commencement~~Effective Date) which promote the efficient, safe and equitable utilisation of capacity at the Terminal and Terminal Services;
- (iv) require Access Holders to co-operate with the Operator and other Access Holders in relation to scheduling, loading, unloading, priorities and other matters relating to the operation of the Terminal; and
 - (v) allow the exercise of discretions on the part of the Operator in limited cases, where it is reasonable to do so, to optimise Terminal efficiency (such power to be exercised in good faith and in a non-discriminatory way).
- (d) The User acknowledges and agrees that the Operator may, from time to time, by written notice to DBCT Management, propose amendments to the Terminal Regulations regarding operational issues.
- (e) If the Operator submits to DBCT Management a proposed amendment to the Terminal Regulations DBCT Management must:
- (i) promptly notify the User of any proposed amendments to Terminal Regulations;
 - (ii) provide the User with a copy of such proposed amendments to the Terminal Regulations (which may be by displaying it on DBCT Management's website);
 - (iii) conduct reasonable consultation with the User in relation to the proposed amendment; and
 - (iv) following the completion of such reasonable consultation, notify the User of:
 - (A) the wording of the proposed amendment;
 - (B) whether it has given its consent to the proposed amendment; ~~and~~
 - (C) the detailed reasons for its decision to give (or not give) consent to the proposed amendment; and
 - (D) that there is a 30 day period for notifying DBCT Management of any objections to the decision to consent or not consent (as applicable) to the amendment.
- (f) A proposed amendment to the Terminal Regulations will not be implemented unless:
- (i) DBCT Management has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with the Access ~~Undertaking~~Framework; and
 - (ii) one of the following has occurred:
 - (A) DBCT Management has consented to the proposed amendment to the Terminal Regulations and no Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent being provided to the proposed amendments within 30 days of being notified of the amendments by DBCT Management;
 - (B) DBCT Management has consented to the proposed amendments to the Terminal Regulations and while an Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent being provided to the proposed amendments within 30 days of being notified of the amendments by DBCT Management, ~~the QCA~~and

[the Independent Expert appointed to hear the objection \(in accordance with clause 3.6\(j\)\)](#) has rejected that objection; or

- (C) DBCT Management has not consented to the proposed amendments to the Terminal Regulations, but an Access Holder, Access Seeker or Expansion Party has given notice to DBCT Management objecting to consent not being provided, and the ~~QCA~~[Independent Expert appointed to hear the objection \(in accordance with clause 3.6\(l\)\)](#) has upheld that objection.
- (g) DBCT Management will only give its consent to a proposed amendment to the Terminal Regulations under clauses 3.6(f)(ii)(A) or 3.6(f)(ii)(B) if it has conducted reasonable consultation with Access Holders, Access Seekers, Expansion Parties and Rail Operators in accordance with the Access ~~Undertaking~~[Framework](#) and, taking into account the results of such consultation, it reasonably considers that:
- (i) the amendments relate to operational issues;
 - (ii) the amended Terminal Regulations, as a whole, will operate equitably amongst Access Holders, Access Seekers (should they become Access Holders) and Expansion Parties (should they become Access Holders) and, where the relevant amendments affect Rail Operators, amongst affected Rail Operators;
 - (iii) the amendments are consistent with the Access ~~Undertaking~~[Framework](#), and any Access Agreements; and
 - (iv) the amendments are reasonably necessary for the operation of the Terminal in accordance with applicable laws and regulatory standards, Good Operating and Maintenance Practice or any costs or obligations imposed are justified by the efficiency benefits arising from those costs or obligations.
- (h) If DBCT Management does not provide its consent to a proposed amendment to the Terminal Regulations, the User may object to DBCT Management's refusal to provide consent if it reasonably considers that:
- (i) the amendments relate to operational issues;
 - (ii) the amended Terminal Regulations, as a whole, will operate equitably amongst Access Holders, Access Seekers (should they become Access Holders) and Expansion Parties (should they become Access Holders) and, where the relevant amendments affect Rail Operators,- amongst affected Rail Operators;
 - (iii) the amendments are consistent with the Access ~~Undertaking~~[Framework](#) and this Agreement; and
 - (iv) the amendments are reasonably necessary for the operation of the Terminal in accordance with applicable laws and regulatory standards. Good Operating and Maintenance Practice or any costs or obligations imposed are justified by the efficiency benefits arising from those costs or obligations.
- (i) DBCT Management must notify all Access Holders, Access Seekers, Expansion Parties and Rail Operators of any amendments to the Terminal Regulations that have been approved ~~by the QCA~~ and must provide a copy of the amended Terminal Regulations to these parties (which may be by way of reference to the website on which the amended Terminal Regulations are available in accordance with 3.6(o)).
- (j) If:
- (i) DBCT Management has given its consent to a proposed amendment to the Terminal Regulations; and

- (ii) the User objects to the proposed amendment on the basis that it reasonably considers that the criteria specified in clauses 3.6(g)(i) to 3.6(g)(iv) are not satisfied,

then the User may, within 30 days after being notified of DBCT Management's consent, notify DBCT Management ~~and the QCA~~ of its objection to the consent to the proposed amendment, such objection to be determined by an Independent Expert.

- (k) If, in response to an objection notified to the ~~QCA~~ Independent Expert by the User under clause 3.6(~~ij~~), the ~~QCA~~ Independent Expert determines that the criteria specified in clauses 3.6(g)(i) to 3.6(g)(iv) are not satisfied, then:

- (i) the proposed amendment and DBCT Management's consent to the proposed amendment will be taken to have been withdrawn; and
- (ii) the proposed amendment will not be made.

- (l) If:

- (i) DBCT Management has refused to give its consent to a proposed amendment to the Terminal Regulations; and
- (ii) the User objects to DBCT Management not providing consent to the proposed amendment on the basis that it reasonably considers that the criteria specified in clauses 3.6(g)(i) to 3.6(g)(iv) are satisfied,

then the User may, within 30 days of being notified of the amendments by DBCT Management, notify DBCT Management ~~and the QCA~~ of its objection to DBCT Management not providing consent for the proposed amendment, such objection to be determined by an Independent Expert.

- (m) If, in response to an objection notified to the ~~QCA~~ Independent Expert by the User under clause 3.6(~~kl~~), the ~~QCA~~ Independent Expert determines ~~in accordance with the process under Section 17.4(b) of the Access Undertaking~~ that the criteria in in clauses 3.6(g)(i) to 3.6(g)(iv) are satisfied, then:

- (i) DBCT Management's consent to the proposed amendment will be deemed to have been given; and
- (ii) the proposed amendment will be made.

- (n) Subject to DBCT Management complying with 3.6(f), DBCT Management will not be liable to the User on any basis whatsoever as a result of DBCT Management consenting to an amendment to the Terminal Regulations or the due implementation and observance of an amendment to the Terminal Regulations, as long as DBCT Management had in all respects acted reasonably and in good faith and (acting reasonably and in good faith) had formed the opinion required by clause 3.6(g). For clarification, this does not affect DBCT Management's obligation to do anything required on its part to cause the termination or consequential amendment of a Terminal Regulation after any determination that the Terminal Regulation breaches this Agreement or the Access ~~Undertaking~~ Framework.

- (o) DBCT Management must make a copy of the Terminal Regulations available to the User (which may be by displaying it on DBCT Management's website).

3.7 Addressing disproportionate use of Terminal capacity and risk minimisation

- (a) If at any time DBCT Management, acting reasonably and on the recommendation of the Operator, considers that:

- (i) the User is disproportionately consuming the capacity of the Terminal (when compared with other Access Holders on a per tonne basis) and other Access Holders are materially adversely affected as a result; or

- (ii) the provision of the User's Coal to the Terminal or Handling of that Coal at the Terminal creates a disproportionate risk to the Terminal (when compared with Coal of other Access Holders),

and that it is reasonably practicable for the User to reduce that disproportionate consumption of capacity or disproportionate risk, DBCT Management may give written notice to the User to that effect.

- (b) If DBCT Management gives notice to the User pursuant to clause 3.7(a) the User must:
 - (i) meet with DBCT Management (or with the Operator if DBCT Management gives notice that the Operator is authorised to act as its nominee) to attempt to agree on an appropriate action plan; and
 - (ii) promptly, and in any event, within 60 days of the meeting referred to in clause 3.7(a)(i), develop and implement an action plan agreed between the parties or (if there is no agreement, but it is consistent with clause 3.7(c)) an action plan required by DBCT Management.
- (c) DBCT Management is not entitled to require anything in an action plan which would be:
 - (i) unreasonable or uneconomic for the User in all the circumstances; or
 - (ii) inconsistent with what is generally accepted as good operating practice in the prevailing circumstances.
- (d) A dispute between DBCT Management (or the Operator) and the User in respect of this clause 3.7 may be referred to dispute resolution in accordance with clause 15.

4. PAYMENT OF CHARGES AND ADJUSTMENTS

[Drafting Note: This clause will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

4.1 Interpretation of Pricing Provisions

In this Agreement, the following principles of interpretation shall apply:

- (a) for so long as there is a single Terminal Component, the terms and definitions of this Agreement relevant to pricing apply to all Access collectively; and
- (b) where there are multiple Terminal Components, the terms and definitions of this Undertaking Agreement relevant to pricing apply to each Terminal Component separately.

For the avoidance of doubt, the Access contracted under this Agreement relates to [the Existing Terminal / a Differentiated Expansion Component].

4.2 Charges payable regardless of remedies

The charges payable pursuant to this clause 4 must be paid by the User promptly when due, regardless of any remedies which might be available to the User pursuant to clause 13 or otherwise:

- (a) except to the extent that clause 5.3 applies;
- (b) unless and until, and to the extent that, it is determined through dispute resolution or agreed that the charges are not payable pursuant to clause 13.4(b); and
- (c) unless a relevant Delay is caused by Wilful Default by DBCT Management (clause 13.5).

4.3 Access Charges

Access Charges for each Terminal Component will comprise two parts:

- (a) a Capital Charge, being:
 - (i) in respect of Reference Tonnage, the TIC;
 - (ii) in respect of Excess Tonnage, the Excess Charge; and
 - (iii) where applicable, the Year End Adjustment and the Provisional Increment Repayment; and
- (b) a charge to recoup the costs of operation and maintenance of the Terminal, being:
 - (i) the Handling Charge – Fixed;
 - (ii) the Handling Charge – Variable; and
 - (iii) where applicable, charges for Miscellaneous Services.

4.4 User to pay TIC

The User must pay the TIC to DBCT Management for each tonne of Annual Contract Tonnage by monthly instalments (each a Monthly Payment) in accordance with clause 5.1(b).

4.5 User to Pay Excess Charge

- (a) Subject to clause 4.5(b) the User must pay to DBCT Management the Excess Charge applied to Excess Tonnage (if any) Handled by DBCT Management during the Financial Year annually in arrears in accordance with clause 5.1(b).
- (b) If required by DBCT Management, the User must pay to DBCT Management (in addition to the Monthly Payment) an amount equal to the TIC, for each tonne of Excess Tonnage Handled by DBCT Management during a relevant Financial Year, as a prepayment against the Excess Charge payable annually in arrears pursuant to clause 4.5(a). Any such prepayment will be payable in arrears, after invoice, in accordance with clause 5.1(b).

4.6 DBCT Management to pay Year End Adjustment

If any one or more of the Access Holders (including the User) Ship Excess Tonnage in a Financial Year, DBCT Management must pay the User (and other Access Holders) the Year End Adjustment in accordance with clause 5.1(e).

4.7 DBCT Management to pay Provisional Increment Repayment

DBCT Management must pay the User (and other Access Holders) the Provisional Increment Repayment (if any) in accordance with clause 5.1(f).

4.8 User to pay Handling Charge - Fixed

- (a) The User must pay HCF to DBCT Management, calculated in accordance with clause 6.2.
- (b) On an interim basis (subject to end-of-Financial Year reconciliations and adjustments pursuant to clause 5.1(d)) the User must pay DBCT Management monthly instalments each equal to one-twelfth of the annual HCF reasonably estimated by DBCT Management at the commencement of the relevant Financial Year.

4.9 User to pay Handling Charges - Variable

- (a) The User must pay HCV to DBCT Management, calculated in accordance with clause 6.3.
- (b) On an interim basis (subject to end-of-Financial Year reconciliations and adjustments pursuant to clauses 5.1(c)(iii) and 5.1(d)) the User must pay DBCT Management monthly

instalments each equal to one-twelfth of the annual HCV reasonably estimated by DBCT Management at the commencement of the relevant Financial Year.

4.10 User to pay Miscellaneous Services charges

The User must pay DBCT Management for Miscellaneous Services provided at the Terminal where such services are charged separately from HCF and HCV, at the rates applicable pursuant to clause 6.4.

4.11 DBCT Management's business interruption insurance

Any insurance premium which relates to business interruption cover for DBCT Management will not form part of any HCV, HCF or Miscellaneous Charge. (For clarification, this is because of the obligation of Access Holders whose Access Agreement is on Reference Terms to continue paying Access Charges whilst an event of Force Majeure continues - clause 13.3(b)).

5. ACCOUNTS

[Drafting Note: This clause will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

5.1 Calculation, rendering and payment of tax invoices

- (a) DBCT Management and the User must give each other appropriate tax invoices or adjustment notes for any charge payable by the User to DBCT Management or any amounts payable by DBCT Management to the User under clause 4.
- (b) With respect to the Monthly Payment, HCF, HCV, charges for Miscellaneous Services and the Excess Charge, the User must pay each tax invoice duly given to it by DBCT Management by no later than that date (the "Due Date") which is 30 days after the date of receipt of that tax invoice.
- (c) Tax invoices may only be rendered by DBCT Management as follows:
 - (i) monthly in arrears for the Monthly Payment, and monthly instalments of HCF, HCV and charges for Miscellaneous Services; and
 - (ii) in arrears at any time after the departure of a vessel loaded with Excess Tonnage, in respect of any prepayment relating to that Excess Tonnage and required pursuant to clause 4.5(b); and
 - (iii) annually in arrears in respect of any part of the Excess Charge not prepaid under clause 5.1(c)(ii).
- (d) With respect to the annual reconciliation and adjustment of HCF and HCV:
 - (i) DBCT Management must calculate and notify the User of any adjustment required against interim amounts paid in respect of HCF and HCV within one month from the end of the Financial Year to which it relates.
 - (ii) DBCT Management or the User (as applicable) must then give the other an appropriate tax invoice reflecting the payment to be made pursuant to any adjustment under clause 5.1(d)(i) on or before the date 14 days after the amount of the adjustment is notified to the User by DBCT Management (or, if later, within 14 days after the resolution of any dispute over the calculations of adjustments, including any dispute referred to in clause 5.1(d)(iv)).
 - (iii) The parties must pay the adjustment relevant under this clause 5.1(d) within 14 days after the receipt of a relevant tax invoice pursuant to clause 5.1(d)(ii).

- (iv) If the adjustment contemplated under this clause 5.1(d) is wholly or partially impacted by a dispute (as between two or more of the User, another Access Holder and DBCT Management), no amount need be paid in respect of that disputed amount until that dispute has been resolved but, as far as it is practicable, undisputed amounts must be promptly paid (with tax invoices being given accordingly, but the giving of a tax invoice in respect of the undisputed part of a payment will not prejudice the dispute). DBCT Management and the User must use reasonable endeavours to attempt to expeditiously resolve any such dispute to which they are a party.
- (e) With respect to the Year End Adjustment:
 - (i) DBCT Management must calculate and notify the User of any Year End Adjustment within one month from the end of the Financial Year to which it relates.
 - (ii) The User must render the appropriate tax invoice reflecting the payment to be made (if any) pursuant to the Year End Adjustment on or before the date 14 days after the amount (if any) of the Year End Adjustment is notified to the User by DBCT Management (or, if later, within 14 days after the resolution of any dispute over the calculation of adjustments, including any dispute referred to in clause 5.1(e)(iv)).
 - (iii) DBCT Management must pay the amount (if any) of the Year End Adjustment within 14 days after receipt of a relevant tax invoice pursuant to clause 5.1(e)(ii).
 - (iv) If the Year End Adjustment is wholly or partially impacted by a dispute (as between two or more of the User, another Access Holder and DBCT Management), no amount need be paid in respect of that disputed amount until that dispute has been resolved but, as far as it is practicable, undisputed amounts must be promptly paid (with tax invoices being given accordingly, but the giving of a tax invoice in respect of the undisputed part of a payment will not prejudice the dispute). DBCT Management and the User must use reasonable endeavours to attempt to expeditiously resolve any such dispute to which they are a party.
- (f) With respect to the Provisional Increment Repayment, if DBCT Management has applied to the QCA to retain the Provisional Increment in respect of any Financial Year and the QCA subsequently determines that DBCT Management is entitled to an Increment for that Financial Year which is a lesser amount than the Provisional Increment or is not entitled to an Increment for that Financial Year, then DBCT Management must promptly notify the User of the Provisional Increment Repayment payable to the User, and pay that amount to the User within 7 days after receiving a tax invoice from the User for that amount.

5.2 Interest on late payments

- (a) If the User does not pay a tax invoice by the Due Date, DBCT Management, without prejudice to its other rights under this Agreement, may charge interest to the User on the amount owed computed from the Due Date to the actual date of payment at the Default Interest Rate, and unpaid interest may be compounded and itself incur interest, on a monthly basis until payment at a rate equal to 1/12th of the Default Interest Rate.
- (b) If DBCT Management does not make a payment to the User on the date due for such payment or does not notify the User of the amount of an adjustment to be paid by DBCT Management by the required date to do so, the User, without prejudice to its rights under this Agreement, may charge interest to DBCT Management on the amount owed

computed from the date due for such payment (or the date on which payment would have become due had the adjustment been duly notified) to the actual date of payment at the Default Interest Rate, and unpaid interest may be compounded and itself incur interest on a monthly basis until payment at a rate equal to 1/12th of the Default Interest Rate.

5.3 Disputes over accounts

- (a) Subject to clauses 5.1(d)(iv) and 5.1(e)(iv) if the User disputes the amount of a tax invoice from DBCT Management on the basis that it contains a manifest administrative error or is incorrectly calculated, then the User must pay:
- (i) the whole of the undisputed part of the tax invoice by the Due Date; and
 - (ii) 50% of the disputed portion, pending resolution of that dispute (and the User will not be in default for non-payment, if it does so).
- (b) Payment in accordance with clause 5.3(a) will not prejudice the User's rights under clause 15.
- (c) If following the resolution of a dispute, DBCT Management refunds that portion of the disputed tax invoice which has been paid or the User pays the unpaid portion of a disputed tax invoice, then DBCT Management or the User shall pay interest at the No Fault Interest Rate on the refunded amount (in the case of DBCT Management) or the paid amount (in the case of the User) computed from the date on which the disputed amount was originally due to the date the adjustment is paid.

6. HANDLING CHARGES

[\[Drafting Note: Consequential amendments to this clause 6 may be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.\]](#)

6.1 Utilisation Advice

- (a) As soon as practicable after the Execution Date, the User must give a Utilisation Advice to each of DBCT Management and the Operator relating to the balance of the then current Financial Year (on a monthly basis) and the next 3 full Financial Years of the Term (on an annual basis).
- (b) By no later than 15 February in each Financial Year, the User must give a Utilisation Advice to each of DBCT Management and the Operator relating to the next full Financial Year (on a monthly basis) and the 3 full Financial Years of the Term following that next Financial Year (on an annual basis).
- (c) In the five Business Days preceding each 1 July, 1 October, 1 January and 1 April in each Financial Year, the User must update DBCT Management and the Operator with a revised Utilisation Advice relating to that Financial Year, together with projections of similar information for the 12 month period commencing on the date of that update.
- (d) The User will be under no liability to DBCT Management if the actual number, types or tonnages of vessels or the amount of Coal is or are greater or fewer than the number, types, tonnages or amounts estimated in this clause ~~6.1~~ or estimated in any advice given pursuant to this clause 6.1.

6.2 HCF

- (a) HCF for each Financial Year is calculated as follows:-

$$HCF = [OFC + DC + MC] \times \frac{ACT}{TACT}$$

Where:-

OFC is the aggregate of all Fixed Operating Costs for the Financial Year in respect of the relevant Terminal Component;

DC is other expenditure (not being Capital Expenditure) incurred by the Operator for the operation and maintenance of the relevant Terminal Component (including any Operator's margin) for that Financial Year and reimbursable by DBCT Management pursuant to the Operation & Maintenance Contract;

MC is the minor Capital Expenditure for the relevant Terminal Component (not included in DC) in the relevant Financial Year, to a maximum of \$3 million;

ACT is the higher of the User's Annual Contract Tonnage or the tonnage of Coal actually Shipped by it in the relevant Financial Year; and

TACT is the total of the annual contract tonnages (or if an Access Holder's actual tonnage Shipped is greater than its annual contract tonnage, the actual tonnage Shipped) of all Access Holders for each relevant Financial Year in respect of the relevant Terminal Component.

For clarification, tonnages referred to in this clause include Reference Tonnages and Non-Reference Tonnages.

- (b) As soon as practicable after each 31 May, having consulted with the Operator, DBCT Management must advise the User in writing of the estimated HCF payable by the User during the forthcoming Financial Year in respect of the relevant Terminal Component.

6.3 HCV

- (a) HCV for each Financial Year is calculated as follows:-

$$HCV = \frac{OVC}{TTCS} \times \text{the actual number of tonnes of Coal Shipped by the User pursuant to this Agreement in the relevant Financial Year.}$$

Where:-

OVC is the aggregate of all Variable Operating Costs in respect of the Handling of all Coal through the relevant Terminal Component for a Financial Year; and

TTCS is the total number of tonnes of Coal Shipped through the relevant Terminal Component during that Financial Year.

For clarification, tonnages referred to in this clause include Reference Tonnages and Non-Reference Tonnages.

- (b) As soon as practicable after each 31 May, and having consulted with the Operator, DBCT Management must advise the User in writing of the estimated HCV payable by the User during the forthcoming Financial Year in respect of the relevant Terminal Component.

6.4 Miscellaneous Services

- (a) Charges for Miscellaneous Services must be an amount which the Operator reasonably estimates as:-
- (i) relevant reasonable additional costs to be incurred by the Operator as a result of the Miscellaneous Services including the Operator's profit margin; and

- (ii) any other additional costs likely to be incurred by other Access Holders (for example, additional demurrage) as a result of the delays in Handling other Coal, arising out of the Miscellaneous Services.
- (b) Any charges recovered under this clause 6.4 or an equivalent clause in another User Agreement must be deducted from operating costs and the Operator's margin in respect of those operating costs for the purposes of calculating HCF and HCV.
- (c) The parties recognise that the Operator has historically charged Access Holders directly for some services provided at the Terminal, and nothing in this Agreement precludes that practice from continuing.

7. REVIEW OF CAPITAL CHARGES

[Drafting Note: This clause will be amended in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018.]

7.1 Reviews annually and when a Review Event occurs

Subject to clauses 7.2 and 7.3, the Capital Charge will be amended from time to time throughout the Term in accordance with Schedule 2.

7.2 Reviews on Agreement Revision Dates

- (a) All charges under this Agreement and the method of calculating, paying and reconciling them (including the terms of Schedule 2) and any consequential changes in drafting of provisions will be reviewed in their entirety, effective from each Agreement Revision Date, in accordance with the following provisions of this clause 7.2.
- (b) Each review pursuant to clause 7.2(a) will determine the types, calculation, payment and reconciliation of charges payable by the User pursuant to this Agreement, and may have regard to (amongst other things):
 - (i) the terms of the Access Undertaking (if any) effective from the relevant Agreement Revision Date;
 - (ii) the relevant Reference Tariff (if any) effective from the relevant Agreement Revision Date; and
 - (iii) if relevant, the differences in risk profile and cost to DBCT Management (direct and indirect) between the terms and conditions of this Agreement and the terms and conditions of the Standard Access Agreement at the relevant Agreement Revision Date,

and is intended to be undertaken at the same time, in conjunction with, and on the same basis as reviews under other User Agreements which are in terms similar to this Agreement where a similar review is due at the same time.

- (c) DBCT Management and the User must commence each review pursuant to clause 7.2(a) no later than 18 months prior to the scheduled relevant Agreement Revision Date, and:
 - (i) the parties must endeavour to agree as early as it is practicable to do so (if possible, by no later than the Agreement Revision Date) on the basis and amount of new charges to apply from the relevant Agreement Revision Date;
 - (ii) if the parties do not reach agreement by the date 6 months prior to the scheduled Agreement Revision Date, either party may refer the determination of the issues to arbitration in accordance with this clause 7.2, and if the arbitrator is the QCA, the parties must request the arbitrator to progress the arbitration in conjunction with the process at that time for development of a new Access Undertaking

(with the intention that reviewed charges will be determined no later than the commencement of the new Access Undertaking);

(iii) if there is no agreement or determination by the relevant Agreement Revision Date then:

(A) the charges (and method of paying and reconciling them) applying prior to that Agreement Revision Date will continue to apply until otherwise agreed or determined; and

(B) any determination or agreement will (unless the parties otherwise agree) operate retrospectively from the relevant Agreement Revision Date and, as soon as practicable after the determination or agreement, an adjustment will be paid by the relevant party (based on the amounts which have been paid to that date on an interim basis and the amounts which are agreed or determined to be payable from the Agreement Revision Date to the date the adjustment is paid) together with interest on the amount of the adjustment at the No Fault Interest Rate. The amount of interest will be determined by reconciling the amounts and timings of payments made on an interim basis with amounts payable and timing of those payments which would have applied in accordance with the agreement or determination.

(d) If the matter is referred under clause 7.2(c)(ii) to arbitration, then arbitration must be effected as follows:

(i) by the QCA in such manner as it sees fit, after consultation with the parties; or

(ii) if the QCA is unwilling or unable to act, by a single arbitrator agreed upon between the parties; or

(iii) in default of agreement under clause 7.2(c)(ii) within 10 days after the matter is referred to arbitration, by a single arbitrator selected by the Chair of the Queensland Chapter of the Institute of Arbitrators and Mediators, Australia.

(e) If a matter is referred to arbitration under clause 7.2(d)(ii) or clause 7.2(d)(iii), then the arbitrator must have regard to the following matters:

(i) an appropriate asset valuation of the Terminal and the relevant Terminal Component;

(ii) an appropriate rate of return for DBCT Management;

(iii) the terms of this Agreement;

(iv) the expected future tonnages of Coal anticipated to be Handled through the Terminal and the relevant Terminal Component;

(v) any other matter agreed to by the User and DBCT Management and notified by them in writing to the arbitrator;

(vi) any other matter which is submitted by either the User or DBCT Management and accepted by the arbitrator as being relevant; and

(vii) the then current approach of the QCA in respect of appropriate charges for services comparable to the Services (with the intent that the arbitration should produce an outcome similar to that which might have been expected had the QCA determined it).

- (f) Apart from an arbitration conducted under clause 7.2(d)(i) (which will be conducted in accordance with the rules and procedures required by the QCA), the arbitration must be conducted in accordance with clause 15.4.
- (g) If an Agreement Revision Date occurs, the parties will, in addition to reviewing the charges under this clause 7.2, meet together in good faith to negotiate any amendments to this Agreement which they consider to be relevant as a result of the changed circumstances following that Agreement Revision Date. Neither party will have any obligation to reach agreement on any revised terms.

7.3 Review to "user-pays" model

If:

- (a) all (or all but one) of the Access Holders who have Reference Tonnage in respect of the Terminal Component ("Reference Tonnage Access Holders") at the time agree to a revised methodology for calculating the relevant TIC (including any consequential changes to any other charges and to provisions in this Agreement in respect of the determination of charges) (the "Formula"); and
- (b) the Formula has no adverse impact on:
 - (i) DBCT Management's risk;
 - (ii) the pricing of Non-Reference Tonnage in respect of the Terminal Component;
 - (iii) the pricing of Tonnage in respect of each other Terminal Component; and
 - (iv) the net amount which DBCT Management would be entitled to earn and retain under this Agreement and other User Agreements,
- (c) the Formula is broadly in line (with further refinements) with the principles outlined in the submission by the DBCT User Group to the QCA in their submission dated 5 September 2003 for a "user pays" model of charging TIC; and
- (d) the application of the Formula at the time it is introduced is not expected to result in differences of more than 20% from the average amount of the relevant TIC, in amounts payable as TIC by either relevant Reference Tonnage Access Holders with good performance or Reference Tonnage Access Holders with poor performance; and
- (e) either:
 - (i) no relevant Reference Tonnage Access Holder (including, if applicable, the User) who has been notified of the proposal to adopt the Formula has within 30 days after the Formula is formally agreed to by the Reference Tonnage Access Holders referred to in clause 7.3(a) and that agreement is notified to all relevant Reference Tonnage Access Holders, made a submission to the QCA that the Formula does not comply with the foregoing principles in this clause 7.3; or
 - (ii) if such a submission has been made within the period in clause 7.3(e)(i), the QCA has notified DBCT Management and the User that it considers (on the basis of the material supplied to it) the Formula does substantially comply with the foregoing principles in this clause 7.3,

then (unless DBCT Management does not agree, which it must not do without good cause) from the commencement of the next Financial Year, the relevant TIC and other relevant charges will be determined in accordance with the Formula and Schedule 2 (and any other relevant provisions in this Agreement) will be deemed to be amended accordingly.

8. SET-OFF

8.1 DBCT Management may set-off

Unless otherwise stated, DBCT Management may set-off against any amount payable to the User under this Agreement any amount which is due and payable by the User to DBCT Management under this Agreement.

8.2 Amount set-off deemed to have been paid

Any amount set-off by DBCT Management is deemed to have been paid by the User and the amount against which the set-off has been effected is deemed to have been paid by DBCT Management to the User.

8.3 User may set-off

Unless otherwise stated, the User may set-off against any amount payable to DBCT Management under this Agreement any amount which is due and payable by DBCT Management to the User under this Agreement.

8.4 Amount set-off deemed to have been paid

Any amount set-off by the User is deemed to have been paid by DBCT Management and the amount against which the set-off has been effected is deemed to have been paid by the User to DBCT Management.

9. DETERMINATION OF TONNAGE

9.1 Certificate of weight and Cargo Manifest

The User must:

- (a) commission an independent surveyor to issue a certificate of weight of each cargo of the User's Coal loaded on a vessel at the Terminal, based on vessel draught measurements at the Port, or otherwise cause the weight of each cargo to be determined and certified in another way which is independent and acceptable to DBCT Management (acting reasonably) and (if DBCT Management so requires) adopted by all Access Holders;
- (b) send the Cargo Manifest (which must include a statement as to the weight so certified under clause 9.1(a)) to DBCT Management (with a copy to the Operator) upon completion of the loading of each vessel with a cargo of the User's Coal; and
- (c) ensure that a Product Shipment Notice is attached to each Cargo Manifest.

9.2 Basis of calculation

DBCT Management must use the information contained in each Cargo Manifest and Product Shipment Notice as the basis of calculating charges payable under this Agreement.

9.3 Further account

- (a) If at any time:-
 - (i) DBCT Management can demonstrate that an account previously sent to the User was incorrectly calculated, or based on incorrect information, so that DBCT Management was paid less than it was entitled to, DBCT Management may calculate and send to the User a further tax invoice for the difference owed to DBCT Management; and

- (ii) the User can demonstrate that an account previously sent to the User was incorrectly calculated, or based on incorrect information, so that DBCT Management was paid more than it was entitled to, DBCT Management must upon request by the User and delivery of a tax invoice or adjustment note, either pay to the User the difference owed to the User or issue a credit note to the User for the difference owed to the User.
- (b) In addition to payment of the amount referred to under 9.3(a) ("**Applicable Amount**"), DBCT Management (in the case of clause 9.3(a)(i)) or the User (in the case of clause 9.3(a)(ii)) shall be entitled to interest on the Applicable Amount calculated at the No Fault Interest Rate and calculated from the date on which the incorrectly calculated invoice was paid to the date on which the Applicable Amount was actually paid.

10. EXPANSION OF TERMINAL

10.1 Actions preliminary to decision to expand the Terminal

Before making any decision to Expand the Terminal, DBCT Management must:

- (a) advise the User of the reasons for, extent, timing and estimated cost of any Expansion Component under consideration;
- (b) consult the User as to whether changes in the User's Annual Contract Tonnage or the method of operation of the Terminal, including the User's arrangements for Shipping its Coal, would avoid or delay the need for the Expansion Component or reduce the extent or estimated cost of the Expansion Component; and
- (c) consider how to maximise the utilisation of the Terminal.

Nothing in this clause 10.1 limits any provision of the Access ~~Undertaking~~[Framework](#).

10.2 Minimisation of interference

DBCT Management must use all reasonable endeavours to carry out any Expansion of or other work at the Terminal and any infrastructure connected to the Terminal so as to minimise interference with the Handling of the User's Coal.

10.3 Terminal and System Capacity

- (a) DBCT Management will from time to time estimate Terminal Capacity (and Expansion Component Capacity, including Socialised Terminal Capacity or Differentially Priced Capacity for each Expansion Component, as applicable) and System Capacity in accordance with the Access ~~Undertaking~~[Framework](#) (or if there is no provision for doing so in an Access ~~Undertaking~~[Framework](#) at a relevant time, in accordance with the process applying under the last access undertaking or framework in which such a process was provided for).
- (b) DBCT Management must reassess Terminal Capacity, each relevant Expansion Component Capacity and System Capacity before entering into any new User Agreement or otherwise increasing the aggregate tonnage of Coal contracted to be Handled through the Terminal, unless it considers that none of the factors to be taken into account in determining Terminal Capacity, any relevant Expansion Component Capacity and System Capacity have materially changed since the most recent determination of Terminal Capacity, any relevant Expansion Component Capacity and System Capacity and that determination was made less than 12 months previously.
- (c) DBCT Management must not enter into any User Agreement if the Aggregate Annual Contract Tonnage would (after including the tonnage under the new User Agreement if it was entered into) exceed the System Capacity (as determined for the relevant time),

unless otherwise required or permitted to do so by the Access [Undertaking Framework](#), law or an agreement relating to its tenure of the Terminal (including the Framework Agreement and the Port Services Agreement). For clarification:

- (i) without limiting clause 19, this does not prohibit DBCT Management from entering into a Conditional Access Agreement, as long as the terms of all such Conditional Access Agreements are such that the increase in Aggregate Annual Contract Tonnage consequent on such Expansion occurring will nevertheless not cause Aggregate Annual Contract Tonnage to exceed System Capacity (based on the estimated System Capacity at the completion of the relevant expansion); and
 - (ii) DBCT Management will not be in breach of this Agreement if it has complied with the Access [Undertaking Framework](#) (or made good faith and reasonable attempts to comply) but an assessment of System Capacity (after the assessment required by the Access [Undertaking Framework](#) following the completion of a relevant Expansion) reveals that System Capacity is less than the Aggregate Annual Contract Tonnage at that time.
- (d) Notwithstanding any other provisions of this Agreement, if DBCT Management complies (or makes a good faith and reasonable attempt to comply) with the provisions of this clause 10.3, DBCT Management will not have any liability (whether for loss, damage, cost, expense or other remedy) nor will it be liable to the User for any:
- (i) breach of this clause 10.3;
 - (ii) delay which arises as a result of the Aggregate Annual Contract Tonnage (which was expected not to exceed Terminal Capacity or System Capacity) subsequently exceeding Terminal Capacity or System Capacity for any reason;
 - (iii) one or more factors related to utilisation of capacity of the Terminal or any other part of the System which subsequently changes (for example, changes in service levels required pursuant to a right of Access Holders under a Standard Access Agreement, the nature of coal Handled, an Access Holder's use of the Terminal, vessel mix, railway infrastructure, rolling stock or locomotives, rail loading facilities of mines or any other relevant factor) (provided that such factor is not a breach by DBCT Management of any other part of the Access [Undertaking Framework](#), this Agreement or any other User Agreement); or
 - (iv) ~~any~~ defect, error or omission on the part of the independent expert appointed under the Access [Undertaking Framework](#) to assist with the assessment of Terminal Capacity, each relevant Expansion Component Capacity (including Socialised Terminal Capacity and Differentially Priced Capacity) and System Capacity.
- (e) Subject to the provisions of this Agreement and to the requirements and provisions of the Access [Undertaking Framework](#), any statute and any agreement in respect of the tenure of the Terminal (including the Framework Agreement and the Port Services Agreement), DBCT Management agrees with the User that any request by the User for an increase in Annual Contract Tonnage pursuant to clause 11.1 will be agreed to, to the extent that it does not cause System Capacity to be exceeded.

11. CHANGES TO ANNUAL CONTRACT TONNAGE

[\[Drafting Note: Consequential amendments to this clause 11 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018\]](#)

11.1 Adjustments at User's request

- (a) The User may only adjust its Annual Contract Tonnage pursuant to this clause 11.1 or clause 12.2.
- (b) [From the date 5 years after the commencement of the Shipment (or increased rate of Shipment) of Coal arising out of the Current Expansion - ***add these words for a User Agreement under which Coal is Shipped for 10 years or more and which necessitated an Expansion***] The User may without penalty reduce the Annual Contract Tonnage by giving not less than five years notice to DBCT Management of the extent and the period of the reduction required.
- (c) If the User wishes to increase the Annual Contract Tonnage (for all or any part of the remainder of the Term), either:-
- (i) from the Annual Contract Tonnage at the Effective Date; or
 - (ii) from a lesser or greater Annual Contract Tonnage previously adjusted under this clause 11.1,
- then the User may so notify DBCT Management, which may:-
- (iii) subject to the availability of unallocated Terminal Capacity and System Capacity and the provisions of clauses 10.3 and 29.3, the Access Undertaking Framework, any statute, and any agreement in respect of the tenure of the Terminal as it existed at 1 July 2005 (including the Port Services Agreement and the Framework Agreement), allow the User to increase the Annual Contract Tonnage (wholly or partially) to the respective amounts and periods requested; or
 - (iv) advise the User that no increase can occur, because it would cause Terminal Capacity or System Capacity to be exceeded.
- (d) Nothing in this clause limits any other rights which the User may have as an Access Seeker under the Access Undertaking Framework or in clause 11.2 or clause 12.3.

11.2 Shipping Coal in excess of Annual Contract Tonnage

The User may from time to time (subject to the availability of unused capacity) Ship Coal in excess of its Annual Contract Tonnage, provided that:

- (a) this does not cause any additional expense or unreasonable interference to another Access Holder;
- (b) the User pays the Excess Charge in respect of each tonne of Coal so Handled; and
- (c) the User pays an adjusted handling charge having regard to the increased tonnes of Coal so Handled.

If the User is entitled to Ship Reference Tonnage and Non-Reference Tonnage, the additional Coal Handled under this clause 11.2 will be Handled as Excess Tonnage.

11.3 User not using Annual Contract Tonnage

If, in the reasonable opinion of DBCT Management, a User has not Shipped and is unlikely to Ship its Annual Contract Tonnage over a sustained period and such failure is not due to a Force Majeure event at the Terminal or a failure by DBCT Management to Ship the User's Coal, then the following will apply:-

- (a) DBCT Management may notify the User that DBCT Management has formed the opinion that the User has not Shipped and is unlikely to Ship its Annual Contract Tonnage over a

sustained period and that there is a reasonable expectation of demand from other Access Holders or Access Seekers for the User's underutilised tonnage;

- (b) the User must make submissions as to whether the User has not Shipped and is unlikely to Ship its Annual Contract Tonnage over a sustained period within 21 days of receiving the notice from DBCT Management;
- (c) if the User fails to produce reasonable evidence that demonstrates that it is likely in future to substantially Ship the whole of its Annual Contract Tonnage, then DBCT Management may notify the User that it intends to appropriately reduce the User's Annual Contract Tonnage;
- (d) if the User considers that DBCT Management has not complied with the requirements of this clause in reducing the User's Annual Contract Tonnage, then the User may, within 21 days of receiving notice under clause 11.3(c), refer the matter to dispute resolution in accordance with clause 15 ~~and require that (if conciliation does not resolve the dispute) the dispute proceed to arbitration by the QCA (provided that the QCA consents to act as arbitrator)~~;
- (e) DBCT Management must not implement a reduction in Annual Contract Tonnage until the expiration of the period for resolution of a dispute referred to in clause 11.3(d); and
- (f) if DBCT Management reduces the Annual Contract Tonnage under this clause 11.3 and the User has Non-Reference Tonnage and Reference Tonnage, the reduction must first be applied to the Non-Reference Tonnage.

11.4 Capacity to be taken into account only once

If the User notifies DBCT Management that the User is unable to, and forgoes its right to, Ship all or part of its Annual Contract Tonnage (the "**Notified Tonnage**") through the Terminal for any period (the "**Notified Period**"), then, for the purpose of charges otherwise payable by the User for the Notified Period, the User's Annual Contract Tonnage will be taken to be reduced by such part of the Notified Tonnage in respect of which DBCT Management grants additional annual contract tonnage to another Access Holder (for the same or comparable charges to those reduced under this clause) and which DBCT Management would not have been able to grant (due to lack of capacity) but for the User foregoing its right to Ship the Notified Tonnage through the Terminal.

11.5 Reduction in tonnes Handled where User fails to obtain rail access

- (a) Before the User is entitled to have coal Handled pursuant to this Agreement, it must produce evidence reasonably satisfactory to DBCT Management that the Annual Contract Tonnage under this Agreement is matched by an entitlement held by the User (or a person on its behalf) to railway track access relating to the coal the subject of this User Agreement:
 - (i) for the whole of the Term; or
 - (ii) for any relevant shorter period.
- (b) If the User only produces such evidence of access to railway track entitlement pursuant to clause 11.5(a)(ii) for a period shorter than the entire Term, it must continue to provide evidence of such access before the commencement of each successive period during the Term for which such evidence has not previously been produced, and the provisions of clause 11.5(c) will apply in respect of each of the first and each successive such ~~periods~~ period during the Term.
- (c) To the extent the tonnage in respect of which the User is able to demonstrate an entitlement to railway track access for a relevant period is less than the Annual Contract Tonnage for that period, the Annual Contract Tonnage will (despite any other provisions of this Agreement):

- (i) be deemed to be reduced to that lesser tonnage, for all purposes relevant to the entitlement to have coal Handled at the Terminal pursuant to this Agreement during such period; but
 - (ii) will remain unchanged for all other purposes pursuant to this Agreement, and specifically for the purposes of the liability of the User to pay Access Charges and any other amount payable pursuant to this Agreement based on the actual Annual Contract Tonnage.
- (d) DBCT Management will in good faith make an assessment of the tonnage of coal able to be railed to the Terminal pursuant to an entitlement to railway track access (which would normally be expressed as a number of train paths for any relevant period) and (subject to clause 15) the tonnage so determined shall be the tonnage which is adopted for the purpose of comparison with the Annual Contract Tonnage for a period for the purposes of this clause 11.5.
- (e) Where a relevant period is not a whole Financial Year or not two or more whole Financial Years, references in this clause to Annual Contract Tonnage over that period will mean that part of the Annual Contract Tonnage which accrues over that period, assuming it accrues throughout each Financial Year in equal increments.

12. ASSIGNMENT

12.1 DBCT Management may assign

After consultation with the User, DBCT Management may assign all or any part of its benefits under this Agreement to any person who is responsible and has the expertise and financial capacity needed to operate and maintain the Terminal and comply with the obligations of DBCT Management under this Agreement.

12.2 User may assign

With the prior consent of DBCT Management, which consent will not be unreasonably withheld, a User may assign all or part of its rights or entitlements under this Agreement (including, in particular, all or part of its Annual Contract Tonnage) permanently or temporarily on the following basis:-

- ~~(a) — the assignment will not be effective unless~~
- (a) the assignment will not be effective unless:- the assignee enters into a deed (prepared by DBCT Management at the expense of such assignee) with DBCT Management substantially in the form contained in Schedule 6 by which DBCT Management and the assignee agree to be bound by the terms, conditions and obligations of this Agreement or the assignee's User Agreement (as DBCT Management, acting reasonably, determines) in respect of the assigned rights or entitlements as if the assignee were the User in respect of those assigned rights and entitlements;
- (b) when the assignment takes effect, the User will be discharged from all terms, conditions and obligations of this Agreement (except to the extent that they accrued prior to the assignment) in respect of the rights and entitlements assigned; and
- (c) if the User assigns only part of its rights or entitlements to another person, this Agreement will be treated from that time as if it were only an Agreement in respect of the unassigned rights or entitlements.

For clarification, "assign" and "assignment" includes novation or variation to the parties' respective User Agreements.

12.3 Response to requests for consent to assignment by User

- (a) DBCT Management will not be required to consent to a proposed assignment of rights or entitlements under 12.2 (whether by way of assignment or novation), but DBCT Management must consent to any such proposed transfer unless DBCT Management (acting reasonably) is satisfied that:
- (i) the assignor is in material breach of this Agreement;
 - (ii) the assignee:
 - (A) is not of good financial standing, creditworthy and able to fully discharge the financial obligations of the Access Holder under the relevant Access Agreement or the assignee otherwise provides security in a form acceptable to DBCT Management (acting reasonably) for the performance of the obligations under this Agreement in respect of the transferred rights or entitlements;
 - (B) is incapable of performing the obligations of the Access Holder under the Access Agreement in respect of the transferred rights or entitlements, including complying with the Terminal Regulations; and/or
 - (C) is unable to reasonably demonstrate that the rights or entitlements to be transferred under the relevant Access Agreement are matched by an entitlement to railway track access held by the assignee or a person on its behalf; and.
- (b) The assignor must provide all information reasonably required by DBCT Management to assess the criteria specified in clause 12.3(a) to DBCT Management in a timely manner.
- (c) DBCT Management must take all steps necessary to assess and respond to any request for a transfer as soon as reasonably practicable.
- (d) ~~Without limitation to clause 15, an~~ An Access Holder or an Access Seeker may refer ~~to the QCA~~ as a dispute to arbitration under clause 15 of this Undertaking Agreement:
- (A) any refusal by DBCT Management to consent to a transfer;
 - (B) any failure to agree the reasonable terms governing an Access Agreement which is the subject of a transfer; and
 - (C) any failure by DBCT Management in assessing or responding to a request for transfer in a timely manner.

12.4 Change of control of User

- (a) The User must obtain DBCT Management's consent (not to be unreasonably withheld or delayed) to any Change of Control in the User. DBCT Management's consent may be subject to reasonable conditions (including the provision of reasonable security) and the User must comply with any conditions.
- (b) Any dispute in respect of the reasonableness of any refusal by DBCT to consent to a Change of Control, or of any conditions sought by DBCT Management under this clause 12.4, may be referred as a dispute under clause 15.

12.5 Permission to third party to Ship

With the prior consent of DBCT Management (which will not be unreasonably refused, particularly if the third party is another Access Holder), the User may permit a third party to Ship Coal through

the Terminal treating that cargo as part of the User's Annual Contract Tonnage, without complying with clause 12.2. In such case:

- (a) the User will remain liable for the performance of its obligations under this Agreement in respect of all Coal so Handled, and for all purposes that Coal will be taken to be the Coal of the User Handled pursuant to this Agreement;
- (b) the User must give DBCT Management and the Operator a notice in the form of Schedule 7 (which will constitute a request for DBCT Management's consent) not less than 14 days prior to the scheduled departure of the relevant vessel, but DBCT Management must accept such shorter period of notice as causes no unreasonable adverse consequences to it, the Operator or other Access Holders;
- (c) the cargo must be made in accordance with the notice provided under clause ~~12.3~~[12.5](#)(b) (provided that DBCT Management and the Operator do not refuse consent to the request made); and
- (d) the Product Shipment Notice attached to the Cargo Manifest provided by the User under clause 9.1 must disclose the name or names of any third party so using the User's Annual Contract Tonnage, and the tonnages of Coal so Handled for that third party.

13. REMEDIES

13.1 DBCT Management's remedies in the event of Delay

- (a) To the extent that the User is responsible for a Delay, or a Delay arises from events external to the Terminal, DBCT Management's remedies will be limited to its entitlement to payment of the charges provided for in clause 4 of this Agreement.
- (b) Nothing in this clause 13.1 precludes DBCT Management from applying for an injunction, declaration or specific performance in respect of the User's obligations under this Agreement.

13.2 User's remedies in the event of Delay

To the extent that the User is not responsible for a Delay and to the extent that a Delay does not arise from events external to the Terminal, the User's remedies against DBCT Management in respect of the Delay are limited as set out below:

- (a) If the Delay is a Permissible Delay, DBCT Management will have no liability to the User in respect of any Claim for ~~loss~~[Loss](#) arising from the Delay;
- (b) If the Delay arises from Force Majeure affecting DBCT Management's ability to comply with its obligations, clause 13.3 applies;
- (c) If the Delay arises from Wilful Default by DBCT Management, clause 13.5 applies; [and](#)
- (d) In all other circumstances, and without prejudice to its right to dispute responsibility for the Delay, the User must continue to meet its payment obligations under clause 4 unless and until the adjudication of an arbitrator, order of the Court or agreement between the parties, determines responsibility for the Delay, in which case clause 13.4 applies.

Nothing in this clause 13.2 precludes the User from applying for an injunction, declaration or specific performance in respect of DBCT Management's obligations under this Agreement.

13.3 Force Majeure

- (a) If DBCT Management is affected by an event of Force Majeure, such that it will be unable to fulfil all or part of its obligations under the Agreement (the "**Affected**

Obligations"), and anticipates Delays exceeding 48 hours, it must notify the User within 7 days after the occurrence of the event, providing full details of:

- (i) the Affected Obligations and Delays expected;
 - (ii) the action that DBCT Management has taken and proposes to take to remedy the situation; and
 - (iii) DBCT Management's estimate of the time during which it will be unable to carry out the affected obligations due to the event of Force Majeure.
- (b) DBCT Management's Affected Obligations under this Agreement shall be suspended (without it being in default) to the extent of and for the period that the performance of such obligations are affected by an event of Force Majeure, provided that it complies with clause 13.3(c). However, the User's obligations to pay the Charges in clause 4 will not abate during a period where DBCT Management is affected by an event of Force Majeure.
- (c) DBCT Management must:
- (i) use all reasonable efforts (including the expenditure of reasonable sums of money) to mitigate the effect of the event of Force Majeure upon its performance of this Agreement; and
 - (ii) keep the User informed (not less than fortnightly) of the steps being taken to mitigate the effect upon the performance of this Agreement, including an estimate of the continued duration of the Delay.

13.4 User's rights for Delays attributable to other circumstances

In the circumstances in clause 13.2(d), DBCT Management's liability to the User is limited to:

- (a) the Third Party Amount; plus
- (b) if the adjudication of an arbitrator, order of a court or agreement between the parties determines that the Delay was at least 66% DBCT Management's Personal Responsibility, and to the extent that there is any shortfall in the recovery by the User of its Direct Loss from the Third Party Amount - the User's Direct Loss in respect of the Delay, but not exceeding the percentage of the User's Direct Loss equivalent to the percentage of DBCT Management's Personal Responsibility.

13.5 Wilful Default by DBCT Management

If a Delay is caused by Wilful Default by DBCT Management, the User:

- (a) is relieved to that extent of any corresponding payment obligations under clause 4;
- (b) may terminate this Agreement pursuant to clause 14.3; and
- (c) may sue DBCT Management for damages for breach of contract.

13.6 Long Term Delays

- (a) This clause 13.6 sets out certain rights and obligations of the parties in respect of Delays, including Long Term Delays. This clause 13.6 is:
 - (i) in addition to, and does not limit any other provision of this Agreement; and
 - (ii) does not limit or affect any other right which a party may have against another party in respect of an act or omission of the other party.
- (b) If ~~loss~~Loss, damage or destruction occurs in respect of the Terminal, DBCT Management must promptly claim and thereafter promptly apply all relevant available insurance

proceeds towards reinstatement of the damaged property, unless (having regard to factors such as the reasonably foreseeable ongoing needs for Handling at the Terminal) DBCT Management considers that reinstatement is not in the interests of stakeholders and no less than 60% of Access Holders (by tonnage), and the QCA and DBCT Holdings all agree that reinstatement should not occur.

- (c) If Long-Term Delays occur, such that the capacity of the Terminal (as demonstrated by its performance) on a sustained on-going basis is less than 95% of the Aggregate Annual Contract Tonnage at that time (the difference being referred to as the "**Shortfall**"), then DBCT Management must undertake an Expansion of the Terminal sufficient to eliminate the Shortfall if (and on the same basis as) DBCT Management would have been obliged under the terms of the Access Undertaking Framework (in particular considering sections ~~12.3, 12.4, 12.7,~~ 11.3, 11.4, 11.7, and ~~12.8~~ 11.8 of the Access Undertaking Framework) to undertake an Expansion had the amount of the Shortfall been the annual contract tonnage sought by new Access Seekers whose offers to enter into User Agreements prima facie triggered the requirement for an Expansion. For clarification, DBCT Management will not be obliged to undertake an Expansion under this Agreement:
- (i) if such Expansion is unreasonable and uneconomic pursuant to section ~~12.7~~ 11.7 of the Access Undertaking Framework; or
 - (ii) if section ~~12.8~~ 11.8 of the Access Undertaking Framework applies.
- (d) If at any time:
- (i) the capacity of the Terminal on a sustained ongoing basis is reduced to the order of 10%, or less, of the Aggregate Annual Contract Tonnage of all Access Holders at the time;
 - (ii) the reduction of capacity referred to in clause 13.6(d)(i) above, is not attributable to an act or omission of the User; and
 - (iii) DBCT Management does not, within a reasonable time after a written request by the User to do so ("reasonable" being assessed according to the extent of works needed to redress the situation), commence and expeditiously proceed with the works necessary to reinstate the Terminal to a capacity sufficient to meet the reasonably expected sustained ongoing demand for Handling of Coal (whether or not DBCT Management has an obligation to undertake such works),

the User may terminate this Agreement, on giving not less than 30 days' notice to DBCT Management to that effect in writing. Neither party will be liable to the other arising from such a termination (other than a liability which arises prior to the date of termination).

13.7 Limitation period for notice of Claims by User

- (a) The User shall not be entitled to make any Claim against DBCT Management in respect of any Delay unless written notice of the Claim specifically reserving the User's rights under clause 13.2 has been given to DBCT Management by the date 4 months after the end of the Financial Year in which the Delay first occurred (or, if a material fact of a decisive character relating to the right to Claim against DBCT Management was not within the means of knowledge of the User until after that time, within 2 months of the date on which the User first becomes aware of that material fact). Any subsequent ~~loss~~ Loss arising directly or indirectly from the cause of the first occurrence may be included in the Claim without further notice being given, but a separate notice must be given for each different and unrelated cause from which it is alleged a Claim arises.
- (b) This clause 13.7 does not apply to a Claim to the extent that it is made under clause 13.6.

14. TERMINATION

14.1 Suspension

If the User is in default in the due and punctual performance of an obligation under this Agreement and:

- (a) in respect of the User's default of an obligation to pay money or to provide any Security required pursuant to clause 29, such default has not been remedied within 30 days after DBCT Management has given written notice to the User of the default; or
- (b) in respect of the User's default of a material obligation (other than an obligation to pay money or provide Security), such default has not been remedied, or the User has not expeditiously commenced to remedy it, within 60 days after DBCT Management has given written notice to the User of the default,

then, without prejudice to DBCT Management's other rights under this Agreement, DBCT Management may (by written notice to the User pursuant to this clause) suspend the User's rights to have its Coal Handled under this Agreement until payment (including interest under clause 5.2) is made, Security is provided or the other relevant default is remedied or commenced to be expeditiously remedied. If such suspension occurs, the User's obligations based on its Annual Contract Tonnage (for example charges based on those amounts) will be unchanged, but DBCT Management's obligations to Handle those amounts for the relevant Financial Year will be reduced proportionately.

14.2 Termination by DBCT Management

Subject to clause 14.5, if DBCT Management has duly given notice that it has suspended the User's rights to have its Coal Handled (but not the User's obligations) under this Agreement pursuant to clause 14.1 and if the default still has not been remedied after a further period of 14 days from the notice of suspension, DBCT Management may terminate this Agreement forthwith by further notice to the User pursuant to this clause.

14.3 Termination by User

Subject to clause 14.5, the User may terminate this Agreement by written notice to DBCT Management as follows:-

- (a) if DBCT Management is in default in the due and punctual performance of an obligation to pay money under this Agreement and such default has not been remedied for a period of 30 days after the User has given to DBCT Management written notice specifying the default and requiring the default to be remedied; or
- (b) if DBCT Management is in default in the due and punctual performance of a material obligation under this Agreement (not being an obligation to pay money or a Delay) and such default has not been remedied or DBCT Management has not expeditiously commenced to remedy such default within a period of 60 days after the User has given to DBCT Management written notice specifying the default and requiring the default to be remedied.

14.4 Abandonment of Coal on termination

The User must remove any of its Coal remaining in the Terminal within three months from the termination of this Agreement, whether by expiry or otherwise, failing which the Coal will be deemed abandoned.

14.5 Disputes about defaults

If an event or circumstance is alleged to constitute a default referred to in clause 14.2 or clause 14.3 and is the subject of a dispute under clause 15, then DBCT Management or the User (as applicable) shall not exercise any right to suspend or terminate this Agreement unless and until the default has not been rectified within a reasonable time (being not less than 14 days) after the end of the resolution process in clause 15.

15. GOVERNING LAW AND DISPUTE RESOLUTION

[Drafting Note: Consequential amendments to the dispute resolution provisions in this clause 15 may be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

15.1 ~~Notice of dispute~~ Governing law

This Agreement is governed by the laws in force in the State of Queensland.

15.2 Disputes

- (a) (Disputes under this Agreement) If a dispute between DBCT Management and the User arises out of or in connection with this Agreement, then ~~either,~~ unless otherwise agreed by the parties in writing, such dispute will be resolved in accordance with this clause 15. Either party may give to the other party a notice of dispute in writing ~~adequately~~ identifying and providing details of the dispute.
- (b) (Disputes under the Framework) If any dispute or question arises under the Framework, or in relation to the negotiation of Access between an Access Seeker or Access Holder and DBCT Management, such dispute will be resolved in the manner specified in the Framework.
- (c) (Dispute under Deed Poll) The courts of Queensland have exclusive jurisdiction to determine any dispute arising under the Deed Poll.

15.3 ~~15.2 Further steps required before court proceedings~~ arbitration

- (a) Subject to clause 15.5, no party may commence ~~any court proceedings or~~ arbitration in respect of any dispute notified or notifiable under this clause 15 until that party has complied with the requirements of this clause ~~15.2 and clause~~ 15.3.
- (b) Within 14 days after service of a notice of dispute, the senior executives of DBCT Management and the User (or people for the time being acting in that role) must confer at least once to attempt to resolve the dispute, and failing resolution of the dispute to consider and if possible agree on methods of resolving the dispute by other means.
- (e) ~~—~~ If the dispute cannot be so resolved after a further period of 14 days or if at any time either DBCT Management or the User considers that the other party is not making reasonable efforts to resolve the dispute, either party may ~~by notice in writing given to the other party refer such dispute to conciliation in accordance with clause 15.3~~ refer such dispute to arbitration in accordance with clause 15.4.

15.3 ~~Conciliation~~

~~Conciliation of the dispute must:~~

- (a) ~~—~~ be conducted at Brisbane in accordance with the Guidelines for Commercial Conciliation of the Australian Commercial Disputes Centre Limited in force at the Execution Date;
- (b) ~~—~~ be at the cost and expense of the parties equally (except that each party must pay its own advisers, consultants and legal fees and expenses) unless the parties otherwise agree;

- (e) ~~if not earlier resolved, be continued for a period expiring on the date being 14 days after the nomination of the conciliator,~~

after which:-

- (d) ~~the parties may agree to refer such dispute to arbitration in accordance with clause 15.4; or~~
- (e) ~~either party may pursue any other means of dispute resolution (for example, litigation).~~

15.4 Arbitration procedure

- (a) Any disputes that are not otherwise resolved in accordance with this clause 15 will be submitted to arbitration in accordance with, and subject to, the Resolution Institute Arbitration Rules (Rules).
- (b) ~~(a) If any dispute is referred to arbitration under this Agreement, The~~ arbitration must be effected by a single suitably qualified and experienced arbitrator who is either:
- (i) ~~by a single arbitrator~~ agreed upon between the parties; or
 - (ii) in default of such agreement within 10 days after the dispute is referred to arbitration, then nominated by a single arbitrator selected by the Chair of the Queensland Chapter of the the Resolution Institute of Arbitrators and Mediators, Australia.
- (b) ~~The arbitration must be conducted in accordance with and subject to the Institute of Arbitrators and Mediators Australia Rules for the Conduct of Commercial Arbitrations.~~
- (c) ~~Subject to any other provision of this Agreement, the arbitrator may award any interest that the arbitrator considers reasonable.~~
- (c) ~~(d)~~ Any party to the arbitration may be represented before the arbitrator by a member of the legal profession without the need for leave of the arbitrator.
- (d) Any arbitration commenced under this Agreement may be consolidated with any other arbitration commenced under:
- (i) this Agreement; and / or
 - (ii) the Framework (or any agreement referred to in the Framework),
regardless of the parties involved, provided that the issue(s) which each arbitrator has been asked to determine concern common questions of fact or law. Such consolidated arbitration shall be determined by the arbitrator appointed for the arbitration proceeding that was commenced first in time.
- (e) The venue for any arbitration will be Brisbane, Queensland.
- (f) Unless otherwise determined by the arbitrator, the costs of the arbitration shall be paid by the unsuccessful party.

15.5 Interlocutory relief

This clause 15 does not prevent any party from seeking urgent interlocutory or declaratory relief from a court of competent jurisdiction ~~where, in that party's reasonable opinion, that action is necessary to protect its rights.~~

15.6 ~~QCA~~ Dispute not to affect performance of obligations

For the avoidance of doubt, ~~the parties may agree to refer any dispute in connection with this Agreement to the QCA for resolution. The parties are not relieved from performing their obligations under this agreement because of the existence of a dispute.~~

16. WARRANTIES

[Drafting Note: Consequential amendments to this clause 16 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

16.1 Warranties by DBCT Management

DBCT Management agrees and acknowledges that:

- (a) Subject to:
 - (i) an event of Force Majeure;
 - (ii) Maintenance Work; and
 - (iii) any decision to cease or reduce Maintenance Work for a component of the Terminal on the basis that it is more cost-efficient to replace it and it is to be replaced,each Terminal Component will be maintained to be available to operate to at least its rated design capacity;
- (b) it will ensure that the Terminal is maintained in accordance with Good Operating and Maintenance Practice;
- (c) it will consult with the User in relation to the appointment of any replacement Operator of the Terminal and will promptly on request negotiate amendments to this Agreement to reflect the terms of any new Access Undertaking Framework, from the time (should it occur) that Dalrymple Bay Coal Terminal Pty Ltd ceases to be the Operator;
- (d) DBCT Management will not differentiate Access Charges between Access Holders or between Access Holders and Access Seekers, other than:
 - (i) to reflect differences in cost (direct or indirect) or risks to DBCT Management of providing access to Services; or
 - (ii) as otherwise permitted or required by the Access Undertaking Framework (including for the avoidance of doubt, Differentiation based pricing);
- (e) the User will (at no charge, but at its own cost) be granted reasonable access to the Terminal for reasonable purposes, including customer goodwill inspections, performance of shipping agent functions, Coal sampling and User inspections of Operations, provided that on each occasion the User complies with the Operator's site rules, DBCT Management's reasonable visitor notification requirements and the User is accompanied by an authorised person at such times while on the Terminal site as DBCT Management or the Operator reasonably requires (provided that they make such a representative available, having been given reasonable notice by the User).

16.2 Warranties by the parties

Each party warrants to the others that it has the requisite power to enter into this Agreement from the Execution Date.

17. USER COMMITTEE AND IMPROVEMENT PROGRAM

17.1 Participation in User Committee

DBCT Management and the User agree to participate in a committee consisting of one representative of each of DBCT Management, the Operator and each Access Holder (the "User Committee").

17.2 Terms of reference of User Committee

The User Committee is established for the following purposes:

- (a) to provide a forum for consultation between all participants on matters relating to the operation and performance of the Terminal, including (without limitation) any factors relating to any participant which may impact on the future performance or efficiency of the Terminal;
- (b) to enable consultation between all participants on current and planned Terminal facilities, including all proposals for any enhancement of the Terminal; and
- (c) to consult on matters relating to the Terminal Regulations, including (without limitation) any proposed changes to the Terminal Regulations.

17.3 Frequency of meetings

DBCT Management and the User acknowledge that it is intended that the User Committee meet on a ~~quarterly~~ Quarterly basis and at such further times as participants in the User Committee agree.

17.4 Representation

DBCT Management and the User will each appoint, and acknowledge that each other prospective member of the User Committee is entitled to appoint, a person to represent its respective interests on the User Committee (each a "**Representative**"). If a Representative is not available to attend a meeting of the User Committee, the relevant member of the User Committee may nominate an alternate person to represent its interests at the User Committee.

17.5 Chairperson

The User agrees that the Representative appointed by DBCT Management will act as chairman of the User Committee.

17.6 Role of the Operator

DBCT Management must, as far as the Operation & Maintenance Contract allows, procure that the Operator provides appropriate support to the User Committee, including the provision of any relevant operational reports, as the User Committee may reasonably request the Operator to provide from time to time.

18. NOT USED

19. EXPANSION TONNES

[A Conditional Access Agreement in which all or part of the Annual Contract Tonnage does not apply until an Expansion (the 'Current Expansion') has occurred, in circumstances where that Expansion will form part of the Terminal under this Agreement once completed, will include a clause, an outline of terms of which are as follows:]

- (a) Subject to clause 19(e), the Annual Contract Tonnage will be [increased by] [insert] Mtpa for the period commencing on the first day of the Month following completion and successful commissioning of the Current Expansion until the end of that Financial Year, and thereafter in each subsequent Financial Year. The target date for this to occur is [insert].
- (b) DBCT Management must provide at least monthly progress reports to the User in relation to the Current Expansion and such further progress reports as may reasonably be required as the Current Expansion nears completion.

- (c) DBCT Management's obligation to commence Handling, and the User's obligation to commence paying charges, in respect of the additional Annual Contract Tonnage arising out of the Current Expansion or any part thereof (as applicable) only begins on the first day of the Month following the date that DBCT Management gives the User a notice that the User is:
 - (i) awarded the additional Annual Contract Tonnage or any part thereof (as applicable); and
 - (ii) entitled to have the additional Annual Contract Tonnage or any part thereof (as applicable) handled at the Terminal.
- (d) DBCT Management must use reasonable endeavours to have the Current Expansion completed as close as practicable to the target date referred to in clause 19(a), but it will not be required to expend additional amounts to overcome delays caused by third parties or otherwise beyond the reasonable control of DBCT Management.
- (e) DBCT Management will proportionately reduce the Annual Contract Tonnage under this Agreement and the annual contract tonnages under all other User Agreements entered into with the intention of utilising additional capacity arising out of the Current Expansion, if the actual Terminal Capacity following completion of the Current Expansion is less than the estimate of (expanded) Terminal Capacity made at the time this Agreement was entered into. That reduction will be by the proportion which the additional Terminal Capacity resulting from the Current Expansion as estimated at the time this Agreement was entered into bears to the actual additional Terminal Capacity arising from the Current Expansion. In relation to:
 - (i) Socialised Terminal Capacity, the allocation of proportionately reduced capacity will occur after first deducting any capacity required from the Current Expansion to "make up" any shortfall between already existing aggregate annual contract tonnages and actual Terminal Capacity which existed prior to the Current Expansion; and
 - (ii) Differentially Priced Capacity resulting from the Current Expansion will be allocated to meet the full entitlements under this Agreement and any other User Agreements associated with the Differentially Priced Capacity.

20. OPTIONS

If the period during which Coal is to be Shipped during the Term is 10 years or more, the following clauses apply:

- (a) The User has an option to extend the Term for 5 years or more (or a lesser period, if it coincides with an expected end-of-mine-life), as nominated by the User at the time of exercise, exercisable at any time up to 12 months prior to the end of the Term (including the Term as already extended by the exercise of an option under this clause 20(a) for 5 years or more).
- (b) If DBCT Management receives an Access Application for additional capacity which cannot be met without a Terminal Capacity Expansion if the option in clause 20(a) and other relevant options are exercised, it may notify the User, requiring it to respond within 90 days, either exercising the option in clause 20(a) in respect of all or part of an extended Term and/or tonnage the subject of the option, or waiving it.
- (c) DBCT Management must give notices under clause 20(b) to relevant Access Holders with options, in order of the earliest expiring User Agreement, for the purposes of deciding which option date is to be accelerated first. Where an Access Holder/s with the earliest expiring date exercise/s its/their option by the accelerated date, DBCT Management may then go to the next Access Holder/s in order of expiring agreements

until there has been a waiver of sufficient options to ensure that the bona fide request can be accepted without the necessity for a Terminal Capacity Expansion. Access Holders whose terms expire within 6 months of each other will, for the purposes of this clause 20, be deemed to have terms which expire on the same date, and must be given notices at the same time.

- (d) Where more than one Access Holder has tonnages which expire (or which are deemed to expire) on the same date, those Access Holders which do not exercise their accelerated option will lose the amount of tonnes the subject of the option proportionately with their respective annual contract tonnages immediately prior to the end of the current term. (For example, if a bona fide request for 5 Mtpa is received and Access Holders with 10, 5, 2 and 3 Mtpa of contracted tonnages do not exercise their options, then the options for those Access Holders will be reduced by 2.5, 1.25, 0.5 and 0.75 Mtpa respectively).
- (e) If the Access Application referred to in clause 20(b) is not converted into a User Agreement within 3 months after the above process is completed, the status quo existing before notice from DBCT Management will be re-instated (i.e. options will not be taken to have been forfeited merely because the accelerated date for exercise has not been complied with, and any accelerated exercise of an option will be taken not to have occurred).

21. GST

- (a) Any reference in this clause to a term defined or used in the A New Tax System (Goods and Services Tax) Act 1999 is, unless the context indicates otherwise, a reference to that term as defined or used in that Act.
- (b) Unless expressly included, the consideration for any supply made under or in connection with this Agreement does not include an amount on account of GST in respect of the supply ("**GST Exclusive Consideration**") except as provided under this clause.
- (c) Any amount referred to in this Agreement (other than an amount referred to in clause 21(f)) which is relevant in determining a payment to be made by one of the parties to the other is, unless indicated otherwise, a reference to that amount expressed on a GST exclusive basis.
- (d) To the extent that GST is payable in respect of any supply made by a party ("**Supplier**") under or in connection with this Agreement, the consideration to be provided under this Agreement for that supply (unless it is expressly stated to include GST) is increased by an amount equal to the GST Exclusive Consideration (or its GST exclusive market value if applicable) multiplied by the rate at which GST is imposed in respect of the supply.
- (e) The recipient must pay the additional amount payable under clause 21(d) to the Supplier at the same time as the GST Exclusive Consideration is otherwise required to be provided.
- (f) Whenever an adjustment event occurs in relation to any taxable supply made under or in connection with this Agreement the Supplier must determine the net GST in relation to the supply (taking into account any adjustment) and if the net GST differs from the amount previously paid under clause 21(d), the amount of the difference must be paid by, refunded to or credited to the recipient, as applicable.
- (g) If one of the parties to this Agreement is entitled to be reimbursed or indemnified for a ~~loss~~Loss, cost, expense or outgoing incurred in connection with this Agreement, then the amount of the reimbursement or indemnity payment must first be reduced by an amount equal to any input tax credit to which the party being reimbursed or indemnified (or its representative member) is entitled in relation to that ~~loss~~Loss, cost, expense or outgoing

and then, if the amount of the payment is consideration or part consideration for a taxable supply, it must be increased on account of GST in accordance with clause 21(f).

22. NOTICES

22.1 Notices and other communications

All notices and other communications provided for or permitted under this Agreement must be in writing and must be given by mail, or facsimile transmission as follows:-

(a) if to DBCT Management, to:-

Address: Level 15, 1 Eagle Street, Brisbane, Qld 4000

Attention: Chief Executive Officer

Fax No.: 07 3002 3101

Email: anthony.timbrell@dbctm.com.au

(b) if to the User, to it at the address set out in Schedule 1,
or to such other address or person as either party may specify by notice in writing to the other.

22.2 Deemed to have been given or made

All such notices or communications are deemed to have been duly given or made:-

- (a) on the date upon which the notice or communication would, in the ordinary course of the post, have been delivered to the address to which it was posted;
- (b) when delivered; or
- (c) if sent by facsimile transmission, at the conclusion of an apparently successful transmission,

but if the delivery or facsimile is effected on a day that is not a Business Day or after 5pm in the place of receipt on a Business Day, it will be taken to have been given or made on the next Business Day.

23. SURVIVAL OF REMEDIES

The remedies of the parties arising by law, by the terms of this Agreement or otherwise are cumulative and will survive the termination of this Agreement by effluxion of time or otherwise.

24. WAIVER

A waiver by either party of any default in the strict and literal performance of or compliance with any provision of this Agreement will not be deemed to be a waiver of strict and literal performance of and compliance with any other provision of this Agreement nor to be a waiver of, or in any manner release the other party from, strict compliance with any provision, in the future nor will any delay or omission of either party to exercise any right under this Agreement in any manner impair the exercise of any such right accruing to it thereafter.

25. COSTS

Whether or not any of the transactions contemplated by this Agreement are consummated, each party must pay its own fees and expenses of and incidental to the negotiation, preparation and execution of this Agreement. The User will pay on demand any stamp duty payable on this Agreement.

26. ENTIRE AGREEMENT

26.1 Full and Complete Understanding

This Agreement constitutes the full and complete understanding between the parties with respect to the subject matter of this Agreement. There is no other oral understanding, agreement, warranty or representation whether express or implied in any way extending, defining or otherwise relating to the provisions of this Agreement or binding on the parties with respect to any of the matters to which this Agreement relates.

26.2 No inducement

Each of the parties covenants and irrevocably acknowledges that it has not been induced to enter into this Agreement by any statement, warranty, representation, understanding, act, omission, fact, matter, thing or conduct by or on behalf of any person including the other party, other than as expressly recorded in this Agreement.

26.3 Provision is to remain in full force and effect

The provisions of this clause 26 will operate and remain in full force and effect. No other fact, matter or circumstance, including breach of the provisions of the *Competition and Consumer Act 2010* (Cth) by a party to this Agreement, will interfere with or in any way derogate from the operation and effect of this clause.

27. SEVERANCE

If any term of this Agreement is for any reason acknowledged by the parties, or adjudged by a court of competent jurisdiction or held by any competent government authority to be invalid, illegal or unenforceable, such term or provision will be severed from the remainder of the provisions of this Agreement and will be deemed never to have been part of this Agreement and the remainder of the provisions of this Agreement will subsist and remain in full force and effect, unless a basic purpose or purposes of this Agreement would thereby be defeated.

28. JOINT VENTURE LIABILITY

[insert as relevant]

28.1 Definitions

In this clause:

- (a) “**Financial Obligation**” means an obligation of a party under or arising out of this Agreement to pay or cause to be paid an amount of money, including a liability for damages for a breach of a Performance Obligation;
- (b) “**Joint Venture**” means the joint venture between the Joint Venturers, details of which are set out in Item 3 of Schedule 1;
- (c) “**Joint Venture Percentage**” means the respective percentage interest of each Joint Venturer in the Joint Venture, as set out in Item 3 of Schedule 1;
- (d) “**Joint Venturers**” means each of the entities set out in Item 3 of Schedule 1 as holding a Joint Venture Percentage.
- (e) “**Performance Obligation**” means any obligation of a party arising under this Agreement, other than a Financial Obligation.

28.2 User agent for Joint Venturers

- (a) The User enters into this Agreement as agent for and on behalf of the Joint Venturers, and the User warrants that it is duly authorised to do so.
- (b) The User will not be personally liable under this Agreement in its capacity as agent for the Joint Venturers.

OR**[Joint Venturers comprise a single party**

The Joint Venturers comprising the User will be a single party to this Agreement, but their respective rights against and liabilities to DBCT Management and DBCT Guarantor will be determined in accordance with this clause 28.]

28.3 Financial Obligations of Joint Venturers are several

Subject to clauses 28.4 and 28.5 (and any other provision of this Agreement which may expressly provide otherwise), the liability of each Joint Venturer in respect of each Financial Obligation of the User is several, and each Joint Venturer will only be liable- for an amount owing by the User equivalent to its Joint Venture Percentage of that amount.

28.4 Rights and Performance Obligations of Joint Venturers are joint

- (a) Each right of the User under this Agreement can only be exercised by the User or by *[delete highlighted words where the Joint Venturers are all signatories in their own right]* the Joint Venturers jointly.
- (b) Each Joint Venturer will be jointly liable in respect of each Performance Obligation of the User (other than any Performance Obligation expressed to be imposed on an individual Joint Venturer).

28.5 Individual Joint Venturer default

- (a) If:
 - (i) a Joint Venturer defaults in respect of the performance of a Financial Obligation of the User;
 - (ii) the other Joint Venturers are not in default in respect of that Financial Obligation; and
 - (iii) *[where there is a single User, as agent for the Joint Venturers]* the User gives a notice to DBCT Management, copied to the defaulting Joint Venturer, identifying the defaulting Joint Venturer and its default,

OR

- (iv) *[where the Joint Venturers are all signatories in their own right]* the other Joint Venturers give a notice to DBCT Management, copied to the defaulting Joint Venturer, identifying the defaulting Joint Venturer and its default,

then that defaulting Joint Venturer (unless it disputes the default in writing to DBCT Management within 7 days of receiving a copy of the notice) will be solely liable, to the extent of the default, in the performance of that Financial Obligation.

- (b) Any notice given pursuant to clause 28.5(a)(iii) and not disputed by the defaulting Joint Venturer within the time prescribed is conclusive evidence that the defaulting Joint Venturer specified in the notice is in default to the extent stated and the notice binds all parties unless and until revoked or amended by the User.

- (c) If more than one (but not all) Joint Venturers default and are subject to a notice under clause 28.5(a)(iii), they will be severally liable in proportion to their respective relevant Joint Venture Percentages.
- (d) Nothing in this clause 28 affects DBCT Management's rights under clauses 14.1 and 14.2 of this Agreement.

28.6 Clarifications

For clarification:

- (a) any assignment by a Joint Venturer of any part of its Joint Venture Percentage in respect of this Agreement will be an assignment to which clause 12.2 applies, but in such a case references in that clause to the "User" and "assignee" respectively will be taken to refer only to the relevant Joint Venturer and the intended assignee from it;
- (b) any assignment by the User which is merely the substitution of a new agent for the Joint Venture (where there is no change in the Joint Venturers or the Joint Venture Percentages) will be consented to by DBCT Management unless it has reasonable grounds to object to the proposed new agent (for example, it is insolvent or has a history of default).

29. GUARANTEES OF USER

29.1 User to provide Security [*insert if provision of security is a condition precedent*]

[**Notwithstanding clause 2**], it is a condition precedent to this Agreement that the User must provide to DBCT Management, the Security in Schedule 8, effective not later than the Effective Date, to secure the obligations of the User to DBCT Management under this Agreement.

29.2 Failure to provide Security [*insert if relevant*]

If the User does not provide the Security referred to in clause 29.1, then this Agreement will have no force or effect.

29.3 Guarantee if User does not remain in good financial standing

- (a) If after the Execution Date:
 - (i) the User applies to DBCT Management to increase the Annual Contract Tonnage;
 - (ii) in the reasonable opinion of DBCT Management, there is a likelihood that the User (or, if applicable, a provider of Security) may have ceased or will cease to be reputable or of good financial standing; or
 - (iii) a Security previously given in connection with this Agreement is due to expire within 90 days,

the User must provide such information to DBCT Management as may be reasonably requested by DBCT Management by notice to establish that the User (or, as applicable, a provider of Security) is reputable and of good financial standing. DBCT Management must keep any such information in the strictest confidence, except that DBCT Management may disclose such information on a confidential basis to its financiers and consultants who require such information to assess the solvency and creditworthiness of the User or provider of Security.

- (b) If, after the Execution Date, in the reasonable opinion of DBCT Management:

- (i) the User (or, as applicable, a provider of Security) has ceased to be reputable or of good financial standing with the capability to fulfil all of its obligations under (or in respect of) this Agreement; or
 - (ii) [where this Agreement concerns Access to a Differentiated Expansion Component] there is a materially increased risk that the circumstances in 29.3(b)(i) will occur prior to the earlier of the Terminating Date and the end of the Term,
then the User must provide, within 20 Business Days after written notice from DBCT Management, to DBCT Management, a Security which:-
 - (iii) secures (to an extent reasonable in the circumstances) the obligations under this Agreement of the User to DBCT Management;
 - (iv) is from an entity which, in the reasonable opinion of DBCT Management, is reputable and of good financial standing and with the capability to fulfil or cause the fulfilment of all of the financial obligations of the User under this Agreement; and
 - (v) is in a form, and for an amount and period, satisfactory to DBCT Management (acting reasonably).
- (c) If the User does not provide such Security within 20 Business Days of receiving such written notice from DBCT Management, then the User will be in breach of a material obligation under this Agreement.
 - (d) The User is entitled to dispute a conclusion by DBCT Management on which a notice under clauses 29.3(a) or 29.3(b) is based.

29.4 Request to remove or reduce Security

- (a) If the User has provided a Security pursuant to this clause 29 and considers that its financial circumstances have improved or any other relevant circumstances have changed since the provision of the Security, it may request DBCT Management to release or reduce the Security.
- (b) The User must provide to DBCT Management such evidence of its financial circumstances, or other relevant circumstances, as DBCT Management reasonably requests, before DBCT Management is obliged to consider the request.
- (c) DBCT Management must not unreasonably refuse any such request, but it may have regard to (amongst other things) the circumstances in which the Security was originally provided, changes in circumstances since that time, and any reasonable custom and practice of DBCT Management in respect of requiring security from new Access Holders.

30. GUARANTEE OF DBCT MANAGEMENT'S OBLIGATIONS

30.1 Guarantee

DBCT Guarantor irrevocably and unconditionally guarantees to the User on demand payment of all amounts payable by DBCT Management under or arising out of this Agreement (including all amounts for which DBCT Management may become liable in respect of any breach of this Agreement).

30.2 Unconditional nature of guarantee

DBCT Guarantor agrees that DBCT Guarantor's obligations under this Agreement are unconditional (irrespective of the validity, regularity or enforceability of any provision of this

Agreement or the absence of any action to enforce the same or the waiver or the consent of the User in respect of any provision of this Agreement or the recovery of any judgment against DBCT Management or any action to enforce the same or any variation of the terms of this Agreement or any other dealings, transactions or arrangements between the User and DBCT Management or other circumstances which might otherwise constitute a legal or equitable discharge of or defence to a surety). This guarantee shall be a continuing guarantee which shall not be discharged except by a complete performance of all obligations of DBCT Management under this Agreement.

30.3 Guarantee not affected by changed circumstances

The liability of DBCT Guarantor under this Agreement will not be lessened, affected or impaired by any time or indulgence granted to DBCT Management by the User or any dealings or transactions between the User and DBCT Management (whether or not DBCT Guarantor is a party or cognisant of the same) or by the dissolution of DBCT Management or any change in the status, functions, control or ownership of DBCT Management or any consolidation, merger, conveyance or transfer by DBCT Management or any waiver, variation or novation of this Agreement or other dealings, transactions or arrangements between the User and DBCT Management which might otherwise constitute a discharge to a surety.

30.4 Capacity of DBCT Guarantor

- (a) DBCT Guarantor enters into this Agreement as trustee of the DBCT Trust and in no other capacity.
- (b) Any liability of DBCT Guarantor arising from this Agreement can be enforced against DBCT Guarantor only to the extent to which it can be satisfied out of the property of the DBCT Trust and out of which the DBCT Guarantor is actually indemnified for the liability. This provision applies despite any other provision of this Agreement.
- (c) A person entitled to the benefit of this Agreement may not sue DBCT Guarantor personally or seek the appointment of a liquidator, administrator, receiver or similar person to DBCT Guarantor personally or prove any liquidation, administration or arrangement of or affecting DBCT Guarantor personally.
- (d) The provisions of this clause 30.4 do not apply to any obligation or liability of DBCT Guarantor to the extent that it is not satisfied because under its constitution or deed of trust or by operation of law there is a reduction in the extent of DBCT Guarantor's indemnification over the assets of the DBCT Trust, as a result of DBCT Guarantor's fraud, negligence, breach of trust or breach of duty.
- (e) All of the provisions of this clause 30 are subject to this clause 30.4.

31. LIMITATIONS TO LOSSES AND DAMAGES

31.1 No indirect Loss or Consequential Loss

Notwithstanding any other provision of this Agreement, DBCT Management is not liable to the User for any indirect Loss or Consequential Loss.

SCHEDULE 1 - REFERENCE SCHEDULE

Item	Reference	Definition/Details								
1	DBCT Management	DBCT Management Pty Limited ABN 16 097 698 916								
2	DBCT Guarantor	DBCT Investor Services Pty Ltd ABN 11 052 156 082 as trustee for the DBCT Trust								
3	User	<i>[Insert name, address for notices and contact details]</i>								
4	Execution Date									
5	Effective Date									
6	Term	[] years* (* note: if this Agreement provides for the Shipping of Coal for 10 years or more the Option and rolling 12 month extension process in Clause 20 applies)								
7	Annual Contract Tonnage	<table> <thead> <tr> <th>Year</th> <th>Tonnage</th> </tr> </thead> <tbody> <tr> <td>20xx</td> <td>AAA</td> </tr> <tr> <td>20yy</td> <td>BBB</td> </tr> <tr> <td>20zz etc</td> <td>CCC</td> </tr> </tbody> </table>	Year	Tonnage	20xx	AAA	20yy	BBB	20zz etc	CCC
Year	Tonnage									
20xx	AAA									
20yy	BBB									
20zz etc	CCC									
8	Terminal Component	<p><i>[For an Agreement which is entered by an Expansion Party in respect of one or more Expansion Component(s) only, insert details of the Expansion Component(s)]</i></p> <p><i>[For an Agreement which is entered in respect of the Base Existing Terminal (excluding Expansion Components), identify the Base Existing Terminal excluding any Expansion Components]</i></p>								

SCHEDULE 2 - CALCULATION OF CHARGES - PLACEHOLDER

Drafting Note: Please refer to Appendix 7 of DBCTM's submission, which sets out the pricing framework. Drafting to give effect to the pricing framework is being developed and this schedule will be updated to reflect the pricing framework.

PART A - Rules for Calculating Terminal Infrastructure Charge and Monthly Payment

1. Monthly Payment (MP)

For each Terminal Component the User must pay to DBCT Management a Monthly Payment in each Month "m" of each Financial Year ($MP_{u,m}$), calculated as follows:-

$$MP_{u,m} = TIC \times MRT_{u,m}$$

where:-

TIC is the Terminal Infrastructure Charge per tonne of Annual Contract Tonnage applicable for a relevant Financial Year to the Terminal Component as calculated under Schedule 2, Part A, Section 3; and

MRT_{u,m} is the number of tonnes which is the proportion of the Annual Contract Tonnage relevant to each Month "m" of a Financial Year in respect of the Terminal Component. Where the rate of the Annual Contract Tonnage for the User does not vary during a Financial Year and applies to the full Financial Year, the **MRT_{u,m}** for the User will be one twelfth of the Annual Contract Tonnage for the relevant Financial Year. Where the rate of the Annual Contract Tonnage for the User varies during a Financial Year, the **MRT_{u,m}** will vary from Month to Month to reflect one twelfth of the annualised rate of the Annual Contract Tonnage at that time.

The Monthly Payment will be adjusted during a Financial Year where the TIC is adjusted in accordance with Schedule 2, Part A, Section 4.

2. Determination of Revenue Cap (RC)

For each Terminal Component, the Revenue Cap (**RC**) for each Financial Year (or where there is a Review Event after 1 July, for each period "i" in the Financial Year) is calculated as follows:

—ETS

where:

ARR is the Annual Revenue Requirement;

ART is the Aggregate Reference Tonnage;

NCT is the Notional Contracted Tonnage;

INCR is the sum of any relevant Increments approved by the QCA in respect of prior Financial Years pursuant to Schedule 2, Part B, section 4(d), and

ETS is, where the Revenue Cap is being altered by a Review Event resulting from an Early Termination of an Access Agreement, the value of security which was held by DBCT Management in respect of that Access Agreement at the time of Early Termination, to the extent that DBCT Management is entitled under that Access Agreement to call on that security.

in each case, in respect of the Terminal Component.

3. Terminal Infrastructure Charge (TIC)

- (a) Where no Review Event occurs after 1 July in a Financial Year, the Terminal Infrastructure Charge (TIC) in respect of a Terminal Component for that Financial Year, being a charge per tonne of Annual Contract Tonnage for the Terminal Component, will be calculated as follows:-

where:-

RC is the relevant Revenue Cap; and

ART is the relevant Aggregate Reference Tonnage.

- (b) Where a Review Event occurs after 1 July in a Financial Year, the relevant Terminal Infrastructure Charge per tonne of Annual Contract Tonnage to apply for each period "i" in that Financial Year (TIC_i) shall be calculated as follows:-

where:-

RC_i is the relevant portion of the Revenue Cap to apply for period "i" to the Terminal Component in the Financial Year; and

ART_i is the relevant portion of the Aggregate Reference Tonnage applying to the relevant period "i" to the Terminal Component in the Financial Year.

4. Determination of ARR

- (a) The ARR that will apply in each Financial Year be calculated based on:

- (1) the ARR and principles set out by the QCA in its Final Decision on the Dalrymple Bay Coal Terminal Draft Access Undertaking dated [insert] (as amended by the QCA prior to the Commencement Date, if so amended);
- (2) any amendment to the Access Undertaking or the relevant ARR, Revenue Cap or Reference Tariff made pursuant to section 6(a); and
- (3) any amendment to the ARR required to reflect the fees charged to DBCT Management by the QCA in respect of that or any prior period after 1 July 2010 (to the extent not previously recovered) pursuant to the Queensland Competition Authority Regulation 2007 in providing regulatory services in connection with the Terminal. An amendment under this sub-clause (3) may be submitted to the QCA at the same time as the relevant ARR under sub-section (c) below, or as a later amendment to the relevant ARR during the relevant Financial Year.

5. Annual amendment of the ARR, Revenue Cap and TIC

- (a) By each 15 May after the Commencement Date, DBCT Management, after consultation with Access Holders, will submit each relevant ARR to apply for the next Financial Year to the QCA for approval.
- (b) Each TIC will be amended annually on 1 July to reflect the new relevant ARR approved by the QCA and any variation to reflect the relevant Increment, Aggregate Reference Tonnage and the Notional Contract Tonnage applicable for that Financial Year.
- (c) Any amendment made pursuant to section 5(b) above will be effective from the relevant 1 July.

6. Amendment of the ARR, Revenue Cap and TIC if a Review Event occurs

- (a) ~~If a Review Event occurs, and where described in section 12.5(e) of the Access Undertaking, after consultation with the User, DBCT Management will promptly submit to the QCA for approval:~~
- ~~(i) in the case of a Review Event referred to in paragraphs (b) or (f) of the definition of Review Event, a request to amend; or~~
 - ~~(ii) in the case of a Review Event referred to in paragraphs (d) (e) or (f) of the definition of Review Event or Section 12.5(e) of the Access Undertaking, a draft amending access undertaking to make any necessary amendments to any one or more of the ARR, the Revenue Cap and the TIC to the extent required because of the Review Event.~~
- (b) ~~Any amendment which is approved by the QCA pursuant to section 6(a) above will be effective from the first day of the Month following the Month in which the Review Event occurs, except for those Review Events of the kind described at paragraph (f) of the Review Event definition, which will be effective from the relevant 1 July.~~
- (c) ~~For clarification, if a review under section 5(b) above occurs simultaneously with a review under section 6(a) they will be reviewed together and become effective on the relevant 1 July.~~

PART B - End of Year Adjustments

1. Year End Adjustment (YEA)

For each Terminal Component, the Year End Adjustment for the User (**YEA_u**) will be calculated in respect of each Financial Year as follows:-

where:-

RT_u is the Reference Tonnage for the User for the Financial Year in respect of the Terminal Component;

ART is the Aggregate Reference Tonnage for the Financial Year in respect of the relevant Terminal Component; and

RP is the Rebate Pool for the Financial Year calculated at Schedule 2, Part B, Section 2.

2. Rebate Pool

For each Terminal Component, the Rebate Pool (**RP**) for each Financial Year will be calculated as follows:-

where:-

EC_u is the Excess Charge for the User and each other Access Holder with Reference Tonnage for the Financial Year in respect of the Terminal Component, calculated for the User at Schedule 2, Part B, Section 3 and for each other Access Holder under their respective Access Agreements;

n is the number of Access Holders with Reference Tonnage in respect of the Terminal Component which together hold all ART in respect of the Terminal Component for the Financial Year;

PI is the Provisional Increment calculated at Schedule 2, Part B, section 4(b)(i) for the Financial Year in respect of the Terminal Component ; and

ATA is the Additional Tonnage Amount calculated at Schedule 2, Part B, section 5 for the Financial Year in respect of the Terminal Component.

3. Excess Charge (EC)

(a) Where no Review Event occurs after 1 July in a Financial Year, the Excess Charge for the User (**EC_u**) shall be calculated as follows:-

$$EC_u = \left\{ \begin{array}{l} TC \times \max[(TS_u - RT_u), 0] + \\ TIC \times 25\% \times \max[(TS_u - RT_u \times 110\%), 0] + \\ TIC \times 25\% \times \max[(TS_u - RT_u \times 125\%), 0] \end{array} \right\}$$

where:-

TIC is the relevant Terminal Infrastructure Charge for that Financial Year calculated at Schedule 2, Part A, Section 3;

TS_u is the actual tonnes of coal Shipped through the relevant Terminal Component by the User during the Financial Year that are Reference Tonnage or Excess Tonnage; and

RT_u is the Reference Tonnage for the User for the Financial Year in respect of the relevant Terminal Component.

(b) Where a Review Event occurs after 1 July in a Financial Year, the Excess Charge for the User (EC_u) shall be calculated as follows:-

$$EC_u = \left\{ \begin{array}{l} TIC_A \times \max[(TS_u - RT_u), 0] + \\ TIC_A \times 25\% \times \max[(TS_u - RT_u \times 110\%), 0] + \\ TIC_A \times 25\% \times \max[(TS_u - RT_u \times 125\%), 0] \end{array} \right\}$$

where:-

TIC_A is the relevant annualised Terminal Infrastructure Charge for that Financial Year calculated at Schedule 2, Part B, Section 6;

TS_u is the actual tonnes of coal Shipped through the relevant Terminal Component by the User during the Financial Year that are Reference Tonnage or Excess Tonnage; and

RT_u is the Reference Tonnage for the User for the Financial Year in respect of the relevant Terminal Component.

4. Increment

(a) If the Reference Tonnage Handled by all Access Holders plus the Excess Tonnage Shipped by all Access Holders in respect of the Terminal Component in a Financial Year exceeds the Aggregate Reference Tonnage in respect of the Terminal Component ("**Over-shipment**"), DBCT Management will initially hold (or be entitled to hold – if it has not actually been paid the relevant amount) a portion of the revenue attributable to the Over-shipment of up to and including 2% of the relevant Revenue Cap (the "**Provisional Increment**") calculated in accordance with Sub-Section 4(b) below.

(b) Where:-

(i) there has been no Review Event after 1 July during the Financial Year the Provisional Increment is calculated as follows:

$$PI = \max(\min(TIC \times TRTS - RC, 2\% \times RC), 0)$$

where:-

TIC is the relevant Terminal Infrastructure Charge for the Financial Year calculated at Schedule 2, Part A, Section 3;

$TRTS$ is the sum of all Reference Tonnage Shipped by all Access Holders in respect of the Terminal Component plus the Excess Tonnage Shipped by all Access Holders in the Financial Year in respect of the Terminal Component (and is the sum of all TS for each Access Holder with Reference Tonnage); and

RC is the relevant Revenue Cap for the Financial Year.

(ii) there has been a Review Event after 1 July during the Financial Year the Provisional Increment is calculated as follows:

$$PI = \max(\min(TIC_A \times TRTS - RC, 2\% \times RC), 0)$$

where:-

TIC_A is the relevant annualised Terminal Infrastructure Charge for the Financial Year calculated at Schedule 2, Part B, Section 6;

$TRTS$ is the sum of all Reference Tonnage Shipped by all Access Holders in respect of the Terminal Component plus the Excess Tonnage Shipped by all

Access Holders in the Financial Year (and is the sum of all TS for each Access Holder with Reference Tonnage); and

RC is the relevant Revenue Cap for the Financial Year.

For clarification, DBCT Management may elect not to make a claim for an Increment in respect of a Financial Year, and to treat the Provisional Increment as nil.

- (c) DBCT Management may submit an application to the QCA seeking to permanently retain the Provisional Increment, within 60 days of Financial Year end. If the QCA is reasonably satisfied that some or all of the over-recovery is a direct result of DBCT Management itself or through its contractors (other than the Operator) engaging in activities which have improved capital or operational productivity of the Terminal then the QCA may approve the retention by DBCT Management of all or part of the Provisional Increment (the amount so approved being the "**Increment**").
- (d) If the QCA approves an Increment, the relevant Revenue Cap otherwise applicable will be increased commencing from the next Financial Year and for each Financial Year (or part thereof) thereafter until the Terminating Date by the amount of the Increment (or a proportion of it, if the final period in the Term is not a whole Financial Year).
- (e) If the QCA does not approve DBCT Management's application (in whole or in part) or DBCT Management does not submit an application to the QCA as outlined above, DBCT Management will distribute any retained portion of the Provisional Increment (the "**Provisional Increment Repayment**") to all Access Holders with Reference Tonnage in respect of the relevant Terminal Component within 14 days of the QCA's decision (or, if no application is made, then no later than 14 days after the last date on which the application could have been made), in proportion to their respective Reference Tonnages for the relevant Financial Year.

5. Additional Tonnage Amount (ATA)

- (a) Where no Review Event occurs after 1 July in a Financial Year, the Additional Tonnage Amount (ATA) will be calculated as follows:

where:-

TIC is the Terminal Infrastructure Charge for the Financial Year calculated at Schedule 2, Part A, Section 3; and

AT is the Additional Tonnage for the Financial Year in respect of the relevant Terminal Component.

- (b) Where a Review Event occurs after 1 July in a Financial Year, the Additional Tonnage Amount (ATA) will be calculated as follows:

where:-

TIC_A is the relevant annualised Terminal Infrastructure Charge for the Financial Year calculated at Schedule 2, Part B, Section 6; and

AT is the Additional Tonnage for the Financial Year in respect of the relevant Terminal Component.

6. Annualised Terminal Infrastructure Charge (TICA)

If there is a Review Event after 1 July in a Financial Year, the annualised Terminal Infrastructure Charge (**TIC_A**) for that Financial Year will be calculated as follows:-

where:

~~**TIC_i** is the relevant Terminal Infrastructure Charge for each period "i" in the Financial Year calculated at Schedule 2, Part A, Section 3;~~

~~**RTP_i** is that part of the Reference Tonnage for all Access Holders in respect of the relevant Terminal Component with Reference Tonnage relating to each period "i" in the Financial Year (for example, if the Aggregate Reference Tonnage rate in period "i" is 50Mtpa and the period "i" is of 6 Months duration then RTP_i would be 25 Mt);~~

~~**ART** is the Aggregate Reference Tonnage in respect of the relevant Terminal Component for the Financial Year (for example, if there are two periods "i" in a Financial Year, each of 6 Months duration, and the Aggregate Reference Tonnage rate in each of the periods is 50 Mtpa and 60 Mtpa respectively, then the ART for the Financial Year would be 55Mt);~~
and

~~**n** is the number of periods "i" in the Financial Year.~~

SCHEDULE 3 - SERVICES

1. Train scheduling

DBCT Management must (subject to availability of trains and factors beyond its control) co-ordinate cargo assembly windows at the terminal to receive Coal parcels and provide train operators and Users with details of cargo receipt windows suitable for terminal acceptance of trains and ensure sufficient unloading capacity is made available at the Terminal, to allow each Access Holder to ship its Annual Contract Tonnage of Coal in each Financial Year.

2. Train unloading

If a train carrying an Access Holder's Coal arrives at the Terminal within its designated cargo build window, DBCT Management must ensure that the train is unloaded at a rate (consistent with the type and condition of the Coal) consistent with achieving Handling of the Annual Contract Tonnage of Coal for an Access Holder.

3. Reclaiming and vessel loading

DBCT Management must:

- (a) make the Terminal available for berthing by vessels (which are satisfactory in all respects to receive Coal) nominated by the User, such that not less than the Annual Contract Tonnage can be Handled by DBCT Management in each Financial Year (as long as the vessel and/or cargo mix required by the User or its customer does not unreasonably impact on the efficiency of the Terminal). It is agreed that historical vessel or cargo mixes prior to 30 June 2005 will be taken generally not to have unreasonably impacted on efficiency; and
- (b) load the User's Coal into a vessel which is nominated by the User and is available for loading so as to achieve the objective in section 3(a).

4. Incidental services

DBCT Management must provide the following services, incidental to Coal handling (unless provided directly by the Operator):

- sampling and survey services;
- vessel monitoring;
- co-ordination with ships' agents, masters, customers and other relevant entities;
- crew disembarkation services; and
- wharfage and line services.

5. Miscellaneous services

If required by the User or any approval or statutory authority notified to DBCT Management, DBCT Management must provide the following Miscellaneous Services to the User:

- moisture adding;
- compacting;

- surfactant adding;
- dozing;
- blending (subject to section 6(d) below); and
- any other services reasonably requested from time to time in writing by the User to DBCT Management, provided that such services will not unreasonably impact on the efficiency or capacity of the Terminal.

6. **Stockpiling and blending**

- (a) ~~(e)~~ DBCT Management must provide to the User sufficient stockpile areas to allow cargo assembly (i.e. assembly of cargo for a nominated vessel with an appropriate arrival time) for vessels onto which the User's Coal is to be loaded.
- (b) ~~(d)~~ Remnant management areas will be determined by the Operator in areas of the Terminal which are not required for cargo assembly and which can be made available for dedicated stockpiling without materially affecting efficiency of the Terminal. DBCT Management must ensure that the User is offered the opportunity to use a proportion of that stockpiling area which accords with its proportion of the total annual contract tonnage under all User Agreements.
- (c) ~~(e)~~ The stockpiling rights in sections 6(a) and 6(b) are subject to any other obligation of DBCT Management under any User Agreement with another Access Holder entered into prior to 1 July 2004 (to the extent that such obligation has not been waived).
- (d) ~~(f)~~ DBCT Management must blend Coal if so requested, but subject to requirements in the Terminal Regulations from time to time, which may:
 - (i) require Coal to be blended before it is received at the Terminal, where reasonably practicable;
 - (ii) require Coal to be blended into a stockpile where reasonably practicable (rather than being blended from stockpile); and
 - (iii) limit the proportions in which Coal may be blended (to limit the increase in consumption of capacity of the Terminal consumed because of blending).
- (e) ~~(g)~~ DBCT Management must transfer the User's Coal from the train unloading facility at the Terminal to the relevant stockpile area or a cargo assembly area and stockpile the User's Coal in that area (except to the extent that a quality plan under the Terminal Regulations has been agreed to which provides for direct loading from train to vessel).

7. **Prevention of contamination**

DBCT Management must take all practicable measures to maintain the integrity of the User's Coal at the Terminal, including (without limitation) by:

- (a) avoiding contamination of the User's Coal, including (without limitation) contamination with other Coal or waste material; and
- (b) minimising handling and associated degradation of the User's Coal.

8. **Data provision**

DBCT Management must provide such information and access to systems as are reasonable to inform Access Holders of relevant data relating to handling of their Coal.

9. Co-ordination

Subject to the User providing relevant information to DBCT Management within a reasonable time, DBCT Management must:

- (a) ensure, as far as practicable, that it discharges its obligations in this Schedule in accordance with the requirements of the User's reasonable quality plans, reasonable shipping programs and contracts as notified to DBCT Management and the Operator from time to time consistent with Terminal Regulations, and
- (b) (subject to the foregoing and having regard to equity amongst Access Holders) use its best endeavours to minimise the aggregate cost to the User arising out of Handling at the Terminal (including Demurrage Costs and rail freight).

10. Terminal Regulations, Force Majeure, Laws and Operation & Maintenance Contract

The provision of each of the above services by DBCT Management is subject to (and DBCT Management's obligations are modified to the extent of):

- (a) any relevant provisions of the Terminal Regulations;
- (b) any specific provision of this Agreement including any provisions relating to an event of Force Majeure;
- (c) the ability of DBCT Management to require the Operator under the Operation & Maintenance Contract to provide the Services; and
- (d) without limiting section 10(c) any specific provision in the Operation & Maintenance Contract including any provisions relating to an event of force majeure.

11. Standard for Services

- (a) The provision of the above Services by DBCT Management must be carried out in accordance with due skill, care and diligence in accordance with the Access ~~Undertaking~~[Framework](#), the Terminal Regulations, Good Operating and Maintenance Practice and all applicable Laws.
- (b) When providing the above Services, DBCT Management must take into account the following factors, where relevant:
 - (i) lowest total whole of life cost;
 - (ii) reliability and economy of performance;
 - (iii) maximising the effective life of the Terminal; and
 - (iv) DBCT Management's non-discrimination obligations under the Access ~~Undertaking~~[Framework](#).

Oct	----	----	----											
Nov	----	----	----											
Dec	----	----	----											
Jan	----	----	----	----										
Feb	----	----	----	----										
Mar	----	----	----	----										
Total	0.0	0.0	0.0	0.0	0.0									
Next Fin Y (1)														
Next Fin Y (2)														
Next Fin Y (3)														

* This Utilisation Advice will satisfy the User’s obligations under Clause 6.1 of the User Agreement and DBCT Management acknowledges that the User will be under no liability to DBCT Management if the actual number, types or tonnages of vessels or the amount of Coal is greater or fewer than the number, types, tonnages or amounts estimated in this Utilisation Advice.

+ Annual raiing capacity is to be provided subject to the consent of the contractor providing rail haulage services to the User (which the User will endeavour to obtain)

++ Handi = Handimax, S-Pan = single parcel Panamax, M-Pan = multi-parcel Panamax, S-Cape = single parcel Capes & VLC, M-Cape = multi-parcel Cape & VLC, Unk. = Unknown (or same as historic if all tonnage included in this column)

SCHEDULE 5 - PRODUCT SHIPMENT NOTICE

(clause 9.1) [\[Drafting Note: Consequential amendments to this Schedule 5 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018\]](#)

TO	:	North Queensland Bulk Ports Corporation Limited (Fax:)
		DBCT Management Pty Ltd (Fax: 07 3002 3101)
FROM	:	<i>[User shipping coal]</i>
SUBJECT	:	Product Shipment Notice – DBCT
DATE	:	
PAGE	:	1 (including this cover page)

Ship Name:	
Date Departed:	
Shipping Number:	
Mine Name:	
User Agreement Name:	
Party liable for User Agreement charges:	
Total Number of Tonnes:	
Reference Tonnes:	
Non-Reference Tonnes:	
(Add additional references for more than one class of Non-Reference Tonnage)	

(This total **MUST** agree with Manifest. If the Manifest covers multiple cargoes, separate Product Shipment Notices for each cargo must be completed)

Does Manifest include more than one cargo?

No

Yes

User: _____ Date:

**SCHEDULE 6 - TEMPLATE FOR ASSIGNMENT OF ANNUAL CONTRACT
TONNAGE**

(clause 12.2)

Deed of Variation

DBCT Management Pty Limited

[User 1 full name]

and

[Assignee full name]

This Deed of Variation

is made on _____ between the following parties:

- 1 **DBCT Management Pty Limited**
ACN 097 698 916)
of Level 15, 1 Eagle Street, Brisbane, Queensland
(**DBCT Management**)
- 2 **The User named in item 1 of the Schedule**
([User 1])
- 3 **The person named in item 3 of the Schedule**
([Assignee])

Recitals [Option 1 – Select this option where the Assignee **is not** an existing User.]

- A. DBCT Management is the owner of a long term lease of the Terminal.
- B. [User 1] is a party to a User Agreement with DBCT Management, and under the User Agreement DBCT Management grants [User 1] a right to have an Annual Contract Tonnage of Coal Handled at the Terminal.
- C. [User 1]'s entitlement to Ship Coal through the Terminal in the Swap Period under [User 1]'s User Agreement exceeds its requirements by the Swap Contract Tonnage.
- D. [Assignee] wishes to Ship Coal through the Terminal in the Swap Period under a User Agreement.
- E. [User 1] wishes to vary the Annual Contract Tonnage in its User Agreement so that [Assignee] is entitled to Ship the Swap Contract Tonnage through the Terminal in the Swap Period, and [User 1]'s entitlement to Ship Coal under [User 1]'s User Agreement is reduced accordingly.
- F. [Assignee] wishes to enter into a User Agreement with DBCT Management to Ship the Swap Contract Tonnage through the Terminal in the Swap Period.
- G. DBCT Management has agreed to consent to the variation to [User 1]'s User Agreement to achieve that objective, on the terms of this deed.

Recitals [Option 2 – Select this option where the Assignee **is** an existing User.]

- A. DBCT Management is the owner of a long term lease of the Terminal.

- B. [User 1] and [Assignee] are each a party to a User Agreement with DBCT Management, and under each User Agreement DBCT Management grants them a right to have an Annual Contract Tonnage of Coal Handled at the Terminal.
- C. [User 1]'s entitlement to Ship Coal through the Terminal in the Swap Period under [User 1]'s User Agreement exceeds its requirements by the Swap Contract Tonnage.
- D. [Assignee] wishes to Ship more Coal through the Terminal in the Swap Period than its entitlement under [Assignee]'s User Agreement.
- E. [User 1] and [Assignee] wish to vary the Annual Contract Tonnages in their respective User Agreements so that [Assignee] is entitled to Ship the Swap Contract Tonnage through the Terminal in the Swap Period (in addition to its existing Annual Contract Tonnage), and [User 1]'s entitlement to Ship Coal under [User 1]'s User Agreement is reduced accordingly.
- F. DBCT Management has agreed to consent to the variations to the User Agreements to achieve that objective, on the terms of this deed.

The deed witnesses

that in consideration of, among other things, the mutual promises contained in this deed, the parties agree:

1 Definitions and interpretation

1.1 Definitions

[Drafting Note: Consequential amendments to this clause 1 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018]

Effective Date means the date set out in item 7 of the Schedule.

Swap Contract Tonnage means the absolute tonnages (or respective tonnages for respective periods) set out in item 6 of the Schedule. Where the Swap Period relates to part, but not all, of a Financial Year, the Swap Contract Tonnage in respect of that period is expressed:

- (a) as an annualised rate for that period - for the purposes of calculating the Monthly Charges for the Swap Period under the User Agreement and determining the rate at which Shipping is permitted in that period; and
- (b) as an absolute amount in respect of that period - which amount will be the amount to be taken into account in the Year End Adjustment, to the extent that it relates to Annual Contract Tonnage for the relevant Financial Year.

Swap Period means the period set out in item 5 of the Schedule.

[User 1]'s User Agreement means an agreement between DBCT Management and **[User 1]** bearing the date set out in item 2 of the Schedule.

[[Assignee]'s User Agreement means an agreement between DBCT Management and **[Assignee]** bearing the date set out in item 4 of the Schedule and DBCT Management.] ***[Drafting Note: Select this option if the Assignee is an existing User.]***

[[Assignee]'s User Agreement means a User Agreement to be entered into between DBCT Management and **[Assignee]**. ***[Drafting Note: Select this option if the Assignee is not an existing User.]***

User Agreement means one or more of **[User 1]**'s User Agreement and **[Assignee]**'s User Agreement as the context requires.

1.2 Interpretation

- (a) Terms which are defined in the User Agreement/s or Terminal Regulations have the same meaning in this deed (except where the context otherwise requires).
- (b) The interpretation provisions of the User Agreement/s apply in respect of the interpretation of this deed, as if set out in this deed.

2 Variations to User Agreement/s

2.1 **[User 1]**'s User Agreement

As of the Effective Date, the Annual Contract Tonnage in **[User 1]**'s User Agreement is reduced by the Swap Contract Tonnage for the Swap Period.

2.2 **[Assignee]**'s User Agreement

As of the Effective Date, the Annual Contract Tonnage in **[Assignee]**'s User Agreement will be the Swap Contract Tonnage for the Swap Period.] ***[Drafting Note: Delete this paragraph if the Assignee is not an existing User.]***

As of the Effective Date, the Annual Contract Tonnage in the **[Assignee]**'s User Agreement is increased by the Swap Contract Tonnage for the Swap Period. ***[Drafting Note: Delete this paragraph if the Assignee is an existing User.]***

2.3 Revised Consolidated Annual Contract Tonnages

DBCT Management will provide to **[User 1]** and **[Assignee]** respectively a revised, consolidated table of Annual Contract Tonnages for the Term of their User Agreement, to reflect the amendments [and new entitlements] pursuant to this deed. In the absence of manifest error, that table will be taken to replace the table of Annual Contract Tonnages previously applicable under the relevant User Agreement (if applicable). ***[Drafting Note: Delete words in square brackets if the Assignee is an existing User.]***

2.4 Calculation of Entitlement under the Terminal Regulations

For the avoidance of any doubt, it is intended that [Assignee] will become entitled to the "Entitlement" under the Queue Management Procedures currently in place under the Terminal Regulations which [User 1] would (but for this deed) have previously been entitled to in relation to the Swap Contract Tonnage for the Swap Period, but that neither parties' Entitlements outside the Swap Period (if any) will be affected. *[Note: only required if Terminal Regulations include a Queue Management System at the time this deed is entered into]*

2.5 Transitional

- (a) The parties recognise that certain determinations (for example, the annualised amount of HCF and HCV) may have been made to date in respect of a current Financial Year before the variations in this deed were agreed.
- (b) DBCT Management shall, as soon as practicable, cause appropriate adjustments to be made in respect to the amounts charged under [[User 1]'s User Agreement/the respective User Agreements], to reflect the variations arising out of this deed. *[Drafting Note: Select the relevant option depending in whether the Assignee is an existing User.]*
- (c) Nothing in this deed requires DBCT Management or the Operator to pay or repay amounts other than adjustments of the kind already contemplated by [[User 1]'s User Agreement/the User Agreements]. In particular, DBCT Management is not as a result of the variations effected by this deed required to accelerate a payment, or to make a payment to either of the other parties which, in aggregate, is more than it would have otherwise have been required to make but for this deed. *[Drafting Note: Select the relevant option depending in whether the Assignee is an existing User.]*

2.6 User Agreements still in force

Except as set out in clauses 2.1 and 2.2 of this deed, the parties agree and acknowledge that all other provisions of [User 1]'s User Agreement/the User Agreements] remain in full force and effect. *[Drafting Note: Select the relevant option depending in whether the Assignee is an existing User.]*

3 Costs and stamp duty etc

- (a) [User 1] and [Assignee] will each bear their own costs and expenses in respect of the negotiation, preparation and execution of this deed.
- (b) [Assignee] will be liable for the costs and expenses (including legal costs) of DBCT Management in respect of the negotiation, preparation and execution of this deed, and any stamp duty and other duties, taxes or other amounts payable as a result of this deed.

4 Governing law

This deed is governed by the laws of Queensland. ~~Each party hereby submits to the exclusive jurisdiction of the Courts of Queensland.~~

5 Counterparts

This deed may be executed in any number of counterparts. All counterparts taken together will be taken to constitute one instrument.

Schedule to Deed of Variation

(clause 12.2 Standard Access Agreement)

Item

1.	User reducing Annual Contract Tonnage	<i>[insert User 1 full name]</i>
2.	[User 1] 's User Agreement (date)	<i>[insert date]</i>
3.	User [increasing / acquiring] Annual Contract Tonnage [Drafting Note: Select the relevant option depending on whether the Assignee is an existing User.]	<i>[insert Assignee's full name]</i> <i>[insert date]</i>
4.	[Assignee] 's User Agreement (date)	<i>[insert date]</i> [Drafting Note: Insert 'Not applicable' if the Assignee is not an existing User.]
5.	Swap Period	<i>[insert start and end dates of Swap Period]</i>
6.	Swap Contract Tonnage	<i>[insert absolute no. of tonnes swapped for each relevant period and annualised rate for each period]Mt</i> (Annualised rate*:[____]) Mtpa)
7.	Effective Date	<i>[insert date of agreement to swap]</i>

* Annualised rate = (Swap Contract Tonnage / No. of days in Swap Period) x 365

Executed as a deed:

**Signed sealed and delivered by
DBCT Management Pty Limited:**

Secretary/Director

Director

Name (please print)

Name (please print)

**Signed sealed and delivered by
[User 1 full name]:**

Secretary/Director

Director

Name (please print)

Name (please print)

**Signed sealed and delivered by
[Assignee full name]:**

Secretary/Director

Director

Name (please print)

Name (please print)

SCHEDULE 7 - TEMPLATE REQUEST FOR THIRD PARTY PERMISSION TO SHIP

(clause ~~12.3~~[12.5](#))

TO : Dalrymple Bay Coal Terminal Pty Ltd (Fax: 07 4956 3353)
DBCT Management Pty Ltd (Fax: 07 3002 3101)

FROM : *[Principal's name*
Beneficiary's name]

SUBJECT : Request for Permission for Third Party to Ship Coal

DATE :

User offering the Capacity (Principal):	
Company accepting the Capacity (Beneficiary):	
Period pertaining to the swap:	
Total Number of Tonnes:	
Nominated Vessel (where known):	
Is this a: (a) Transfer (i.e. a one-way transaction) that will not be repaid; or (b) Swap (i.e. a two-way transaction) that will be repaid? When is repayment expected?	Repayment date: / /

Acceptance of this request is subject to receipt of separate Product Shipment Notice (PSN) for all cargos. Invoicing will be in strict accordance with User Agreement terms (i.e. all charges will be to the Principal).

Principal

Date of Request:

Beneficiary

Date of Request:

Request Approved:

DBCT Management Pty Ltd
Date of Approval:

SCHEDULE 8 - SECURITY

(clause 29)

[Insert details, if applicable]

[eg The User must provide the following Security from an entity which, in the reasonable opinion of DBCT Management, is reputable and of good financial standing, with the capability to fulfil all of the obligations of the User under this Agreement.]

SCHEDULE 9 - DEFINITIONS AND INTERPRETATION

[Drafting Note: Amendments to this Schedule 9 will be required in drafting changes to give effect to the pricing framework set out at Appendix 7 of DBCTM's submission dated 30 May 2018. Shaded terms in particular are pricing-related terms that will be reviewed.]

Definitions

"**Access**" means access to and the provision of the Services under a User Agreement.

"**Access Agreement**" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"**Access Application**" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"**Access Charges**" means amounts payable by a Access Holder under a User Agreement for Access.

"**Access Holder**" means a person who has an entitlement to Access under a User Agreement.

"**Access Seekers**" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"**Access ~~Undertaking~~ [Framework](#)**" means the access ~~undertaking~~ submitted by [framework \(including its schedules\) applying to](#) DBCT Management from time to time relating to provision of the Services by it, ~~and at the commencement of this Agreement means the access undertaking approved by the QCA on [insert date]~~ [as implemented under the Deed Poll](#).

"**Additional Tonnage**" means, in respect of all Access Holders in a relevant Financial Year, the aggregate of all Excess Tonnage for that Financial Year which, because of Terminal Capacity, could not have been Handled unless there had been an Early Termination. For clarification, the Additional Tonnage cannot exceed the relevant annual tonnages the subject of Early Termination.

"**Aggregate Annual Contract Tonnage**" means, in respect of a relevant Financial Year, the sum of the tonnages contracted to be Handled under all User Agreements for all Access Holders for that Financial Year.

"**Aggregate Reference Tonnage**" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"**Agreement**" means this agreement, including all schedules attached to it.

"**Agreement Revision Date**" means:

- (a) the date of commencement of each Access Undertaking for the Terminal after the first Access Undertaking;
- (b) the date a Price Ruling is made that a Current Expansion will be a Differentiated Expansion Component under Section 5.12(c) of the Access Undertaking; and
- (c) if an Access Undertaking ceases to be relevant to the Terminal, then the date 5 years after the immediately previous Agreement Revision Date but if two such dates would otherwise occur within 12 months of each other, the parties may agree that one will be disregarded.

"**Annual Contract Tonnage**" means the maximum quantity of Coal that the User is entitled to deliver to and have Handled through the Terminal in a relevant Financial Year under this Agreement in accordance with Item 7 of Schedule 1 (as amended from time to time pursuant to this Agreement):

- (a) including tonnage which the User is entitled to have Handled but which may not, at a practical level, be able to be Handled due to circumstances such as a force majeure event

or relevant provisions of Terminal Regulations and any tonnage which the User would be entitled to have Handled but for the suspension of the User's right to have the tonnage Handled under this Agreement; but

- (b) excluding ad-hoc over shipments which may be permitted subject to available capacity.

For clarification, where a Financial Year or any relevant period is less than twelve months, or the annualised rate of Annual Contract Tonnage varies during a Financial Year, the Annual Contract Tonnage will be expressed as the relevant annualised rate at a point in time for the purposes of calculating the charges payable each Month, but will nevertheless be the absolute amount of tonnes which the User is entitled to have Handled over the entire Financial Year for purposes such as the determination of any Year End Adjustment, any Excess Charge, any annual reconciliation of HCF, and the tonnages included in the Aggregate Annual Contract Tonnage.

"Annual Revenue Requirement or ARR" has the meaning given in the Access Undertaking.

"Business Day" means any day other than a Saturday, a Sunday, or a public holiday in Brisbane.

"Capital Charge" has the meaning given in the Access Undertaking.

"Capital Expenditure" means expenditure which:

- (a) relates to replacement or Expansion of any part of the Terminal;
- (b) relates to the refurbishment or upgrade of any part of the Terminal which can reasonably be expected to extend the life of the relevant part beyond its original useful life; or
- (c) otherwise relates to the refurbishment or upgrade of Terminal plant and/or infrastructure which is reasonably expected to improve whole of life cost or is incurred with the agreement of the Operator,

but not expenditure recovered through HCF or HCV.

"Cargo Manifest" means the manifest referred to in clause 9.

"Cash Rate Target" means, at a relevant time, the cash rate target then prevailing and published by the Reserve Bank of Australia on its website (www.rba.gov.au) at that time.

"Change of Control" will occur in the User if at any time during the term of this Agreement, any person obtains, or ceases to hold, directly or indirectly:

- (a) beneficial ownership of 50% or more (in aggregate) of the voting shares in the corporation; or
- (b) effective control of the board of directors of the corporation, other than as a result of the transfer of securities in a corporation listed on any recognised stock exchange.

"Claim" means any action, proceeding, allegation, demand or claim in any form for relief or compensation of any nature.

"Coal" means coal, coke, and other like materials as are approved by DBCT Management.

"Commencement Date" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Conditional Access Agreement" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Consequential Loss" means any one or more of the following:

- (a) [Loss of profits; or](#)
- (b) [Loss of opportunity to make profits; or](#)
- (c) [Loss of business opportunity; or](#)
- (d) [special exemplary or punitive damages; or](#)

- (e) [any Loss which does not directly and naturally flow in the normal course of events from the occurrence of the event giving rise to the liability for such Loss, whether or not such Loss was in the contemplation of the parties at the time of entry into this agreement, including any of the above types of Loss arising from an interruption to a business or activity.](#)

["**Current Expansion**"] means *(to be inserted as applicable)*.

"**Deed Poll**" means the irrevocable deed poll dated [\[insert\]](#) given by DBCT Management under which it covenants to comply with the Framework.

"**Default Interest Rate**" means, at a relevant time, the rate per annum equal to the Cash Rate Target at that time plus 3.5%.

"**DBCT Management's Personal Responsibility**" means DBCT Management's personal liability as a result of its own acts or omissions, independently of and excluding any liability which it might have directly or indirectly arising from the acts or omissions of the Operator or third parties (including contractors and subcontractors of DBCT Management).

"**Delay**" means any delay, inability or failure (for any reason, including breach of this Agreement or negligence) to Ship or Handle Coal in the tonnages and at the rates contemplated in this Agreement. For the User, this includes a failure to deliver Coal to the Terminal or an inability to schedule vessels to load Coal. For DBCT Management, this includes the inability to provide Services at the Terminal (in whole or part) for any reason when Coal would otherwise have been made available by the User.

"**Demurrage Costs**" means the average cost across all Access Holders of demurrage in respect of the loading of Coal on vessels at the Terminal over any period of 3 consecutive months (as estimated by the Operator in accordance with its historical practice of estimating notional demurrage costs).

"**Differentially Priced Capacity**" has the meaning given in the Access [Undertaking Framework](#).

"**Differentiated Expansion Component**" has the meaning given in the Access [Undertaking Framework](#).

"**Differentiation**" and "**Differentiated**" has the meaning given in the Access [Undertaking Framework](#).

"**Direct Loss**" means charges actually paid pursuant to this Agreement in respect of the period of the Delay. For the purposes of clause 13.4, the User's ~~losses~~ [Losses](#) arising out of a Delay will be taken to include the amount of the relevant Direct Losses.

"**Due Date**" has the meaning given in clause 5.1.

"**Early Termination**" means the termination of a User Agreement (the "**Terminated Agreement**") before its originally scheduled expiry date (but not where that occurred as a result of the exercise of a contractual right to terminate which was included in the Terminated Agreement when it was entered into, other than a right to do so for default in payment or insolvency of the Access Holder, or default by DBCT Management. For the purpose of this definition, termination for default in payment or insolvency will be taken to have occurred if DBCT Management terminates the Terminated Agreement on other grounds but in circumstances where a default in payment or the insolvency of the Access Holder could have been reasonably expected within a reasonably short time thereafter had that termination not occurred).

"**Effective Date**" means, [subject to prior satisfaction of the condition precedent in clause 29.1,] the date set out as such in Schedule 1.

"**Excess Charge**" means the component of the Capital Charge payable in respect of Excess Tonnage, calculated in accordance with Schedule 2, Part B, Section 3 [\[x\]](#).

"Excess Tonnage" means the number of tonnes of the User's Coal (excluding Non-Reference Tonnage) Handled in a Financial Year which is more than the User's Annual Contract Tonnage for the Financial Year.

"Execution Date" is the date described as such in Schedule 1 and will be completed as the day this Agreement is executed by the last of the parties to execute it.

"Existing Terminal" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"Existing User Agreement" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"Expansion" means the construction, purchase, installation or erection of new works intended to increase the Terminal Capacity.

"Expansion Component" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"Expansion Component Capacity" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"Expansion Party" has the meaning given in the Access ~~Undertaking~~ [Framework](#).

"Financial Year" means:-

- (a) the First Financial Year; and
- (b) each 12-month period from July 1 of one calendar year to June 30 of the next ensuing calendar year; and
- (c) any period from the last July 1 in the Term until the end of the Term.

"First Financial Year" means the period from the Effective Date to the next following 30 June.

"Fixed Operating Costs" means the aggregate of all amounts:

- (a) reasonably incurred or charged by the Operator (including any margin payable to the Operator under the Operation & Maintenance Contract);
- (b) reasonably incurred or charged by DBCT Management with the express written consent of not less than two thirds of Access Holders by contract tonnage; and
- (c) reasonably incurred by DBCT Management in exercising its rights under the Operation & Maintenance Contract to step in or take work out of the hands of the Operator (as a result of a default by the Operator),

to the extent that they represent a fixed cost of operating the Terminal.

"Force Majeure" means any event or circumstance not within the control of DBCT Management, and which, by the exercise of a reasonable standard of care and diligence, DBCT Management could not have overcome. Any act or omission of the Operator will be assumed to be beyond the control of DBCT Management, unless it has been specifically directed by DBCT Management and carried out by the Operator in the manner in which it can reasonably be inferred that DBCT Management intended.

"Formula" has the meaning given in clause 7.3.

"Framework Agreement" means the framework agreement between DBCT Holdings Pty Ltd, the State of Queensland, DBCT Management and others dated 31 August 2001.

~~**"Funding Access Seeker"** has the meaning given in the Access Undertaking.~~

"Good Operating and Maintenance Practice" means, in the performance of any obligation under this Agreement, adherence to a standard of practice which includes the exercise of that degree of skill, diligence, prudence and foresight which would reasonably be expected from a competent, experienced and qualified operator of a facility comparable with the Terminal.

"GST Exclusive Consideration" has meaning given to it in clause 21(b).

"Handle" means the receiving by rail, unloading, stacking, storing, reclaiming and loading of vessels with Coal, including any other relevant Services required by the User using infrastructure at the Terminal.

"HCF" or **"Handling Charge - Fixed"** means the charge determined under clause 6.2.

"HCV" or **"Handling Charge - Variable"** means the charge determined under clause 6.3.

"Increment" has the meaning given in Schedule 2, Part B, Section 4~~[x]~~.

"Independent Expert" means an independent expert appointed under clause [16.3] of the Access Framework.

"Law" means any law, statute, by-law, regulation, rule, order, ordinance, proclamation, or delegated or subordinated legislation of the Commonwealth or of any State or Territory of Australia or of any local government.

"Long Term Delays" means ongoing, sustained Delays that arise out of physical loss, destruction or damage at the Terminal.

"Loss" means any damage, loss (including loss of reputation), cost, expense, fine, penalty or liability incurred by the person concerned, however it arises and whether it is present or future, fixed or unascertained, actual or contingent.

"Maintenance Work" means any work involving maintenance of or repairs to (including repair by replacement) any part of the Terminal, including any inspections or investigations required by Good Operating and Maintenance Practice.

"Miscellaneous Services" means:

- (a) services requested by the User from time to time which services are nominated in Schedule 3 as Miscellaneous Services; or
- (b) services to the extent that they are materially different (in nature, extent or cost) to the Services provided to other Access Holders at the Terminal including as a result of the nature of the User's Coal (or any contaminants in it) or requirements in respect of its handling, storage, blending, unloading or loading which result in materially additional costs or delays.

"Month" means a calendar month.

"Monthly Payment" means the monthly instalment of the TIC payable pursuant to clause 4.3~~4.4~~, calculated (and adjusted as required) in accordance with Schedule 2, Part A, Section 4~~[x]~~.

"Mtpa" means million tonnes per annum.

"No Fault Interest Rate" means, at a relevant time, the rate per annum equal to the Cash Rate Target at that time plus 0.2%.

"Non-Reference Tonnage" has the meaning given in the Access Undertaking Framework;

"Notified Period" has the meaning given in clause 11.4.

"Notified Tonnage" has the meaning given in clause 11.4.

"Notional Contracted Tonnage" means, in respect of a Financial Year the Aggregate Annual Contract Tonnage. ~~{TBC}~~

"Operation & Maintenance Contract" means the agreement under which the Operator agrees to operate and maintain the Terminal on a day to day basis, and includes any other agreement in substitution for it under which DBCT Management agrees with a person to operate the Terminal.

"Operator" means Dalrymple Bay Coal Terminal Pty Ltd ACN 010 268 167 or such other contractor engaged by DBCT Management under the Operation & Maintenance Contract.

"Over-shipment" has the meaning given in Schedule 2, Part B, Section 4(a)[\[x\]](#).

"Permissible Delay" means:

- (a) any Delay from which DBCT Management is released from liability pursuant to clauses 3.6(~~k~~) or 10.3; or
- (b) any Delay which is imposed by DBCT Management, acting reasonably:
 - (i) because it considers it necessary for the safety of any person or to prevent material damage to property (except where the threat to the person or property arises out of Wilful Default or reckless neglect on the part of DBCT Management); or
 - (ii) to facilitate the performance of Maintenance Work (other than Maintenance Work to the extent it is necessitated by Wilful Default or reckless neglect on the part of DBCT Management) or of an Expansion in accordance with clause 10.2.

"Port" means both the harbour of Hay Point proclaimed by the Governor-in-Council by Order-in-Council dated 30 October 1983, and all real property held by DBCT Management as part of or relating to that Port.

"Port Services Agreement" has the meaning given in the Framework Agreement.

"Product Shipment Notice" means a notice in the form of Schedule 5.

"Provisional Increment" has the meaning given in Schedule 2, Part B, Section 4(a)[\[x\]](#).

"Provisional Increment Repayment" has the meaning given in Schedule 2, Part B, Section 4(e)[\[x\]](#).

"QCA" means the Queensland Competition Authority established under the QCA Act or any other relevant body from time to time having substantially similar powers in respect of the Terminal, including the power to arbitrate disputes over charges payable for access to services or to otherwise determine such charges.

"QCA Act" means the Queensland Competition Authority Act 1997 (Qld).

"Quarter" means:

- (a) each 3 month period commencing on 1 July, 1 October, 1 January and 1 April; and
- (b) in respect of the first quarter, commencing on the Effective Date and ending on the day before the commencement of the next quarter.

"Rail Operator" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Reference Tariff" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Reference Terms" has the meaning given in the Access ~~Undertaking~~[Framework](#). For clarification, the terms of this Agreement will be taken to be Reference Terms.

"Reference Tonnage" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Reference Tonnage Access Holder" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Representative" has the meaning given to it in clause 17.4

"Revenue Cap" is the amount DBCT Management is entitled to earn from Reference Tonnage and is calculated in accordance with Schedule 2, Part A, Section 2[\[x\]](#).

"Review Event" has the meaning given to it in the Access ~~Undertaking~~[Framework](#).

"Rules" [has the meaning given in clause 15.4\(a\)](#)

"Security" means any form of security or guarantee required to be provided or in fact provided pursuant to clause 29.

"Services" means the services described in Schedule 3.

"Ship" means the delivery of Coal to the Terminal by rail and the arrangement of vessels by the User such that DBCT Management is able to Handle the User's Annual Contract Tonnage.

"Socialised Terminal Capacity" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Standard Access Agreement" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Supplier" has the meaning given to it in clause 21(d).

"System" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"System Capacity" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Term" means the term of this Agreement as specified in Item 6 of Schedule 1, as extended in accordance with this Agreement.

"Terminal" means the Terminal Component of the land and port infrastructure located at the Port of Hay Point which is owned by DBCT Holdings Pty Ltd or the State of Queensland and leased to DBCT Guarantor and/or DBCT Management, and known as the Dalrymple Bay Coal Terminal, and includes the following which form part of the Terminal Component:

- (a) loading and unloading equipment;
- (b) stacking, reclaiming, conveying and other handling equipment;
- (c) wharves and piers;
- (d) deepwater berths; and
- (e) shiploaders.

"Terminal Capacity" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Terminal Component" means the part of the Terminal as specified in Item 8 of Schedule 1.

"Terminal Infrastructure Charge" or "TIC" means the component of the Capital Charge (per tonne) payable on the Annual Contract Tonnage, calculated in accordance with Schedule 2, Part A, Section 3[x].

"Terminal Regulations" means regulations in force and available on DBCT Management's website governing procedures for the operation of the Terminal existing as at the commencement of this Agreement as amended from time to time in accordance with the Access ~~Undertaking~~[Framework](#).

"Terminating Date" has the meaning given in the Access ~~Undertaking~~[Framework](#).

"Third Party Amount" means the amount for which DBCT Management is actually indemnified by the Operator and/or another third party (including a liability insurer) in respect of liability for any Claim made by the User, less DBCT Management's costs of recovery of that amount. For clarification, if a Delay affects more than one Access Holder, then the aggregate amount of any payment received by DBCT Management which related to a common Third Party Amount claimed by such affected Access Holders will be distributed to them in the proportions of their respective annual contracted tonnages.

"User" means the person specified in item 3 of Schedule 1.

"User Agreement" means an agreement for the provision of Access to the Services.

"User Committee" has the meaning given to it in clause 17.1.

"Utilisation Advice" means a notice in the form in Schedule 4 given by the User to DBCT Management under clause 6.1.

"Variable Operating Costs" means the aggregate of all amounts:

- (a) reasonably incurred or charged by the Operator (including any margin payable to the Operator under the Operation & Maintenance Contract);
- (b) reasonably incurred or charged by DBCT Management with the express written consent of not less than two thirds of Access Holders by contract tonnage; and
- (c) reasonably incurred by DBCT Management in exercising its rights under the Operation & Maintenance Contract to step in or take work out of the hands of the Operator (as a result of a default by the Operator),

to the extent that they represent a variable cost of operating the Terminal.

"Vessel Nomination" means a vessel nomination notice given by the User under the Terminal Regulations for the purpose of finalising the relevant nominated parcel and vessel details for a proposed shipment.

"Wilful Default" means a deliberate act or omission which will result in (and can reasonably be expected to have been intended to result in) a breach of this Agreement and which, as soon as practicable, but in any event within 30 days after written notice (particularising the alleged breach) is given to the party alleged to be in default, is not either:

- (a) acknowledged by the defaulting party and rectified; or
- (b) disputed by the party allegedly in default and referred to dispute resolution in accordance with clause 15, but if the notice of default is ultimately determined by arbitration or order of a court or agreement to have been justified, then rectified as soon as practicable but in any event within 30 days of the adjudication or agreement.

For the purposes of this definition, rectification will be taken to have occurred within the time period stated above, even if not actually completed within that time period, if rectification is reasonably practicable and commences within the stated period and proceeds at all times expeditiously.

"Year 10" of this Agreement means the Financial Year commencing on 1 July *[insert year]*.

"Year End Adjustment" means the adjustment calculated in respect of a Financial Year pursuant to Schedule 2, Part B, Section ~~4~~[4\[x\]](#).

Interpretation

1. In this Agreement headings are for convenience only and do not affect its interpretation.
2. Except to the extent that the context otherwise requires:-
 - (a) reference to any statute or statutory provision includes any modification or re-enactment of, or any legislative provisions substituted for, and all legislation and statutory instruments issued under such legislation or such provision;
 - (b) words denoting the singular include the plural and vice versa;
 - (c) words denoting persons or individuals include corporations, associations, trustees, instrumentalities and partnerships and vice versa;
 - (d) words denoting any gender include all genders;
 - (e) references to parties, clauses and Schedules are references to parties, clauses and Schedules to this Agreement as modified or varied from time to time;

- (f) references to any document, deed or agreement include references to such document or agreement as amended, novated, supplemented, varied or replaced from time to time;
- (g) references to any party to this Agreement or any other document, deed or agreement include its successors or permitted assigns;
- (h) all references to dates and times are to Brisbane time;
- (i) all references to "\$" and "dollars" are to the lawful currency of Australia;
- (j) a reference to "including" shall be construed as "including, but not limited to," and "include" and "includes" shall be construed similarly;
- (k) where a provision provides that a party "may" do something, "may" shall be construed as discretionary and without obligation;
- (l) where any word or phrase is given a defined meaning, any other grammatical form of that word or phrase has a corresponding meaning;
- (m) where a provision provides that a party will act reasonably or prudently, that shall (where the context permits) be construed in the context of DBCT Management's obligation to act in accordance with Good Operating and Maintenance Practice;
- (n) where there is a requirement under this Agreement to consider whether the User or Access Holders are being treated or will be affected equitably, the party so considering must have regard to (amongst other things) the Access Holder's respective annual contract tonnage; and
- (o) where measurement of Coal "Handled" (or in the context of the User, "Shipped") is being made in respect of a period, the tonnage loaded into vessels as determined in accordance with clause 9 will be taken to be the tonnage Handled (or, as the context requires, Shipped) in that period.

3. Payments on Business Days

Where the day on which any payment of money under this Agreement is to be made is not a Business Day, the payment may be made on the next Business Day.

4. Change to index

- (a) If the index used in any formula is not published at the time it is to take effect but will subsequently be published, then the formula will not be applied until such index is available, and the result of applying such formula at such later date shall be backdated to the date of effect.
- (b) If an index used in any formula under this Agreement is suspended or discontinued, then:
 - (i) it shall be replaced by the index substituted for it; or
 - (ii) if the index is not substituted by another index, the parties shall, acting in good faith, meet to agree a replacement index. If the parties cannot agree upon a replacement index within 28 days, then either party may refer the issue to dispute resolution in accordance with clause 15.

EXECUTION

Executed as an agreement

Signed for
DBCT
Management Pty Limited
by its representative
in the presence of:

Witness

Director

Name (please print)

Name (please print)

Signed for
DBCT Investor Services Pty Ltd
as trustee for the DBCT Trust
by its representative
in the presence of:

Witness

Director

Name (please print)

Name (please print)

Signed for
[Insert User name]:
by its representative
in the presence of:

Witness

Representative

Name (please print)

Name (please print)

Appendix 5 Comparison of DBCT Access Framework to CPA and certification principles

CPA principle	DBCT Access Framework	
<p>6(4)(a)-(c): Negotiated access</p>	<p>Wherever possible third party access to a service provided by means of a facility should be on the basis of terms and conditions agreed between the owner of the facility and the person seeking access.</p> <p>Where such agreement cannot be reached, governments should establish a right for persons to negotiate access to a service provided by means of a facility.</p> <p>Any right to negotiate access should provide for an enforcement process.</p>	<p>✓ - The Access Framework provides for negotiation of access agreements and a right for access seekers to negotiate access. The Framework also provides for binding dispute resolution (through expert determination or arbitration) if a dispute arises in relation to such negotiations.</p> <p>As noted in the NCC's Guide to Certification (December 2017) at [5.1], clause 6(4)(a) of the CPA principles requires that an effective access regime allows parties to try to reach mutually beneficial agreements through commercial negotiation. The Access Framework does this, by providing for a negotiate-arbitrate consistent with the principles and setting out a detailed process for the negotiation of access consistent with the process under the current access undertaking.</p> <p>The Access Framework provides for expert determination and arbitration of access disputes, and for such determinations to be binding. The NCC's Guide to Certification notes (at [5.1]) that an effective regime requires a means for dealing with situations where access providers and access seekers are unable to reach agreement. The process for access disputes to be referred to an independent expert or arbitrator for determination is consistent with how disputes are frequently determined under commercial agreements. It is also similar to the process under DBCTM's current access undertaking (which provides for disputes to be referred for expert determination or to the QCA for arbitration of access disputes) and the process that applies at other coal export terminals. For example, the Wiggins Island Terminal Access Policy (clause 13) and Queensland Bulk Handling Pty Ltd Voluntary Access Undertaking (clause 8) relating to the Fisherman Island coal export terminal provides for disputes to be determined by an expert.</p>
<p>6(4)(d): Regular review</p>	<p>Any right to negotiate access should include a date after which the right would lapse unless reviewed and subsequently extended; however, existing contractual rights and obligations should not be automatically revoked.</p>	<p>✓ - The Access Framework is specified to be in effect for a specified period, and the Deed Poll provides for the review and renewal of the Access Framework. The Access Framework and Deed Poll do not provide for existing contractual rights and obligations to be automatically revoked.</p> <p>The NCC's Guide to Certification (at [5.4]-[5.5]) notes that this clause in the CPA is intended to ensure that there is periodic review of the need for access regulation to apply to a particular service, and that such a review should not override commercially determined outcomes by automatically revoking any existing contractual rights. Provisions relating to the term, review and renewal of the Access Framework and Deed Poll are consistent with this intention.</p>
<p>6(4)(e): Reasonable endeavours</p>	<p>The owner of a facility that is used to provide a service should use all reasonable endeavours to accommodate the requirements of persons seeking access.</p>	<p>✓ - The Access Framework contains similar provisions to the current access undertaking relating to accommodating the reasonable requirements of an access seeker. Similar provisions under section 5 of DBCTM's 2011 access undertaking were accepted by the NCC as satisfying clause 6(4)(e) in the NCC's recommendation to certify the DBCT access regime in 2011.³⁸⁴</p>

³⁸⁴ NCC, *Final recommendation - Dalrymple Bay Coal Terminal Access Regime Application for certification under s 44M of the Trade Practices Act 1974 (Cth)*, 10 May 2011 at [5.43]-[5.44].

CPA principle	DBCT Access Framework	
		<p>The NCC's Guide to Certification (at [5.6]) states that the NCC considers that an access regime may either incorporate clause 6(4)(e) explicitly, or through general provisions that have the same effect..</p> <p>The Access Framework conforms with the above requirements by, for example:</p> <ul style="list-style-type: none"> • Incorporating an access request and negotiation process that is substantially consistent with the process under section 5 of DBCTM's current access undertaking, which includes reasonable timeframes applying to such processes. • Incorporating a requirement for DBCTM to use its best endeavours to accommodate capacity consistent with section 12.4(a) of the current access undertaking. • Requiring DBCTM to provide relevant information to access seekers and publish a Standard Access Agreement
<p>6(4)(f): Access on different terms</p>	<p>Access to a service for persons seeking access need not be on exactly the same terms and conditions.</p>	<p>✓ - The Access Framework provides for the negotiation of different terms by users consistent with section 13 of the current access undertaking.</p> <p>The NCC's Guide to Certification notes (at [5.8]) that an access regime should not limit the scope for commercial negotiation and that the terms and conditions set out in access arrangements should facilitate commercial negotiations and act as a safety net when a reasonable outcome cannot be negotiated. The provisions relating to Standard Access Agreements in DBCT's Access Framework explicitly recognise that different terms may be negotiated, and provide for the Standard Access Agreement to be used (as a 'safety net') if different terms cannot be negotiated.</p> <p>The NCC's Guide to Certification also observes (at [5.9]) that, under an effective access regime, a service provider cannot unfairly discriminate between access seekers and an effective access regime must also include provisions consistent with clauses 6(5)(b)(ii) and (iii) (which relate to price discrimination when it aids efficiency and not allowing vertically integrated providers to discriminate in favour of its downstream operations). The pricing framework and ring-fencing provisions under the Access Framework are consistent with such principles.</p> <p>The consistency of the Access Framework with clause 6(4)(f) is supported by the NCC's recommendation in 2011 to certify the DBCT access regime, which found that the DBCT access regime satisfied clause 6(4)(f) based on the following (which is consistent with the Access Framework):³⁸⁵</p> <p style="padding-left: 40px;">The DBCT Access Regime provides that a service provider is not required to provide access to a declared service on the same terms under each access agreement. It safeguards against a service provider hindering access ... or unfairly differentiating between access seekers in a way that has a material adverse effect on an access seeker's ability to compete with other access seekers.</p>

³⁸⁵ NCC, *Final recommendation - Dalrymple Bay Coal Terminal Access Regime Application for certification under s 44M of the Trade Practices Act 1974 (Cth)*, 10 May 2011 at [5.50].

CPA principle		DBCT Access Framework
6(4)(g): Independent dispute resolution	Where the owner and a person seeking access cannot agree on terms and conditions for access to the service, they should be required to appoint and fund an independent body to resolve the dispute, if they have not already done so.	<p>✓ - The Access Framework provides for access disputes to be referred to an independent expert or arbitrator for resolution.</p> <p>The NCC's Guide to Certification notes (at [5.10]) that this principle 'recognises the need for an independent arbitration mechanism to complement and encourage genuine negotiations'. As set out in relation to clause 6(4)(c) above, the Access Framework provides for disputes to be referred to an independent expert or arbitrator. The criteria for the expert include provisions to ensure the independence of the expert, and an arbitration is required to be conducted in accordance with the Resolution Institute Arbitration Rules. Further, the Framework provides for specified matters to be taken into account in resolving disputes, which will ensure credible and consistent outcomes.</p> <p>The effectiveness of the dispute resolution mechanisms under the Access Framework is also supported by:</p> <ul style="list-style-type: none"> • The requirement in the Access Framework for parties to provide all information (subject to appropriate confidentiality arrangements) and assistance that the independent expert may reasonably require. • The application of the <i>Commercial Arbitration Act 2013</i> (Qld) to arbitrations under the framework, which provides for an arbitrator to conduct the arbitration in such manner as it considers appropriate if the parties fail to agree on the procedure to be followed. The powers conferred on an arbitrator under that Act also include the power to determine matters relating to evidence (such as admissibility and relevance of evidence) and to make orders or give directions for the examination of witnesses (section 19), and powers relating to confidential information (section 27G). The <i>Commercial Arbitration Act 2013</i> (Qld) also includes other general provisions to ensure the quality of the process, such as parties must be treated with equality and each party must be given a reasonable opportunity of presenting the party's case (section 18).
6(4)(h): Binding decisions	The decisions of the dispute resolution body should bind the parties; however, rights of appeal under existing legislative provisions should be preserved.	<p>✓ - The Access Framework provides for the decision of the independent expert to be final and binding (subject to the potential referral to arbitration if a party believes there was a manifest error), consistent with the current access undertaking. The Access Framework also does not preclude any rights of appeal to the Court under the <i>Commercial Arbitration Act 2013</i> (Qld).</p>
6(4)(i): Principles for dispute resolution	<p>In deciding on the terms and conditions for access, the dispute resolution body should take into account:</p> <ol style="list-style-type: none"> the owner's legitimate business interests and investment in the facility; the costs to the owner of providing access, including any costs of extending the facility but not costs associated with losses arising from increased competition in upstream or downstream markets; 	<p>✓ - The Access Framework provides for the arbitrator to have regard to the specified matters that are equivalent to the principles set out in this clause.</p>

CPA principle	DBCT Access Framework	
	<ul style="list-style-type: none"> (iii) the economic value to the owner of any additional investment that the person seeking access or the owner has agreed to undertake; (iv) the interests of all persons holding contracts for use of the facility; (v) firm and binding contractual obligations of the owner or other persons (or both) already using the facility; (vi) the operational and technical requirements necessary for the safe and reliable operation of the facility; (vii) the economically efficient operation of the facility; and (viii) the benefit to the public from having competitive markets. 	
6(4)(j): Facility extension	<p>The owner may be required to extend, or to permit extension of, the facility that is used to provide a service if necessary but this would be subject to:</p> <ul style="list-style-type: none"> (i) such extension being technically and economically feasible and consistent with the safe and reliable operation of the facility; (ii) the owner's legitimate business interests in the facility being protected; and (iii) the terms of access for the third party taking into account the costs borne by the parties for the extension and the economic benefits to the parties resulting from the extension. 	✓ - The expansion provisions in the Access Framework are consistent with the current access undertaking and these principles.
6(4)(k): Dealing with material change in circumstances	<p>If there has been a material change in circumstances, the parties should be able to apply for a revocation or modification of the access arrangement which was made at the conclusion of the dispute resolution process.</p>	✓ - There is nothing in the Access Framework or Standard Access Agreement that would prevent a party seeking an amendment to an access arrangement if there is a material change in circumstances.
6(4)(l): Compensation	<p>The dispute resolution body should only impede the existing right of a person to use a facility where the</p>	N/A - The Access Framework does not permit the dispute resolution body to impede existing rights.

CPA principle		DBCT Access Framework
	dispute resolution body has considered whether there is a case for compensation of that person and, if appropriate, determined such compensation.	
6(4)(m): Hindering access	The owner or user of a service shall not engage in conduct for the purpose of hindering access to that service by another person.	✓ - The Access Framework specifically provides that DBCTM will not engage in conduct for the purpose of preventing or hindering an access holder's or access seeker's access.
6(4)(n): Separate accounting	Separate accounting arrangements should be required for the elements of a business which are covered by the access regime.	N/A - elements of DBCTM's business are covered by the Access Framework so separate accounting arrangements are not applicable. Further, the ring-fencing arrangements in the Access Framework prevent DBCTM from owning or operating a Supply Chain Business in any market that is related to or uses the Terminal.
6(4)(o): Access to financial information	The dispute resolution body, or relevant authority where provided for under specific legislation, should have access to financial statements and other accounting information pertaining to a service.	✓ - The Access Framework provides for the parties to provide all information that the independent expert may reasonably require, which would include financial statements and other accounting information pertaining to the DBCT services where relevant. As outlined in relation to clause 6(4)(g) above, the arbitrator will have appropriate powers to require the provision of information in an arbitration.
6(4)(p): Jurisdictional issues	Where more than one State or Territory regime applies to a service, those regimes should be consistent and, by means of vested jurisdiction or other cooperative legislative scheme, provide for a single process for persons to seek access to the service, a single body to resolve disputes about any aspect of access and a single forum for enforcement of access arrangements.	N/A
6(5)(a): Objects	Objects clauses that promote the economically efficient use of, operation and investment in, significant infrastructure thereby promoting effective competition in upstream or downstream markets.	✓ - The Access Framework includes an objects section that provides that the objective of the Framework is to promote the economically efficient operation of, use of and investment in, the Terminal, with the effect of promoting effective competition in upstream and downstream markets.
6(5)(b): Pricing should promote efficiency	Regulated access prices should be set so as to: (i) generate expected revenue for a regulated service or services that is at least sufficient to meet the efficient costs of providing access to the regulated service or services and include a return on investment commensurate with the regulatory and commercial risks involved;	✓ - As outlined in the submission on criterion (a), the pricing framework in the Access Framework will ensure that access prices comply with these objectives because: <ul style="list-style-type: none"> pricing decisions are subject to a price floor that accords with the approach that would otherwise have been adopted by the QCA, which itself operates by reference to a near identical 'expected revenue' pricing objective; multi-part pricing and price discrimination will not be prevented, although application of the 'willing but not anxious' buyer/seller principle is likely to mean that arbitrated price outcomes will have close regard to the price paid in arms' length transactions for similar services;

CPA principle	DBCT Access Framework
<ul style="list-style-type: none"> (ii) allow multi-part pricing and price discrimination when it aids efficiency; (iii) not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher; and (iv) provide incentives to reduce costs or otherwise improve productivity. 	<ul style="list-style-type: none"> • since DBCT is not a vertically integrated access provider, CPA pricing principle (iii) is not applicable; and • since prices will only be set by reference to DBCT's costs if they are set at the price floor, DBCT's incentives to reduce costs and or otherwise improve productivity will be even stronger than is presently the case.
<p>6(5)(c): Merits review of decisions</p> <p>Where merits review of decisions is provided, the review will be limited to the information submitted to the original decision-maker except that the review body:</p> <ul style="list-style-type: none"> (i) may request new information where it considers that it would be assisted by the introduction of such information; (ii) may allow new information where it considers that it could not have reasonably been made available to the original decision-maker; and (iii) should have regard to the policies and guidelines of the original decision-maker (if any) that are relevant to the decision under review. 	<p>N/A (as merits review of decisions is not provided for). As noted in the NCC's Guide to Declaration (at [6.13]), clause 6(5)(c) does not require that an access regime provide for merits review.</p>

Appendix 6 Rationale for changes to existing access undertaking

This rationale table summarises substantive changes to the Access Framework (or **Framework**) and other changes which are considered material in the context of the expiry of declaration of the DBCT service. This rationale table does not summarise typographic errors which have been identified in the 2017 Access Undertaking and Standard Access Agreement and which have been corrected in the Framework and Standard Access Agreement.

As noted in DBCTM's submission, the Framework and the Standard Access Agreement provided with DBCTM's submission dated 30 May 2018 should be read in conjunction with Appendix 7 of DBCTM's submission, which sets out the pricing framework that will apply under the Framework and Standard Access Agreement. Drafting to give effect to the pricing framework is being developed. The reasons for changes that will be made to the Framework and Standard Access Agreement based on the pricing framework is set out in DBCTM's submission on criterion (a) and Appendix 7. Further consequential changes may also be required to the clauses set out in this table.

Section	Changes	Rationale
1.1 (Purpose of this document)	Updated to reflect new situation and remove unnecessary history	The preamble has been changed to delete unnecessary historical information and update it to reflect the position if declaration expires.
1.2 (Scope of Framework)	At Section 1.2 - delete reference to common ownership within Brookfield Group of Trading SCB and DBCTM	Trading SCB (the supply chain business in the Brookfield Group that engages in the trading of secondary capacity at DBCT) is no longer specifically referred to, as DBCT Management will close that business prior to the expiry of declaration to address any potential perceived vertical integration concerns relating to that business.
1.3 (Objective of this framework) - New Section	Outlines the objective of the Framework	The objective of the Framework has been set out, being to promote the economically efficient operation of, use of and investment in, the Terminal, with the effect of promoting effective competition in upstream and downstream markets. The objective reflects section 69E of the QCA Act.
1.4 (Duration of Framework)	Amended Section - deleted reference to QCA Act; amended "Approval Date" to "Commencement Date"	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Section 1.4 now provides for the Framework to commence on the day following expiry of the undertaking (9 September 2020) and run for a 10 year term. The irrevocable deed poll provides for a process by which DBCT Management can review and amend the Framework during its term. The amendments must promote the Framework Objective and, when making any amendments, DBCT Management must have regard to principles substantially similar to sections 138(2)(a) - (g) and 168A of the QCA Act.
	Original Section 1.4 (Review of Undertaking) - deleted and relocated to the Deed Poll; all references to QCA Act have been removed	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. As noted above, the irrevocable deed poll provides for a process to ensure that amendments to the Framework can be made in certain circumstances. It also provides that DBCT Management must publish notice of its intention to renew, or not renew, at least 12 months before the end of the initial 10 year term.
1.6 (Amendment to Undertaking) - Original Section	Deleted	As per preceding comment.
3.1 (Role of DBCT Management)	Amended Section - at Sections 3.1(a), (b) and 3.1(f) declared service and the QCA Act references have been deleted At Section 3.1(e) - delete reference to Trading SCB At Section 3.1(c) - "as the operator" has been deleted	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Some consequential amendments have been made for redundant concepts or references. Trading SCB (the supply chain business in the Brookfield Group that engages in the trading of secondary capacity at DBCT) is no longer specifically referred to as DBCT Management will close that business prior to the expiry of declaration to address any potential perceived vertical integration concerns relating to that business.
	Original Section - Section 3.1(a) has been deleted	

Section	Changes	Rationale
5.2 (Application for Access and information to be provided)	At Section 5.2(a) - Access Seekers to agree to the terms of the Framework and Deed Poll	<p>This Section has been added so that Access Seekers must comply with the requirements, obligations and processes in the Framework and the Deed Poll, including the following clauses of the Deed Poll:</p> <ul style="list-style-type: none"> • clause 8.4 - time period for notifying DBCT Management of objections to proposed amendments to the Framework; • clause 9 - DBCT Management's liability for breach of the Deed Poll (limited to specific performance); • clause 10 - governing law (Queensland); and • clause 11 - exclusive jurisdiction of the courts of Queensland to resolve disputes under the Deed Poll and the time period for challenging amendments to the Framework. <p>The amendment is necessary to reflect the terms of the Deed Poll and the basis on which DBCT Management's commitments in the Deed Poll are being made.</p>
5.3 (What happens after lodgement of Access Application)	Amended Section - at Section 5.3(f)(2), Commencement Date replaces "1 March 2017"	Amended to delete historical term references for the previous undertaking and deal with the commencement of the Framework.
	Original Section - Deleted Section 5.3(f)(2) (and consequential deletion in Section 5.3(g)(2))	Amended to delete historical term references for the previous undertaking and deal with the commencement of the Framework.
5.4 (Priority of Access Applications and execution of Access Agreements)	<p>At Sections 5.4(g) & 5.4(j)(9) - all QCA references have been deleted and replaced with the term "Independent Expert"</p> <p>At Section 5.4(k)(1) - Section updated to refer to the 2017 Access Undertaking as being the undertaking in force prior to the Framework</p> <p>At Section 5.4(k)(5) - QCA approval has been deleted</p>	<p>Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for:</p> <ul style="list-style-type: none"> • independent expert determination with the independent expert to perform the roles and functions of the QCA in these Sections; • an accurate description of the undertaking in force prior to the Framework; and • DBCT Management to have the discretion (rather than requiring QCA approval) to enter into Access Agreements in accordance with an alternative process to the one set out in the Section where that is in the interests of maximising coal exports. Access Seeker will have the ability to dispute decisions under the disputes resolution mechanism in Section 16.
5.5 (Indicative Access Proposal)	At Section 5.5(c) - QCA references have been deleted and replaced with the term "Independent Expert"/"Expert Determination"	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for independent expert determination with the independent expert to perform the roles and functions of the QCA in this Section.

Section	Changes	Rationale
5.8 (Negotiation Cessation Notice)	At Section 5.8(a)(6) - QCA reference has been deleted and replaced with "Arbitrator" At Sections 5.8(a)(5) and 5.8(c) - amend deficient drafting	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for arbitration with the arbitrator to perform the roles and functions of the QCA in this Section. Minor amendments made to Sections 5.8(a)(5) and 5.8(c) to improve deficient drafting.
5.10 (Funding of feasibility studies)	At Sections 5.10(b) and 5.10 (q)(4) - QCA references have either been deleted or replaced with DBCT Management	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Consequential amendments have been made to these Sections relating to publication of material on the QCA website.
	At Sections 5.10(k) - QCA references have been deleted and replaced with the term "Independent Expert"/"Expert Determination"	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for independent expert determination with the independent expert to perform the roles and functions of the QCA in this Section. Minor amendments made to Section 5.10(k) to improve deficient drafting.
	At Sections 5.10(q)(5), 5.10(q)(6), 5.10(q)(7), 5.10(q)(8) & 5.10(q)(9) - QCA references have been deleted and replaced with the term "Arbitrator"	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for a dispute notice to be given, and failing agreement between the parties in accordance with Section 16.2, arbitral determination in accordance with Section 16.4, with the arbitrator to perform the roles and functions of the QCA in this Section.
	At Sections 5.10(q)(3) & 5.10(q)(8) - references to "section 138(2) of the QCA Act" have been removed	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. A Proposed Standard Funding/Underwriting Agreement must have regard to criteria adopted from section 138(2) of the QCA Act.
5.13 (Access Transfer)	At Section 5.13(d) - QCA reference has been deleted and replaced with "Arbitrator"	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for arbitration with the arbitrator to perform the roles and functions of the QCA in this Section.
6.2 (Amendment of Terminal Regulations)	At Sections 6.2(b), 6.2(f) & 6.2 (g) - QCA references have been deleted and replaced with the term "Independent Expert" At Sections 6.2(e), 6.2(h) and 6.2(i) - QCA references have been deleted	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for: <ul style="list-style-type: none"> independent expert determination with the independent expert to perform the roles and functions of the QCA in these Sections; and deletion of references to giving the QCA certain items and terminal regulations being made available to the QCA.

Section	Changes	Rationale
7 (Confidentiality Requirements)	Amended Section - QCA references have been deleted and replaced with either "expert, "Arbitrator", "Independent Expert", "Expansion Arbitrator" or "court"	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made so that the Framework contemplates that the bodies listed may need to have confidential information disclosed to them, and that such disclosures will be permitted.
	Original Section (Information Provision) - deleted	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Consequently the QCA will have no right to request the information that was specified and so the Section has been deleted.
8 (Ring Fencing arrangements)	Original Sections 8.1(a) and (b) and 8.2(c) and (d) - deleted in their entirety to remove references to QCA and provisions dealing with Trading SCB	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Trading SCB (the supply chain business in the Brookfield Group that engages in the trading of secondary capacity at DBCT) is no longer specifically referred to as DBCT Management will close that business prior to the expiry of declaration to address any potential perceived vertical integration concerns relating to that business.
9 (Reporting by DBCT Management)	At Section 9.1(g) - QCA reference has been deleted and replaced with "Arbitrator"	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for arbitration with the arbitrator to perform the roles and functions of the QCA in this Section.
	Original Sections 10.1 (Regulatory Accounts), 10.2(j) and 10.4 (Review of reporting provisions) - deleted in their entirety	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Information reporting requirements to the QCA have been deleted accordingly.
11 (Terminal Capacity Expansion)	At Section 11.1(a)(2)(A) - amend deficient drafting	Minor amendments made to Section 11.1(a)(2)(A) to improve deficient drafting.
	At Sections 11.1(c), 11.1(d), 11.1(l), 11.2(c) & 11.4 (b) - QCA reference deleted	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework.
	At Section 11.1(g) - QCA reference has been deleted and replaced with the Resolution Institute	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Previously, the QCA would appoint an expert pursuant to this Section. The Section now provides that the independent expert will be appointed by the Resolution Institute.
	At Sections 11.1(o) & 11.3(c) - QCA reference has been deleted	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. DBCT Management will have no liability to the QCA, and accordingly there is no need to continue to include reference to the QCA for the purposes of the express exclusion of liability.

Section	Changes	Rationale
	At Sections 11.5 and 11.6 - all QCA references have been deleted and replaced with the new concept of "Expansion Arbitrator"	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for an "Expansion Arbitrator" to perform the roles and functions of the QCA in these Sections. This concept has been used, as opposed to simply referring to an "Arbitrator" to ensure that the arbitrator who is engaged regarding expansion approvals is engaged for the entire Section 11.5 and 11.6 process.
	At Section 11.5(d) - DBCT Management must ensure that any Expansion Arbitrator (or advisor of the Expansion Arbitrator) enters into a confidentiality deed	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Consequently, a new provision has been inserted to require that DBCT Management ensure the Expansion Arbitrator (or advisor of the Expansion Arbitrator) has entered into a confidentiality deed prior to disclosing confidential information to the Expansion Arbitrator (or advisor of the Expansion Arbitrator), as the confidentiality provisions of the QCA Act will not apply.
	Original Section 11.5(e)(3) - deleted entirely	As an arbitrator will already be appointed and overseeing the expansion process, it is nonsensical to allow for a dispute about expansion to be referred to another arbitrator.
	At Section 11.5(m)(1) - reference to usual practice for regulated entities deleted	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. This consequential amendment has been made given that DBCT Management will not be a regulated entity.
	At Section 11.5(l)(7) - Expansion Arbitrator may publish the audit report on DBCT Management's website if it considers appropriate	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. This consequential amendment has been made given that the report will not be published on the QCA's website.
12 (Terms and Conditions of Access)	Original Section 12.1(d), 12.1(f) and 12.1(g) - right to dispute a 'different term' proposal has been deleted	The purpose of the Standard Access Agreement is to provide standard, 'backstop' terms. It is therefore not appropriate for decisions not to depart from the Standard Access Agreement to be subject to the dispute resolution process. Proposed variations to the Standard Access Agreement can be dealt with through a normal commercial negotiation process.
13 (Whole Supply chain efficiency)	Original Section 13.2 (Amend Undertaking to comply with Agreed Supply Chain Outcome) - deleted entirely	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. The irrevocable deed poll provides for a process to ensure that changes to the Framework can be made in certain circumstances.
14 (Master Plans)	At Section 14.1(e) - QCA reference has been deleted	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework. Accordingly, there is no need to make the Terminal Master Plan available to the QCA.

Section	Changes	Rationale
	At Section 14.2(c) - all QCA references have been deleted and replaced with "Arbitrator/ Independent Expert/expert/Expansion Arbitrator"	This is a consequential amendment as a result of other changes in the Framework.
15 (Transitional Arrangements)	Original Section 15 - deleted entirely	The provision has been deleted as it is unnecessary.
16 (Dispute Resolution)	<p>Amended to provide for Queensland governing law in new Section 16</p> <p>Inclusion of Section 16.1(c) regarding determination of disputes under the Deed Poll</p> <p>Amended dispute resolution provisions to provide for commercial arbitration of disputes under the Framework</p> <p>Inclusion of Section 16.5 regarding urgent injunctive relief</p>	<p>Section 16 has been inserted to confirm that the governing law for the Framework is Queensland.</p> <p>The dispute resolution mechanism has been amended to reflect that the QCA's powers to resolve access disputes under Part 5 of the QCA Act apply only to declared services. DBCT Management's Framework provides for an alternative independent and binding dispute resolution mechanism (which conforms with the Competition Principles Agreement principles relating to dispute resolution, being the principles used for the purposes of assessing whether an access regime is an 'effective access regime' under the CCA). The approach reflects standard commercial practice and will enable any disputes to be effectively resolved.</p> <p>To accord with the pre-existing Sections, Section 16.1(c) has been inserted in recognition of the newly created Deed Poll and the dispute resolution mechanism contained in the Deed Poll.</p> <p>Certain disputes will be referred to an independent expert in a similar fashion to the dispute resolution mechanism existing in the 2017 Access Undertaking. The bodies previously required to make a nomination of the independent expert no longer provide this service. Consequently, and for consistency with appointment aspects in the arbitration agreement, the Resolution Institute will make necessary nominations.</p> <p>The dispute resolution provisions include principles that an arbitrator (now appointed by the Resolution Institute for the reasons given above) will be required to have regard to in making a determination. These matters include matters to which the QCA must have regard in making an access determination in respect of declared services (set out in section 120 of the QCA Act), and reflect the matters set out in the CPA (clause 6.4(i)). The specified matters will allow for credible and consistent outcomes from the dispute resolution process.</p> <p>Clause 16 governs the process by which Disputes arising under the Framework will be resolved. In accordance with clause 16.1, Disputes arising under the Framework will relate to Access issues including the negotiation of Access between Access Seekers, and a subset of Access Holders when they are seeking to increase their Access. The definition of Access Seekers includes parties seeking to increase their Access and therefore, with the exception of clause 16.4(e) (which aligns with the wording of section 120 of the QCA), references to Access Holder in clause 16 have been deleted or replaced with Access Seeker.</p> <p>Section 16.4(f) has been added to allow the parties to consolidate any arbitration commenced under the Framework or an access agreement, regardless of the parties involved, provided that the issues contain common questions of fact or law. This promotes efficiency and consistency in the arbitral process.</p> <p>Section 16.5 has been included so that parties will be able to apply to the courts for urgent injunctive relief.</p>

Section	Changes	Rationale
17 (Limitations to Losses and Damages) - New Section	<p>Section 17 is a limitation provision which provides that:</p> <ol style="list-style-type: none"> 1. Damages are not an adequate or available remedy and specific performance is the only remedy 2. DBCT Management has no liability for consequential loss 	<p>This Section has been included to clarify that, subject to the terms of access agreements, funding agreements or any other agreements entered into by DBCT Management as contemplated by the Framework:</p> <ul style="list-style-type: none"> • damages is not a remedy for breach of the Framework by DBCT Management; • the only remedy available for any breach of this Framework is specific performance; and • DBCT Management is not liable to any person for consequential loss arising under or in connection with the Framework. <p>Specific performance is an appropriate remedy as it means that the terms of the Framework will be enforced and performed. The exclusion of liability for consequential loss is consistent with usual commercial practice.</p>
18 (Severability) - New Section	Section 18 introduces a severability Section	The new clause permits a provision of the Framework to be severed to the extent it is illegal/unenforceable in any relevant jurisdiction, provided such would not be contrary to public policy or materially alter the scope and nature of the Framework. The amendment is consistent with good drafting practice.
Schedule A - Access Application Form and Renewal Application Form		
<p>New drafting - The Access Application is governed by the laws in force in the State of Queensland.</p> <p>Access Seekers who sign an Access Application Form or Renewal Application Form, agree to the process in the Framework and Deed Poll (including dispute resolution)</p>	The additional language is necessary to ensure the effectiveness of Framework, and in particular the dispute provisions contained in Section 16 of the Framework.	
Schedule B - Standard Access Agreement		
3.1 (Agreement to provide Access)	At clause 3.1 - new clause agreeing to the terms of the Framework and Deed Poll	<p>This clause has been added so that Users must comply with the requirements, obligations and processes in the Framework and the Deed Poll, including the following clauses of the Deed Poll:</p> <ul style="list-style-type: none"> • clause 8.4 - time period for notifying DBCT Management of objections to proposed amendments to the Framework; • clause 9 - DBCT Management's liability for breach of the Deed Poll (limited to specific performance); • clause 10 - governing law (Queensland); and • clause 11 - exclusive jurisdiction of the courts of Queensland to resolve disputes under the Deed Poll and the time period for challenging amendments to the Framework. <p>The amendment is necessary to reflect the terms of the Deed Poll and the basis on which DBCT Management's commitments in the Deed Poll are being made.</p>
3.6 (Terminal Regulations)	At clause 3.6(c)(iii) - change to Effective Date	The change from "Commencement Date" to "Effective Date" has been made as the Terminal Regulations will change from time to time, and this clause should refer to those Terminal Regulations in place at the time the User Agreement becomes effective and not those that were in place on 9 September 2020.

Section	Changes	Rationale
	<p>At clause 3.6(f), 3.6(j), 3.6(k), 3.6(l) and 3.6(m) - QCA references have been deleted and replaced with the term "Independent Expert"</p> <p>At clause 3.6(m) - unnecessary drafting deleted for consistency with mirrored provision clause 3.6(k)</p> <p>At clause 3.6(i) - QCA references have been deleted</p>	<p>Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Agreement. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for:</p> <ul style="list-style-type: none"> • independent expert determination with the independent expert to perform the roles and functions of the QCA in this clause; and • deletion of references to giving the QCA certain items and terminal regulations being made available to the QCA.
11.3 (User not using Annual Contract Tonnage)	At clause 11.3(d) - QCA references have been deleted and replaced with arbitration in accordance with the Resolution Institute Rules	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Agreement. Given matters will not fall for determination by the QCA, consequential amendments have been made which provide for arbitration with the arbitrator to perform the roles and functions of the QCA in this clause.
12.3 (Response to requests for consent to assignment by User)	At clause 12.3(d) - QCA references have been deleted and replaced with arbitration in accordance with the Resolution Institute Rules	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Agreement. This clause previously allowed for disputes regarding transfers to be addressed under the Undertaking. However, given it is necessary to avoid cross-contamination of disputes, we have removed the ability of an Access Seeker or Access Holder to dispute a decision of DBCT Management relating to a matter under the Agreement through the provisions in the Framework.
13.2 (User's remedies in the event of Delay)	At clause 13.2(a) - Defined term Loss	As a defined term "Loss" has been introduced into the Agreement for new clause 31, it is good drafting practice to use the new defined term throughout the Agreement.
13.6 (Long Term Delays)	At clause 13.6(b) - Defined term Loss	As a defined term "Loss" has been introduced into the Agreement for new clause 31, it is good drafting practice to use the new defined term throughout the Agreement.
13.7 (Limitation period for notice of Claims by User)	At clause 13.7(a) - Defined term Loss	As a defined term "Loss" has been introduced into the Agreement for new clause 31, it is good drafting practice to use the new defined term throughout the Agreement.

Section	Changes	Rationale
15 (Governing Law And Dispute Resolution)	<p>Amended to provide for Queensland governing law in new clause 15.1</p> <p>Amended dispute resolution provisions to provide for commercial arbitration of disputes under the Access Agreement</p> <p>Inclusion of clause 15.2(c) regarding determination of disputes under the Deed Poll</p> <p>Inclusion of clause 15.6 regarding continued performance during a dispute</p>	<p>Clause 15.1 has been inserted to confirm that the governing law for the Access Agreement is Queensland.</p> <p>The dispute resolution mechanism has been amended to reflect that the QCA's powers to resolve access disputes under Part 5 of the QCA Act apply only to declared services. DBCT Management's Standard Access Agreement provides for an alternative independent and binding dispute resolution mechanism (which conforms with the Competition Principles Agreement principles relating to dispute resolution, being the principles used for the purposes of assessing whether an access regime is an 'effective access regime' under the CCA). The approach reflects standard commercial practice and will enable any disputes to be effectively resolved.</p> <p>To accord with the pre-existing clauses, clause 15.2(c) has been inserted in recognition of the newly created Deed Poll and the dispute resolution mechanism contained in the Deed Poll.</p> <p>The pre-existing concept of conciliation between the Access Holder and DBCT Management has been deleted from the Standard Access Agreement to streamline the dispute resolution process. The deletion also recognises that the pre-existing dispute resolution process in the Standard Access Agreement applying under the 2007 Access Undertaking expressly enables the parties to agree on any other methods to resolve the dispute.</p> <p>Clause 15.4(d) has been added to allow the parties to consolidate any arbitration commenced under the Framework or an Access Agreement, regardless of the parties involved, provided that the issues contain common questions of fact or law. This promotes efficiency and consistency in the arbitral process.</p> <p>The parties will be able to apply to the courts for urgent injunctive relief.</p> <p>A new clause 15.6 has been inserted to require the parties to continue to perform their obligations under the Standard Access Agreement notwithstanding the existence of a dispute, which provides clarity to the parties in relation to their ongoing obligations.</p>
21 (GST)	At clause 21(g) - Defined term Loss	As a defined term "Loss" has been introduced into the Agreement for new clause 31, it is good drafting practice to use the new defined term throughout the Agreement.
31 (Limitations to Losses and Damages) - New Section	At clause 31 - clarify that DBCT Management has no liability for consequential loss	<p>New clause 31 has been included to clarify that DBCT Management is not liable to any person for consequential loss arising under or in connection with the Framework.</p> <p>The exclusion of liability for consequential loss is consistent with the Standard Access Agreement and usual commercial practice.</p>
Schedule 6 - Deed of Variation	At clause 4 - delete submission to the exclusive jurisdiction of the courts of Queensland	This deed imports all provisions of the Standard Access Agreement, including the arbitration provisions, and accordingly it is inconsistent to state in the deed that the parties submit to the jurisdiction of the courts but also give effect to the arbitration provisions in the Standard Access Agreement. The courts will only have jurisdiction in relation to urgent injunctive relief as per the new clause 15.5 of the Standard Access Agreement.
Schedule 9 Definitions and Interpretation	Amended definitions to reflect changes in SAA	Certain definitions in Schedule 9 have been amended based on other changes made to the SAA (the rationale for which is set out elsewhere in this table).

Section	Changes	Rationale
Schedule D - Confidentiality deed		
1.1 (Definitions)	Definition of Access Framework amended	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework.
3(b) (Permitted Use and disclosure)	Remove references to QCA	Reference to the QCA Act / QCA / declared service will be redundant if declaration expires and have therefore been removed throughout the Framework.
10 (Governing law and jurisdiction)	Removed parties' submission to exclusive jurisdiction of Queensland courts	The additional language is necessary to ensure the effectiveness of the dispute provisions contained in Section 16 of the Framework.
Schedule G - Definitions		
Amended the definitions section to reflect changes in Framework		<p>Certain definitions have been amended based on other changes made to the Framework (the rationale for which is set out elsewhere in this table). The changes include:</p> <ul style="list-style-type: none"> • New definitions of "2017 Access Undertaking", "Arbitration", "Arbitrator", "Consequential Loss", "Deed Poll", "Expansion Arbitrator", "Expert Determination", "Expiry Date", "Framework", "Framework Objective", "Independent Expert" and "Loss". • Deleting definitions "Approval Date", "Brookfield Group", "Cost Allocation Manual", "Trading SCB" and "Undertaking". • Amending definitions "Access Application", "Commencement Date" and "Terminating Date".
Schedule H- Undertaking by Trading SCB		
Schedule deleted		Trading SCB (the supply chain business in the Brookfield Group that engages in the trading of secondary capacity at DBCT) is no longer specifically referred to as DBCT Management will close that business prior to the expiry of declaration to address any potential perceived vertical integration concerns relating to that business.
Annexure - Confidentiality deed poll		
Annexure deleted		This is a consequential amendment because of the deletion of Schedule H.

Appendix 7 DBCT Access Framework - pricing

- 1 The Access Framework will provide for DBCTM and an access seeker to negotiate an access agreement (including the charges under that agreement). If an access seeker and DBCTM cannot agree, the terms of the Standard Access Agreement set out in a Schedule to that Access Framework will apply.
- 2 This document sets out the pricing framework that will apply under the Access Framework and Standard Access Agreement under that Framework. Although this document sets out the key aspects of the pricing framework and principles for the purposes of the QCA's analysis of DBCTM's submission on the QCA's declaration review, DBCTM will also provide the QCA with a version of the Access Framework and Standard Access Agreement that implements the pricing framework set out in this document. Drafting to give effect to the pricing framework is being developed and will be provided to the QCA shortly.
- 3 In this document, capitalised terms take their existing defined meaning in DBCTM's current access undertaking, unless the context indicates otherwise. Consequential changes to the drafting of definitions in the Access Framework may be necessary as provisions that give effect to this pricing framework are drafted.

Preliminary matters relating to general framework

- 4 Consistent with the current access undertaking, DBCTM and an access seeker will be able to negotiate terms of access. The terms of the Standard Access Agreement will apply if DBCTM and an access seeker cannot agree.
- 5 The initial Terminal Infrastructure Charge (TIC) will be determined by negotiation or, if DBCTM and an access seeker cannot agree, arbitration.
- 6 An access seeker and DBCTM will have recourse to arbitration in respect of disputes about access, including in relation to the calculation of the TIC. Any determination by the arbitrator must give effect to and be consistent with the terms of the Standard Access Agreement.
- 7 Provisions relating to expansions in the Access Framework will be substantially the same as currently, including in providing for rulings to be made on whether an expansion will be socialised or differentiated. An independent arbitrator will perform the functions of the QCA in respect of expansion pricing.

Access charges

- 8 Access charges payable by a user for each Terminal Component will comprise two parts:
 - 8.1 a Terminal Infrastructure Charge (TIC); and
 - 8.2 a charge to recoup the costs of operation and maintenance of the Terminal, being the Handling Charge-Fixed, Handling Charge-Variable and, where applicable, charges for Miscellaneous Services (on the same basis currently provided for under clauses 4.8-4.10 of the SAA and clause 11.10 of the current access undertaking).
- 9 Users will be required to pay such charges in a manner that is consistent with the requirements for payment of the TIC and handling charges under clauses 4 and 5 of the current Standard Access Agreement.

Determination of initial Terminal Infrastructure Charge to apply under a User Agreement

10 The Standard Access Agreement will not specify the value or method of determination of the initial TIC.

Negotiation

11 DBCTM and the access seeker will seek to negotiate the initial TIC to apply under a User Agreement with the access seeker.

12 The initial TIC is the TIC to apply under the User Agreement for the first financial year from the commencement date of the Agreement. Unless DBCTM and the access seeker agree otherwise:

12.1 The TIC will be adjusted over time in accordance with the provisions set out below.

12.2 The TIC will be subject to review at the end of each Pricing Period (being a 5 year period that is consistent across users, starting after 8 September 2020).

Arbitration

13 If DBCTM and the access seeker cannot reach an agreement on the TIC, either party may refer the matter to arbitration.

14 The arbitration will be effected by a single suitably qualified and experienced arbitrator who is either:

14.1 agreed between the parties; or

14.2 in default of such agreement, nominated by the Resolution Institute.

15 The *Commercial Arbitration Act 2013* (Qld) and Resolution Institute Arbitration Rules will apply to the arbitration. The arbitration determination will be confidential.

16 The arbitrator must determine an initial TIC for the relevant Terminal Component that:

16.1 reflects the TIC that would be agreed between a willing but not anxious buyer and a willing but not anxious seller of coal handling services for mines that are proximate to the Port of Hay Point;

16.2 is no less than the Floor TIC calculated in accordance with the Framework; and

16.3 is no greater than the Ceiling TIC calculated in accordance with the Framework.³⁸⁶

17 The Floor TIC is the TIC that would apply under a QCA administered pricing regime.

18 The Ceiling TIC is the highest price at which coal volumes served at DBCT would be the same as if the Floor TIC applied, with this assessment being made without reference to any contractual limitations on volumes that are able to be delivered to DBCT or any other coal terminal.

19 More specifically, the Ceiling TIC is derived as follows:

19.1 The Ceiling TIC is the highest TIC for which:

19.1.1 the forecast annual production from mines that prefer to handle their coal at DBCT where that TIC applies;

19.1.2 is no less than:

³⁸⁶ For the avoidance of doubt, the Ceiling TIC may not be less than the Floor TIC.

- 19.1.3 the forecast annual production from mines that prefer to handle their coal at DBCT where the Floor TIC applies.
- 19.2 A mine will prefer to handle its coal at a coal terminal if:
- 19.2.1 the mine's production is technically capable of being delivered to the coal terminal in that the mine is connected to that terminal by rail;
- 19.2.2 this maximises its profits; and
- 19.2.3 this delivers a profit of at least zero;
- where:
- 19.2.4 profits are calculated on a per tonne basis as:
- (a) the FOB coal price;
 - less
 - (b) mine costs, being the sum of operating costs, royalty payments, depreciation and a reasonable return on the capital costs of developing and operating the mine;
 - (c) rail transport charges for delivering coal to the coal terminal; and
 - (d) applicable infrastructure and handling charges for using port infrastructure including the coal terminal;
- 19.2.5 miners make terminal usage decisions without reference to any contractual limitations on volumes able to be delivered to DBCT or any other coal terminal; and
- 19.2.6 the volumes of coal that miners prefer to deliver to any other coal terminal must not, when aggregated, exceed the capacity expected to be available at that terminal.
- 20 Data from an independent third party data provider must be used in any determination of the Ceiling TIC by the arbitrator unless the arbitrator is satisfied that the data from the provider is manifestly incorrect in one or more respects and the error or, if there is more than one error, the errors considered collectively, are 'material' (where 'material' means that the error(s) have a material effect on the output of the calculation of the Ceiling TIC). In that case, the arbitrator may disregard the independent third party data provider's data and use alternative data but only to the extent that the provider's data is manifestly incorrect to the satisfaction of the arbitrator.
- 21 The arbitrator's determination will be required to give effect to and be consistent with the terms of the Standard Access Agreement.
- 22 If a new access seeker refers the determination of an initial TIC for a Terminal Component to arbitration during a 5 year Pricing Period for which an arbitration determination on a TIC for one or more access holders has already been made, the arbitrator will be required to determine the initial TIC to apply to the provision of access to the access seeker as follows:
- 22.1 the arbitrator will apply the TIC for the Pricing Period determined by the arbitrator in the first completed arbitration on a TIC for that Pricing Period after indexing it by CPI, and adjusting it for any Review Event that has occurred since the completion of the first arbitration;
- 22.2 if, however, the resultant initial TIC for the access seeker would exceed the then applicable Ceiling TIC or fall below the then applicable Floor TIC, the arbitrator must determine that any Review Event adjustment(s) not be applied to the TIC determined in the first completed arbitration to the extent required to ensure the initial TIC for the access seeker is no higher than the Ceiling TIC and no lower than the Floor TIC.

Expansion pricing

- 23 Whether an expansion will be socialised or differentiated will be determined through a price ruling process similar to the process under DBCTM's current access undertaking, with an arbitrator rather than the QCA making that determination. In particular:
- 23.1 If an Indicative Access Proposal has been prepared on the basis that a Terminal Capacity Expansion would be required in order to accommodate the relevant Access Application, and following completion of a FEL 2 Feasibility Study, DBCTM must apply to an arbitrator for a ruling as to the Pricing Method (being the method of pricing access created by a Terminal Capacity Expansion, being either Socialised or Differentiated) for the Terminal Capacity Expansion; and
- 23.2 The arbitrator must determine whether the Terminal Capacity Expansion should be Socialised or Differentiated, applying the Expansion Pricing Principles.
- 24 The Expansion Pricing Principles will be similar to the current expansion pricing principles under DBCTM's current access undertaking, but will require the arbitrator making an expansion price ruling to have regard to the financeability of any proposed expansion pricing arrangement (including by reason of the risk of Differentially Priced Access Holders switching between high and low priced terminal capacity that otherwise has identical functionality) in determining whether a Cost Sensitive Expansion should nonetheless be treated as a Socialised Expansion.
- 25 If the arbitrator determines that a Terminal Capacity Expansion should be Differentiated, DBCTM and access seekers relating to the Differentiated Expansion Component will seek to negotiate the initial TIC for the Differentiated Expansion Component, with recourse to arbitration in accordance with a similar process to that relating to the determination of the initial TIC to apply under a User Agreement set out above.
- 26 In the event of a price ruling that determines a Terminal Capacity Expansion should be Differentiated, DBCTM will prepare a cost allocation manual for approval by an independent expert or arbitrator. The cost allocation manual will provide a transparent basis for assigning costs to separate Terminal Components and be consistent with specified cost allocation principles (based on the cost allocation principles set out in clause 11.1 of the current access undertaking).

Changes to TIC under Standard Access Agreement

Annual CPI escalation

- 27 The TIC will be adjusted annually based on CPI escalation.

Review Events

- 28 The TIC will be amended if a Review Event occurs. The change to the TIC as a result of a Review Event will be effected in the manner specified in the Framework.
- 29 A Review Event for any Terminal Component will include:
- 29.1 a change in annual contract tonnage for any Access Holder with access rights in respect of the Terminal Component (including by reason of any early termination of an access holder's access agreement by default);
- 29.2 Completion and handover to the Operator of the whole of a discrete phase of a Terminal Capacity Expansion; and
- 29.3 each 1 July, in respect of Capital Expenditure incurred in any prior period (provided such Capital Expenditure has not already been the subject of a Review Event since the commencement of the relevant 5-yearly 'Pricing Period') which does not relate to a Terminal Capacity Expansion

and is paid by DBCT Management after Completion and handover of the relevant works, including non-expansion Capital Expenditure recommended by the Operator and approved by Access Holders or accepted by an independent expert or arbitrator to be prudent.

- 30 If a User disputes DBCTM's calculation of a Review Event adjustment, the User may refer the matter to arbitration.
- 31 In an arbitration in respect of a Review Event adjustment, the arbitrator must apply the provisions of the User Agreement that specify how the Review Event adjustment must be calculated. The arbitrator must also assess whether the Review Event adjustment would cause the TIC to exceed the then applicable Ceiling TIC or fall below the then applicable Floor TIC. If the Review Event adjustment would cause the TIC to exceed the Ceiling TIC or to fall below the Floor TIC, the arbitrator must determine that the Review Event adjustment not be applied to the TIC but only to the extent required to ensure the resultant TIC is no higher than the Ceiling TIC and no lower than the Floor TIC.

5 yearly review of access charges

- 32 The Standard Access Agreement will provide for the access charges, including the TIC, and the method of their determination, review and payment, to apply under the Agreement from the start of each 5 year Pricing Period occurring after the first 5 year Pricing Period to be reviewed, at the request of either party, in advance of that time.
- 33 The 5 year Pricing Period will be consistent across all users who enter into an agreement on terms equivalent to the Standard Access Agreement. Any amendments to such a user agreement as a result of such a review would be effective from the start of the relevant Pricing Period.
- 34 The process for review of access charges to apply in and from the commencement of the Pricing Period will involve a similar process to the process for reviews on Agreement Revision Dates under the current Standard Access Agreement. In particular:
- 34.1 If a review is requested by either party, DBCTM and the User must commence each review no later than 18 months prior to the start of the Pricing Period;
- 34.2 The parties must endeavour to agree as early as it is practicable to do so (if possible, by no later than the start of the Pricing Period) on the access charges to apply from the start of the Pricing Period;
- 34.3 If the parties do not reach agreement by the date 6 months prior to the start of the Pricing Period, either party may refer the determination of the issues to arbitration;
- 34.4 If there is no agreement or determination by the start of the Pricing Period then:
- 34.4.1 the charges (and method of paying and reconciling them) applying immediately prior to the start of the Pricing Period will continue to apply until otherwise agreed or determined; and
- 34.4.2 any determination or agreement will (unless the parties otherwise agree) operate retrospectively from the start of the Pricing Period and, as soon as practicable after the determination or agreement, an adjustment will be paid by the relevant party (based on the amounts which have been paid to that date on an interim basis and the amounts which are agreed or determined to be payable from the start of the Pricing Period to the date the adjustment is paid) together with interest on the amount of the adjustment at the No Fault Interest Rate. The amount of interest will be determined by reconciling the amounts and timings of payments made on an interim basis with amounts payable and timing of those payments which would have applied in accordance with the agreement or determination.

- 35 In an arbitration regarding a review of the access charges to apply from the start of a 5 year Pricing Period, consistent with the process relating to arbitrations regarding the initial TIC to apply under a User Agreement:
- 35.1 the arbitrator's determination will be required to give effect to and be consistent with the current Standard Access Agreement.
 - 35.2 the arbitrator will be required to comply with any relevant requirements of the current Access Framework, i.e. to determine the TIC for the relevant Terminal Component to apply at the start of the Pricing Period that:
 - 35.2.1 reflects the TIC that would be agreed between a willing but not anxious buyer and a willing but not anxious seller of coal handling services for mines that are proximate to the Port of Hay Point;
 - 35.2.2 is no less than the Floor TIC calculated in accordance with the Framework; and
 - 35.2.3 is no greater than the Ceiling TIC calculated in accordance with the Framework.³⁸⁷
- 36 The Standard Access Agreement will provide that, if more than one User is involved in a dispute with DBCTM as to the charges to apply from the start of the Pricing Period in accordance with their respective User Agreements, the User agrees to a single arbitration of all such disputes, and agrees to be bound by the determination of the arbitrator as to the charges to apply from the start of the Pricing Period. The User will be entitled to make separate submissions to the arbitrator. This would not prevent an arbitrator from making specific determinations which would apply to individual Users or groups of Users (whether based upon submissions made by such individual Users or groups of Users or otherwise).

³⁸⁷ For the avoidance of doubt, the Ceiling TIC may not be less than the Floor TIC.

Appendix 8 Irrevocable Deed Poll

DETAILS

Date	2018	
Parties	Name	DBCT Management Pty Limited
	Address	Level 15, 1 Eagle Street, Brisbane QLD 4000

BACKGROUND

- A The Terminal is a common user coal port. The Terminal includes in-loading, stockpiling, reclaiming, out-loading, and associated facilities for the handling of coal. The Terminal is located at the Port of Hay Point, south of Mackay in Queensland.
- B On 14 September 2001, the DBCT Trustee as trustee of the DBCT Trust, and DBCT Management, entered into a number of agreements with DBCT Holdings and PCQ (both wholly owned by the State) under which DBCT Trustee and DBCT Management were granted a 50 year lease (with an option for a further 49 years) of the Terminal.
- C An Operator is contracted to operate the Terminal on behalf of DBCT Management pursuant to an operations and maintenance contract. The Operator of the Terminal has historically been user-owned and independent of the lessee.
- D On 8 September 2020, the declaration of coal handling services at the Terminal under the *Queensland Competition Authority Act 1997* (Qld) expired. The Framework has been developed in response and provides a balanced approach to the provision of Access and a framework (based on a negotiate/arbitrate model) to manage negotiations in an efficient and transparent manner for Access Seekers seeking Access to the Services at the Terminal.
- E The Framework provides for:
- the negotiation and provision of Access to the Services at the Terminal; and
 - measures to mitigate potential adverse effects on competition which could arise out of the ownership of a related Supply Chain Business.
- F As prescribed in Section 1.3(a) of the Framework, the objective of the Framework is to promote the economically efficient operation of, use of and investment in, the Terminal, with the effect of promoting effective competition in upstream and downstream markets.
- G The Framework has been prepared in accordance with, and gives effect to, the Framework Objective.
- H For the benefit of the Covenantees only, this Deed Poll:
- confirms that subject to clauses 5, 7 and 8 of this Deed Poll, the Framework will remain in effect for the Term; and
 - prescribes how the Framework may be amended.

TERMS

1 Definitions and Interpretation

Definitions

- 1.1 In this Deed Poll, capitalised terms will have the same meaning as the meaning given to those terms in the definitions section of the Framework.

Background means the background section of this Deed Poll.

Confirmed Access Seekers has the meaning given in clause 2.1.1.

Covenantees has the meaning given in clause 2.1.

Framework means the Dalrymple Bay Coal Terminal Access Framework dated 9 September 2020 as it may be amended from time to time. A copy of the Framework which is current as at the date of this Deed Poll is at Annexure A to this Deed Poll.

Framework Objective has the meaning given in Section 1.3(a) of the Framework.

The State means the Treasurer of the State of Queensland from time to time.

Interpretation

- 1.2 In the interpretation of this Deed Poll, the following provisions apply unless the context otherwise requires:
- 1.2.1 headings are inserted for convenience only and do not affect the interpretation of this Deed Poll;
 - 1.2.2 a reference in this Deed Poll to any document or agreement is to that document or agreement as amended, novated, supplemented or replaced;
 - 1.2.3 a reference to a clause, part, schedule or attachment is a reference to a clause, part, schedule or attachment of or to this Deed Poll;
 - 1.2.4 where a word or phrase is given a defined meaning, another part of speech or other grammatical form in respect of that word or phrase has a corresponding meaning;
 - 1.2.5 a word which indicates the singular also indicates the plural, a word which indicates the plural also indicates the singular, and a reference to any gender also indicates the other genders;
 - 1.2.6 references to the word 'include' or 'including' are to be interpreted without limitation; and
 - 1.2.7 any schedules and attachments form part of this Deed Poll.

2 Beneficiaries of deed poll

- 2.1 DBCT Management makes the covenants in this Deed Poll exclusively in favour of, and only for the benefit of:
- 2.1.1 Access Seekers who have signed an Access Application Form or Access Renewal Form as set out at Schedule A to the Framework, or who are a party to a Conditional Access Agreement (**Confirmed Access Seekers**);
 - 2.1.2 Access Applicants;
 - 2.1.3 Access Holders, including Access Holders as at the date of this Deed Poll and entities who become Access Holders in the future;
 - 2.1.4 DBCT Holdings; and
 - 2.1.5 The State,
- (together, **Covenantees**).
- 2.2 DBCT Management makes the covenants in this Deed Poll on the date of this Deed, and then each day until the end of the Term.
- 2.3 DBCT Management makes the covenants in this Deed Poll subject to the conditions set out at clauses 8.4, 9, 10 and 11 of this Deed Poll.

3 Deed poll is irrevocable

- 3.1 DBCT Management covenants in favour of the Covenantees that it will not revoke or amend this Deed Poll during the Term.

4 Framework to be remain in effect

- 4.1 Subject to any amendments permitted in accordance with clauses 5, 7 and 8 of this Deed Poll, DBCT Management covenants in favour of the Covenantees that the Framework will remain in effect for the Term.

5 Framework objective

- 5.1 DBCT Management covenants in favour of the Covenantees that it will not amend the Framework Objective, except with the prior written consent of the State.

6 Notice of intention to renew or not renew

- 6.1 At least 12 months before the tenth anniversary of the Commencement Date, DBCT Management will publish the following on its website:
- 6.1.1 notice of its intention to renew, or not renew, the operation of the Framework for a further term; and
 - 6.1.2 where operation of the Framework is being renewed for a further term, details of the term and a copy of the Framework with any amendment(s).

7 Review of framework by agreement

- 7.1 If:
- 7.1.1 as a result of any review of the Framework by DBCT Management and the Access Holders, DBCT Management and the Access Holders agree that amendment of the Framework is desirable; or
 - 7.1.2 DBCT Management (acting reasonably) considers it necessary that the Framework be amended so as to rectify a significant inequity or significant unfairness suffered by an Access Seeker, Access Applicant, Access Holder or DBCT Management, which inequity or unfairness was not generally foreseen or intended at the Commencement Date,
- then DBCT Management will, subject to and in accordance with clause 8, amend the Framework to address the relevant issue(s).
- 7.2 For clarification, an amendment to the Framework may include an amendment to the Standard Access Agreement as set out at Schedule B to the Framework.

8 Amendments to framework

- 8.1 The Framework can only be amended in accordance with this clause 8.
- 8.2 DBCT Management can amend the Framework, from time to time, so long as the amendment(s) promotes the Framework Objective.
- 8.3 DBCT Management will consult with Confirmed Access Seekers, Access Applicants and Access Holders regarding any proposed amendment(s).
- 8.4 In the event that a Confirmed Access Seeker, Access Applicant and / or Access Holder has any concern about, or objection to, the proposed amendment(s), it will bring the concern or objection to DBCT Management's attention within one month of it having first been consulted by DBCT Management in relation to the proposed amendment(s).
- 8.5 DBCT Management covenants in favour of the Covenantees that if, and when, it amends the Framework it will have regard to each of the following:
- 8.5.1 the legitimate business interests of DBCT Holdings in its capacity as the owner of the Terminal;
 - 8.5.2 the legitimate business interests of DBCT Management in its capacity as the operator of the Terminal;
 - 8.5.3 public interest, including the public interest in having competition in markets (whether or not in Australia);
 - 8.5.4 the interests of Confirmed Access Seekers and Access Applicants, including whether adequate provision has been made for compensation if the rights of Access Holders are adversely affected;
 - 8.5.5 the effect of excluding existing assets for pricing purposes;
 - 8.5.6 the following pricing principles in relation to the price of access to the Terminal:

- 8.5.6.1 the price should generate expected revenue for the Terminal that is at least enough to meet the efficient costs of providing access to the Terminal and include a return on investment commensurate with the regulatory and commercial risks involved;
 - 8.5.6.2 the price should allow for multi-part pricing and price discrimination when it aids efficiency;
 - 8.5.6.3 the price should not allow DBCT Management to set terms and conditions that discriminate in favour of the downstream operations of DBCT Management or a related body corporate of DBCT Management, except to the extent the cost of providing Access to other operators is higher; and
 - 8.5.6.4 the price should provide incentives to reduce costs or otherwise improve productivity.
- 8.6 Subject to this clause 8, if DBCT Management and each Access Holder reach agreement on mechanisms to improve the overall efficiency of the Dalrymple Bay Coal Chain, DBCT Management will consult with the Access Holders regarding the amendment(s) to the Framework reasonably required to implement the agreed mechanisms (to the extent relevant to the Services, the Terminal or the Framework) and will amend the Framework accordingly.
- 8.7 Any amendment(s) to the Framework in accordance with this clause 4 will be published as soon as reasonably practicable on DBCT Management's website.

9 Breach of deed poll

- 9.1 DBCT Management acknowledges that damages are not an adequate remedy for breach of this Deed Poll.
- 9.2 DBCT Management makes the covenants in this Deed Poll subject to the following conditions:
- 9.2.1 damages are not a remedy for any breach of this Deed Poll; and
 - 9.2.2 the only remedy available for any breach of this Deed Poll is specific performance.

10 Governing law

- 10.1 This Deed Poll is governed by the laws in force in the State of Queensland.

11 Jurisdiction

- 11.1 The courts of Queensland have exclusive jurisdiction to determine any disputes arising out of or in connection with this Deed Poll.
- 11.2 In the event that any one or more of the Covenantees, commences proceedings against DBCT Management for an alleged breach of clauses 4, 5, 6, 7 and / or 8, such proceedings must be filed and served on DBCT Management within 90 days of the date that the relevant amendment(s) to the Framework were first published on DBCT Management's website. DBCT Management may rely upon this clause 11.2 as a complete defence to any proceedings filed or served 91 days or more after the date that the relevant amendment(s) to the Framework were first published on DBCT Management's website.

EXECUTION

Executed as a Deed.

SIGNED, SEALED AND DELIVERED by
DBCT Management Pty Ltd ACN 097 698 916 acting
by the following persons or, if the seal is affixed,
witnessed by the following persons in accordance
with s127 of the Corporations Act 2001:

.....
Signature of director

.....
Signature of director / company secretary

.....
Name of director (print)

.....
Name of director / company secretary (print)

ANNEXURE A

Framework (current as at [insert date of Deed Poll])

Appendix 9 HoustonKemp expert report on criterion (a)



HOUSTONKEMP
Economists

Does DBCT's coal handling service satisfy criterion (a)?

A report for DLA Piper

29 May 2018

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Executive summary

We have been asked by DLA Piper (DLA), on behalf of Dalrymple Bay Coal Terminal Management Limited (DBCTM), to review whether the coal handling service provided by the Dalrymple Bay Coal Terminal (DBCT) is likely to satisfy criterion (a) of section 76(2) of the *Queensland Competition Authority Act 1997* (QCA Act). Criterion (a) poses the question as to whether access (or increased access) to DBCT's service, on reasonable terms and conditions as a result of declaration of the service, would 'promote a material increase in competition' in at least one market other than the market for the service.

Economic analysis required for criterion (a)

There are three key elements of criterion (a), ie:

- the 'with and without declaration test';
- the meaning of 'competition'; and
- the term 'market'.

The new criterion (a) is a with and without declaration test, ie, the two states of the world to be compared are those:

- with access (or increased access) to the service, on reasonable terms and conditions that will apply as a result of declaration; and
- with access to the services on terms that would apply if the service was not declared.

Competition is a dynamic process of rivalry, whereby firms seek to maximise their profits by offering price-product-service packages to customers that are more attractive than their rivals, whilst minimising their costs. This process is not an end in itself but, rather, is the means by which efficiency and the welfare of Australians is enhanced.

Economists recognise three types of efficiency that can be enhanced or improved as a result of competitive rivalry between producers, ie:

- productive efficiency, which refers to a market outcome whereby products and services are provided at the lowest possible costs, using facilities of optimal scale, over the long run, with existing technology;
- dynamic efficiency, which refers to the achievement of efficient levels and types of investment in new and improved products and production processes; and
- allocative efficiency, which refers to a market outcome whereby prices and profit levels are consistent with the real resource cost of supplying each product, including a normal profit reward to suppliers – where this is the case, society's resources will be allocated between end uses in an optimal way such that those goods and services that are produced best accord with consumer demand.

Competition acts to increase each of these forms of efficiency. For example, an increase in competition leads to lower prices and higher output, with the increase in output giving rise to increases in welfare from an improvement in allocative efficiency.

A market is the area of close competition between firms. Market definition involves the identification of the competitive constraints that are likely to have a material effect on a product or service (they are 'in' the market), and those that have a less immediate effect (they are 'out' of the market).

The boundaries of a market are conventionally determined by reference to four dimensions, ie:

- the product dimension, ie, the goods or services supplied;

Does DBCT's coal handling service satisfy criterion (a)?

- the functional dimension, ie, the part of the supply chain that is the relevant arena of competition;
- the geographic dimension, ie, the geographic area over which the relevant products are supplied (or could be supplied); and
- the temporal dimension, ie, the time period over which substitution can take place.

The focus of market definition in access matters tends to be on the existence of separate markets from the market for the service. Criterion (a) is only satisfied if competition is promoted in a dependent market, which exists in a separate functional level from the service over which declaration is sought.

DBCT is not vertically integrated with coal mining or any other service that is part of the coal supply chain, and so there are readily observable transactions by vertically separate firms for coal terminal services. As such, each of the potential dependent markets identified later in this report are at separate functional levels from the DBCT service.

Promotion of competition

It can be helpful to understand the process of competition by examining, for each dependent market:

- the structure of the market, including the number and size of the firms in the market, and barriers to entry;
- the conduct of firms in the market, including their investments in product development, and responses to customers and competitors; and
- the performance or outcomes of competition, including the quantity and prices of goods supplied.

In our opinion, declaration of a service leads to the promotion of a material increase in competition in a dependent market if competition in that market is expected to be increased to a material extent with declaration, as compared to without declaration.

The promotion of a material increase in competition in dependent markets as a result of declaration requires that:

- the structure of the market or conduct of firms is changed in a way that can be expected to bring about a material enhancement to the competitive process; and
- the volume and/or quality of output in the market is expected to increase.

Effect of declaration on the DBCT service

DBTCM's proposed access framework includes that a terminal infrastructure charge (TIC) is to be agreed between DBTCM and each user. The access framework ensures that:

- the TIC can be no lower than would apply if DBCT was to be declared; and
- the TIC can be no higher than the highest price at which the utilisation of DBCT is the same as it would be at the floor price.

Therefore, the access framework ensures that declaration of the DBCT service would not lead to an increase in volumes at DBCT, as compared with the outcome that would apply without declaration.

If the TIC applied at DBCT were to increase under the terms of DBTCM's proposed access framework – potentially as high as the ceiling price – then the mines that utilise the DBCT service would be the same as those that would do so under declaration. This must be the case because:

- the access framework restricts the price ceiling so that the volumes served at DBCT would be the same as if the floor price applied; and

Does DBCT's coal handling service satisfy criterion (a)?

- if any mine were to cease its use of the DBCT service in response to higher prices and be replaced by alternative volumes from another miner, this would imply that the second miner placed a higher value on the DBCT service than the first – an outcome inconsistent with our assumption that the administered regime under declaration promotes allocative efficiency.

It follows that the output of all mines will remain the same with or without declaration because:

- miners who would not use DBCT with declaration will not change their usage decisions in response to a potential increase in the price of the DBCT service; and
- miners who would use DBCT with declaration will continue to do so under the terms of the access framework.

Therefore, the use of all infrastructure across the relevant supply networks will remain unchanged, with or without declaration.

Effect of declaration on dependent markets

Declaration of the DBCT service will not promote a material increase in competition in any coal export market because:

- declaration would not change the structure of those markets or conduct of mines, since:
 - > prices will still be determined in the same way by the Asia-Pacific or global seaborne coal market;
 - > the volume transported by each miner will not be affected, so there will be no change in the structure of the market, including the likelihood of entry; and
- declaration would not affect the total volume or quality of coal supplied in any coal export market because:
 - > no mine would change the quantity of coal that it sends to any terminal as a result of declaration (as set out in the previous section); and
 - > neither the quality of coal itself will change as a result of declaration nor will the mix of coal at each terminal; while
 - > the non-price terms and conditions for accessing DBCT will remain substantively the same, and so this will not change the service provided to coal miners.

The volumes supplied in each of the other dependent markets depend on the volumes in the coal export market, and so they will also not change as a result of declaration. There is also no reason for the quality of the services in other dependent markets to be affected by declaration of the DBCT service. As such, there is no reason for the structure of the market, nor conduct of firms in those markets to change. Therefore, declaration will also not promote a material increase in competition in those markets.

Further, as a stand-alone facility with no up or downstream market interests, DBCT has the strongest possible incentive to act so as to maximise the degree of competition in all its dependent markets, and this incentive is not changed as between with and without declaration.

Therefore, declaration of the DBCT service would not promote any increase in competition in any of markets that we have identified as depending on the coal handling service provided by DBCT. Accordingly, we conclude that criterion (a) is not satisfied, and that the QCA should recommend that the DBCT service not be declared, irrespective of whether the other three criteria are met.

1. Introduction

We have been asked by DLA Piper (DLA), on behalf of Dalrymple Bay Coal Terminal Management Limited (DBCTM), to review whether the coal handling service provided by the Dalrymple Bay Coal Terminal (DBCT) is likely to satisfy criterion (a) of section 76(2) of the *Queensland Competition Authority Act 1997* (QCA Act).

Section 250 of the QCA Act provides that the current service provided by DBCT is taken to be declared by the Minister under Part 5, Division 2 of the QCA Act. The declared status of DBCTM's coal handling service expires on 8 September 2020. At least six months but not more than 12 months prior to the expiry date of the declaration, the Queensland Competition Authority (QCA) must recommend to the responsible Minister whether the service provided by DBCT should be declared for a further period.

Changes recently made to the QCA Act mean that the assessment of whether the service provided by DBCT should be declared for a further period will be made under new access criteria. The new criterion (a) reads:¹

that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service

DLA has asked us to assess whether the coal handling services provided at DBCT (the DBCT service) satisfy criterion (a) of the new Queensland access regime. In order for the QCA to recommend that DBCT's service be declared by the Minister, the QCA must be satisfied that all four of the criteria in section 76(2) of the QCA Act are satisfied.

In a companion report, we examine whether coal handling services provided at DBCT satisfy criterion (b). We refer readers to that report for a description of the context within which coal handling services at DBCT are provided, including coal production in central Queensland and the export of coal from Australia.²

The central finding of the analysis we present in this report is that declaration of the DBCT service would not promote any increase in competition in any of markets that we have identified as depending on the coal handling service provided by DBCT. Accordingly, we conclude that criterion (a) is not satisfied, and that the QCA should recommend that the DBCT service not be declared, irrespective of whether the other three criteria are met.

This report is structured as follows:

- section two describes the legal and economic framework by reference to which the assessment of criterion (a) is to be undertaken by the QCA;
- section three describes how competition in dependent markets could be promoted by declaration of a service, drawing upon the economic principles of competition and previous declaration decisions;
- section four sets out the effect of declaration on the use of the DBCT service; and
- section five examines the effect on competition in dependent markets of declaring the DBCT service.

¹ QCA Act, section 76(2)(a).

² HoustonKemp, *Does DBCT's coal handling service satisfy criterion (b)?*, May 2018.

2. Economic analysis required by criterion (a)

In this section we describe our approach to the economic analysis of the key elements of criterion (a), ie:

- the 'with and without declaration test';
- the meaning of 'competition'; and
- the term 'market'.

2.1 With and without declaration

Criterion (a) was previously:³

...that access (or increased access) to the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service.

The application of this test required the comparison of two states of the world in order to assess whether access or increased access would promote a material increase in competition. The approach to this comparison undertaken by the National Competition Council (NCC), the Australian Competition Tribunal (the Tribunal) and the courts has evolved over time, with broadly two different interpretations being applied, ie:

- a **with and without access test**, which examines whether a material increase in competition would be promoted in at least one dependent market:
 - > with access to the services over which declaration is sought; as compared to
 - > without any access to the services in question;
- a **with and without declaration test**, which examines whether a material increase in competition would be promoted in at least one dependent market:
 - > with access to the services over which declaration is sought, on reasonable terms (as can be assumed to be the case for a declared service); as compared to
 - > with access to the services on terms that would apply if the service was not declared.

The new criterion (a) to be applied to declaration decisions in Queensland is:⁴

...that access (or increased access) to the service, on reasonable terms and conditions, **as a result of a declaration of the service** would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service. [emphasis added]

The phrase 'as a result of declaration' has been added, indicating that the test is now a with and without declaration test, ie, the two states of the world to be compared are those:

- with access (or increased access) to the service, on reasonable terms and conditions that will apply, as a result of declaration; and
- with access to the services on terms that would apply if the service was not declared.

³ QCA Act (current as at 30 June 2017), section 76(2)(a).

⁴ QCA Act, section 76(2)(a).

2.2 What is competition?

Competition is a central focus of the economic industrial organisation literature and has been widely interpreted and examined by tribunals and courts. We provide below an assessment of the economic literature and associated jurisprudential interpretation of competition.

2.2.1 Competition is a process of rivalry

Competition is a dynamic process of rivalry,⁵ whereby firms seek to maximise their profits by offering price-product-service packages to customers that are more attractive than their rivals, whilst minimising their costs. Descriptions of competition often quote Stigler's definition, ie:⁶

[Competition is] rivalry between individuals (or groups or nations), and it arises whenever two or more parties strive for something that all cannot gain.

The fact that 'all cannot gain' is an important attribute of competition, because it reflects the fact that firms (in this case) are competing *against* one another, ie, sales gained by one firm are usually lost by another. Although firms may seek to raise profits by increasing their prices or reducing their investments in future production capability, the extent to which this is possible under the process of competition is constrained by the threat of losing customers to actual and potential rivals.

Competition was similarly described in the Competition Policy Review (Harper Review) issues paper as a:⁷

... process by which rival businesses strive to maximise their profits by developing and offering desirable goods and services to consumers on the most favourable terms.

Examples of the process of competition include that:

- a firm undertakes some market research and finds out that customers would value a new feature to its product – the firm then invests in this new feature and so takes market share from its rival, increasing its profits; and
- a firm finds that its sales are falling and determines that this is caused by a rival reducing its prices, and so it also lowers its prices, increasing its revenue, with the net effect of raising its profits.

There are many ways in which firms engage in the process of competition, including by choosing product characteristics, investment levels, prices, levels of output, quality, brand development, and types of inputs.

Although we can describe competition and its features up to a point, it is such a rich and varied concept that it is not possible to describe it in detail, abstracted from the particular facts of any relevant circumstance.⁸ Rather, such detail can only be developed with a particular market in mind.

⁵ In *Re Queensland Co-operative Milling Association Ltd., Defiance Holdings Ltd. (Proposed Mergers with Barnes Milling Ltd.)* (1976) *APR 40-012 (hereafter Re QCMA)*, p 21, the Trade Practices Tribunal said 'Competition is a dynamic process; but that process is generated by market pressure from alternative sources of supply and the desire to keep ahead.' See also: Baldwin R, and Cave, M, *Understanding Regulation: Theory, Strategy and Practice*, Oxford University Press, New York, 1999, p 210. Maureen Brunt said: 'Competition is a process rather than a situation. Dynamic processes of substitution are at work. Technological change in products and processes, whether small or large, is ongoing and there are changing tastes and shifting demographic and locational factors to which business firms respond'. Maureen Brunt, *Market Definition Issues in Australian and New Zealand Trade Practices Litigation* (1990) 18 *Australian Business Law Review*, p 96.

⁶ Stigler G.J. (2008) *Competition*. In: Palgrave Macmillan (eds) *The New Palgrave Dictionary of Economics*. Palgrave Macmillan, London. Vickers, J, *Concepts of Competition*, Oxford Economic Papers, vol. 97, 1995, p 3 refers this definition.

⁷ Competition Policy Review Panel, *Competition Policy Review Issues Paper*, 14 April 2014, p 8, para 1.1.

⁸ *Re QCMA* (1976) *ATPR 40-012*, p 21: 'However, "competition" is such a very rich concept (containing within it numbers of ideas) that we should not wish to attempt any final definition which might, in some market settings, prove misleading or which might, in respect of some future application, be unduly restrictive.'

2.2.2 Competition leads to efficient outcomes

Competition leads to economic efficiency, which supports productivity growth.⁹ As described by the Tribunal:¹⁰

...competition may be described as rivalry that amounts to a process that leads to an increase in economic efficiency.

The Harper Review set out a number of benefits that competition brings, ie:¹¹

More competitive markets can lead to: lower resource costs and overall prices; better services and more choice for consumers and businesses; stronger discipline on businesses to keep costs down; faster innovation and deployment of new technology; and better information, allowing more informed choices by consumers.

The purposes of the national and Queensland access regimes and the Competition and Consumer Act (CCA) are consistent with this, eg, one of the objects of the access regime is:¹²

...to promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets.

More broadly, the object of the CCA is:¹³

...to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection.

It follows that competition is not an end in itself but, rather, is the means by which efficiency and the welfare of Australians is enhanced. As described by Ken Heyer, a senior economist at the US Department of Justice:

...efficiency is the goal, competition is the process.¹⁴

2.2.3 Perfect competition

Perfect competition is a theoretical construct under which competition is as vigorous as can be conceived. It involves many identical sellers competing to sell a homogeneous product to many buyers.¹⁵ There are no barriers to entry, so that new firms will enter and undercut the incumbents whenever the price of the product exceeds its marginal cost of production.¹⁶ It follows that, under these conditions of perfect competition, prices are equal to the marginal cost of production,¹⁷ and so firms do not earn any economic profit.¹⁸

⁹ Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, pp 434-435; and Vickers, J, *Concepts of Competition*, Oxford Economic Papers, vol. 97, 1995, p 8.

¹⁰ *In the Matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1,050.

¹¹ Competition Policy Review Panel, *Competition Policy Review Issues Paper*, 14 April 2014, p 8, para 1.2.

¹² QCA Act, section 69 E.

¹³ CCA, section 2.

¹⁴ W Kolasky, *Global Competition: Prospects for Convergence and Cooperation*, November 2002.

¹⁵ Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, pp 368-374.

¹⁶ The cost of production includes the opportunity cost of not using resources for an alternative use.

¹⁷ In economics, equilibrium refers to the circumstance in which it is in no one's interest to change their production or consumption decisions. In practice, markets are rarely, if ever, in equilibrium, because the factors that guide consumption and production decisions are constantly evolving.

¹⁸ Economic profit is any amount remaining once economic cost is subtracted from a firm's revenue. Revenue is the sum of the payments that a firm receives from the sale of its output while economic cost is a firm's total expenditures on the inputs used to produce that output, measured in terms of their opportunity cost. Perfect competition involves no risks to either buyers or sellers, since it involves an assumption that buyers and sellers both have perfect information. See: Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 220.

In his definition of perfect competition in the *New Palgrave Dictionary of Economics*, George Stigler states that the essential elements of the list of conditions for perfect competition include that there are many buyers and sellers in a perfectly competitive market:¹⁹

There are an indefinitely large number of independent traders on each side of a market...

However, it is not necessary for there to be a large number of sellers to reach the same outcome as perfect competition. A perfectly contestable market is one in which entry and exit can be achieved quickly without bearing any sunk costs. Incumbents cannot earn any economic profit, because that would encourage entry, and so the outcome in terms of prices and quantities is the same as that under perfect competition, even if there is only one supplier.²⁰

2.2.4 An increase in competition leads to greater output

Economists recognise three types of efficiency that can be enhanced or improved as a result of competitive rivalry between producers, ie:²¹

- **productive efficiency**, which refers to a market outcome whereby products and services are provided at the lowest possible costs, using facilities of optimal scale, over the long run, with existing technology;²²
- **dynamic efficiency**, which refers to the achievement of efficient levels and types of investment in new and improved products and production processes;²³ and
- **allocative efficiency**, which refers to a market outcome whereby prices and profit levels are consistent with the real resource cost of supplying each product, including a normal profit reward to suppliers – where this is the case, society's resources will be allocated between end uses in an optimal way such that those goods and services that are produced best accord with consumer demand.²⁴

Competition acts to increase each of these forms of efficiency.

Productive efficiency is increased as a result of greater competition because:²⁵

- firms have an incentive to cut their costs so that they can reduce prices and increase sales; and
- firms that have lower costs grow, whilst others shrink.

Dynamic efficiency is increased because competition pushes firms to invest, in order to improve their competitive position relative to their rivals.²⁶

¹⁹ Stigler G.J. (2008) *Competition*. In: Palgrave Macmillan (eds) *The New Palgrave Dictionary of Economics*. Palgrave Macmillan, London.

²⁰ See: Baumol, W, *Contestable Markets: An Uprising in the Theory of Industry Structure*, *American Economic Review*, 1982, 72(1), pp 1-15.

²¹ See also, ACCC, *Submission to Harper Review*, 25 June 2014, p 14.

²² Pass, C, Lowes B, and Davies L, *Economics (Collins Internet-Linked Dictionary of)*, HarperCollins Publishing, June 2014, p 45 of 64 in 'P' section; Motta, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 45; and Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 428.

²³ Motta, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 55.

²⁴ Pass, C, Lowes B, and Davies L, *Economics (Collins Internet-Linked Dictionary of)*, HarperCollins Publishing, June 2014, p 15 of 32 in 'A' section; and Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 424.

²⁵ Motta, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 52; and Vickers, J, *Concepts of Competition*, *Oxford Economic Papers*, vol. 97, 1995, p 1.

²⁶ Motta, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 56. A 2011 study by the Productivity Commission and Australian Bureau of Statistics, using data from the Business Longitudinal Database, found that firms are more likely to innovate if they face stronger competition, and that innovation is associated with better productivity outcomes – see Soames, L, Bruncker D, and Talgaswatta, T, *Competition, Innovation and Productivity in Australian Businesses*, 9 September 2011. Further, the empirical evidence collated by the OECD across economies shows a positive correlation between product market competition, innovation and economic growth. For further discussion of competition and incentives for dynamic efficiency see: ACCC, *Submission to Harper Review*, 25 June 2014, p 14.

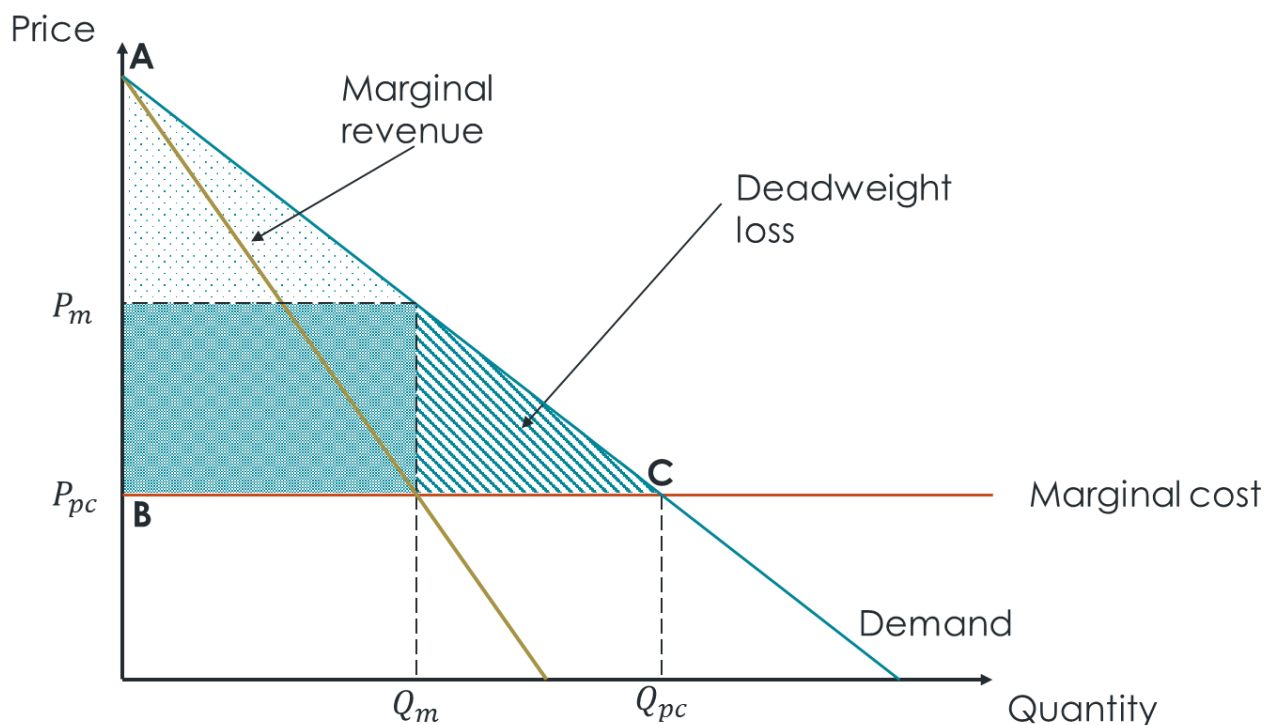
Allocative efficiency is increased because the lower prices brought about by competition can be presumed to lead to higher levels of output, ie, consumers will buy more when prices are lower. Similarly, a reduction in competition leads to higher prices and so less output, thereby reducing allocative efficiency and welfare.

Figure 2.1 highlights the welfare loss from a reduction in allocative efficiency as a result of monopoly. The price under conditions of perfect competition is equal to the marginal cost, and the level of output is Q_{pc} , which is the level of demand when the price is equal to marginal cost. Total welfare, ie, the difference between demand and marginal cost, is given by the triangle ABC.²⁷

A monopolist will keep increasing its output so long as its marginal revenue is greater than its marginal cost, because this means it can earn additional profit by expanding output. A monopolist will not increase output any further when the marginal cost of doing so is equal to its marginal revenue. It follows that the monopolist produces at the level Q_m , where its marginal revenue is equal to its marginal cost. The total welfare arising under monopoly is the triangle shaded with dots plus the blue shaded box.

The loss of welfare caused by allocative inefficiency under monopoly is termed the deadweight loss (DWL), which is the difference between the level of welfare under perfect competition and under monopoly.²⁸ This is represented by the area shaded with stripes in Figure 2.1.

Figure 2.1: Deadweight loss of a monopoly



In summary, a reduction in competition leads to higher prices, which in turn reduces the volume of sales (and vice versa). It is this reduction in volumes that causes the allocative inefficiency from a lessening of

²⁷ Total welfare is the difference between the cost of the product (given by the marginal cost in this case) and the willingness to pay (given by the line showing demand).

²⁸ See Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 473; Mas-Colell, M Whinston, and J Green, *Microeconomic Theory*, Oxford University Press, New York, 1995, p 386; Tirole, J. *The Theory of Industrial Organization*, The MIT Press, United States, 1988, p 67; and Gans, J, King, S and Mankiw, N, *Principles of Microeconomics*, Nelson Australia Pty Ltd, Australia, 2003, p 319 for similar expositions of the deadweight loss of a monopoly.

competition. An increase in prices without any changes in market output would not lead to any allocative inefficiency.²⁹

This is consistent with the description of the deadweight loss of monopoly by Morgan *et al* as being:³⁰

...the loss in total surplus that arises because a monopolist produces less than the total-surplus maximising amount of output.

Similarly, Mas-Colell *et al* describe the monopoly deadweight loss as the 'monopoly quantity distortion'.³¹

To summarise, an increase in competition leads to higher output or better quality products/services, giving rise to increases in welfare.

2.2.5 Market power

Market power is the antithesis of competition. A firm with market power can profitably set prices above the competitive level.³² Such a firm may exercise market power through:

- not striving to reduce its costs;
- reducing the quality of its product below the competitive level; and/or
- setting a price above, or reducing output below, the competitive level.

These actions reduce welfare, relative to that under perfect competition.

In a perfectly competitive market, a firm's revenue will be equal to its total costs, implying that the rate of return on invested capital for a business is equal to its (efficient) cost of capital for that activity.³³ Consistently higher levels of profit may be evidence of a firm using its market power.

2.2.6 Effective competition

The fact that perfect competition almost never arises in practice has caused economists to discuss the idea of 'workable' or 'effective' competition (these being the same concept), ie, the state in which competition is working as well as one might hope in a market economy.

The relevance of effective competition is underlined by the object of the access regime, which is to promote effective competition, ie:³⁴

The object of this part is to promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting **effective competition** in upstream and downstream markets. [emphasis added]

The term 'workable competition' was first coined in 1940 by John Clark as a basis for describing competition in a market that is less extreme than the idealised benchmark of perfect competition, but serves as a realistic standard against which market power can be measured.³⁵ Clark noted that, in favourable circumstances,

²⁹ Motta states that 'if the demand curve is perfectly inelastic, the dead weight loss disappears' Motta, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 43. Morgan et al. highlight this point: 'for a given quantity, a change in price merely results in a transfer of surplus, not net creation or loss of surplus' Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 404.

³⁰ Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 472.

³¹ Mas-Colell, M Whinston, and J Green, *Microeconomic Theory*, Oxford University Press, New York, 1995, p 386.

³² See: Motta, M, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, pp 40-41.

³³ Gregory, A, *Excessive prices and the role of profitability analysis | OECD Roundtables Excessive Pricing*, February 2012, p 389.

³⁴ QCA Act, section 69 E.

³⁵ Clark, J.M, *Towards a concept of workable competition*, The American Economic Review, 1940, 30(2), pp 241-256.

existing and potential competitors may provide a check on the tendency of firms to exploit market power over the long run by increasing prices or reducing output.³⁶

Workable competition was described by the US Attorney-General's National Committee in its study of anti-trust laws in 1955 as follows:³⁷

The concept of "workable" or "effective" competition can perhaps best be described as the economists' attempt to identify the conditions which could provide appropriate leads for policy in assuring society the substance of the advantages that competition should provide...

The basic characteristic of effective competition in the economic sense is that no one seller, and no group of sellers acting in concert, has the power to choose its level of profits by giving less and charging more. Where there is workable competition, rival sellers, whether existing competitors, or new or potential entrants into the field, would keep this power in check by offering or threatening to offer effective inducements, so long as the profits to be anticipated in the industry are sufficiently attractive in comparison with those in other employment when all risks and other deterrents are taken into account. The result would be to force the seller who sought to increase his profits above this level by employing a high-price, limit-output monopoly policy either to give it up, or to lose ground to his rivals at a rate sufficient to reduce his profits, thus defeating the policy.

In other words, there are sufficient competitive constraints in an effectively competitive market to keep prices and profits in check, at least to an extent. Similarly, Maureen Brunt has said that:³⁸

Where there is effective competition, it is the on-going substitution process that ensures that any achievement of market power will be transitory.

The Hilmer Committee report on National Competition Policy defined workable competition as a benchmark against which market power could be measured, by reference to the level of prices that could be sustained:³⁹

In markets characterised by workable competition, charging prices above the level of long run average costs will not be possible over a sustained period, for higher returns will attract new market entrants or lead customers to choose a rival supplier or product.

The Hilmer Committee report also implicitly defined the 'long run average costs' as an 'efficient' level of pricing, noting that where workable competition was absent, firms may be able to price above the efficient level. More generally, the report noted that the 'promotion of effective competition and the protection of the competitive process are generally consistent with maximising economic efficiency'.⁴⁰

Similarly, the Tribunal has described workable competition by reference to an efficient level of profit, whilst also describing the structure of the market and conduct of firms, ie:⁴¹

[a workably competitive market is one] with a sufficient number of firms (at least four or more), where there is no significant concentration, where all firms are constrained by their rivals from exercising any market power, where pricing is flexible, where barriers to entry and expansion are low, where there is no collusion, and where profit rates reflect risk and efficiency.

³⁶ Clark, J.M, *Towards a concept of workable competition*, The American Economic Review, 1940, 30(2), pp 246-247.

³⁷ United States, *Attorney General's National Committee to Study the Antitrust Laws*, Washington, D.C, U.S. G.P.O, p 320, 1955.

³⁸ Maureen Brunt, *Market Definition Issues in Australian and New Zealand Trade Practices Litigation*, 1990, 18, Australian Business Law Review, p 96.

³⁹ Independent Committee of Inquiry on National Competition Policy, *National Competition Policy Review*, 25 August 1993, p 269.

⁴⁰ Independent Committee of Inquiry on National Competition Policy, *National Competition Policy Review*, 25 August 1993, pp 4-5.

⁴¹ *Application by Chime Communications Pty Ltd (No 2)* [2009] ACompT 2, para 37.

In its decision on whether Metcash could acquire Franklins, the Federal Court set out an understanding of workable competition and its outcomes, linking it towards the achievement of efficient outcomes over the long run:⁴²

In a workably competitive market, some or even all participants may have some market power, in the sense that they all have some discretion over price, but no participant will have a substantial degree of market power. In such a workably competitive market, at any given time, prices might deviate from underlying costs and the deployed technologies might deviate from the most efficient ones currently available. Economic forces drive such a market towards efficient prices, outputs and costs, but not instantly.

To summarise, in a workably or effectively competitive market:

- the ability of firms profitably to set prices above (or quality below) the competitive level over the long term is constrained by the threat of (actual and potential) competitors, ie, firms cannot act independently of competitors and/or customers; and
- there is no need for the government to intervene otherwise to constrain firms' market power.

2.3 Relevant market

Competition takes place within markets and in the material below we describe the concepts that underpin a market, and the approach to defining markets.

2.3.1 What is a market?

A market is the area of close competition between firms.⁴³ Market definition involves the identification of the competitive constraints that are likely to have a material effect on a product or service (they are 'in' the market), and those that have a less immediate effect (they are 'out' of the market). However, such bright lines rarely exist in practice, and firms selling products that are outside of a market may act as a competitive constraint on those in that market, albeit to a lesser degree.

The boundaries of a market are conventionally determined by reference to four dimensions, ie:⁴⁴

- the product dimension, ie, the goods or services supplied;
- the functional dimension, ie, the part of the supply chain that is the relevant arena of competition;
- the geographic dimension, ie, the geographic area over which the relevant products are supplied (or could be supplied); and
- the temporal dimension, ie, the time period over which substitution can take place.

A market encompasses the range of business activities, geographic areas and functional levels within which, if given a sufficient economic incentive, buyers would switch to a substantial extent from one source of supply to another ('demand-side' substitution), and/or sellers would switch to a substantial extent from one production plan to another ('supply-side' substitution).

2.3.2 Hypothetical monopolist test

The generally accepted framework for defining markets is the 'hypothetical monopolist test', which involves the systematic application of a process that:⁴⁵

- commences with the narrowest reasonable market definition, taking into account the purpose at hand;

⁴² *Australian Competition and Consumer Commission v Metcash Trading Limited* [2011] FCA 967 (25 August 2011), para 163.

⁴³ *Re QCMA (1976) APR 40-012*, p 22.

⁴⁴ ACCC, *Merger Guidelines*, 2008, p 13, para 4.8.

⁴⁵ ACCC, *Merger Guidelines*, 2008, p 15, paras 4.19-4.21.

- determines whether a hypothetical monopolist in the candidate market is closely constrained by supply from outside the market – if it is then the next step is applied, otherwise the market has been defined; and
- expands the market to include the close constraints on the hypothetical monopolist and goes back to the previous step.

The hypothetical monopolist test is primarily a method for organising thinking. In some circumstances it may be possible for the examination of whether a hypothetical monopolist is closely constrained to be undertaken quantitatively, by assessing whether a hypothetical monopolist that controlled all sales within the candidate market could profitably impose a small but significant and non-transitory increase in price (SSNIP) of five to ten per cent.

The hypothetical monopolist test is complete and the market is taken to have been defined if the SSNIP is profitable, thereby signifying that no further substitute products or additional sources of supply are sufficiently close substitutes to be in the market.

2.3.3 Functional separation from the service over which declaration is being sought

The focus of market definition in access matters tends to be on the existence of separate markets from the market for the service.⁴⁶ Criterion (a) is only satisfied if competition is promoted in a dependent market, which exists in a separate functional level from the service over which declaration is sought.⁴⁷

The Tribunal has stated that actual transactions by vertically separate firms is strong evidence of the existence of separate functional markets.⁴⁸

DBCT is not vertically integrated with coal mining or any other service that is part of the coal supply chain, and so there are actual transactions by vertically separate firms for coal terminal services. As such, each of the potential dependent markets identified later in this report are at separate functional levels from the DBCT service.

2.4 Summary of necessary analysis

To summarise, our approach to the economic analysis of the key elements of criterion (a) involves:

- the use of a with and without declaration test, which compares the state of competition as between two states of the world, ie:
 - > with access (or increased access) to the service, on reasonable terms and conditions that will apply, as a result of declaration; and
 - > with access to the services on terms that would apply if the service was not declared;
- an examination of the dynamic process of competition, and whether declaration is likely to lead to higher output or better quality products/services; and
- the definition of relevant markets, which are areas of close competition, by identifying the competitive constraints that are likely to have a material effect on a product or service, assisted by use of the hypothetical monopolist test where this can aid the analysis.

⁴⁶ *Application by Services Sydney Pty Limited* [2005] ACompT 7, para 109.

⁴⁷ National Competition Council, *Declaration of Services, a guide to declaration under Part IIIA of the Competition and Consumer Act 2010*, February 2013, para 3.17.

⁴⁸ *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1,037.

3. Promotion of competition

In this section, we set out how the promotion of a material increase in competition in dependent markets could be achieved by declaration of a service, drawing upon:

- economic principles regarding the process of competition; and
- previous declaration decisions.

We show that a material increase in competition could be promoted by anything that affects the structure of a market and/or the conduct of the firms in that market so that the process of competition is intensified. Such a change will lead to higher volumes and/or better quality products or services being supplied in that market, thereby increasing welfare.

It follows that the volume or quality of products/services supplied in a dependent market must be expected to increase in order for declaration of a service to promote a material increase in competition in that dependent market. Consistent with this, previous decisions of the NCC and Tribunal have highlighted the importance of an increase in volumes for there to be a material increase in competition in dependent markets.

3.1 Economic framework

We describe below the economic framework for assessing the process of competition, by reference to widely accepted distinctions between the structure, conduct and performance of markets.

3.1.1 Structure, conduct and performance of markets

It can be helpful to understand the process of competition by examining, for each dependent market:⁴⁹

- the **structure** of the market, including the number and size of the firms in the market, and barriers to entry;
- the **conduct** of firms in the market, including their investments in product development, and responses to customers and competitors; and
- the **performance** or outcomes of competition, including the quantity and prices of goods supplied.

For example, Franklin Fisher and others have said that the competitiveness of a market can be analysed by examining its structure, conduct and performance:⁵⁰

Often an examination of the actual activity of firms in the market and the results of their interaction can reveal whether the market is effectively competitive. Economists, however, have traditionally undertaken the analysis of the competitiveness of a market by an examination of indicia of competition and monopoly categorized under the headings of market structure, market conduct, and market performance.

Similarly, John Vickers has described that there are several meanings of 'more competition', ie:⁵¹

⁴⁹ For example, characteristics of both structure and conduct were described by the Department for International Development from the United Kingdom as being relevant to identifying competitive industries. It said that '[c]haracteristics of competitive industries include a wider range of product choice, the entry and exit of firms, changes in the ranking of leading firms and in the size of their market shares, and active product development and innovation. Competitive industries are also likely to show pricing that responds to changes in market conditions, such as changes in input costs.' See: DFID, *Competition Assessment Framework*, January 2008, p 11.

⁵⁰ Franklin M Fisher, John J McGowan and Joen E Greenwood, *Folded, Spindled, and Mutilated, Economic Analysis and U.S. v. IBM*, MIT Press, 1983, p 39.

⁵¹ Vickers, J, *Concepts of Competition*, Oxford Economic Papers, vol. 97, 1995, p 3.

- (i) greater freedom of rivals (for example, freedom to enter an industry following the removal of legal monopoly rights or barriers to trade);
- (ii) an increase in the number of rivals; and
- (iii) a move away from collusion towards independent behaviour between rivals...
- (iv) the reward for obtaining the thing for which all are striving, or the penalty for failing to obtain it, is increased or introduced in the first place.

The first and second of these relate to market structure, and the third to market conduct.

The Tribunal has also said that the degree of competition can be assessed by considering the structure, conduct and performance of a market, ie:⁵²

... a market is sufficiently competitive if the market experiences at least a reasonable degree of rivalry between firms each of which suffers some constraint in their use of market power from competitors (actual and potential) and from customers. The criteria for such competition are **structural** (a sufficient number of sellers, few inhibitions on entry and expansion), **conduct-based** (eg no collusion between firms, no exclusionary or predatory tactics) and **performance-based** (eg firms should be efficient, prices should reflect costs and be responsive to changing market forces). [emphasis added]

3.1.2 Market structure

There is a rich literature on the structural indicators that may be helpful to determine the degree of competition in a market. The factors that are generally considered most relevant include:⁵³

- barriers to entry and/or expansion;
- economies of scale and/or scope;
- market concentration and market shares;
- product differentiation;
- buyer power, transaction and/or switching costs; and
- regulation.

The importance of market structure to competition is well recognised. For example, a widely respected microeconomics text book states:⁵⁴

...how do we know a competitive market when we see one? The answer depends on the environment in which the buyers and sellers operate...the **market structure**. There are several important dimensions to market structure...(a) the size and number of buyers...(b) the size and number of suppliers...(c) the degree of substitutability of different sellers' products...(d) the extent to which buyers are informed about prices and available alternatives...(e) the conditions of entry.

In QCMA, the Trade Practices Tribunal refused to review a Trade Practices Commission decision to deny merger clearance for an acquisition of flour milling firms. The decision articulated the Trade Practices

⁵² *Application by Chime Communications Pty Ltd (No 2)* [2009] ACompT 2, para 48.

⁵³ Motta, M, *Competition Policy: Theory and Practice*, pp 115-134; Office of Fair Trading, *Assessment of market power*, 2004, pp 9-25; European Commission, *Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services*, July 2002, paras 73-78; European Commission, *DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses*, 2005, paras 28-42 and *Re QCMA (1976) APR 40-012*, p 21.

⁵⁴ Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, pp 370-372.

Tribunal's view on the meaning of key concepts under the *Trade Practices Act* including that the structure of a market was important in examining competition, ie:⁵⁵

...whether firms compete is very much a matter of the structure of the markets in which they operate. The elements of market structure which we would stress as needing to be scanned in any case are these:

- (1) the number and size distribution of independent sellers, especially the degree of market concentration;
- (2) the height of barriers to entry, that is the ease with which new firms may enter and secure a viable market;
- (3) the extent to which the products of the industry are characterized by extreme product differentiation and sales promotion;
- (4) the character of "vertical relationships" with customers and with suppliers and the extent of vertical integration; and
- (5) the nature of any formal, stable and fundamental arrangements between firms which restrict their ability to function as independent entities.

Of all these elements of market structure, no doubt the most important is (2), the condition of entry. For it is the ease with which firms may enter which establishes the possibilities of market concentration over time; and it is the threat of the entry of a new firm or a new plant into a market which operates as the ultimate regulator of competitive conduct.

A number of subsequent court and Tribunal decisions applied those factors, which became known as the 'QCMA factors', in their competition assessments.⁵⁶

The approach applied by the Trade Practices Tribunal has been described as the 'structure-conduct-performance paradigm', because it implies that the structure of the market (eg, market shares) determines the conduct (eg, price set by firms), which affects performance of the market (eg, consumer welfare).⁵⁷

3.1.3 Market conduct

Despite the utility of the QCMA factors, there has always been recognition that competition is a rich and dynamic concept, and that the analysis of competition must take place on a case-by-case basis.⁵⁸

QCMA was decided at a time when the prevailing approach of economists was to apply the structure-conduct-performance paradigm.⁵⁹ More recently, the Tribunal has broadened its approach from using the QCMA factors, explaining that the approach:⁶⁰

...has been overtaken by developments in economic theory and by empirical assessments of competition in modern markets which attest to the fact that [the causal flow from structure to conduct and then performance] is by no means the dominant mechanism to explain market behaviour.

⁵⁵ *Re QCMA (1976) APR 40-012*, p 21.

⁵⁶ Davies, C and Wainscoat, L, *Not quite a cartel: Applying the new concerted practices prohibition*, *Competition and Consumer Law Journal*, 2017, p 195.

⁵⁷ Armitage, P, *The evolution of the "substantial lessening of competition" test – a review of case law*, *Australian Business Law Review*, 2016, 44(2), p 99.

⁵⁸ The Tribunal in QCMA itself noted that it did 'not wish to attempt any final definition which might, in some market settings, prove misleading', see *Re QCMA (1976) APR 40-012*, p 21.

⁵⁹ *Application by Chime Communications Pty Ltd (No 3) [2009] ACompT 4*, para 11.

⁶⁰ *Application by Chime Communications Pty Ltd (No 3) [2009] ACompT 4*, para 11.

For example, it has been argued that non-structural factors such as excess capacity, new sources of potential supply and the competitive nature of relevant market participants may justify mergers in concentrated markets based on behavioural constraints on market power.⁶¹ Further, firm conduct is capable of affecting market structure, through strategic barriers to entry, for example.⁶²

The type of conduct that might be expected of firms in a market that is not effectively competitive includes:

- the ability to act somewhat independently of competitors;⁶³
- the potential for collusion between firms or exclusionary tactics;^{64, 65}
- little effort put into improving efficiency or cost savings;⁶⁶ and
- low levels of investment in product development or other areas to improve the product or service provided.⁶⁷

The degree of competition can also be examined by assessing the strength of the competitive constraints acting upon the firms in the market, which comes from a combination of actual and potential rivals, along with customers.⁶⁸ The strength of these constraints depends upon the structure of the market, and conduct of firms, and so can be captured by those factors.

3.1.4 Market outcomes

Market outcomes are determined by the competitive process, which itself is a function of the market structure and firm conduct. The key market outcomes are:

- quantities supplied;
- prices and profits;⁶⁹
- the level of innovation; and
- the quality of products and services.

3.1.5 Conclusion

In our opinion, declaration of a service leads to the promotion of a material increase in competition in a dependent market if competition in that market is expected to be increased to a material extent with declaration, as compared to without declaration.

Competition may be increased for many reasons associated with the structure of a dependent market or conduct of firms within that market. As described in section 2.2.4, an increase in competition will lead to higher volumes being supplied (or higher quality products/services), which increases consumer welfare.

⁶¹ Armitage, P, *The evolution of the "substantial lessening of competition" test – a review of case law*, Australian Business Law Review, 2016, 44(2), p 101.

⁶² *Application by Chime Communications Pty Ltd (No 3)* [2009] ACompT 4, para 12.

⁶³ Baldwin R, and Cave, M, *Understanding Regulation: Theory, Strategy and Practice*, Oxford University Press, New York, 1999, p 210.

⁶⁴ Motta, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, pp 142-140 and pp 303-304.

⁶⁵ Tirole, J, *The Theory of Industrial Organization*, The MIT Press, United States, 1988, p 171.

⁶⁶ Motta, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 39; and Vickers, J, *Concepts of Competition*, Oxford Economic Papers, vol. 97, 1995, p 7.

⁶⁷ Motta, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 39, p 56; Tirole, J, *The Theory of Industrial Organization*, The MIT Press, United States, 1988, pp 104-105; and Vickers, J, *Concepts of Competition*, Oxford Economic Papers, vol. 97, 1995, p 7.

⁶⁸ Land, J, Owens, J and Cejnar, L, *The Meaning of Competition*, New Zealand University Law Review, vol 24, no 1, p 99.

⁶⁹ Sherman, R, *The regulation of monopoly*, Cambridge University Press, Australia, 1990, pp 10-11; and Baldwin R, and Cave, M, *Understanding Regulation: Theory, Strategy and Practice*, Oxford University Press, New York, 1999, p 251.

The NCC has described the promotion of a material increase in competition in similar terms, ie:⁷⁰

The promotion of a material increase in competition involves an improvement in the opportunities and environment for competition such that competitive outcomes are materially more likely to occur.

The QCA Issues Paper noted the staff's preliminary view that it is not necessary to demonstrate that competition is enhanced in order to determine whether competition had been promoted for the purpose of criterion (a),⁷¹ citing *Sydney International Airport Limited*.⁷²

However, some caution should be applied to this element of the Tribunal's findings in *Sydney International Airport Limited* because the wording of criterion (a) was subsequently amended to require the promotion of a *material* increase in competition, rather than just the promotion of competition that applied at the time of the *Sydney International Airport Limited* decision.

To summarise, the promotion of a material increase in competition in dependent markets as a result of declaration requires that:

- the structure of the market or conduct of firms is changed in a way that can be expected to bring about a material enhancement of the competitive process; and
- the volume and/or quality of output in the market is expected to increase.

3.2 Previous declaration decisions

Previous declaration decisions are consistent with the economic framework described above.

3.2.1 Methods by which declaration could promote competition

The NCC has stated that there are a number of ways in which improved access following declaration may promote competition in a dependent market, and listed the following examples:⁷³

- it may constrain the ability of a vertically integrated firm that provides the declared service from giving an advantage to its related firm in a dependent market;
- it may prevent collusion in a dependent market if it encourages entry in that market; and
- it may lead to a more competitive outcome in terms of volume and/or price for the declared service, which may increase demand or encourage entry or participation in a dependent market.

The first example is not relevant to the circumstances of DBCT, since it is not a vertically integrated facility. We assume that there is no collusion in dependent markets, and so the second consideration is not relevant. Further, we show below that declaration would not encourage entry in any dependent market.⁷⁴

The last means by which competition could be promoted is relevant, and gives rise to the question as to whether declaration could lead to increased output in one or more dependent markets.

⁷⁰ National Competition Council, *Declaration of Services, a guide to declaration under Part IIIA of the Competition and Consumer Act 2010*, February 2013, para 3.31.

⁷¹ QCA, *Declaration reviews: applying the access criteria*, April 2018, p 18.

⁷² *Sydney International Airport* [2000] ACompT 1, para 106.

⁷³ See National Competition Council, *Declaration of Services, a guide to declaration under Part IIIA of the Competition and Consumer Act 2010*, February 2013, para 3.47.

⁷⁴ See section 5.

3.2.2 Structure and conduct

In access decisions, the Tribunal has interpreted the promotion of competition as whether there was:⁷⁵

...an enhancement of the competitive environment, and a greater opportunity for the implementation of competitive conduct in the dependent market.

In other words, does access lead to a more competitive market structure, so that conduct would become more competitive, which would bring benefits to consumers?

Changes to market structures that the NCC and Tribunal have considered would promote competition include:

- a reduction in barriers to entry; and
- an increase in the number of rivals.⁷⁶

For example, the NCC has said that it would examine whether barriers to entry would be affected by declaration:⁷⁷

Given the Council's finding that the market for iron ore is already subject to effective competition, it follows that access would not promote competition in that market. However, the Council proceeded to consider in any case whether access to the Mt Newman Service **would lower barriers to entry and facilitate the entry of new iron ore producers into that market.** [emphasis added]

Similarly, the Tribunal has agreed with evidence that stated:⁷⁸

The principal ways in which declaration of the Airside Service would promote competition in the dependent air services market are:

a) it would be less likely to **deny access to potential entrants** into the air services market... [emphasis added]

The Tribunal has also examined whether declaration would affect market structure:⁷⁹

Whether competition will be promoted by coverage is critically dependent on whether EGP has power in the market for gas transmission which could be used to adversely affect competition in the upstream or downstream markets. There is no simple formula or mechanism for determining whether a market participant will have sufficient power to hinder competition. What is required is consideration of **industry and market structure followed by a judgment on their effects on the promotion of competition.** [emphasis added]

Previous decisions have also examined whether competition could be promoted through changes to firm conduct, eg:^{80,81}

...the practical indicia that would lead to the conclusion that an increase in competition will be promoted...include... a **restraint on anti-competitive conduct** such as price fixing or predatory pricing...[emphasis added]

⁷⁵ *Re Virgin Blue Airlines Pty Limited* [2005] ACompT 5, para 12.

⁷⁶ *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, paras 1,061-1,062.

⁷⁷ National Competition Council, *Fortescue Metals Group Ltd Application for declaration of a service provided by the Mt Newman railway under section 44F(1) of the Trade Practices Act 1974 – Final recommendation*, 23 March 2006, p 144, para 7.160.

⁷⁸ *Re Virgin Blue Airlines Pty Limited* [2005] ACompT 5, para 518.

⁷⁹ *Duke Eastern Gas Pipeline Pty Ltd* [2001] ACompT 2, para 116.

⁸⁰ *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1,062.

⁸¹ *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1,061.

A particular act will have the tendency to promote a material increase in competition in a socially useful way if **sellers are given greater freedom** to engage in rivalrous behaviour [emphasis added]

The Tribunal has also agreed with evidence stating that a change in prices that favours particular firms in a dependent market may harm competition.⁸²

3.2.3 Volume supplied in the market

The main mechanism by which declaration has been found to reduce barriers to entry in markets in which the declared service is not provided by a vertically integrated firm is through an increase in the volume supplied in that market that results from lower access prices. An increase in the volume in a market could make entry more likely because a greater number of firms can operate at an efficient scale.

For example, the NCC recently explained that higher prices for access to a port would not affect competition in coal production if the total volume of coal produced did not change, ie:⁸³

PNO could therefore price (or aim to price) its services in a way that maintains throughput volumes and maximises profits, for instance by bargaining directly with producers with mines at risk of closure, or their shippers. Consequently, it does not necessarily follow from an ability to increase prices that there will be a reduction in coal production that impacts competition in a market.

In the same matter, the Tribunal also stated that there was no effect on competition in the coal export market if volumes in that market remain the same, ie:^{84,85}

Either a price rise would have an impact on coal export volumes, in which case the estimates are of questionable value, or it would not, in which case the claim of any competitive impact is seen to be empty.

Consequently, it does not necessary follow from an ability to increase prices that there will be a reduction in coal production that impacts competition in the coal export market because PNO has the commercial motivation to ensure that the Service supports the ongoing coal export market and its expansion.

The NCC has also said that increases in volumes in a dependent market need to be material in order for competition to be promoted, eg:^{86,87}

The Applicant submits that it will produce additional ethanol from sugar by-products, including all of the molasses it produces and lignocellulosic material. It submits that the higher fibre content of 'energy canes' can be used to increase ethanol production. However, the Council is not satisfied, at least in the short to medium term, that any additional ethanol produced from sugar by-products in the Herbert River **will be sufficient to have a material impact on the national market for ethanol**. The Council considers that access would not promote a material increase in competition in the ethanol market.

The Council is not satisfied that access will promote a material increase in competition in any dependent electricity market. The Federal Court found that the market for electricity was NEM-wide when it considered the acquisition by AGL of an interest in the Loy Yang A power station. In the NEM, electricity is traded through a central pool. **An additional 50-55MW in North**

⁸² *Re Virgin Blue Airlines Pty Limited* [2005] ACompT 5, para 518.

⁸³ NCC, *Declaration of the shipping channel service at the Port of Newcastle – Final recommendation*, 2 November 2015, p 38, para 4.93.

⁸⁴ *Application by Glencore Coal Pty Ltd* [2016] ACompT 6, para 137.

⁸⁵ *Application by Glencore Coal Pty Ltd* [2016] ACompT 6, para 155.

⁸⁶ NCC, *Herbert River cane railway: Application for declaration of a service under section 44F of the Trade Practices Act 1974 (Cth) – Final recommendation*, 16 July 2010, p 26, paras 5.40-5.41.

⁸⁷ NCC, *Herbert River cane railway: Application for declaration of a service under section 44F of the Trade Practices Act 1974 (Cth) – Final recommendation*, 16 July 2010, p 27, paras 5.45-5.48.

Queensland would have virtually no effect in a market based on the NEM... The Applicant argues that the relevant market for the Council to consider is a North Queensland market. However, even to the extent that it may offset increases in marginal loss factors or demand growth in North Queensland, the Council considers that the Applicant's claimed additional generation capacity will not be sufficient to have any material effect on electricity prices in North Queensland. [emphasis added]

The NCC has stated that any effect of a service not being declared would need to lead to such a material impact on demand as to lead to a possible exit or contraction in the number of services offered in the dependent market, in order for competition to be promoted by declaration.⁸⁸

Finally, the Productivity Commission examined the national access regime in 2013, including whether competition should be said to be promoted in a dependent market for the purpose of criterion (a) when a firm sets a monopoly price for a service. It said that poor terms and conditions for a service can affect competition in dependent markets, but only when they disrupted competition in the dependent market.⁸⁹ In other words, criterion (a) would not apply to all situations in which declaration improved the terms and conditions offered for access to a service.

3.3 Summary of factors bearing on the promotion of competition

To summarise, the promotion of a material increase in competition in dependent markets as a result of declaration requires that:

- the structure of the market or conduct of firms is changed in a way that can be expected to bring about a material enhancement of the competitive process; and
- the volume and/or quality of output in the market is expected to increase.

⁸⁸ NCC, *Application by Virgin Blue for Declaration of Airside Services at Sydney Airport – Final recommendation*, November 2003, p 99.

⁸⁹ Productivity Commission, *National Access Regime*, 25 October 2013, p 173.

4. Effect of declaration on the DBCT service

This section describes the essential elements of DBCTM's proposed access framework and explains why the implementation of this framework would mean that declaration of the DBCT service:

- would not give rise to increases in output from any mine, as compared to the output that would arise if the DBCT service was not declared; and
- would not give rise to changes in the use of any coal terminal or railway facility, as compared to that which would arise if the DBCT service was not declared.

4.1 DBCTM's access framework

DBCTM's proposed access framework includes that a terminal infrastructure charge (TIC) is to be agreed between DBCTM and each user. In the absence of agreement, an arbitrator is:

to determine a TIC that must:

- reflect the TIC that would be agreed between a willing but not anxious buyer and a willing but not anxious seller of coal handling services for mines that are proximate to the Port of Hay Point;
- not be less than the floor TIC, being that which would apply under a QCA administered pricing regime; and
- not be greater than the ceiling TIC, being the highest TIC at which coal volumes served at DBCT would be the same as if the floor TIC applied – with this assessment being made without reference to any contractual limitations on volumes that are able to be delivered to DBCT or any other coal terminal.

These terms ensure that:

- the TIC can be no lower than would apply if DBCT was to be declared; and
- the TIC can be no higher than the highest TIC at which the utilisation of DBCT is the same as it would be at the floor TIC.

It follows that the direct effect of the access framework is that use of DBCT is the same at all values of the TIC within this floor and ceiling range. Put another way, the access framework ensures that declaration of the DBCT service would not lead to an increase in volumes at DBCT, as compared with the outcome that would apply without declaration.

4.2 Declaration will not change the use of DBCT

The access framework contemplates the prospect that, without declaration, the TIC at DBCT may be higher than the TIC that would have prevailed had a QCA administered regime continued to apply. In particular, the framework provides for the possibility that a price agreed between DBCTM and any user may be higher than the specified floor price. However, the access framework ensures that this price is constrained such that the use of DBCT remains the same with or without declaration.⁹⁰

If the use of the DBCT service is allocatively efficient under declaration, then the mines that use DBCT will be the same with and without declaration. This further implies that the output of all mines, and the use of all

⁹⁰ DBCTM's proposed access framework is specified so that non-price terms are substantially the same as they would be had a QCA administered regime continued to apply. On that basis, we assume that non-price terms will not result in differences in the use of DBCT between these two scenarios.

coal terminals and railways will be the same with and without declaration. We describe below the reasoning underpinning this statement, and the relevance of our reference to allocative efficiency.

The object of Part 5 of the QCA Act, which deals with access to services and underpins the QCA's regime of administered prices for DBCT, is to:⁹¹

... promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets.

The objective refers to different types of efficiency, including the efficient use of significant infrastructure. The efficient use of infrastructure refers to allocative efficiency. Allocative efficiency is defined by the Hilmer Review as being achieved where:⁹²

...resources used to produce a set of goods or services are allocated to their highest valued uses (ie, those that provide the greatest benefit relative to costs).

Although differently described, this is consistent with the definition of allocative efficiency we offer at section 2.2.4. Consistent with these specifications of allocative efficiency, in our opinion it is reasonable to assume that the regulatory regime applied by the QCA under declaration gives effect (and would give effect, if declaration continued to be applied) to the objective of Part 5 of the QCA Act and acts to promote the use of the DBCT service by mines that place the highest value on its use.

It follows that, if the TIC applied at DBCT were to increase under the terms of DBCTM's proposed access framework – potentially as high as the ceiling price – then the mines that utilise the DBCT service would be the same as those that would do so under declaration. This must be the case because:

- the access framework restricts the price ceiling so that the volumes served at DBCT would be the same as if the floor price applied; and
- if any mine were to cease its use of the DBCT service in response to higher prices and be replaced by alternative volumes from another miner, this would imply that the second miner placed a higher value on the DBCT service than the first – an outcome inconsistent with our assumption that the administered regime under declaration promotes allocative efficiency.

We note that this conclusion does not imply that there will be no change in the volume of coal or composition of miners that use the DBCT service in the future. Such changes may occur for a variety of reasons, including that:

- if any miners that currently use the DBCT service cannot profitably do so at the floor price, they would not be expected to continue to use the service in the future; or
- if new mining tenements are developed that are proximate to DBCT and place a high value on the DBCT service, those mines may be expected to use the service, potentially substituting for users – say, more distantly located mines – who achieve lesser value from the service.

Importantly, these changes will occur regardless of whether DBCT service is declared or not. As such, they have no bearing on a comparison of the use of the DBCT service with and without declaration.

4.3 Declaration will not lead to a change in the use of other facilities

If the prices agreed between DBCTM and users under the proposed framework do not give rise to any changes in the use of the DBCT service with or without declaration, then:

- the output of all mines will be unaffected by prices at DBCT with or without declaration;

⁹¹ QCA Act, section 69 E.

⁹² Hilmer, F.G., M, Rayner and G, Taperell, *National Competition Policy Review*, 25 August 1993, p 4.

- the use of other coal terminals will be unaffected by prices at DBCT with or without declaration; and
- the use of railway systems will be unaffected by prices at DBCT with or without declaration.

The output of all mines will remain the same with or without declaration because:

- miners who would not use DBCT with declaration will not change their usage decisions in response to a potential increase in the price of the DBCT service; and
- miners who would use DBCT with declaration will continue to do so under the terms of the access framework.

It follows that the use of all infrastructure across the relevant supply networks will remain unchanged with or without declaration.

5. Effect of declaration on dependent markets

In this section we explain why access to the DBCT service as a result of the declaration of that service would not promote a material increase in competition in any dependent market.

We explained in section 3.1.5 that a material increase in competition in a dependent market will be promoted if:

- the structure of the market or conduct of firms is changed in a way that can be expected to bring about a material enhancement of the competitive process; and
- the volume and/or quality of output in the market is expected to increase.

Applying this approach, we conclude that declaration of the DBCT service will not result in a material increase in competition in any coal export market because:

- declaration would not change the structure of those markets or conduct of mines, since:
 - > prices will still be determined in the same way by the Asia-Pacific or global seaborne coal market;
 - > the volume transported by each miner will not be affected, so there will be no change in the structure of the market, including the likelihood of entry; and
- declaration would not affect the total volume or quality of coal supplied in any coal export market because:
 - > no mine would change the quantity of coal that it sends to any terminal as a result of declaration (as set out in the previous section); and
 - > neither the quality of coal itself will change as a result of declaration nor will the mix of coal at each terminal; while
 - > the non-price terms and conditions for accessing DBCT will remain substantively the same, and so this will not change the service provided to coal miners.

The volumes supplied in each of the other dependent markets depend on the volumes in the coal export market, and so they will also not change as a result of declaration. There is also no reason for the quality of the services in other dependent markets to be affected by declaration of the DBCT service. As such, there is no reason for the structure of the market, nor conduct of firms in those markets to change. Therefore, declaration will also not promote a material increase in competition in those markets.

Further, as a stand-alone facility with no up or downstream market interests, DBCT has the strongest possible incentive to act so as to maximise the degree of competition in all its dependent markets, and this incentive is not changed as between with and without declaration.

In the remainder of this section we describe the coal supply chain, and provide for each dependent market:

- some background information;
- the likely product and geographic dimensions of the market; and
- the effect of declaration on competition in that market.



5.1 Coal supply chain

A dependent market usually needs to be part of the same supply chain as the service for which declaration is being sought for it to be affected by that declaration. For example, the NCC has explained that:⁹³

The Council seeks to identify one or more dependent markets where competition appears likely to be materially affected by an improvement in terms and conditions of access to the service for which declaration is sought. Often these markets will be vertically related to the market for the service for which declaration is sought. That is, they are upstream or downstream of that market in a supply chain.

We show in appendix A1 that the dependent markets examined by the NCC across all of its recommendations regarding declaration cases from 2002-2014 were part of the supply chain that included the service over which declaration was sought.

Taking this history as a guide, we have determined the dependent markets by reference to those markets that are part of the same supply chain as the DBCT service.

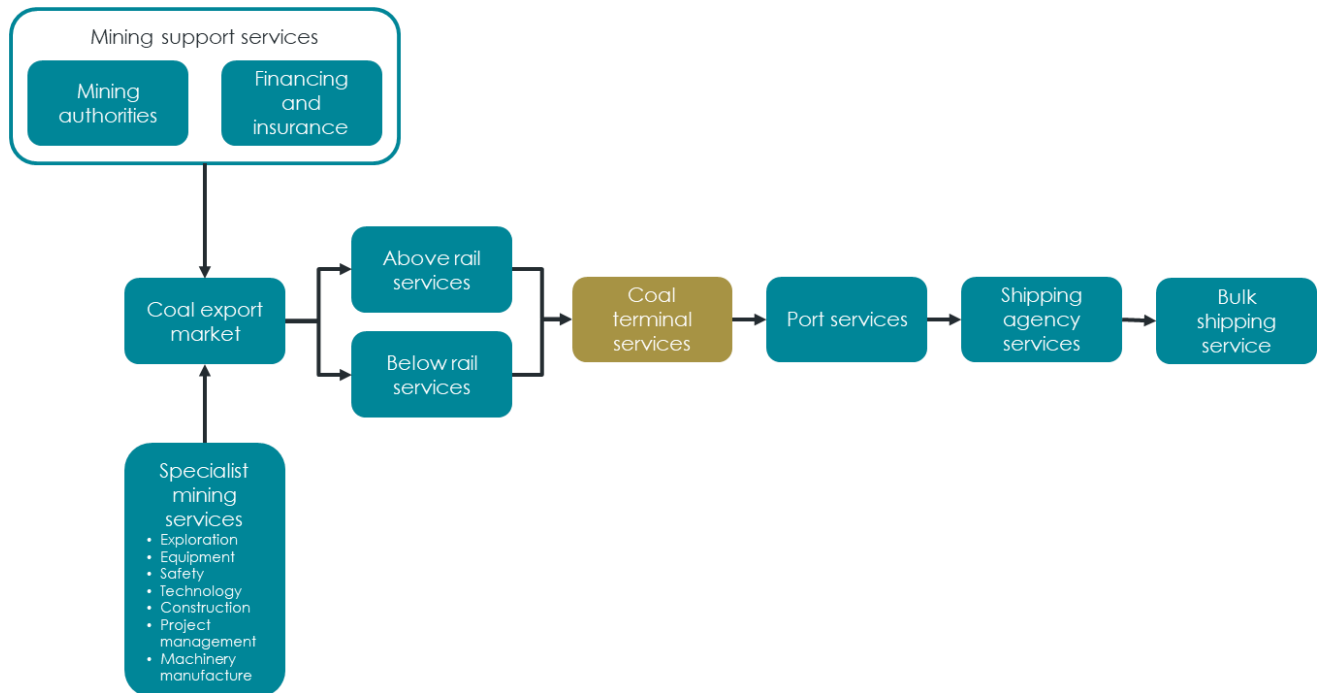
Figure 5.1 sets out the coal export supply chain, which includes:

- coal mining and the sale of coking and thermal coal for export;
- a range of financial, specialist and government services provided to coal mines;
- provision of below rail services;
- provision of above rail haulage services;
- port services;
- shipping agency services;
- bulk shipping services, ie, the transport of coal by ships to its destination; and
- other supporting services.

The supply chain goes on to include the use of coking coal to manufacture steel, and the use of that steel. However, any effect on these markets will be increasingly diluted as they extend further from the DBCT service.

⁹³ National Competition Council, *Declaration of Services, a guide to declaration under Part IIIA of the Competition and Consumer Act 2010*, February 2013, para 3.13.

Figure 5.1: Coal export supply chain



5.2 Coal export markets

5.2.1 Background

Coal is a heterogeneous product and the coal exported from Australia primarily belongs to one of two main categories, ie:

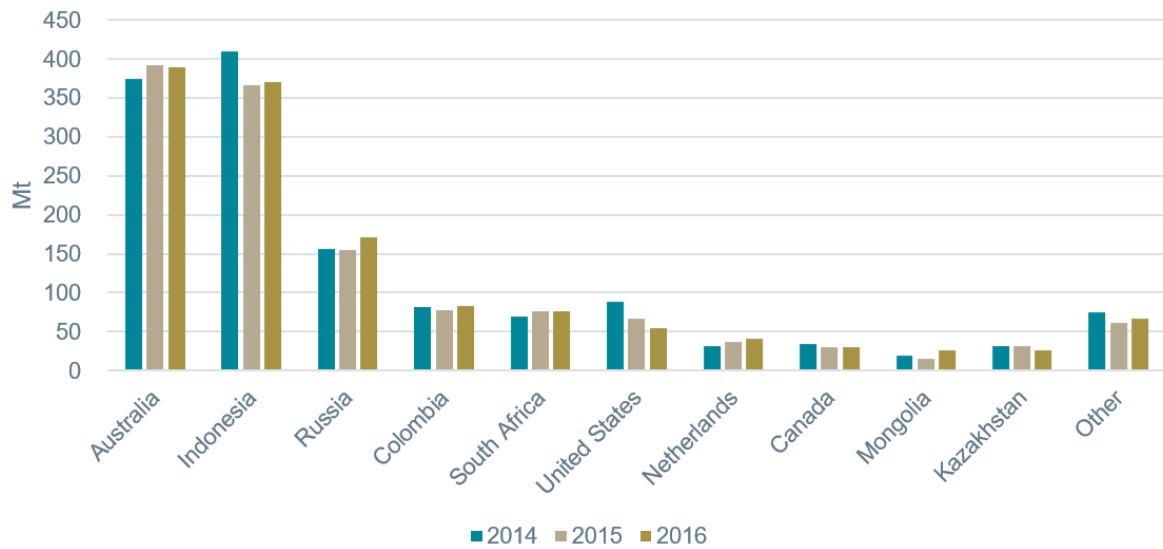
- coking (or metallurgical) coal, used in the manufacturing process of steel; and
- thermal black coal, used in coal-fired power stations for electricity generation.

In Australia, coal is generally transported by rail from mines to port terminals with coal handling facilities so that it may be shipped to its final destination. The coal mines typically purchase the services required to transport the cargo.

In FY2016-17, Queensland exports accounted for approximately 16 per cent of the world's total trade volume of coal at a value of \$36 billion to the Australian economy.⁹⁴ Australia, along with Indonesia, exports the largest volume of coal in the world, as shown in Figure 5.2 below.

⁹⁴ Derived from Department of Natural Resources, Mines and Energy Coal Industry Review Statistical Tables (see 'Total value of exports per year' spreadsheet at <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables>, accessed 7 May 2018) and IEA, *Coal information 2017: Overview*, 2017, p 5.

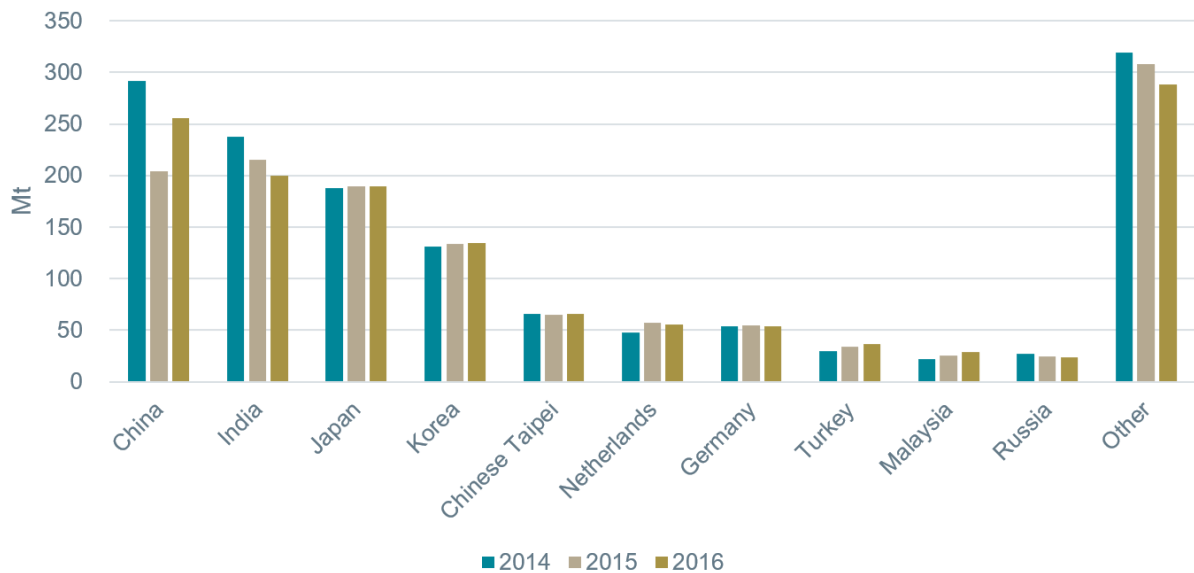
Figure 5.2: Volume of coal exports in 2014 to 2016



Source: IEA, Coal information 2017: Overview, 2017, p 5.

The vast majority of exports from Australia are destined for Asia, which is home to the top five coal importers in the world, responsible for 63 per cent of all coal imports, as can be seen in Figure 5.3 below.

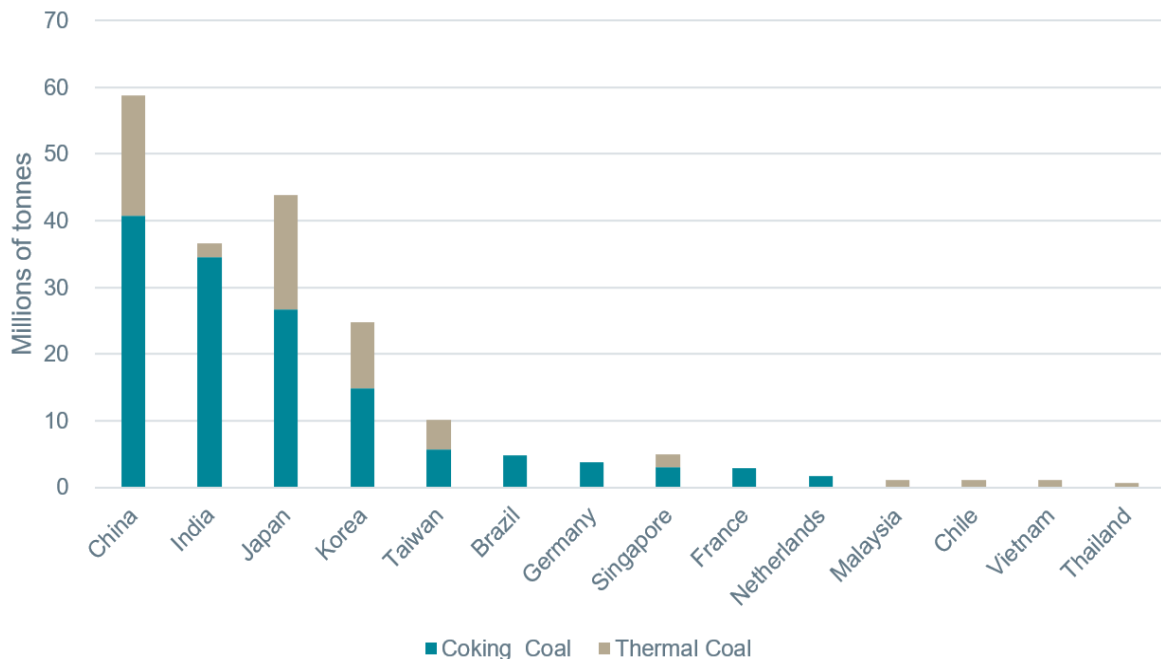
Figure 5.3: Volume of coal imports in 2014 to 2016



Source: IEA, Coal Information 2017: Overview, 2017, p 6.

Coal mines in Queensland produced nearly 238 million tonnes of saleable coking and thermal coal in 2016-17 across 51 mines.⁹⁵ 87 per cent of this coal was exported, predominately to Asian countries such as Japan, China and India, each of which is a large buyer of Queensland coal, as shown in Figure 5.4.⁹⁶

Figure 5.4: Top 10 destinations for Queensland coal in 2017 by tonnage



Source/Notes: The Department of Natural Resources and Mines, Queensland Government website: <https://data.qld.gov.au/dataset/annual-coal-statistics/resource/c522fcaa-89d7-4c76-bd6e-064d39617d38>, accessed 24 April 2018.

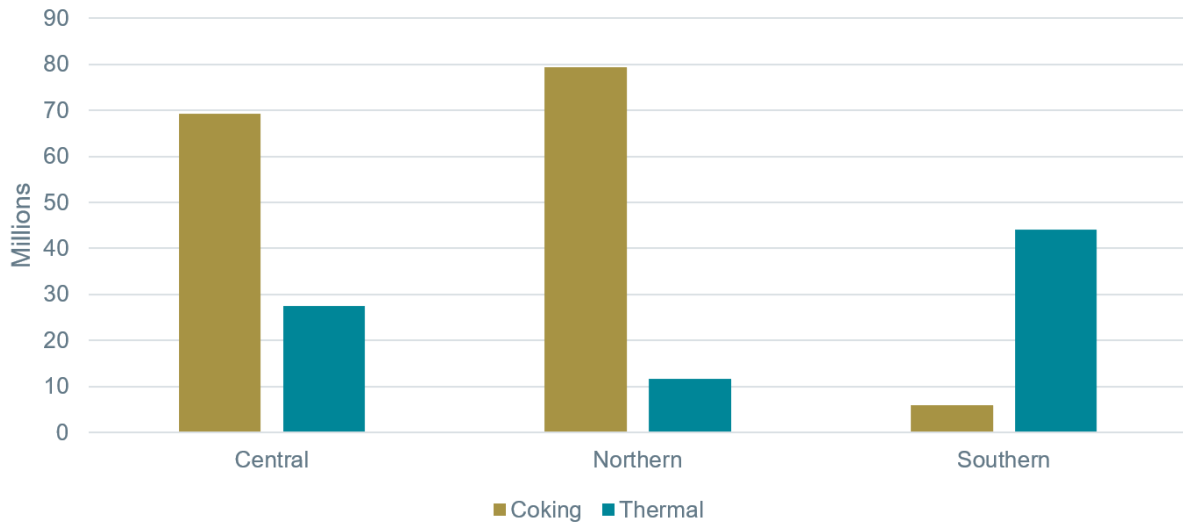
The majority of saleable coal is produced in northern and central Queensland, as shown in Figure 5.5 below. For instance, in 2016-2017 coking coal production in central Queensland was approximately 69 Mt (72 per cent of total production by central Queensland coal mines) while thermal coal production was approximately 27 Mt (28 per cent of central Queensland production).⁹⁷

⁹⁵ Derived from Department of Natural Resources, Mines and Energy Coal Industry Review Statistical Tables (see 'Coal industry 5 year summary' spreadsheet at <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables>, accessed 7 May 2018).

⁹⁶ Derived from Department of Natural Resources, Mines and Energy Coal Industry Review Statistical Tables (see 'Coal industry 5 year summary' spreadsheet at <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables>, accessed 7 May 2018).

⁹⁷ Derived from Department of Natural Resources, Mines and Energy Coal Industry Review Statistical Tables (see 'Coal industry 5 year summary' spreadsheet at <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/9278538e-668b-4803-bfd6-5dc25c9fab2b>, accessed 24 April 2018).

Figure 5.5: Queensland saleable coal production by region and type 2016-17



Source: The Department of Natural Resources and Mines, *Coal industry 5 year summary, December 2016*. Website: <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/9278538e-668b-4803-bfd6-5dc25c9fab2b>, accessed 24 April 2018.

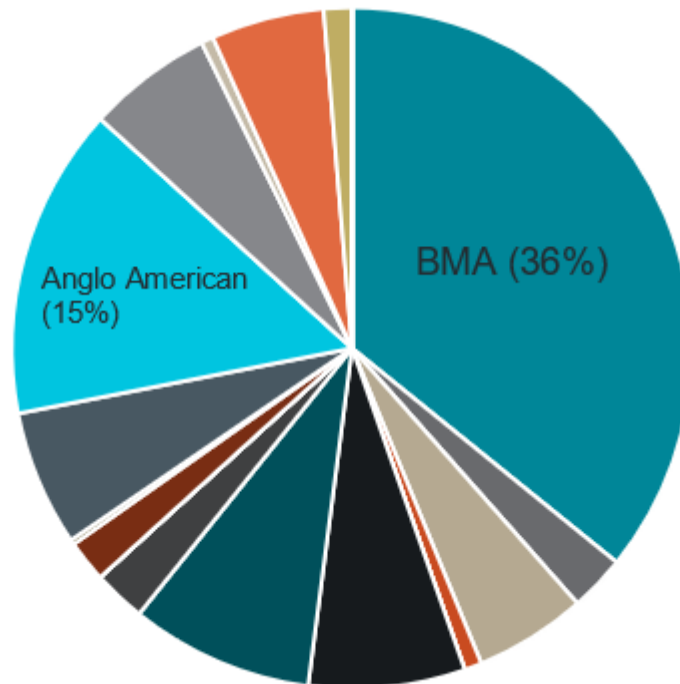
There are many firms operating coking coal mines in Queensland, as shown in Figure 5.6.⁹⁸ BMA has the highest share of production, but supply is not particularly concentrated. These companies operate 32 mines across Queensland (though not all are active), which exported approximately 149 Mt of coking coal in 2016-17,⁹⁹ representing approximately 47 per cent of worldwide coking coal exports.¹⁰⁰

⁹⁸ Derived from Department of Natural Resources, Mines and Energy Coal Industry Review Statistical Tables (see 'Production of saleable coal by individual mines' spreadsheet at <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/1b7fb643-c880-42bf-940b-fc3c582d239d>, accessed 8 May 2018).

⁹⁹ Derived from Department of Natural Resources, Mines and Energy Coal Industry Review Statistical Tables (see 'Exports by collieries to overseas countries' spreadsheet at: <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/d80518e3-6b7f-4672-bd18-3d68cde77b23>, accessed 8 May 2018).

¹⁰⁰ Derived from Department of Natural Resources, Mines and Energy Coal Industry Review Statistical Tables (see 'Exports by collieries to overseas countries' spreadsheet at <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/d80518e3-6b7f-4672-bd18-3d68cde77b23>, accessed 8 May 2018). IEA, *Coal information: Overview 2017*, 2017, p 4.

Figure 5.6: Production share of Queensland coking coal mining companies 2016-17

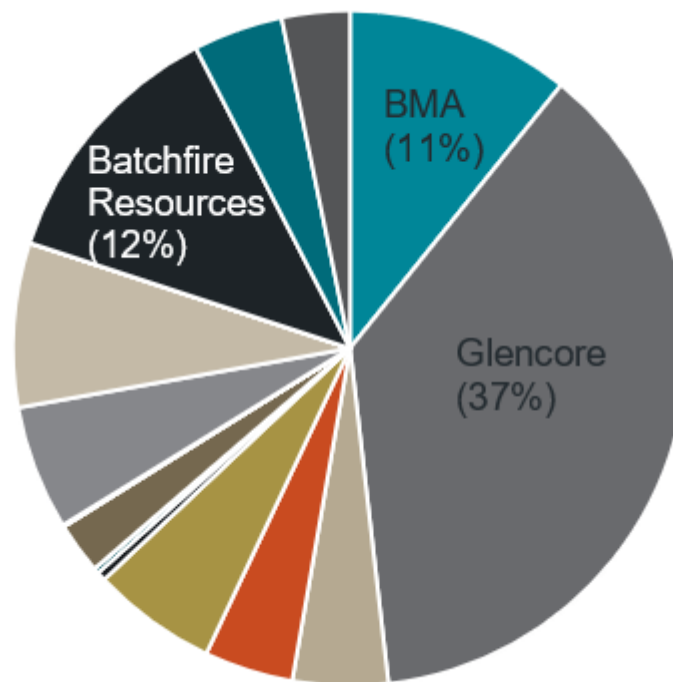


Source: The Department of Natural Resources and Mines, Queensland Government website: <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/1b7fb643-c880-42bf-940b-fc3c582d239d>, accessed 3 May 2018.

Figure 5.7 shows that there are also many firms operating thermal coal mines in Queensland, with Glencore having the largest share of production in Queensland in 2016-2017. The rest of production is spread between many firms, so supply is not particularly concentrated. These companies operate 22 mines across Queensland (though not all are active), which exported approximately 59 Mt of thermal coal in 2016-17, representing approximately six per cent of worldwide thermal coal exports.¹⁰¹

¹⁰¹ Derived from Department of Natural Resources, Mines and Energy Coal Industry Review Statistical Tables (see 'Exports by collieries to overseas countries' spreadsheet at <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/d80518e3-6b7f-4672-bd18-3d68cde77b23>, accessed 8 May 2018). IEA, *Coal information: Overview 2017*, 2017, p 4.

Figure 5.7: Production share of Queensland thermal coal mining companies 2016/17



Source: The Department of Natural Resources and Mines, Queensland Government website: <https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/1b7fb643-c880-42bf-940b-fc3c582d239d>, accessed 3 May 2018.

In response to the Port of Newcastle application, the NCC concluded that there were a significant number of participants in the export coal markets, however the market was defined.¹⁰² The NCC considered that the coal export market (or markets) was effectively competitive, and the Tribunal agreed.¹⁰³

5.2.2 Market definition

Thermal and coking coal have different uses and so customers are not likely to be willing to switch between them. Miners cannot easily change their levels of production between the types of coal in response to price changes. As such, thermal and coking coal are likely to be in different product dimensions of the market.

Coal is transported and traded internationally. It is exported from Queensland to a wide range of countries,¹⁰⁴ which have imports coming from other places, including sometimes domestic supply of coal.¹⁰⁵ As such, the geographic dimension of the market (or markets) is likely to be at least Asia-Pacific wide, and more likely wider.

The definition of the coal export market was recently considered in the NCC's decision regarding the application for declaration of the services provided by the shipping channels at the Port of Newcastle (Port of

¹⁰² NCC, *Declaration of the shipping channel service at the Port of Newcastle – Final recommendation*, 2 November 2015, p 30, para 4.60.

¹⁰³ NCC, *Declaration of the shipping channel service at the Port of Newcastle – Final recommendation*, 2 November 2015, p 41, para 4.105; *Application by Glencore Coal Pty Ltd [2016] ACompT6*, para 153.

¹⁰⁴ See Figure 5.4.

¹⁰⁵ Imports to Asian countries given in Figure 5.3 are much larger than the exports from Australia alone given in Figure 5.2.

Newcastle application). Both the applicant and respondent in that matter accepted that coal was an internationally-traded commodity with prices set by reference to international spot prices.¹⁰⁶

The NCC said that:¹⁰⁷

The Council considers that for this matter, the geographic scope of the market for Australian exporters is likely to extend at least beyond Australia and into the Asia-Pacific region.

As such, in our opinion, there are likely to be markets for:

- the supply of thermal coal across at least across the Asia-Pacific region, and more likely wider; and
- the supply of coking coal across at least across the Asia-Pacific region, and more likely wider.

However, the precise scope of the market does not affect our conclusions.

5.2.3 Effect of declaration on competition in the dependent market

Declaration will not lead to any change in the volumes of coal produced by any mine, as we set out in section 4. Volumes sold into the markets for coal exported to the Asia Pacific region (or wider) will therefore not be affected by declaration.

The quality of the service provided to coal miners will be the same with and without declaration of the DBCT service because:

- the nature of the underlying coal is the same;
- the mix of coal at DBCT and other terminals, which can affect the quality of the mixed coal product, will be the same, because volumes of coal sent to each terminal will not change; and
- other dimensions of the coal supply service that could be affected by the use of the terminal – such as the timing at which coal is available to be shipped – will remain the same because the non-price terms and conditions of access will be substantially the same with and without declaration.

Declaration would not change the structure or conduct of mines in any coal export market because:

- prices will still be determined in the same way by reference to international spot prices; and
- the volume transported by each miner will not be affected so there is no change in the structure of the market or likelihood of entry.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any coal export market, given that it would not affect:

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

5.3 Specialist mining services

Coal mining is supported by a significant array of mining-related services including:¹⁰⁸

- **exploration services:** these are involved in discovery and confirmation of coal resources that include geological and drilling services;

¹⁰⁶ NCC, *Declaration of the shipping channel service at the Port of Newcastle – Final recommendation*, 2 November 2015, p 30, para 4.60.

¹⁰⁷ NCC, *Declaration of the shipping channel service at the Port of Newcastle – Final recommendation*, 2 November 2015, p 20, para 4.58.

¹⁰⁸ Glencore Coal Pty Ltd, *Application for a declaration recommendation in relation to the Port of Newcastle*, May 2015, p 12.

- **equipment services:** these involve the provision of plant and equipment used in mining operations;
- **mining safety services:** these can encompass safety training and assessment, risk management, mine rescue training, and assisting with emergency preparedness;
- **mining technology services:** these encompass communications, tracking, networking, data management and other technologies that improve mine productivity and efficiency;
- **construction services:** these refer to civil engineering and construction required to develop and maintain mine structures;
- **project management:** mine development and operations are complex undertakings requiring co-ordination and project management; and
- **machinery manufacturing:** this relates to design, fabrication and installation of mine plant and equipment.

5.3.1 Market definition

The different mining services are not likely to be substitutes for each other from the point of view of customers. Similarly, suppliers are not likely to be able easily to switch between providing these different services. It follows that each service is likely to be in separate product dimensions of the market.

Mining services are generally not restricted to coal mines, and can be supplied across a wide geographic area. In its decision regarding the declaration of services provided at the Port of Newcastle, the NCC stated that 'providers of specialist services may be able to work in different mining regions around Australia'.¹⁰⁹

Further, when the ACCC has informally reviewed mergers pertaining to specialist mining services, it has typically employed a market definition comprising a national market.¹¹⁰

We conclude that there are likely to be a number of national markets for specialist mining services, although the precise definition of these markets does not affect our conclusions as to whether criterion (a) is satisfied.

5.3.2 Effect of declaration on competition in the dependent market

The volume of specialist mining services depends on the volume of coal (and other products) that is mined. Declaration will not affect the quantity of coal that is exported (see section 4) and so it will not affect the amount of mining activity. Given that volumes will not change, the structure and conduct of firms in the market are also not affected by declaration.

The same specialist mining services will be required with and without declaration. Therefore, there is no reason for the quality of specialist mining services to change as a result of the declaration of the DBCT service.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any specialist mining service market, given that it would not affect:

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

¹⁰⁹ NCC, *Declaration of the shipping channel service at the Port of Newcastle – Final recommendation*, 2 November 2015, p 32, para 4.69.

¹¹⁰ See, for eg, ACCC, *BIS / Allied Plant Services Pty Ltd (Commission Informal Review, 9 May 2007)*, Informal Merger Review, 9 May 2007, available at: <http://registers.accc.gov.au/content/index.php/itemId/787087/fromItemId/751043>, accessed 24 May 2018; and ACCC, *Spotless Group Limited / Programmed maintenance Services (Commission Informal Review, 12 May 2008)*, Informal Merger Review, 12 May 2008, available at: <http://registers.accc.gov.au/content/index.php/itemId/827322/fromItemId/751043>, accessed 24 May 2018.

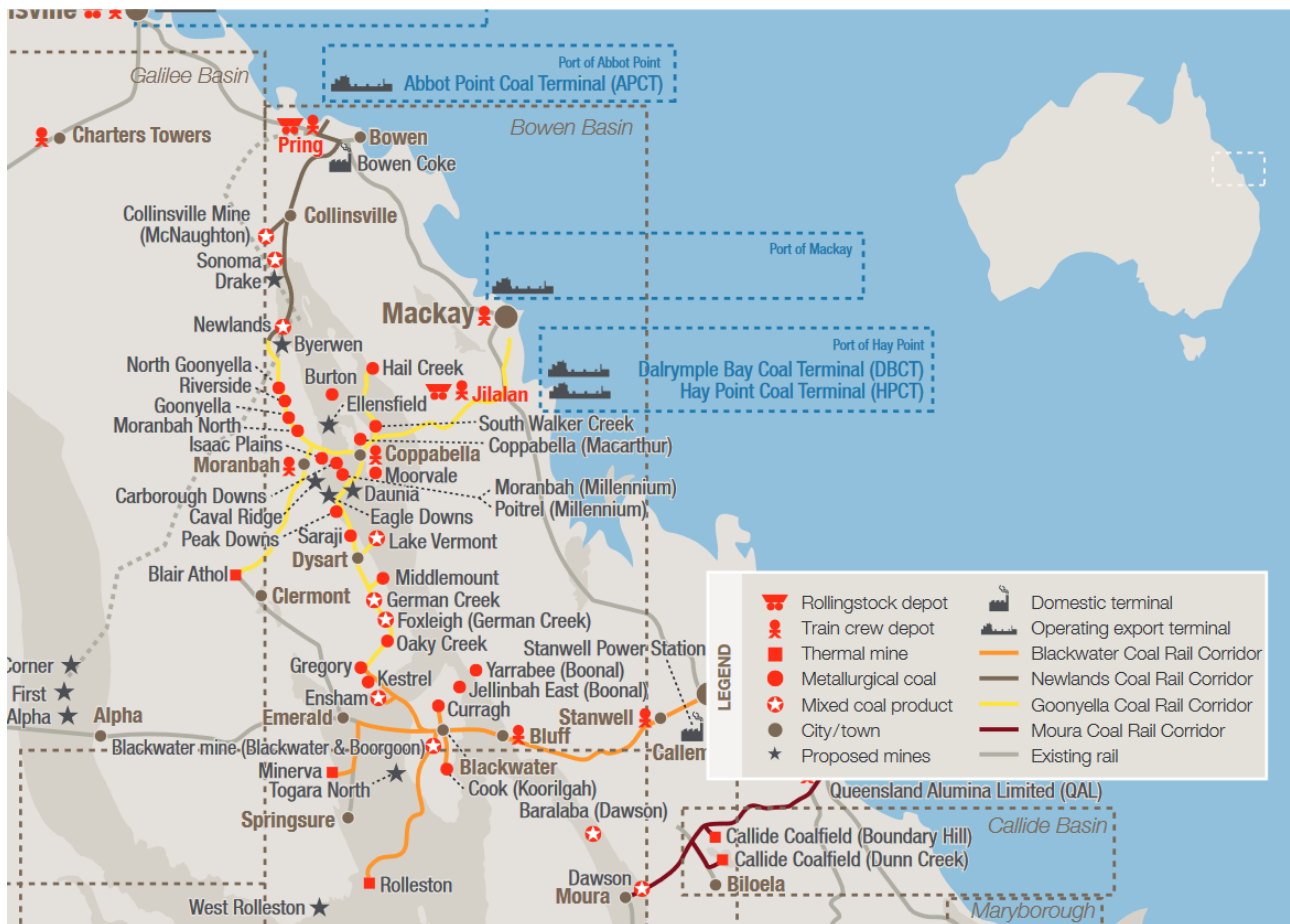
5.4 Below rail services

The Goonyella Coal Rail System (the second longest of the four systems that comprise the Central Queensland Coal Network (CQCN)) is an electrified train system located in central Queensland and is operated by Aurizon Network (Aurizon) to transport coal to coal terminals – as depicted in yellow in Figure 5.8.

The Goonyella Coal Rail System, which services the Bowen Basin coal region, is 1,021 km in length running on narrow gauge track (1,067mm), which can accommodate trains of up to 124 wagons and sustain track axle loads up to 26.5 tonnes (translating to 106 tonnes per wagon).¹¹¹ Other components of the rail network include yards, sidings and passing loops.

Coal terminals at Hay Point and Dalrymple Bay (both of which are located near Mackay) provide terminus points for the rail system. Further north, the Goonyella Coal Rail System can connect to the Abbot Point Coal Terminal through the Newlands Coal Rail Corridor.¹¹² The rail network is also connected in the south to the Blackwater Rail Corridor, as shown in Figure 5.8.

Figure 5.8: Map of the Goonyella Rail Corridor



Aurizon maintains and operates the Goonyella Coal Rail System, which comprises tracks, electrification equipment, crossings, signalling and other network components. Aurizon's rail system and operational

¹¹¹ BITRE, *Freightline 4 – Australian coal freight transport*, September 2016, p 13.

¹¹² Aurizon, *Goonyella Rail Corridor Fact Sheet*, p 1.

activities provide the necessary below rail services (ie, transportation infrastructure) between coal mines and the coal terminals that make Bowen basin coal exports possible.

5.4.1 Market definition

The rail system provides the only practical transport network service connecting coal mines in central Queensland to coal terminals on the coast. Potential substitutes, such as road trains (ie, trucks) are likely to be prohibitively expensive.

Customers cannot switch to using different below rail services, because they must transport coal from their mine to a terminal.

Aurizon is the only supplier of below rail services on the Goonyella Coal Rail System, reflecting the natural monopoly nature of rail networks. As a monopoly service, Aurizon's below rail services does not currently face competition and this circumstance is likely to persist into the future. No firm is readily able to offer below rail services in competition with Aurizon. In consequence, the geographic market for below rail services may be as narrow as the Goonyella Coal Rail System.

5.4.2 Effect of declaration on competition in the dependent market

Aurizon's below rail services are declared in accordance with Part 5 of the Queensland Competition Authority Act 1997 and its tariffs are regulated.¹¹³ As such, declaration of the DBCT service will not affect the structure of any below rail market or conduct of Aurizon in a way that enhances the competitive process.

Further, the volume of coal travelling on the Goonyella Coal Rail System will not change, as we set out in section 4.

The same below rail services will be required with and without declaration. Therefore, there is no reason for the quality of below rail services to change as a result of the declaration of the DBCT service.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any below rail market, given that it would not affect:

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

5.5 Coal haulage services

Above rail services on the Goonyella Coal Rail System are provided by firms that operate the rolling stock (ie, heavy haulage locomotives and coal wagons) on the rail network. These operations comprise of many discrete activities that are packaged together including scheduling, maintenance, fuelling and other associated activities required to operate and maintain rolling stock. Together, these activities form a coal haulage service that transports coal from mining sites to coal terminals on the coast.

Coal haulage services typically begin at coal stockpiles located close to mines where coal is loaded into coal wagons that form the coal train, which can consist of up to 124 wagons. Once coal wagons are loaded, rail operators will haul the cargo to coal terminals where coal is unloaded 'on the move' as the train passes through rail receipt stations.

Aurizon must provide access to third-party above-rail operators in accordance with its access undertaking. Currently, there are three above-rail operators providing coal haulage across the CQCN – Aurizon,¹¹⁴ Pacific National and BHP. However, BHP only provides haulage services to the mines that it owns and operates.

¹¹³ Latest reference tariffs can be accessed from Aurizon's website: <http://www.aurizon.com.au/what-we-deliver/network/network-downloads>, accessed 10 May 2018.

¹¹⁴ Aurizon Operations is a separate legal entity from Aurizon.

5.5.1 Market definition

Rail transport is the only practicable way to move significant amounts of coal to coal terminals, and so customers are not likely to substitute rail haulage for other modes of transport. However, suppliers may easily be able to switch between providing haulage for coal and a range of other bulk commodities.

A customer is not likely to be willing to switch between using different rail networks. It must transport coal from its mine to a coal terminal.

On the other hand, Aurizon, Pacific National and BHP can and do operate across the Goonyella Coal Rail System in addition to other rail systems in Queensland and other states. For instance, Aurizon provides above rail bulk haulage for a variety of commodities across New South Wales and Western Australia, as well as intermodal freight services in Queensland.¹¹⁵ Similarly, Pacific National provides bulk haulage rail services in New South Wales, Western Australia, Victoria and South Australia.¹¹⁶

The ACCC described a market for the haulage of bulk commodities (including coal) that extends throughout Queensland in a recent statement of issues regarding a proposed acquisition.¹¹⁷ In our opinion, this is likely to be an appropriate market definition in the context of the declaration of the DBCT service, although the geographic dimension of the market may be wider.

5.5.2 Effect of declaration on competition in the dependent market

As we explained in section 4, the volumes of coal being transported along each train path will be the same with or without declaration. Therefore, under any market definition for coal haulage services, the volume supplied in the market will not be changed by declaration.

Declaration of the DBCT service does not have any direct effect on the rail haulage service. Therefore, a change in volumes supplied is the only way that declaration of the DBCT service could affect this market. Given that volumes transported by each firm will not change, the structure and conduct of firms in the market are also not affected by declaration. For example, the likelihood of entry will be the same.

The same coal haulage services will be required with and without declaration. Therefore, there is no reason for the quality of coal haulage services to change as a result of the declaration of the DBCT service.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any rail haulage market, given that it would not affect:

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

5.6 Port services at the port of Hay Point

The port of Hay Point is located approximately 40 km south of Mackay and contains two coal terminals – Dalrymple Bay (where the DBCT is situated) and Hay Point (owned by BMA) and operated by Hay Point Services, with seven berths between them. These terminals service the mines in central Queensland, specifically, those in the central Bowen Basin region.

The port is operated by North Queensland Bulk Ports Corporation (NQBP), a statutory port authority, who provides both marine and landside services to ships including:

¹¹⁵ ACCC, *Pacific National/Linfox – Proposed acquisitions of intermodal assets from Aurizon – Statement of Issues*, 15 March 2018, p 5, para 20.

¹¹⁶ ACCC, *Pacific National/Linfox – Proposed acquisitions of intermodal assets from Aurizon – Statement of Issues*, 15 March 2018, p 4, para 17.

¹¹⁷ ACCC, *Pacific National/Linfox – Proposed acquisitions of intermodal assets from Aurizon – Statement of Issues*, 15 March 2018, p 26, para 147.

- **waste services:** these deal with waste from ships and ship crews;
- **port pilotage:** experienced pilots with a working knowledge of the Port's approaches are transferred to bulk carriers (typically by helicopter) to provide guidance to the ship's crew when entering and exiting the port. NQBP is responsible for providing pilotage services at the Port of Hay Point; and
- **towage:** tug boats are used to tow ships in the port. Currently the sole service provider to the Hay Point Coal Terminal (HPCT) for tugs is Rivtow Marine Queensland, while Half-Tide Marine provides tug services to the DBCT.¹¹⁸ Competition exists in contracting for towage and tug boat services, as evidenced by the switch from Teekay to Rivtow at HPCT in 2016.¹¹⁹

In 2016-2017, the port of Hay Point was visited by 1,062 bulk carriers representing 106.4 million tonnes of throughput comprising of 63 million tonnes through DBCT and 43.4 million tonnes through HPCT.¹²⁰

Waste services and port pilotage services are currently provided solely by NQBP. The supply of waste services is outsourced to JJ Richards, a large waste management company. Pilotage fees at the port of Hay Point are regulated.¹²¹

Towage is provided by one towage company for each coal terminal. Competition occurs at the point at which the towage company is granted a monopoly licence (for a fixed period). This phenomenon is not unique to the port of Hay Point. For instance, in a 2002 Productivity Commission inquiry into harbour towage and related services, the Productivity Commission concluded that most, if not all, Australian ports can efficiently support only one towage service provider in the longer term.¹²² In particular, the Productivity Commission found that:¹²³

Enduring competition within most, if not all, Australian ports is unlikely due to low levels of demand, 'lumpy' investments and economies of scale. In the longer term, only one operator is likely to survive in any particular port.

5.6.1 Market definition

Customers seeking port services cannot substitute these for other services. On the supply-side, we expect that firms could also not easily switch to providing these services and other similar services. Waste services, port pilotage and towage are all likely to be in separate markets.

Waste services and towage are supplied by firms across Australia and so the geographic dimension of those markets are likely to be a least Australia wide. Port pilotage requires specialist knowledge, and so the geographic market may not extend beyond the port of Hay Point.

5.6.2 Effect of declaration on competition in the dependent market

The demand for port services at the port of Hay Point depends upon the volume of coal throughput for DBCT and HPCT. Declaration will not lead to any change in the volumes of coal exported from those terminals, as we set out in section 4. As such, volumes in the markets for port services will not be affected by declaration no matter how the geographic dimension of the market is defined.

Declaration of the DBCT service does not have any direct effect on port services. Therefore, a change in volumes supplied is the only way that declaration of the DBCT service could affect this market. Given that

¹¹⁸ Stevens, M, 'BHP Billiton's union-buster sails into coal', *Australian Financial Review*, 25 May 2016, paras 2-5, see <http://www.afr.com/business/infrastructure/ports/bhp-billitons-unionbuster-sails-into-coal-20160524-gp2s9c>, accessed 10 May 2018.

¹¹⁹ Stevens, M, 'BHP Billiton's union-buster sails into coal', *Australian Financial Review*, 25 May 2016, paras 2-5, see <http://www.afr.com/business/infrastructure/ports/bhp-billitons-unionbuster-sails-into-coal-20160524-gp2s9c>, accessed 10 May 2018.

¹²⁰ North Queensland Bulk Ports Corporation, *Annual Report 2016-17, 2017*, p 9.

¹²¹ Transport Operations (Marine Safety) Act 1994, schedule 6.

¹²² Productivity Commission, *Inquiry report – Economic regulation of harbour towage and related service*, August 2002, p. xliii.

¹²³ Productivity Commission, *Inquiry report – Economic regulation of harbour towage and related service*, August 2002, p xx.

volumes will not change, the structure and conduct of firms in the market are also not affected by declaration.

The same port services will be required with and without declaration. Therefore, there is no reason for the quality of port services to change as a result of the declaration of the DBCT service.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any market for port services at the port of Hay Point, given that it would not affect:

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

5.7 Shipping agency services

Exporting coal or other goods from ports requires shipping agency services to safeguard the interests of coal buyers and sellers in navigating export regulations and compliance requirements. Shipping services consist of several discrete services:

- **port agency service:** this is assistance with a range of requirements, including administration, before a ship's arrival and when it is in port;
- **protective agency service:** this service ensures that cargo operations do not conflict with the ship owner's interests. Activities involved in protective agency services include ensuring port and schedule information provision, supervising port expenditures, control reporting, arrangements for ship logistics and responding to issues arising from hold inspections; and
- **shipper advisory service:** this consists of logistics and ensuring compliance with Australian Government export requirements, and the correct preparation of all export documents, including mates receipt and bills of lading.

5.7.1 Market definition

Shipping agency services at DBCT are provided by eight companies, many of which provide a wide range of shipping agency services across Australia, and sometimes more widely.¹²⁴ This suggests that there is likely to be a market for the provision of a range of shipping agency services that extends at least across the whole of Australia.

5.7.2 Effect of declaration on competition in the dependent market

As we explained in section 4, the volumes of coal going through each coal terminal will not change as a result of declaration of the DBCT service. Therefore, the volume of shipping agency services required at each port will also be the same and so the volume supplied in the market will not be changed by declaration, under any market definition for shipping agency services.

Declaration of the DBCT service does not have any direct effect on shipping agency services. Therefore, a change in volumes supplied is the only way that declaration of the DBCT service could affect this market. Given that volumes will not change, the structure and conduct of firms in the market are also not affected by declaration.

The same shipping agency services will be required with and without declaration. Therefore, there is no reason for the quality of shipping agency services to change as a result of the declaration of the DBCT service.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any shipping agency services market, given that it would not affect:

¹²⁴ Dalrymple Bay Coal Terminal, *Terminal Information Booklet*, February 2017, pp 48-49.

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

5.8 Bulk shipping services

The physical shipping of coal from coal terminals to their destination ports are performed by bulk carrier ships, which are specialised vessels that are designed to carry unpackaged cargo such as coal or iron ore. Bulk carriers are typically chartered by customers of coal mining companies, such as steel manufacturers.¹²⁵

The majority of coal exported from Australia is shipped to China, South Korea and Japan on Panamax and Capesize vessels.

5.8.1 Market definition

The NCC considered the relevant product dimension of the market for commercial shipping services to be bulk shipping services in the Port of Newcastle matter.¹²⁶ It noted that the scope of the market is likely to be beyond Australia, however the NCC did not have sufficient evidence with which to form a conclusion on this issue.

As such, the relevant market is likely to be bulk shipping services in the Asia Pacific region, and perhaps wider.

5.8.2 Effect of declaration on competition in the dependent market

As we explained in section 4, the volume of coal mined and exported will not change as a result of declaration of the DBCT service. Therefore, the volume in any bulk shipping service market will also not be affected by declaration of the DBCT service.

Declaration of the DBCT service does not have any direct effect on bulk shipping services. Therefore, a change in volumes supplied is the only way that declaration of the DBCT service could affect this market. Given that volumes will not change, the structure and conduct of firms in the market are also not affected by declaration.

The same bulk shipping services will be required with and without declaration. Therefore, there is no reason for the quality of bulk shipping services to change as a result of the declaration of the DBCT service.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any bulk shipping services market, given that it would not affect:

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

5.9 Mining authorities

Mining authorities refer to resource authorities under the Minerals Resources Act 1989 (Queensland) that allow mining companies to explore, develop and operate coal mines in Queensland.¹²⁷ These authorities include exploration permits for minerals, mineral development licences and mine leases. They are usually issued for a specific mineral or minerals, a particular geographic area and for a given period of time.

¹²⁵ DBCT management website: <http://www.dbctm.com.au/coalchain/aboutshipping.aspx>, accessed 10 May 2018.

¹²⁶ NCC, *Declaration of the shipping channel service at the Port of Newcastle – Final recommendation*, 2 November 2015, pp 31-32, para 4.66.

¹²⁷ Business Queensland website: <https://www.business.qld.gov.au/industries/mining-energy-water/resources/applications-compliance/resource-authority/mineral-coal> accessed 7 August 2017.

Competitive tendering is applied to coal and mineral exploration where appropriate to allocate authorities among interested parties.¹²⁸

5.9.1 Market definition

There are a number of mining authorities for undertaking different activities and that relate to different minerals. Firms wanting to acquire these are not likely to be willing to substitute between them. Each of these may be in a separate market, but whether this is the case does not affect our conclusion below.

Mining authorities are provided for a specific location, and so the geographic dimension of the market may be quite small, although there may be some scope for substitution between exploring different areas. The extent of the geographic dimension of the market does not affect our conclusion below.

The Tribunal determined that there was an iron ore tenements market in the Pilbara in relation to the applications for declaration of rail services.¹²⁹ In the Port of Newcastle matter, the Federal Court said that there were:¹³⁰

...markets for the acquisition and disposal of exploration and/or mining authorities...

Consistent with these decisions, we conclude that there are likely to be markets (or a market) for mining authorities in Queensland.

5.9.2 Effect of declaration on competition in the dependent market

As we explained in section 4, the volumes of coal that is mined and exported will not change as a result of declaration of the DBCT service. Therefore, the number of mining authorities sought will not change.

Declaration of the DBCT service does not have any direct effect on mining authorities. Therefore, a change in volumes supplied is the only way that declaration of the DBCT service could affect this market.

Given that volume of mining authorities will not change, the structure and conduct of firms in the market are also not affected by declaration.

The quality mining authorities cannot change as a result of the declaration of the DBCT service.

We conclude that declaration of the DBCT service would not promote a material increase in competition in any mining authorities market, given that it would not affect:

- the structure of the market or conduct of firms in a way that enhances the competitive process; or
- the volume or quality of output in the market.

¹²⁸ Business Queensland website: <https://www.business.qld.gov.au/industries/invest/mining/exploration-incentives/competitive-tendering> accessed 7 August 2017.

¹²⁹ Australian Competition Tribunal, *In the matter of Fortescue Metals Group Limited [2010] ACompT 2*, 30 June 2010, paras 1,117-1,119.

¹³⁰ *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal [2017] FCAFC 124* at para 20.

A1. NCC dependent market considerations

This appendix sets out the NCC's consideration of dependent markets in its recommendations regarding declaration cases from 2002-2014. Broadly speaking, the NCC takes the approach of identifying upstream and downstream markets whose level of competition may be affected by the declaration decision, ie, it examines markets that are either above or below the market for the service in the vertical supply chain.

A1.1 Airside services at Sydney Airport

The NCC identified the service as follows:¹³¹

the use of runways, taxiways, parking aprons and other associated facilities (Airside Facilities) necessary to allow aircraft carrying domestic passengers to:

- (i) take off and land using runways at Sydney Airport; and
- (ii) move between the runways and the passenger terminals at Sydney Airport.

The dependent markets considered most relevant to the assessment of criterion (a) were:¹³²

- the market for domestic air transport services; and
- routes into and out of Sydney for regional air passenger transport and city pair or regional centre air freight markets.

These are part of the air travel supply chain that includes the service in question.

A1.2 Sydney Sewage network services

The NCC identified the service as follows:¹³³

The Council considers that Services Sydney's application seeks declaration of the following services:

(a) A service for the transportation of sewage provided by means of the North Head Reticulation Network, from a customer's boundary trap to points of interconnection;

(b) A service for connection of new sewers to the North Head Reticulation Network at points of interconnection;

(c) A service for the transportation of sewage provided by means of the Bondi Reticulation Network, from a customer's boundary trap to points of interconnection;

(d) A service for connection of new sewers to the Bondi Reticulation Network at points of interconnection;

(e) A service for the transportation of sewage provided by means of the Malabar Reticulation Network, from a customer's boundary trap to points of interconnection; and

¹³¹ NCC, *Application by Virgin Blue for Declaration of Airside Services at Sydney Airport – Final Recommendation*, November 2003, p 3, para 1.2.

¹³² NCC, *Application by Virgin Blue for Declaration of Airside Services at Sydney Airport – Final Recommendation*, November 2003, p 60, para 6.98.

¹³³ NCC, *Application by Services Sydney for Declaration of Sewage Transmission and Interconnection Services Provided by Sydney Water – Final recommendation*, 1 December 2004, pp 19-20, para 4.30.

(f) A service for connection of new sewers to the Malabar Reticulation Network at points of interconnection.

The following dependent markets were deemed most relevant to the assessment of criterion (a):¹³⁴

- the sewage collection market; and
- the recycled water market.

These are part of the sewage supply chain that includes the service in question.

A1.3 Mt Newman railway line

The NCC identified the service as follows:¹³⁵

- a 295 kilometre segment of the Mt Newman railway line running from a rail siding to be constructed near Mindy Mindy in the Pilbara, to Port Hedland; and
- includes the use of bridges, passing loops, train control systems, sidings, maintenance protection systems and other associated infrastructure.

The dependent markets most relevant to the assessment of criterion (a) were:¹³⁶

- the global market for iron ore;
- the market for iron ore tenements in the Pilbara; and
- the markets for haulage services in the Pilbara.

These are part of the supply chain that includes the Mt Newman railway service.

A1.4 Lakes R Us application for declaration of water storage and transport services

In relation to the Snowy Hydro facility, the NCC identified the relevant services as:¹³⁷

- a water storage service provided by the vacant air space of the Snowy Scheme water storages – Lake Eucumbene, Lake Jindabyne, Talbingo Reservoir, Tantangara Reservoir and Jounama Pondage;
- a water release service provided by a series of tunnels and channels in the Snowy Scheme to allow water to flow from the scheme to Blowering and Burrinjuck dams or to an exit point in the Murray River upstream of Hume Dam;
- a water release service through (the adjunct) Blowering Power Station; and
- a connection service provided via valves, switch gear and all related equipment and systems for the storage and release of water from the facility.

In relation to the services provided by State Water, the NCC identified the relevant services as:¹³⁸

¹³⁴ NCC, *Application by Services Sydney for Declaration of Sewage Transmission and Interconnection Services Provided by Sydney Water – Final recommendation*, 1 December 2004, pp 40-41, paras 6.52-6.57.

¹³⁵ NCC, *Fortescue Metals Group Ltd Application for declaration of a service provided by the Mt Newman railway line under section 44F(1) of the Trade Practices Act 1974 – Final recommendation*, 23 March 2006, p 6, para 1.2.

¹³⁶ NCC, *Fortescue Metals Group Ltd Application for declaration of a service provided by the Mt Newman railway line under section 44F(1) of the Trade Practices Act 1974 – Final recommendation*, 23 March 2006, p 134, para 7.123.

¹³⁷ NCC, *The Lakes R Us application for declaration of water storage and transport services – Final recommendation*, 10 November 2005, pp 10-11, paras 4.9-4.10.

¹³⁸ *Ibid.*

- a temporary water storage service in Blowering and Burrinjuck dams to accommodate water released by Snowy Hydro on behalf of Lakes R Us;
- a water release mechanism at Blowering Dam that allows water to flow along the watercourse to exit points in the Murrumbidgee River where the water can be extracted by water users; and
- a connection service provided via valves, switch gear and all related equipment and systems to permit the release of water from the facilities.

The relevant dependent markets were:¹³⁹

- water lending and trading;
- agricultural markets; and
- electricity generation market.

These are part of the supply chain that includes the water storage and transport services over which declaration was sought.

A1.5 Tasmanian railway network

The NCC identified the service as:¹⁴⁰

The use of the rail tracks and associated infrastructure, relating to each of the line segments of the Tasmanian Railway Network, other than the Melba line, for the purpose of operating a rail service on the Tasmanian network. Operation of a rail service includes, without limitation, loading and unloading freight, making up trains, shunting and other activities necessary for the efficient haulage of freight by rail.

The relevant dependent markets identified was the rail line-haul services market.¹⁴¹ This is part of the supply chain that includes the below rail services.

A1.6 Goldsworthy Railway

The NCC identified the service as:¹⁴²

The service which TPI seeks to have declared is the use of the facility comprising the Goldsworthy Railway from a location near Yarrie, at one end, to a location near Finucane Island within the port of Port Hedland, at the other end, and all points in between. The Goldsworthy Service would also include the use of all associated infrastructure necessary to allow third party trains and rolling stock to move along the Goldsworthy Railway between points of interconnection, including, but not limited to:

- (1) railway track, associated track structures, over or under track structures, supports (including supports for equipment or items associated with the use of the railway);
- (2) bridges;
- (3) passing loops;
- (4) train control systems, signalling systems and communication systems;

¹³⁹ NCC, *The Lakes R Us application for declaration of water storage and transport services – Final recommendation*, 10 November 2005, pp 27-28, paras 6.12-6.13.

¹⁴⁰ NCC, *Tasmanian Railway Network Application for declaration of a service provided by the Tasmanian Railway Network – Final Recommendation*, 14 August 2007, p 5, para 2.2.

¹⁴¹ *Ibid*, p 22, paras 5.20-5.25.

¹⁴² NCC, *Goldsworthy Railway Application for declaration of a service provided by the Goldsworthy railway – Final recommendation*, 29 August 2008, p 17, para 2.5.

- (5) sidings and refuges to park rolling stock;
- (6) maintenance and protection systems; and
- (7) roads and other facilities which provide access to the railway line route.

The dependent markets identified were:¹⁴³

- the market for haulage services for iron ore on the Goldsworthy Railway in the vicinity of the Goldsworthy Railways (the haulage services market); and
- the market for tenements that contain iron ore in the Pilbara (the iron ore tenements market).

These are part of the supply chain that includes the services provided by the Goldsworthy Railway.

A1.7 Hamersley Railway

The NCC identified the service as:¹⁴⁴

The service which TPI seeks to have declared is the use of the facility comprising the Hamersley Rail Network:

- 3.4.1 the railway line from Paraburdoo to Dampier, including all points in between;
- 3.4.2 the railway line from Yanicoogina (sic) to Rosella Siding, including all points in between; and
- 3.4.3 the railway line from Brockman No 2 to Rosella Siding, including all points in between. The Hamersley Service would also include the use of all associated infrastructure necessary to allow third party trains and rolling stock to move along the Hamersley Rail Network between points of interconnection, including, but not limited to:
 - 3.5.1 railway track, associated track structures, over or under track structures, supports (including supports for equipment or items associated with the use of the railway);
 - 3.5.2 bridges; 3.5.3 passing loops; 3.5.4 train control systems, signalling systems and communication systems;
 - 3.5.5 sidings and refuges to park rolling stock;
 - 3.5.6 maintenance and protection systems; and
 - 3.5.7 roads and other facilities which provide access to the railway line route.

The dependent markets were identified as:¹⁴⁵

- the market for haulage services for iron ore on the Hamersley Railway in the vicinity of the Hamersley Railways (the haulage services market); and
- the market for tenements that contain iron ore in the Pilbara (the iron ore tenements market).

These are part of the supply chain that includes the services provided by the Hamersley Railway.

¹⁴³ NCC, *Goldsworthy Railway Application for declaration of a service provided by the Goldsworthy railway – Final recommendation*, 29 August 2008, p 42, para 4.33.

¹⁴⁴ NCC, *Hamersley Railway Application for declaration of a service provided by the Hamersley Railway – Final recommendation*, 29 August 2008, p 17, para 2.5.

¹⁴⁵ NCC, *Hamersley Railway Application for declaration of a service provided by the Hamersley Railway – Final recommendation*, 29 August 2008, p 42, para 4.30.

A1.8 Robe Railway

The NCC identified the service as:¹⁴⁶

The service which TPI seeks to have declared is the use of the facility comprising the Robe Railway from a location near Mesa J to Cape Lambert and all points in between... The Robe Service would also include the use of all associated infrastructure necessary to allow third party trains and rolling stock to move along the Robe Railway between points of interconnection, including, but not limited to:

- (a) railway track, associated track structures, over or under track structures, supports (including supports for equipment or items associated with the use of the railway);
- (b) bridges;
- (c) passing loops;
- (d) train control systems, signalling systems and communication systems;
- (e) sidings and refuges to park rolling stock;
- (f) maintenance and protection systems; and
- (g) roads and other facilities which provide access to the railway line route.

The dependent markets were:¹⁴⁷

- the market for haulage services for iron ore on the Robe Railway in the vicinity of the Robe Railway (the haulage services market); and
- the market for tenements that contain iron ore in the Pilbara (the iron ore tenements market).

These are part of the supply chain that includes the services provided by the Robe Railway.

A1.9 Herbert River cane railway

The service was identified as:¹⁴⁸

The Service is ... the use of the facility comprising the narrow gauge cane tram network owned and operated by Sucrogen in the Herbert River district and which is approximately 530km in length. The ... Service would also include the use of all associated infrastructure necessary to allow third party trains and rolling stock to move along the Network between points of interconnection, including, but not limited to:

- (a) tram track, associated track structures over or under track structures, supports (including supports for equipment or items associated with the use of the track);
- (b) bridges;
- (c) passing loops;
- (d) tram control systems, signalling systems and communication systems;
- (e) sidings and refuges to park rolling stock; and

¹⁴⁶ NCC, *Robe Railway Application for declaration of a service provided by the Robe Railway – Final recommendation*, 29 August 2008, p 17, para 2.5.

¹⁴⁷ NCC, *Robe Railway Application for declaration of a service provided by the Robe Railway – Final recommendation*, 29 August 2008, pp 40-41, para 4.30.

¹⁴⁸ NCC, *Herbert River cane railway Application for declaration under section 44F of the Trade Practices Act 1974 (Cth)*, 16 July 2010, p 13, para 4.1.

(f) easements and other facilities which provide access to the tram route.

The dependent markets identified were:¹⁴⁹

- acquisition and processing of sugarcane in the Herbert River district;
- national supply of ethanol; and
- wholesale supply of electricity across the NEM.

These are part of the supply chain that includes the services provided by the Herbert River cane railway.

A1.10 Jet fuel supply infrastructure at Sydney Airport

The service identified was:¹⁵⁰

The service provided by the Caltex Pipeline facility, which transports jet fuel from the interconnection points with off-site jet fuel storage facilities at Port Botany to the Sydney JUHI. The application is restricted to the service provided by that part of the Caltex Pipeline from its interconnection with the Vopak storage facility, to and including its interconnection with the JUHI, including filtering, straining and other equipment owned by Caltex at the interconnection with the JUHI, together with any other ancillary equipment necessary for the operation of the specified part of the Caltex Pipeline (the Caltex Pipeline Service) (Caltex Pipeline Service application at [4.1] as amended by the Applicant's letter of 4 November 2011—the amendments are identified by the double underline).

The services provided by the Jet Fuel Storage Facility (including facilities for refuelling trucks) and Jet Fuel Hydrant Pipeline Network Facility provided by the Sydney JUHI (Sydney JUHI Service application at 4.1) (the Sydney JUHI Service).

The dependent markets identified were:¹⁵¹

- the market for the supply of jet fuel at Sydney Airport; and
- the market for into-plane services at Sydney Airport.

These are part of the jet fuel supply chain that includes the services over which declaration was sought.

¹⁴⁹ NCC, *Herbert River cane railway Application for declaration under section 44F of the Trade Practices Act 1974 (Cth)*, 16 July 2010, p 20, para 5.14.

¹⁵⁰ NCC, *Jet fuel supply infrastructure at Sydney Airport Applications under s 44F of the Competition and Consumer Act 2010 for declaration of services provided by the Caltex pipeline and the joint user hydrant installation – Final recommendation*, 13 March 2012, p 8, para 2.7.

¹⁵¹ *Ibid*, p 19, para 4.15.



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Appendix 10 HoustonKemp expert report on criterion (b)



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Does DBCT's coal handling service satisfy criterion (b)?

A report for DLA Piper

28 May 2018

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Executive Summary

We have been asked by DLA Piper (DLA), on behalf of Dalrymple Bay Coal Terminal Management Limited (DBCTM), to review whether the coal handling service supplied at Dalrymple Bay Coal Terminal (DBCT) satisfies criterion (b) of section 76(2) of the *Queensland Competition Authority Act 1997* (QCA Act). Criterion (b) poses the question as to whether the facility for the service could meet the total foreseeable demand in the market in which the service is offered at the least cost, as compared to using any two or more facilities. The criterion is generally known as the 'natural monopoly test' element of the declaration criteria.

Recent changes made to the QCA Act mean that the assessment of whether the coal handling service provided by DBCT (the DBCT service) should be declared for a further period will be made under new access criteria. The new criterion (b) reads:¹

that the facility for the service could meet the total foreseeable demand in the market—

- (i) over the period for which the service would be declared; and
- (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service);

Context for the DBCT service

The central Queensland coal network (CQCN) is a set of interconnected rail networks that serve five coal terminals in north and central Queensland, namely:

- Adani Abbot Point Terminal (AAPT) near Bowen, which is served by the Newlands rail system;
- DBCT and Hay Point Coal Terminal (HPCT) at the Port of Hay Point near Mackay, which is served by the Goonyella rail system; and
- RG Tanna Coal Terminal (RGTCT) and Wiggins Island Coal Export Terminal (WICET) at the Port of Gladstone, which are served by the Blackwater and Moura rail systems.

These varying degrees of interconnectedness for different sections of the network dictate the options that each mine has in relation to the coal handling port for which it can access, for example:

- a mine on the Goonyella system has the potential to access all coal terminals at Abbot Point, Hay Point and Gladstone; whereas
- a mine on the Moura system only has access to the coal terminals at Gladstone.

The production in central Queensland is expected to grow over time, including in areas proximate to the Port of Hay Point. Many mines in central Queensland are already proximate to the Port of Hay Point. It is therefore likely that the expected growth in volumes will need to be met using expanded capacity at DBCT and/or available or expanded capacity at terminals other than DBCT.

Expansions of coal terminals are generally considered to be costly relative to utilising existing capacity. For example, expressed on an annualised basis, the unit cost of the expansions noted in DBCT's 2018 Master Plan are substantially more expensive than existing charges for capacity at DBCT.

Framework for analysis

It is uncontroversial that:

¹ Queensland Competition Authority Act, s. 76(2)(b)

Does DBCT's coal handling service satisfy criterion (b)?

- the 'facility for the service' is DBCT, which is the physical infrastructure by which the service is provided and in relation to which the declaration review is being undertaken; and
- the 'service' provided by the facility is the DBCT service, which is the service that is currently declared and regulated by the QCA.

For the purpose of our analysis, we have taken the period over which the potential declaration of the service is to be considered as 10 years from the date at which the current declaration period expires, that is, September 2020. The relevant period for our assessment therefore extends until September 2030. Since the data generally available to us is on a calendar year basis, we assess criterion (b) over the period from 2021 to 2030.

Criterion (b) is satisfied if, over this period, all foreseeable demand in the market in which the service is provided would be met at least cost by the facility. Conversely, criterion (b) is not satisfied if, during this period, it is lower cost for at least some of the foreseeable demand in the market in which the service is provided to be met by another facility.

The principal economic elements of the criterion are:

- the market for the service;
- the foreseeable demand in that market; and
- the assessment of least cost.

Market in which the service is supplied

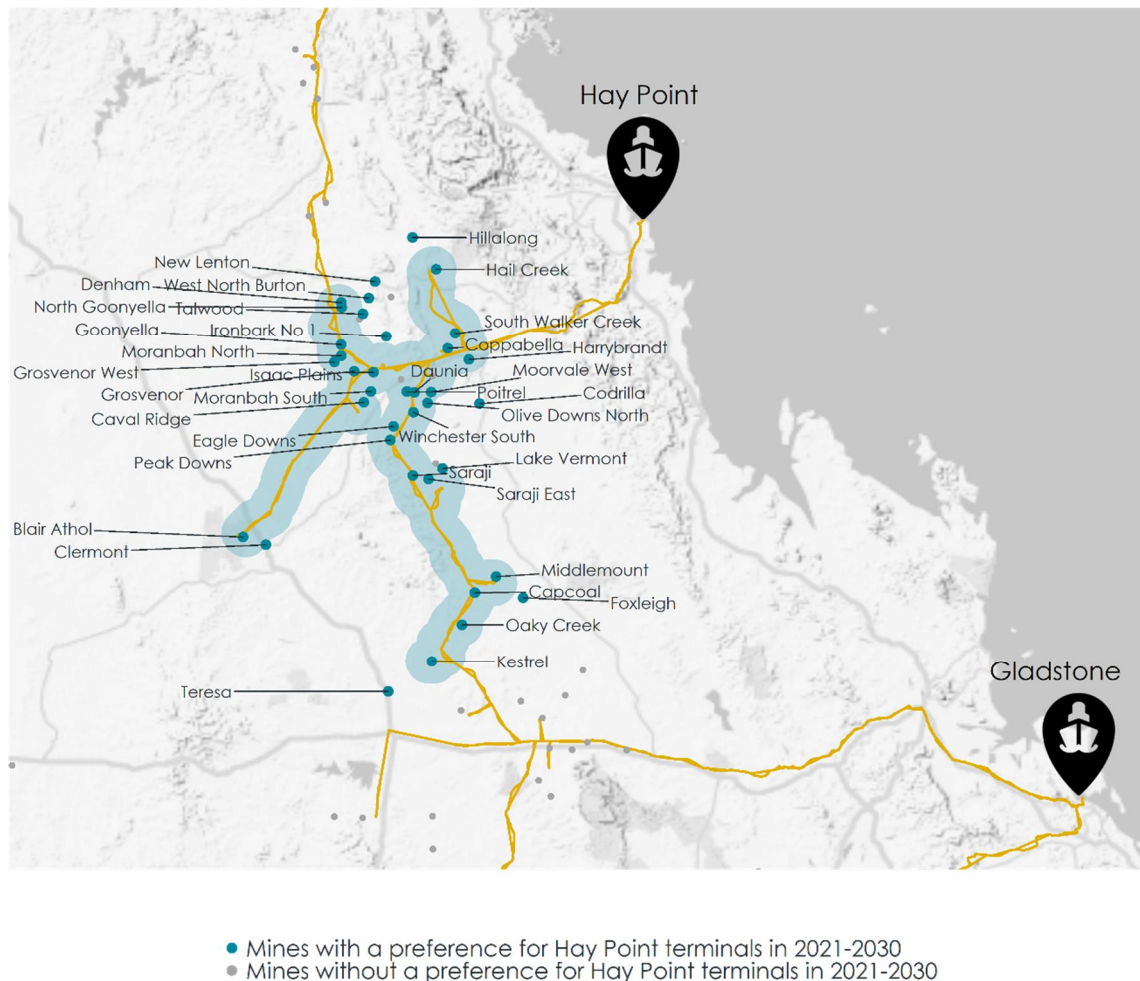
In DBCT's case, the geographic scope of the market is the most consequential dimension in the market definition process for the assessment of criterion (b). We define the geographic dimension of the market by reference to a three-step framework for analysis, as set out below:

- begin with the narrowest reasonable geographic dimension of the market;
- evaluate the effect of a small but significant non-transitory increase in price (SSNIP) applied by a hypothetical monopolist operating in this market in eliciting both potential demand side substitutes as well as additional sources of supply, and assess whether these responses would defeat the SSNIP; and
- repeat the above process of evaluating each potentially wider definition of the market until the boundaries of the relevant market are ultimately established.

We approximate the geographic area from which DBCT's future customers may be drawn by identifying the mines that would prefer to use coal handling services provided at the Port of Hay Point instead of those provided at other locations if there were no constraints from existing supply contracts. We describe this as *'the market for coal handling services for mines that are proximate to the Port of Hay Point'*.

The figure below shows the extent of the geographic market over the period from 2021 to 2030 as determined by the approach set out above. This area is defined by mines that would prefer to export through the Port of Hay Point in any year or years during this period. This area is substantially similar to the region defined by the location of DBCT's current and recent customers.

Starting point for geographic dimension of the market using preferences over 2021 to 2030



Source: DBCTM, AME and Wood Mackenzie data, HoustonKemp analysis

Note: Grey dots within or near the shaded area represent mines that are not expected to operate between 2021 and 2030.

We find that a SSNIP applied to the prices of the suppliers of coal handling service in this market would be profitable, and so the geographic boundaries of the market do not extend beyond those established by reference to the narrowest reasonable market that we identify at the outset.

Estimating foreseeable demand in the market

Once the geographic scope of the market is determined, we estimate total foreseeable demand in the market as the sum of expected production from mines in this region. We express total foreseeable demand in the market in two (equivalent) terms:

- demand for coal handling throughput, estimated as the total expected production of mines that are located within the market; and
- demand for coal handling contract capacity, estimated from demand for coal handling throughput adjusting for average utilisation of contract capacity of 90 per cent.

In addition to our preferred estimate, DLA has asked us to assess criterion (b) under the assumption that the production of BMA and BMC mines is excluded from the calculation of total foreseeable demand in the market. This is despite the evidence that there is significant substitution by many of these mines between HPCT and DBCT.

Our estimates of foreseeable demand are set out in the table below.

Total foreseeable demand in the market

Year	Total foreseeable demand		Total foreseeable demand excluding BHP mines	
	Throughput (mtpa)	Capacity (mtpa)	Throughput (mtpa)	Capacity (mtpa)
2021	150.9	167.7	91.1	101.2
2022	156.1	173.4	95.2	105.7
2023	164.8	183.2	102.7	114.1
2024	172.7	191.9	109.6	121.8
2025	182.4	202.7	117.8	130.9
2026	186.7	207.4	120.6	133.9
2027	179.0	198.8	111.3	123.7
2028	181.9	202.1	112.7	125.2
2029	181.6	201.8	112.5	124.9
2030	182.1	202.3	113.0	125.5

Source: AME and Wood Mackenzie data, HoustonKemp analysis

Assessing the least cost means of meeting foreseeable demand

We assess whether foreseeable demand in the market could be met at least cost by facilities in the market. The focus of our assessment is on the incremental costs to society (or the resource costs) associated with rail access and rail haulage as well as terminal infrastructure and handling costs.

The evaluation of resource costs in relation to the provision of any service is likely to be significantly affected by whether:

- foreseeable demand can be met with the existing infrastructure used to provide the service, incurring relatively low resource costs since rail and terminal infrastructure is capital intensive in nature and the sunk costs associated with their construction have already been incurred and should not be captured in resource costs; or
- foreseeable demand can only be met through the construction of new infrastructure, incurring resource costs that may potentially be significantly higher, since the capital costs of new infrastructure are potentially avoidable and must be factored into an assessment of resource costs.

We use an optimisation model to evaluate the least cost means of meeting total foreseeable demand in the market. The model compares the costs of meeting foreseeable demand using a combination of:

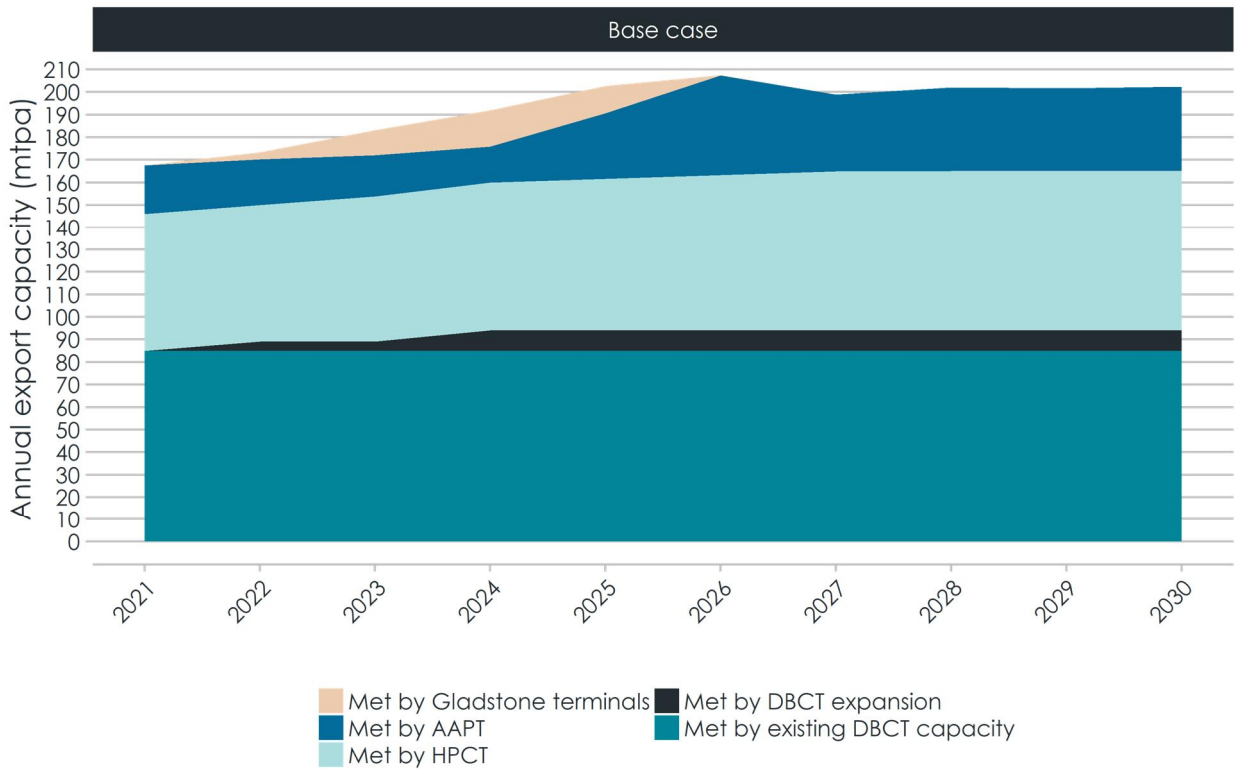
- existing capacity at DBCT;
- expanded capacity at DBCT, given information about its expansion options;
- existing capacity at other coal terminals; or
- expanded capacity at other coal terminals.

Criterion (b) is satisfied if all foreseeable demand in the market in which the DBCT service is supplied can be met at least cost by existing or expanded capacity at DBCT.

The figure below shows the result of our assessment adopting the base case assumptions. It breaks down total foreseeable demand in the market by reference to how it is met at least cost over the period from 2021 to 2030. It shows that:

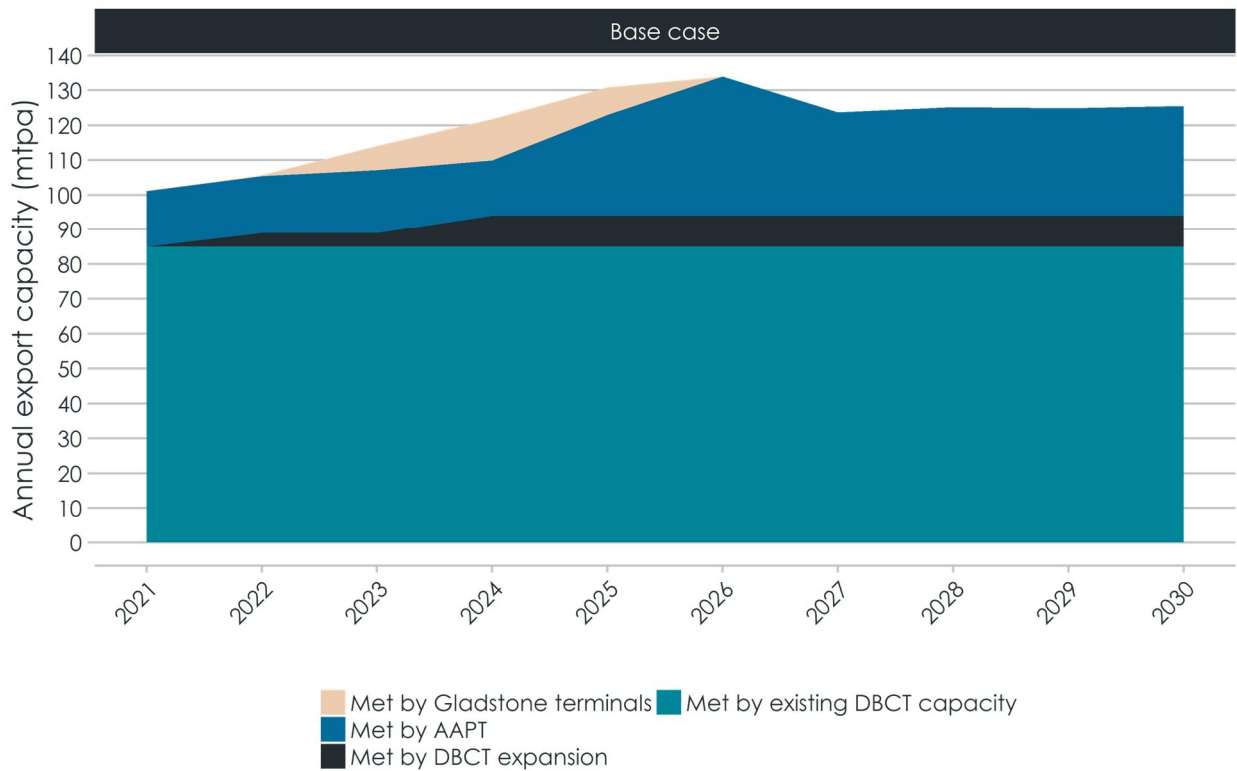
- total foreseeable demand in the market is materially higher over the entire 2021 to 2030 period than the capacity that DBCT has, or potentially has, available; and
- total foreseeable demand in the market is met at least cost by four facilities, being DBCT (including expansions of the facility), HPCT, AAPT and RGTCT.

Least cost provision of total foreseeable demand in the market



It follows from this analysis that criterion (b) is not satisfied, since total foreseeable demand in the market cannot be met at least cost by DBCT (whether expanded or otherwise) and would instead be met by two or more facilities. This result continues to hold if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Least cost provision of total foreseeable demand in the market (excluding BMA and BMC mines)



We investigate a range of alternatives to the base case scenario, assessing the sensitivity of these conclusions to changes in input assumptions. In each of these sensitivities, we continue to find that, over the period for which the service would be declared, it is least cost for total foreseeable demand in the market to be met by a combination of two or more terminals rather than by DBCT alone.

Conclusion

We find that the coal handling service provided at DBCT does not satisfy criterion (b) under Part 5, Division 2 of the QCA Act. These findings are robust, since they are not sensitive to any reasonable changes to the assumptions that underpin our analysis.

1. Introduction

We have been asked by DLA Piper (DLA), on behalf of Dalrymple Bay Coal Terminal Management Limited (DBCTM), to review whether the coal handling service supplied at Dalrymple Bay Coal Terminal (DBCT) satisfies criterion (b) of section 76(2) of the *Queensland Competition Authority Act 1997* (QCA Act). Criterion (b) poses the question as to whether the facility for the service could meet the total foreseeable demand in the market in which the service is offered at the least cost, as compared to using any two or more facilities. The criterion is generally known as the 'natural monopoly test' element of the declaration criteria.

Section 250 of the QCA Act provides that the current service provided by DBCT is taken to be declared by the Minister under Part 5, Division 2 of the QCA Act. The declared status of DBCTM's coal handling facility expires on 8 September 2020. At least six months but not more than 12 months prior to the expiry date of the declaration, the Queensland Competition Authority (QCA) must recommend to the responsible Minister whether the service provided by DBCT should be declared for a further period.

Recent changes made to the QCA Act mean that the assessment of whether the coal handling service provided by DBCT (the DBCT service) should be declared for a further period will be made under new access criteria. The new criterion (b) reads:²

that the facility for the service could meet the total foreseeable demand in the market—

- (i) over the period for which the service would be declared; and
- (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service);

In a companion report, we examine whether the DBCT service satisfies criterion (a).

The central finding of the analysis we present in this report is that DBCT is not capable of meeting the total foreseeable demand in the market for coal terminal services proximate to the Port of Hay Point at least cost, as compared to any two or more facilities. Accordingly, we conclude that criterion (b) is not satisfied and that the QCA should recommend that the DBCT service not be declared, irrespective of whether the other three criteria are met.

This report is structured as follows:

- section 2 describes the broader context within which the DBCT service is supplied, including a description of coal supply networks in Central Queensland;
- section 3 sets out the conceptual framework under which we assess whether the DBCT service satisfies criterion (b);
- section 4 implements our approach to defining the market within which the DBCT service is supplied, focusing particularly on the geographic dimension of the market;
- section 5 estimates total foreseeable demand in this market, including forecast demand for capacity, given forecasts of production within the geographic scope of the market;
- section 6 introduces the modelling framework and assumptions under which we assess the least cost means of meeting foreseeable demand in the market and applies these to a base case scenario;
- section 7 examines the sensitivity of these findings to changes in key input assumptions that would be expected to influence the results of our analysis; and

² Queensland Competition Authority Act, s. 76(2)(b)

- section 8 concludes that the DBCT service does not satisfy criterion (b) and that this conclusion is robust to reasonable changes in the assumptions of the analysis.

2. Context for the DBCT service

This section sets out the context within which DBCT provides coal handling services, focusing on the essential facts upon which we rely in our assessment of criterion (b).

2.1 Seaborne exports of coal

The global market for coal is one of the key trade platforms for Australia, accounting for just under 15 per cent of Australia's exports by value in 2016-17, with total value of \$54.3 billion.³

The coal that Australia exports primarily belongs to two categories:

- metallurgical (coking and PCI) coal that is used in the manufacturing process of steel; and
- thermal coal that is used in coal-fired power stations for electricity generation.

Australia is one of the largest exporters within each of these categories, with the annual volumes exported into each of these markets being:⁴

- 177 million tonnes of metallurgical coal in 2016-17 – in which Australia is the world's largest exporter; and
- 202 million tonnes of thermal coal in 2016-17 – in which Australia is the world's second largest exporter.

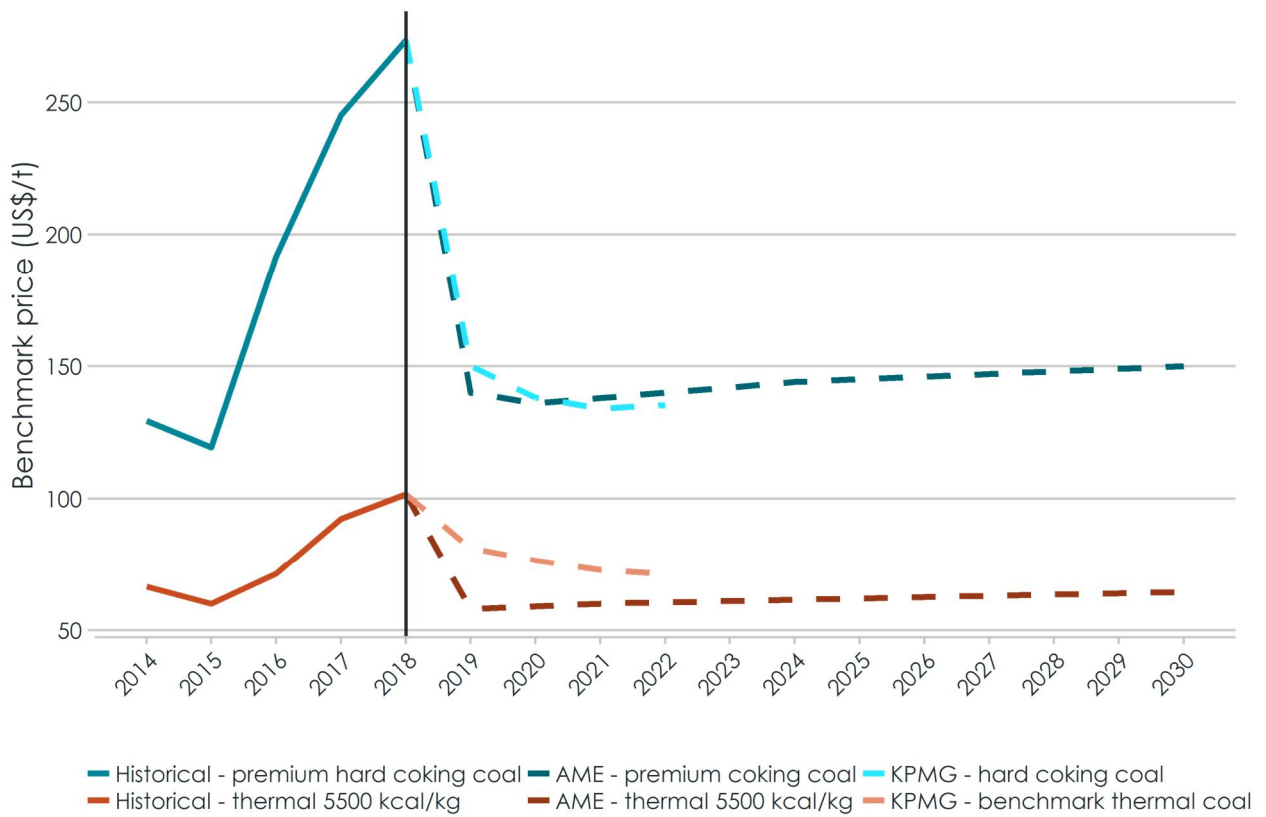
Australia's exports to global coal markets are all seaborne. Coal is transported by rail from mines to terminals for shipping to its final destination. The structure of this network means that Australian coal mines are dependent on rail and terminal infrastructure to access export markets.

Within these global markets, the price achieved for Australia's exports is determined by a range of factors, including energy content and impurity levels. Figure 2.1 shows a benchmark price for both a premium hard coking coal product and a thermal coal product that sets aside this complexity in the level of achieved price and indicates general trends in export prices over time.

³ Australian Trade Commission, *Australia's export performance in FY2017*, December 2017, p 5.

⁴ Office of the Chief Economist, *Resources and energy quarterly*, March 2018, p 38 and p 45.

Figure 2.1: Historical and forecast benchmark prices for coking and thermal coal

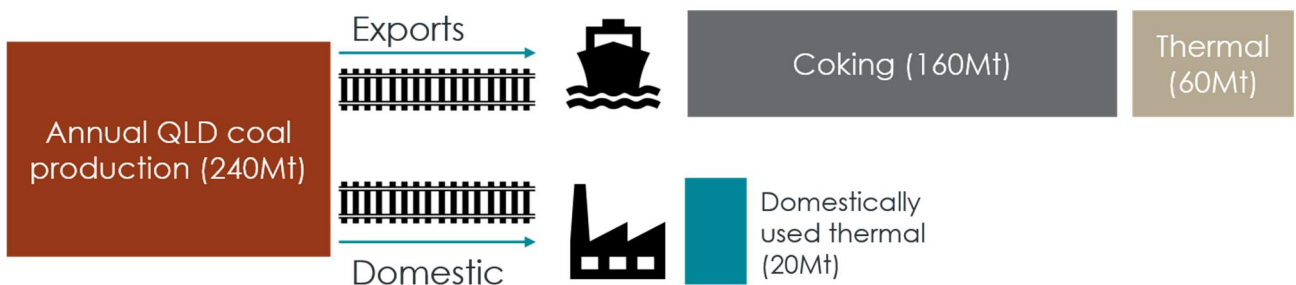


Source: Bloomberg, AME and KPMG.

2.2 Coal production in central Queensland

Within Australia, Queensland contributes over half of total coal production by volume, producing around 240 million tonnes total of thermal and coking coal per annum⁵ and exporting over 90 per cent of this amount.⁶

Figure 2.2: The supply network for Queensland coal production



Source: Department of Natural Resources and Mine, Queensland coal – mines and advanced projects, July 2017, p 1.

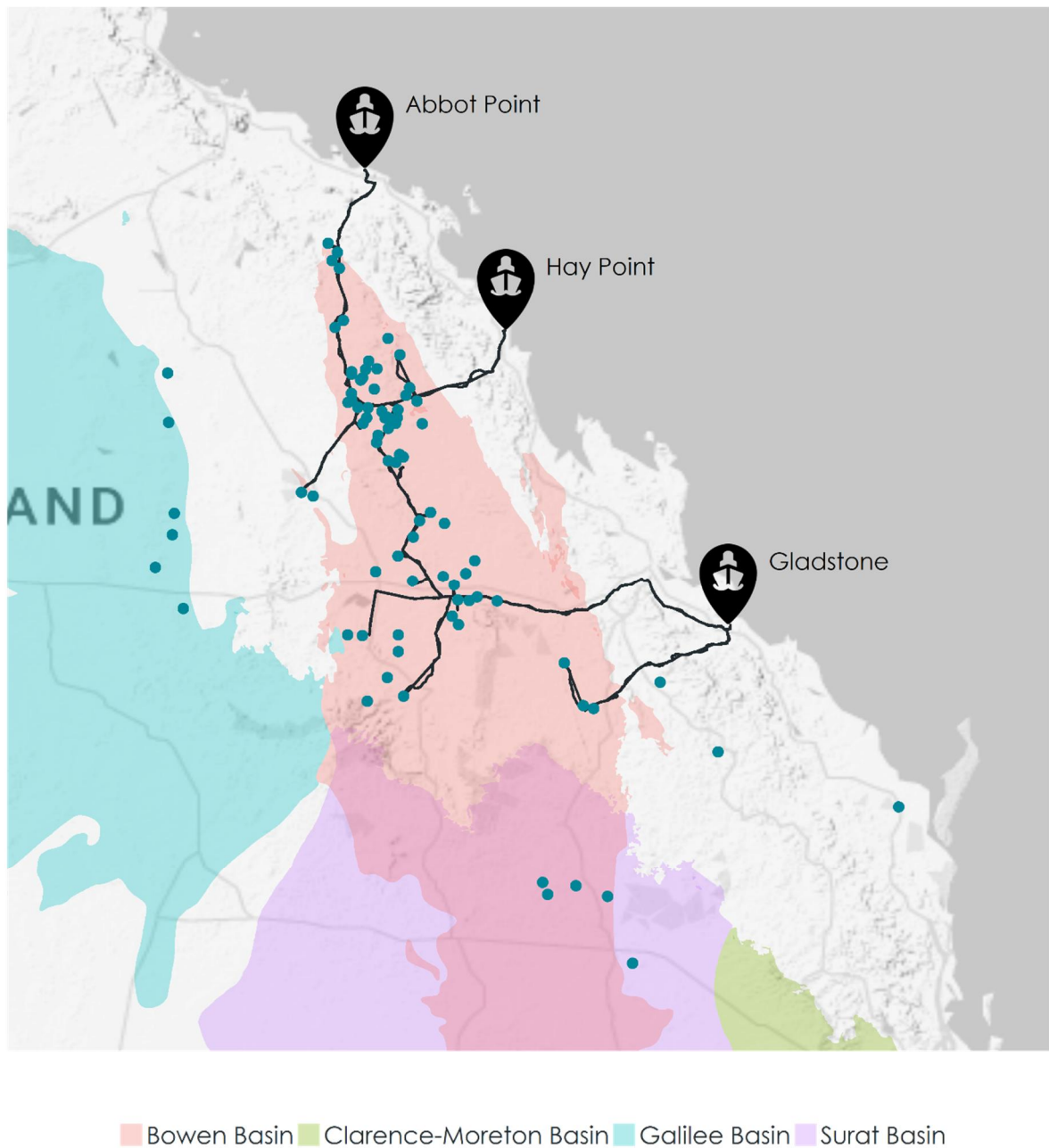
⁵ Department of Industry, Innovation and Science, Australia's major export commodities: coal, December 2016, p 2.

⁶ Department of Natural Resources, Mines and Energy, Queensland coal – mines and advanced projects, July 2017, p 1.

The Bowen Basin is the largest coal producing region within Queensland, supplying almost all coking coal exported from Queensland. In the 2015-16 financial year, there were 41 mines operating in the Bowen Basin that produced 217 million tonnes of the 242 million tonnes of coking and thermal coal produced in Queensland that year.⁷

Figure 2.3 shows that the highest density of existing and prospective mines in Queensland is within the Bowen Basin and served by an interconnected rail network operated by Aurizon Network, the details of which are outlined in section 2.3.

Figure 2.3: Overview of the Queensland export coal network



⁷ Op. cit., p 2.

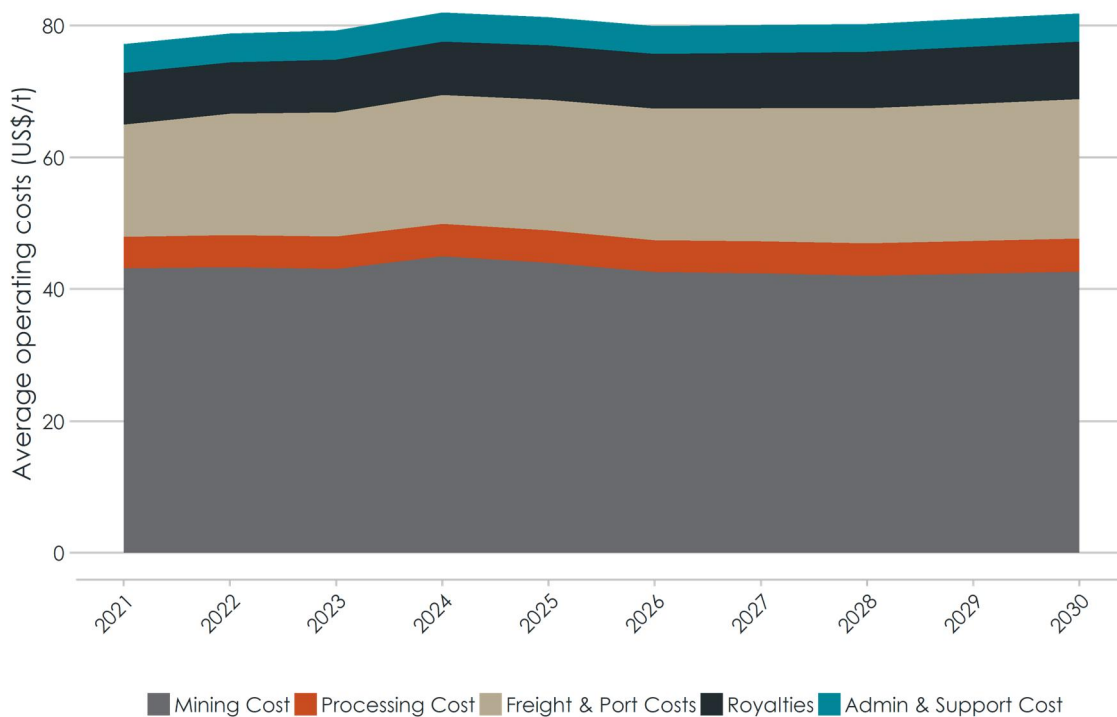
Source: AME, Australian Geological Provinces Database, Google Maps.

Besides the Bowen Basin, a significant amount of future production capacity may arise from potential developments in the surrounding Galilee and other basins.⁸

Forecasts prepared by coal industry analysts, AME, indicate that the operating costs of these operating and prospective mines are expected to remain relatively flat over the medium term, with average operating costs ranging between \$77 and \$82 per tonne over the declaration period. The physical mining cost contributes the majority of costs to this profile, with an average value in 2021 of \$43 per tonne out of the total operating costs of \$77 per tonne.

The reliance on rail for these mines to gain access to the global export market is expected to contribute a larger proportion of the operating costs in the future. Freight and terminal costs are expected to increase in both absolute and relative terms, from \$18 per tonne and 22 per cent in 2021, to \$21 per tonne and 26 per cent in 2030. A key driver for these trends appears to be high freight and terminal costs in relation to the potential development of coal resources in the Galilee Basin.

Figure 2.4: Average production costs of operating and prospective Queensland mines

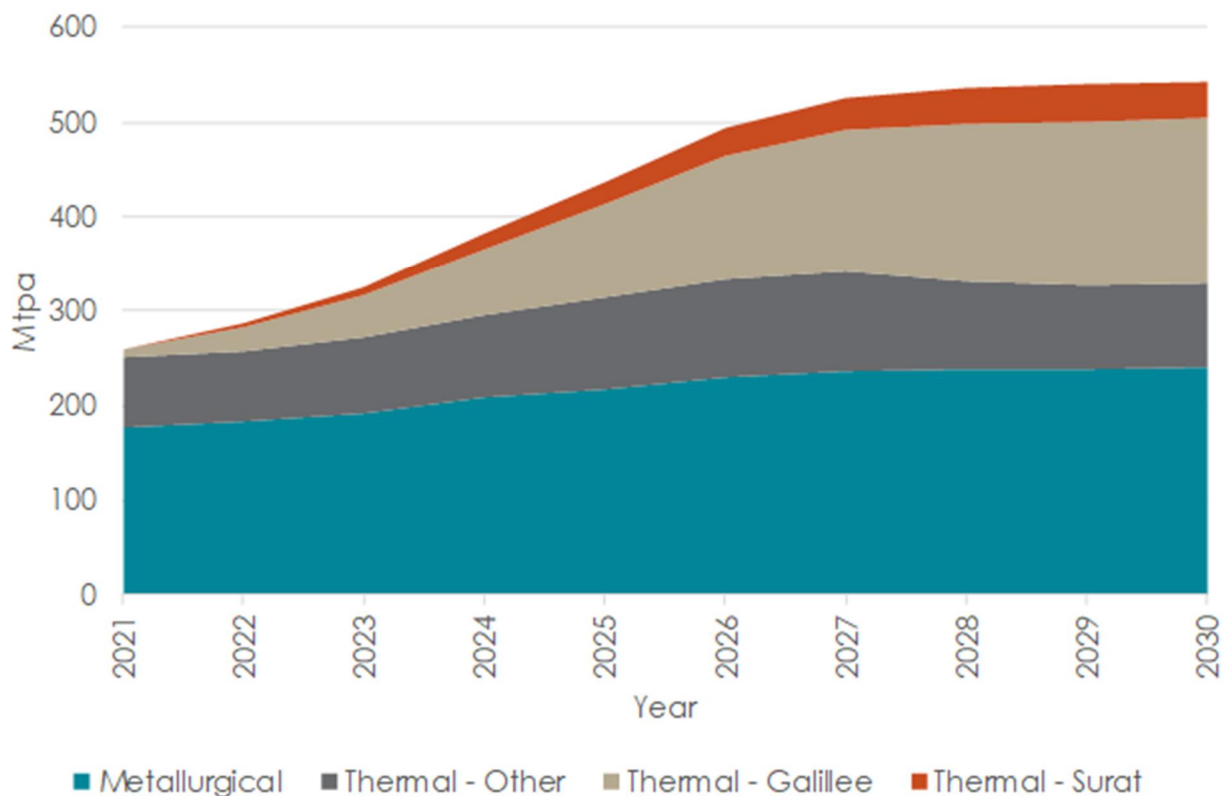


Source: AME

Figure 2.5 shows AME's forecast production of coal by coal type and for new basins. The figure illustrates that potential production of metallurgical and thermal coal is projected to grow. The growth in thermal coal is more pronounced due to the potential production from prospective developments in the Galilee and Surat basins.

⁸ Department of Natural Resources and Mine, *Queensland coal – mines and advanced projects*, July 2017, p 1.

Figure 2.5: Production of coal by type and for new basins



Source: AME

The forecasts of coal production set out in figure 2.5 above are closely aligned with the forecasts of coal production prepared by Resource Management International (RMI) for the QCA in the context of Aurizon Network's draft access undertaking.⁹ In table 4.1 of its report, RMI forecasts total coal railings on Aurizon's railway network over the period from 1 July 2017 to 30 June 2021. Table 2.1 below compares AME's and RMI's forecasts of coal production.

Table 2.1: Comparison between AME and RMI production forecasts in central Queensland (mtpa)

Data provider	2018	2019	2020	2021
AME	228.8	239.9	242.3	258.6
RMI	236.4	250.2	259.3	264.3

Source: AME, RMI

2.3 Coal export supply networks

To utilise seaborne export markets, mines are dependent on their ability to access a supply network to move their coal from their mine to one or more coal terminals, using an interconnected rail network. Key services in the supply networks that are considered in this report include the provision of:

- rail access services;

⁹ RMI, A confidential report by Resource Management International to the Queensland Competition Authority, May 2017.

- rail haulage services; and
- coal handling services at coal terminals.

2.3.1 Coal terminals

Five coal terminals are available to mines located in central Queensland from which to access the export market for their production:

- DBCT and Hay Point Coal Terminal (HPCT) at the Port of Hay Point near Mackay;
- Adani Abbot Point Terminal (AAPT) near Bowen at the Port of Abbot Point; and
- RG Tanna Coal Terminal (RGTCT) and Wiggins Island Coal Export Terminal (WICET) at the Port of Gladstone.

These coal terminals transfer coal from rail wagons to bulk carriers and include facilities such as:

- rail unloading facilities;
- stockyard and coal blending facilities;
- wharves, jetties, berths and ship loading systems.

Of these terminals, HPCT has the highest level of vertical integration, being owned and operated by the BHP Mitsubishi Alliance (BMA). Historically, we understand that HPCT has only provided coal handling services to mines operated by BMA and by BHP Mitsui Coal (BMC), another joint venture involving BHP.

Among these terminals, DBCT is currently the only facility that is declared.¹⁰ As a result of this status, the QCA must review access undertakings submitted by DBCTM. An access undertaking takes effect if it is approved by the QCA. The QCA also enforces approved access undertakings and arbitrates disputes.

Of the five coal terminals, DBCT's coal loading facility has the highest nominal capacity and is able to serve 85 million tonnes per annum (mtpa) to the export market. Table 2.2 below shows indicative nominal capacities of each of the coal terminal facilities.¹¹

Table 2.2: Existing capacity of coal export terminals in central Queensland

Coal terminal	Nominal capacity (mtpa)
AAPT	50
DBCT	85
HPCT	55
RGTCT	75
WICET	27

Source: AME

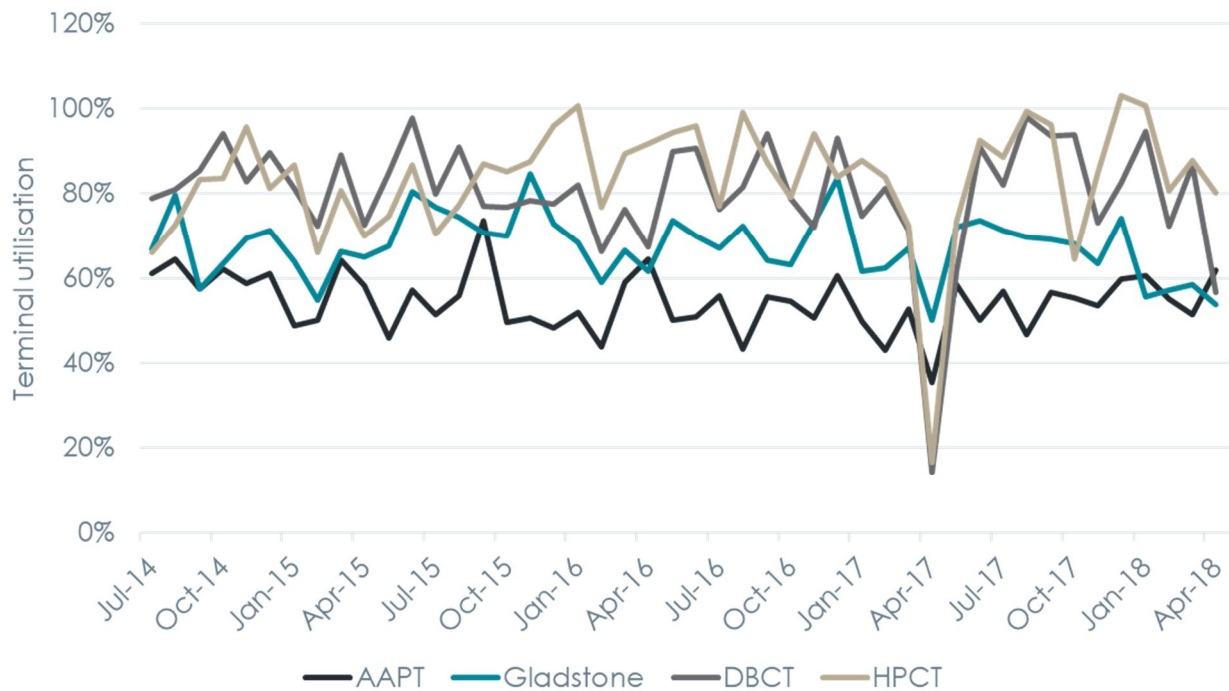
Figure 2.6 below shows a recent history of the utilisation of each of these terminals, with the exception of the terminals located at Gladstone, which are presented jointly. The figure shows that the average utilisation of capacity at DBCT and HPCT has been high over this period, at 80 per cent and 83 per cent respectively. By

¹⁰ Queensland Competition Authority's website, <http://www.qca.org.au/Ports>, accessed 5 April 2018.

¹¹ The effective capacity that these terminals provide might be considerably lower than this figure at any point in time. Similarly, these nominal capacities may change over time as each of the facilities are able to expand their capacity through capital programs, which we outline further below.

comparison, average capacity utilisation has been lower at the Port of Gladstone, at 68 per cent, and lower still at AAPT, at 54 per cent. These estimates, and figure 2.6 below, include the impact of tropical cyclone Debbie, which resulted in the temporary closure of DBCT, HPCT and AAPT.¹²

Figure 2.6: Utilisation of coal terminal capacity over time



Source: North Queensland Bulk Ports, Port of Gladstone

2.3.2 Central Queensland coal network

The coal mines in the Bowen Basin connect to various combinations of the coal terminals identified above, and so to the export market, through the central Queensland coal network (CQCEN), an interconnected set of railway systems that is owned, operated and maintained by Aurizon Network.

This rail system is declared under the QCA Act and must provide access to third-party above-rail operators in accordance with Aurizon Network's access undertaking.¹³ Currently, the above-rail operators providing coal haulage across the CQCEN are Aurizon, Pacific National and BHP. BHP provides rail haulage only from mines operated by affiliated entities, but hauls to DBCT as well as HPCT.

The CQCEN comprises five interconnected rail systems:

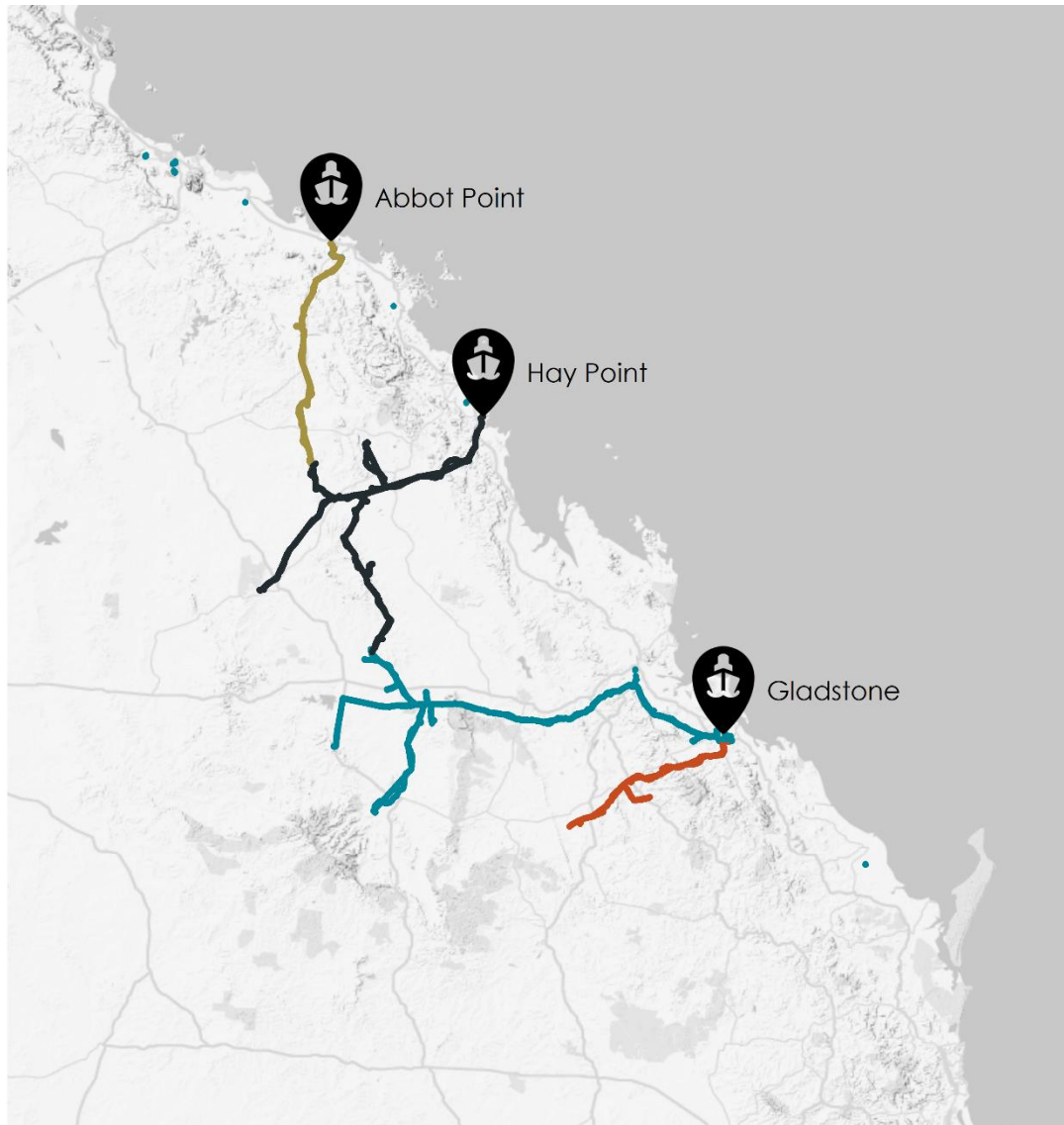
- the Goonyella system, which links central Bowen Basin mines to DBCT and HPCT;
- the Newlands system, which links northern Bowen Basin mines to AAPT;
- the Goonyella to Abbot Point extension (GAPE), which provides a link between the Goonyella system at North Goonyella to Newlands at the southern extremity of the Newlands system;
- the Blackwater system, which links southern Bowen Basin mines to RGTCT and WICET;
- the Moura system, which links mines from Moura to Gladstone to RGTCT and WICET.

¹² Platts, *Australia's Dalrymple Bay, Hay Point, Abbot Point coal terminals shut ahead of cyclone*, 27 March 2017.

¹³ QCA, *More on Aurizon Network*, <http://www.qca.org.au/Rail/Aurizon/Intro-to-Aurizon>, accessed 5 April 2018.

The existing rail systems of the CQCN are shown in figure 2.7 below.

Figure 2.7: Rail systems of the central Queensland coal network



■ Blackwater System ■ Moura System
■ Goonyella System ■ Newlands and GAPE systems

Rail system source: Department of Natural Resources, Mines and Energy, Rail network – Queensland, April 2017. Base map source: Google Maps 2018.

In addition to these five existing rail systems, further rail systems are proposed to connect the prospective mines in the Galilee and Surat basins to the ports at Abbot Point and Gladstone, respectively.¹⁴ The Galilee

¹⁴ Department of Transport and Main Roads, *Coal transport infrastructure development*, <https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Coal-transport-infra-structure-development>, accessed 6 April 2018.

rail project is proposed to be separate from the CQCN and will connect directly with AAPT.¹⁵ The Surat Basin rail project is proposed to connect with the Moura system but not further to the CQCN.¹⁶

Although the entire CQCN is interconnected, the degree to which each of these systems is linked varies between connections:

- the Goonyella system is connected to the Newlands system via the GAPE – a 69km rail link including 14km of duplicated sections;¹⁷
- the Goonyella system is connected to the Blackwater system via a single line;¹⁸ and
- there is no interconnection between the Moura system and the other coal rail systems.

These varying degrees of interconnectedness for different sections of the network dictate the options that each mine has for the coal handling ports that it may access. For example:

- a mine on the Goonyella system has the potential to access all coal terminals at Abbot Point, Hay Point and Gladstone; whereas
- a mine on the Moura corridor has access only to the coal terminals at Gladstone.

Additionally, the extent to which mines are able to access terminals on a different rail system to their own will be dictated by the capacity of the connecting rail links. For example, given its duplicated sections, the GAPE system can handle a higher capacity than the link connecting the Goonyella and Blackwater systems.

2.3.3 Location of coal production volumes in central Queensland

Figure 2.8 below shows AME's projections of coal production volumes, by rail system from which the mine is located.

Potential production volumes across central Queensland are projected to grow significantly over time. Although much of this growth is driven by the anticipated development of mines in the Galilee Basin, AME also expects modest growth of coal volumes from the Bowen Basin. The future potential production volumes from the Goonyella system increase relative to current volumes from approximately 152 mtpa to 195 mtpa in 2026.

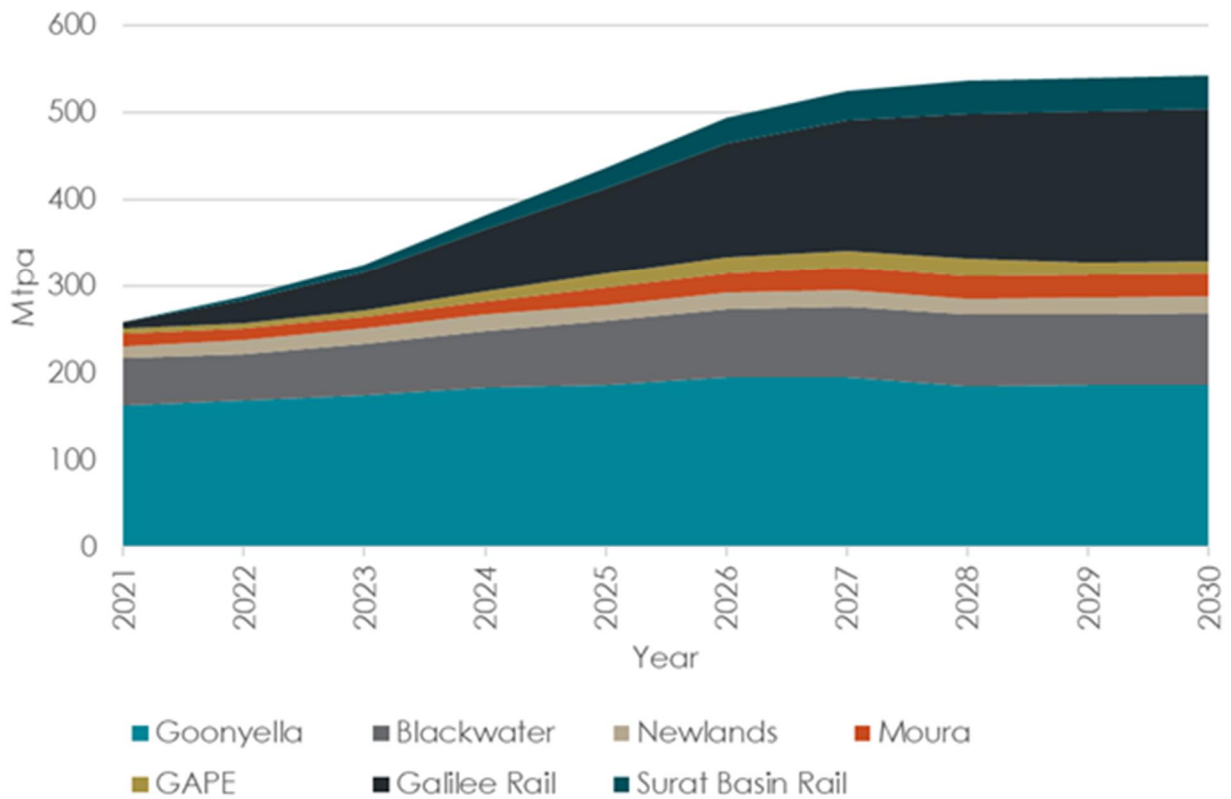
¹⁵ Department of State Development, Manufacturing, Infrastructure and Planning, *North Galilee Basin rail project*, <https://www.statedevelopment.qld.gov.au/assessments-and-approvals/north-galilee-basin-rail-project.html>, accessed 6 April 2018.

¹⁶ Department of State Development, Manufacturing, Infrastructure and Planning, *Surat Basin rail project*, <https://www.statedevelopment.qld.gov.au/assessments-and-approvals/surat-basin-rail.html>, accessed 6 April 2018.

¹⁷ Aurizon, *Goonyella to Abbot Point expansion project*, undated, p 2.

¹⁸ Aurizon, *Goonyella system information pack*, March 2017, p 6.

Figure 2.8: Total projected production by rail system



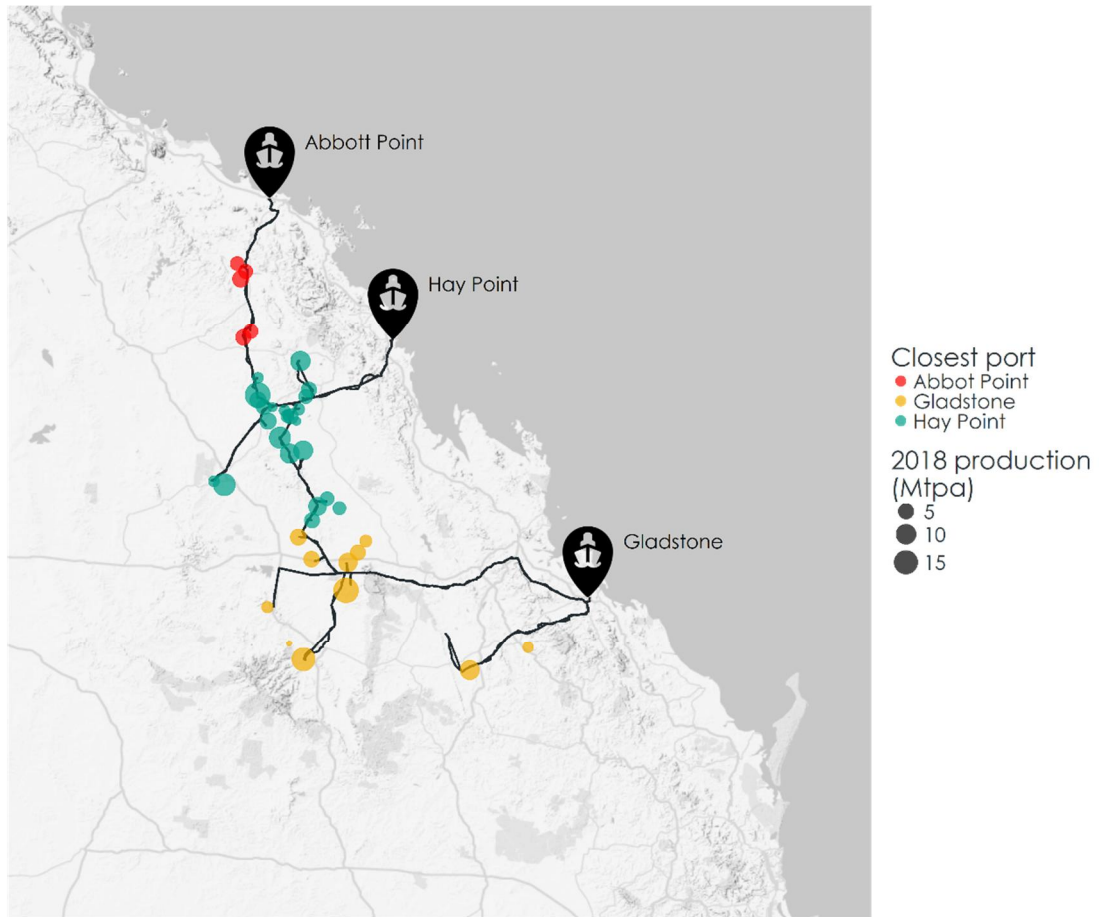
Source: Independent coal industry data - AME

2.4 Use of coal handling services by miners

A mine's use of coal handling services at a terminal is influenced by the relative location of the mine and the terminal, which in turn affects the above and below rail charges required to send coal to that terminal. However, this is not the only factor determining the use of coal handling services.

Figure 2.9 identifies the terminal location that is the closest to each mine based on rail distances alone. The figure also provides a snapshot of projected production in 2018, highlighting the relative volumes that are proximate to each port.

Figure 2.9: Location of mines proximate to each port

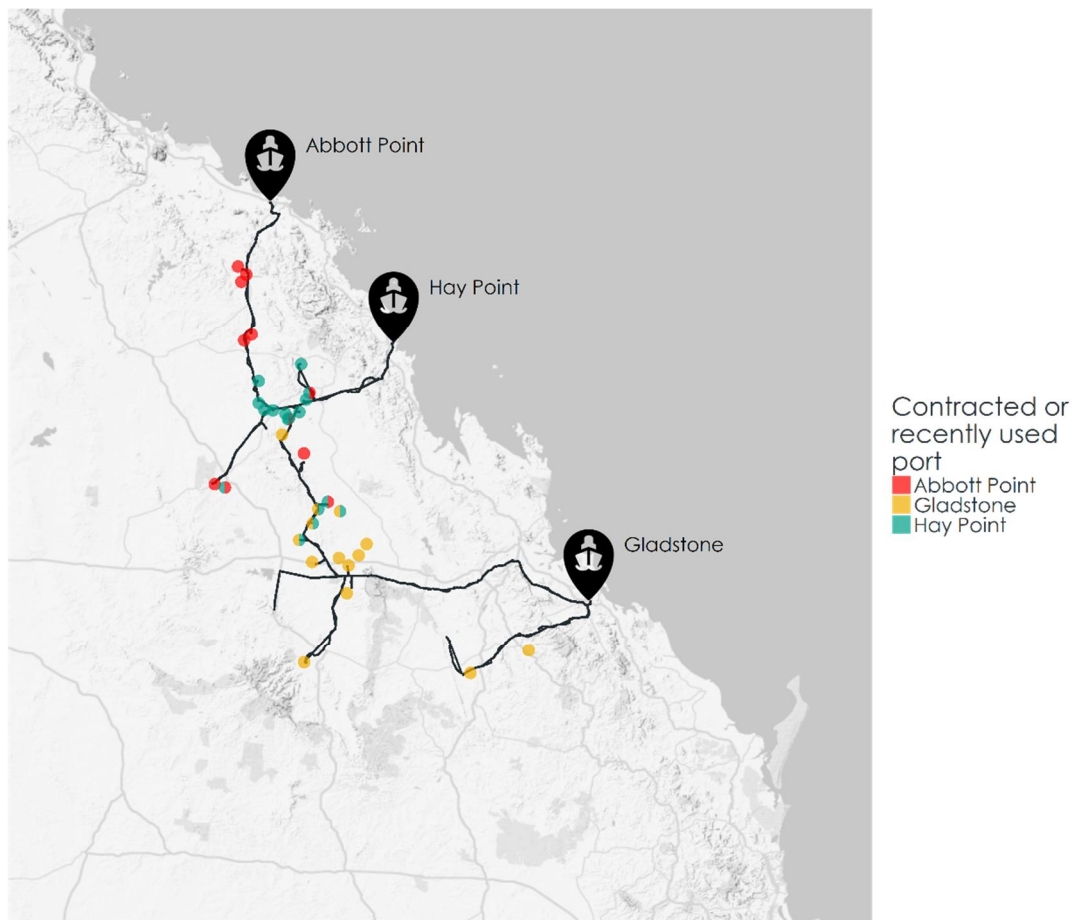


Source: AME, Google Maps

By contrast, figure 2.10 identifies the terminal locations for which miners have existing contracts for coal handling services in 2018. The figure does not indicate the volume of the contracted capacity because it is not possible in all cases to attribute this to individual mines.¹⁹

¹⁹ Contracts may be used to export volumes from more than one mine and, in these circumstances, it is not possible to identify the contract volumes are attributable to each mine.

Figure 2.10: Location of mines with contracts at each port



Source: AME, DBCTM, Google Maps

Figure 2.10 shows that the geographic regions from which customers at each terminal location are served has a degree of overlap. This is consistent with both current and past examples of mines sending coal to terminals to which they are not proximate.

Mines that are located proximately to Hay Point but which currently export coal from Abbot Point or Gladstone include:

- Lake Vermont (operated by Jellinbah), which has 6 mtpa contracted capacity at AAPT, and also a rail haulage contract to Gladstone;²⁰
- Middlemount (operated by Yancoal), which has 3 mtpa contracted capacity at AAPT, and also a contract for █ mtpa with DBCT;²¹

²⁰ Jellinbah's website notes that 'Lake Vermont is able to rail to Gladstone Port and Dalrymple Bay and Abbott Point Coal Terminals'. See Jellinbah's website, <http://www.jellinbah.com.au/lake-vermont/>, accessed 15 May 2018. See also Aurizon's website, <https://www.aurizon.com.au/news/news/qv-national-expands-tonnages-with-jellinbah>, accessed 15 May 2018.

²¹ FIIG, *Adani Abbot Point Terminal Pty Ltd*, 9 June 2015. p 5, and DBCTM. See also Yancoal's website, <http://www.yancoal.com.au/page/assets/mine-sites/middlemount/>, accessed 15 May 2018.

- South Walker Creek and Poitrel mines (operated by BHP Mitsui Coal), which have 4 mtpa contracted capacity at AAPT, in addition to [REDACTED] mtpa at DBCT and to the ability to access HPCT;²²
- Capcoal (operated by Anglo American), which has contracted capacity at RGTCT, in addition to contracted capacity at DBCT;²³ and
- Oaky Creek (operated by Glencore), which has a contract with RGTCT in addition to its contract with DBCT for [REDACTED] mtpa.²⁴

Conversely, Rio Tinto's Kestrel mine in the Blackwater system, which is located closest to RGTCT and ships through that terminal, is currently using DBCT for some of its throughput requirements.²⁵

Mines that have previously sent coal to Abbot Point or Gladstone while being located proximately to the Port of Hay Point include:

- Blair Athol (operated at the time by Queensland Coal, a subsidiary of Rio Tinto), had 9.3 mtpa contracted capacity at AAPT before this was terminated and transferred to Adani Mining with the agreement of AAPT;²⁶
- Clermont (operated by Glencore), which had a contract to send coal to AAPT in addition to sending coal to DBCT;²⁷ and
- Gregory and Norwich Park (operated by BMA), which had contracted capacity at RGTCT in addition to having previously sent coal to DBCT.²⁸

²² FIIG, *Adani Abbot Point Terminal Pty Ltd*, 9 June 2015, p 5, and DBCTM.

²³ See for example, Mitsui Coal Holdings' website, https://www.mitsui.com/au/en/group/1216673_9223.html, accessed 15 May 2018. The Capcoal project is a joint venture between Anglo American and Mitsui Coal Holdings. See also *The Australian*, *Asciano poaches key QR coal contract*, 16 June 2010.

²⁴ See Glencore's website: <http://www.glencore.com.au/en/who-we-are/energy-products/oaky-creek/Pages/default.aspx>, accessed 24 May 2018.

²⁵ DBCTM. See also Rio Tinto's website, <http://www.riotinto.com/australia/rtca/kestrel-mine-10423.aspx>, accessed 15 May 2018.

²⁶ IEEFA, *A house of cards in Australia: Adani's Abbot Point Coal Terminal faces escalating financial risk*, October 2017, p 10.

²⁷ See for example, Aurizon's website, <https://www.aurizon.com.au/news/news/aurizon-secures-performance-based-contract-with-rio-tinto-coal-australia>, accessed 24 May 2018.

²⁸ RGTCT was constructed to export coal from Gregory – see Port of Gladstone's website, <https://www.gpcl.com.au/about-us/our-history>, accessed 25 May 2018. See also Energy Economics, *Moura and Blackwater coal railings forecast*, July 2015, pp 3, 24.

3. Economic framework for assessment

Recent changes made to the QCA Act mean that the assessment of whether the DBCT service should be declared for a further period will be made under new access criteria. The new criterion (b) reads:²⁹

that the facility for the service could meet the total foreseeable demand in the market—

- (i) over the period for which the service would be declared; and
- (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service);

This section summarises the economic and analytical framework that should be applied in the assessment of criterion (b) to the DBCT service.

We understand it is uncontroversial that:

- the 'facility for the service' is DBCT, being the physical infrastructure by which the service is provided and in relation to which the declaration review is being undertaken; and
- the 'service' provided by the facility is the coal handling service at DBCT, being the service that is currently declared and regulated by the QCA.

We assume that the period for which the service would be declared is 10 years from the time at which the current period of declaration expires. Since declaration expires in September 2020, the relevant period extends to September 2030.

Criterion (b) is satisfied if, over this period, all foreseeable demand in the market in which the service is provided would be met at least cost by the facility. Conversely, criterion (b) is not satisfied if, during this same period, it is lower cost for at least some of the foreseeable demand in the market in which the service is provided to be met by another facility.

The remainder of this section presents a framework for assessing the three economic elements of the criterion, being:

- the market for the service;
- the foreseeable demand in that market; and
- the assessment of least cost.

3.1 The market for the service

Criterion (b) refers to total foreseeable demand in 'the market'. The market within which the service is provided is therefore a central element of the economic framework for assessing whether the DBCT service satisfies criterion (b).

3.1.1 What is a market?

Section 71 of the QCA Act states that, within the Act:

- (1) A market is a market in Australia or a foreign country.
- (2) If market is used in relation to goods or services, it includes a market for—

²⁹ *Queensland Competition Authority Act, s. 76(2)(b)*

- (a) the goods or services; and
- (b) other goods or services that are able to be substituted for, or are otherwise competitive with, the goods or services mentioned in paragraph (a).

More generally, a market can be taken to be the area of close competition between firms.³⁰ The Trade Practices Tribunal has described a market as:³¹

...the field of actual and potential transactions between buyers and sellers amongst whom there can be strong substitution, at least in the long run, if given a sufficient price incentive.

Defining a market involves the identification of the competitive constraints that are likely to have a material effect on a product or service (they are 'in the market'), and those that have a less immediate effect (they are 'out of the market'). However, such bright lines rarely exist in practice and firms selling products that are out of the market may act as a competitive constraint, albeit to a lesser degree.

The boundaries of a market are conventionally determined by reference to four dimensions:³²

- the products or services supplied – the product dimension;
- the geographic area over which the products are supplied – the geographic dimension;
- the level in the supply chain at which the parties operate – the functional dimension; and
- the period within which the market operates – the time dimension.

In DBCT's case, the geographic scope of the market is the most consequential dimension of the market definition process for the assessment of criterion (b) and we discuss our approach to defining this in section 3.1.2 below. In relation to the other dimensions of the market:

- the product dimension of the market is the coal handling service, since there are no close substitutes for moving coal from rail to ships, and no other firm can easily begin offering a coal handling service with its existing infrastructure;
- the functional dimension of the market is the coal handling service, which is separate from other port and transport services such as harbour towage, port security or dredging because those services are not vertically integrated with the coal handling service; and
- the time dimension of the market is likely to be the period for which the declaration of DBCT would apply, which we assume to be 10 years from September 2020, and is sufficiently long to allow competition for coal handling services through long term contracts.³³

The process of defining a market should be guided by the purpose of the exercise. The High Court has said:³⁴

Identifying a market and defining its dimensions is a "focusing process", requiring selection of "what emerges as the clearest picture of the relevant competitive process in the light of commercial reality and the purposes of the law."

³⁰ Re Queensland Co-Op Milling Association Limited and Defiance Holdings Limited (1976) 8 ALR 481 at 22

³¹ Re Queensland Co-Op Milling Association Limited and Defiance Holdings Limited (1976) 8 ALR 481 at 190

³² As identified, for example, in *Re Tooth & Co Ltd (1979) 39 FLR 1*, by the Trade Practices Commission.

³³ No contract to use coal handling services at DBCT extends to 2030, and nor are we aware of any contract exceeding this duration to use coal handling services at any other coal terminal.

³⁴ Flight Centre HCA 49 para 69

The purpose of criterion (b) is to test whether the service is a natural monopoly.³⁵ It follows that, to the extent there is any doubt in relation to choices to be made in the market definition process, it is appropriate to adopt the definition that is most appropriate for the purpose of this assessment.

3.1.2 The geographic dimension of the market

The geographic dimension of a market identifies the area from which consumers can source supply without too much additional cost and inconvenience, and from which other suppliers can provide supply quickly and without the need for significant investment.³⁶ The Tribunal has described the geographic dimension of the market in the following terms:³⁷

The geographic area of the market (ie whether it is local, regional, national or international) takes into account, principally, the area within which buyers choose to purchase their goods (ie actual buying patterns) and the areas within which sellers traditionally supply (or could easily supply in response to changed market conditions) their goods.

In other words, the geographic dimension of the market is the area over which a product or service is supplied, or could be supplied quickly without significant investment.

A generally accepted framework for defining the geographic dimension of a market is the 'hypothetical monopolist test', which involves the following three-step process.³⁸

Step 1: Begin with the narrowest reasonable geographic dimension of the market

The process begins with the narrowest reasonable geographic dimension of the market, bearing in mind the conduct at hand or the purpose of the exercise. In relation to the geographic market, this generally means the area over which the product or service in question is supplied. This is consistent with authorities on market definition and the practice of the Australian Competition and Consumer Commission (ACCC).

For example, Maureen Brunt has examined the original formulation of the concept of a market and explained that it should include:

...all considerations which [a seller] takes into account in determining his business policies and practices.

She suggests that a methodology for defining markets begins with the product that is supplied by the defendant in a particular case.³⁹ Applying this principle to geographic areas would suggest starting with the area over which a product is supplied.

For the purpose of examining the competitive effects of mergers, the ACCC also starts the market definition process with the geographic regions actually or potentially supplied by the merger parties:⁴⁰

The ACCC's starting point for delineating relevant markets to assess a merger under s. 50 of the Act is identifying the products and geographic regions actually or potentially supplied by the merger parties.

³⁵ Competition and Consumer Amendment (Competition Policy Review) Bill 2017, Explanatory memorandum, para 12.22.

³⁶ Smith, R and A Duke, *The geographic dimension of markets: some observations*, Competition and Consumer Law Journal, 2017, 25(1), p 2.

³⁷ Application by Chime Communications Pty Ltd (No 2) [2009] ACompT 2 (27 May 2009), para 21.

³⁸ ACCC, *Merger Guidelines*, November 2008, paras 4.19-4.21.

³⁹ Brunt, M, *Market definition issues in Australian and New Zealand trade practices litigation*, Australian Business Law Review, 1990, 18, p 208.

⁴⁰ ACCC, *Merger Guidelines*, November 2008, para 4.10.

It begins the hypothetical monopolist test with the area supplied by one of the firms in question:⁴¹

The process of applying the [hypothetical monopolist test] starts with one of the products and geographic areas supplied by one or both of the merger parties.

Similarly, in relation to the misuse of market power, the ACCC has said that the best starting point is where the good or service is supplied:⁴²

To determine the geographic market, it is first necessary to identify the area in which the good or service under analysis is supplied. The ACCC then considers the geographic areas where consumers would be able or willing to find substitutes for the goods or services in question.

We conclude that the starting point for defining the geographic market for the purpose of a test for the existence of a natural monopoly is the area over which a product is supplied by the facility in question. This is consistent with the definition of the geographic market given by the Tribunal, described above.

Step 2: Apply a SSNIP to a hypothetical monopolist operating in this market

The next step is to evaluate whether it would be profitable for a hypothetical monopolist controlling all suppliers serving the geographic area of demand in the candidate market to impose a small but significant and non-transitory increase in price (SSNIP) of five to ten per cent. This action may not be profitable if a sufficient number of customers switch to using one or more coal terminals that are not already part of the candidate market in response to the price rise.

The hypothetical monopolist test is complete and the market is taken to have been defined if the SSNIP is profitable, thereby signifying that no further substitute products or additional sources of supply closely constrain the hypothetical monopolist.

Step 3: Expand the candidate market

If the SSNIP is not profitable, the candidate geographic dimension of the market identified at step 2 should be expanded to include the area from which the competitive constraint came to prevent the SSNIP being profitable, after which step 2 should be applied again.

3.2 Calculating foreseeable demand in the market

Criterion (b) refers to 'total foreseeable demand in the market'. 'Foreseeable demand' is not a term of art in economics. However, we note that:

- '*foreseeable*' suggests a value that could reasonably be expected, given information that is currently available; and
- '*demand*' in an economic sense refers to the willingness of potential buyers to purchase a good or service at a particular price at some point in time.

Further, the total foreseeable demand of interest is that 'in the market', rather than the foreseeable demand 'for the service'. This means that total foreseeable demand should be estimated as the total requirement for coal handling services arising for production (or expected production) of coal at locations that are within the geographic dimension of the market. Whether these volumes are being served, or will ultimately be served, by DBCT is not relevant to the calculation of foreseeable demand.

⁴¹ *Op. cit.*, para 4.20.

⁴² ACCC, *Interim guidelines on misuse of market power*, October 2017, para 2.8.

3.3 Calculating least cost

Criterion (b) requires an assessment of whether foreseeable demand in the market in which the service is offered can be served at least cost by the facility compared to any two or more facilities. In this section, we set out the framework that we apply for assessing the least cost means of serving foreseeable demand.

An assessment to the effect that it is *least cost* for DBCT to meet total foreseeable demand in the market requires one to establish that it would not reduce costs to handle some or all foreseeable demand at one or more alternative terminals. Such an assessment must therefore consider alternative ways that foreseeable demand could be met, taking into account:

- the availability of capacity at DBCT and other terminals to handle some or all foreseeable demand in the market, as well as the costs associated with utilising this capacity; and
- the potential for DBCT and other terminals to be expanded or other terminals constructed so as to handle some or all foreseeable demand, and the costs associated with these expansions.

We describe below that this assessment should also extend to the availability of capacity, and the potential and costs for expansion, of the rail networks that enable the coal handling services which are provided by DBCT and other terminals.

In this section we present a framework for the assessment of the least cost means of service. We describe the costs that should, in principle, be captured in this assessment, and the methodological approach by which we assess whether it is least cost for foreseeable demand in the market to be met by the coal handling service at DBCT.

3.3.1 Assessing costs requires regard to resource costs across the supply network

Criterion (b) refers to '*least cost*' but does not offer guidance on either the scope or form of costs that are to be considered in this assessment.⁴³ We set out our analysis of these parameters below.

Scope of the costs included in the assessment

The costs referred to in criterion (b) should not be limited to those incurred by the provider of the facility for the service. To do so would overlook the fact that coal handling services are part of a supply network and that to meet foreseeable demand in the market requires costs to be incurred throughout that supply network. This is particularly relevant in the case of capacity expansions, which require that the system capacity is expanded to match, including below rail, above rail, terminal and port channels.

Comparing the costs of meeting foreseeable demand at one facility compared to any two or more facilities therefore requires consideration of all the supply network costs that would be affected by any decision as to whether foreseeable demand is met at DBCT or any two or more facilities. This approach is also consistent with the approach to defining the geographic dimension of the market, which must take into account the potentially different costs of transport applying in identifying the extent and responsiveness of demand for and use of different service providers that may (or may not) be in the market.

It follows that the least cost assessment must consider all the costs that may be incurred in the coal supply network to meet the foreseeable demand. This includes costs associated with both rail access and rail haulage, as well as the port terminal infrastructure and handling costs.

In principle, the costs to be considered should also include any other costs incurred in the supply network that may be affected by any decision as to whether foreseeable demand is met at DBCT or any two or more facilities. These may include, for example, the costs associated with the provision of other port services such

⁴³ Except that section 76(4) of the QCA Act specifies that the costs include '*...all costs associated with having multiple users of the facility for the service, including costs that would be incurred if the service were declared.*'

as pilotage and port security, or the costs associated with dredging shipping channels, where incurred to meet foreseeable demand.

Type of costs included in the assessment

The focus of our criterion (b) assessment is on the incremental costs to society associated with rail access and rail haulage as well as terminal infrastructure and handling. These are the costs that society bears associated with the expected use of rail and terminal infrastructure. In this report we refer to these as the 'resource costs' of these activities.

Our focus on the costs associated with rail and terminal usage reflects that these elements are the most likely to vary when different terminal facilities are used to meet total foreseeable demand in the market. For other elements of coal supply networks:

- it is reasonable to assume that the resource costs incurred to meet foreseeable demand are similar regardless of which facility is used to meet that demand – for example, in relation to port security; or
- there is limited empirical information available on which to base an assessment that the resource costs incurred to meet foreseeable demand would differ significantly between terminals – for example, in relation to dredging.⁴⁴

Our focus on incremental costs to society (or resource costs) is appropriate because:

- the sunk costs of existing rail and terminal infrastructure have already been incurred and will not be incurred again over the period for which the service would be declared; and
- even if the sunk costs of existing rail and terminal infrastructure were to be taken into account in an assessment of least cost, these costs would be captured under all scenarios in which total foreseeable demand in the market is met and are therefore not relevant to determining whether the facility for the service can meet this demand at least cost.

The evaluation of the resource costs of meeting foreseeable demand is likely to be significantly affected by the fact that the provision of rail and terminal infrastructure is capital intensive. It follows that the resource costs of meeting foreseeable demand using existing infrastructure (which does not require new capital investment) are likely to be significantly lower than the resource costs associated with the construction and use of new infrastructure.

However, the incremental cost of using existing infrastructure may be difficult to estimate. One proxy for this cost may be the price of using that infrastructure, but this is likely to overestimate significantly the resource costs of using the infrastructure since the price will often reflect a return of and on the sunk capital costs of the assets used to provide the service – which are not part of the incremental cost of providing the service over the relevant period. For capital intensive services such as coal handling at terminals, and rail access services, it would be reasonable to expect the resource of costs of using existing infrastructure to be much lower than the price that is charged for infrastructure services.

By contrast, the incremental cost of using new infrastructure will include the capital costs of the construction that is required to realise this investment. It could also include any further costs associated with operating and maintaining the new infrastructure, even if these costs are fixed in nature, if they would be avoided had the infrastructure not been developed.

It follows that the resource costs of meeting foreseeable demand using existing capacity are likely to be substantially lower than the resource costs of meeting foreseeable demand using expanded capacity. This suggests that, if total foreseeable demand in the market exceeds the existing capacity of DBCT, and there is

⁴⁴ However, we understand that there may be qualitative reasons to believe that dredging to facilitate expansions would be costlier for DBCT than it would be for terminals based at Gladstone and Abbot Point.

existing capacity at other terminals, then it is very likely that it is least cost to meet some of this foreseeable demand using this existing capacity.

3.3.2 Assessing the least cost of provision requires optimisation

To demonstrate that DBCT can meet foreseeable demand in the market at least cost requires showing that it would not be lower cost for at least some of this demand to be handled at another terminal. For coal from any given mine in the market to be handled at another terminal, instead of at DBCT, requires:

- incurring the incremental costs of handling coal at that terminal and saving the resource costs associated with handling coal at DBCT instead; and
- incurring the incremental costs of railing coal to that terminal and saving the resource costs associated with railing coal to DBCT instead.

This approach to assessing least cost is also consistent with the overall purpose of criterion (b), which is to identify whether or not the facility that provides the service is a natural monopoly.⁴⁵ A prerequisite for access at DBCT is the ability to transport coal by rail to DBCT, therefore requiring below rail access from Aurizon Network and above rail services from a rail haulage provider.

By way of example, suppose that the resource costs of exporting coal produced at a given mine from terminals A and B are the same, because:

- the total incremental costs associated with exporting coal from terminal A are \$20 per tonne, consisting of \$5 per tonne terminal costs and \$15 per tonne rail costs; and
- the total incremental costs associated with exporting coal from terminal B are \$20 per tonne, consisting of \$7 per tonne terminal costs and \$13 per tonne rail costs.

In these circumstances, terminal A incurs the lowest terminal costs to meet the demand from the customer. However, these lower costs do not make terminal A a natural monopoly (or a monopoly at all in relation to demand originating from the mine in question) because its cost advantage in providing terminal services is offset by the greater cost of coal transport.

Confirming that there is no lower cost means of serving foreseeable demand than only by means of the DBCT service requires an assessment against many potential alternatives or counterfactuals. These include utilising either existing available capacity at other terminals, expanded capacity at other terminals or building a new facility to accommodate the foreseeable demand.

The proper assessment of each of these possibilities involves the application of an optimisation framework, in the presence of constraints. In particular, given various assumptions about the resource costs required to utilise existing port and rail facilities, and the resource costs required to expand existing facilities or build new ones, the least cost option for meeting foreseeable demand requires that:

- the cost to be minimised (or 'objective function') be set equal to the total resource costs of serving the production at each mine – ensuring that the solution is least cost; subject to
- constraints requiring that the foreseeable demand be met using available capacity (whether existing or expanded capacity) at port and rail facilities.⁴⁶

We provide a full description of the optimisation modelling process by which we assess the least cost means of meeting total foreseeable demand in the market at in section 8.A2.1 of this report.

⁴⁵ Competition and Consumer Amendment (Competition Policy Review) Bill 2017, Explanatory memorandum, para 12.22.

⁴⁶ Assuming that the resource costs associated with meeting foreseeable demand in the market are no greater than the charges associated with each mine's utilisation of rail and port terminal capacity.

4. Defining the market for the service

The appropriate product and functional dimensions of the market, for the purpose of examining whether the DBCT service should be declared, is the provision of coal terminal services.⁴⁷ In this section, we apply the hypothetical monopolist test, as described in section 3.1.2 above, to identify the geographic dimension of the market.

We explain in section 3.1.2 that the starting point for determining the geographic dimension of the market is the area over which the relevant service is currently being or will be supplied. In other words, this is the geographic area that encompasses all of DBCT's existing and potential customers.

Since we cannot be sure precisely which mines will use DBCT's services over the entire period for which the assessment is to be undertaken, we identify the geographic scope of likely and potential customers for DBCT's services by reference to the mines that are proximate to the Port of Hay Point.

Finally, we test whether a hypothetical monopolist could profitably apply a SSNIP within this geographic market.

4.1 Current and recent customers of DBCT

Table 4.1 below sets out the mines that have exported coal through DBCT over the past five years, and so might reasonably be regarded as existing or potential customers of DBCT.

Table 4.1: Mines that have exported coal through DBCT since 2014

Miner	Mine	Miner	Mine
Peabody	Coppabella	Anglo American	German Creek
	Millennium		Moranbah North & Grosvenor
	Burton	Jellinbah	Lake Vermont
	North Goonyella	Terracom	Blair Athol
	Middlemount	Rio Tinto	Kestrel
	Moorvale		Hail Creek
BMC	South Walker Creek	Glencore	Oaky Creek
	Caval Ridge		Clermont
BMA	Saraji	Stanmore	Isaac Plains
	Peak Downs	Fitzroy	Carborough Downs
	Riverside	Realm Resources	Foxleigh
	Goonyella		

Source: DBCTM

Further, we understand that DBCTM has agreed new contracts with the following miners to export coal from mines not listed as current or recent customers in table 4.1 above:

- Fitzroy Australia Resources, for [REDACTED] mtpa from its [REDACTED] mines, commencing in [REDACTED]; and

⁴⁷ See section 3.1.1.

- Pembroke Resources, for [REDACTED] mtpa from its [REDACTED] mines, the first contract for [REDACTED] mtpa commencing in [REDACTED] and the second contract for [REDACTED] commencing in [REDACTED].

Figure 4.1 identifies the location of mines that are:

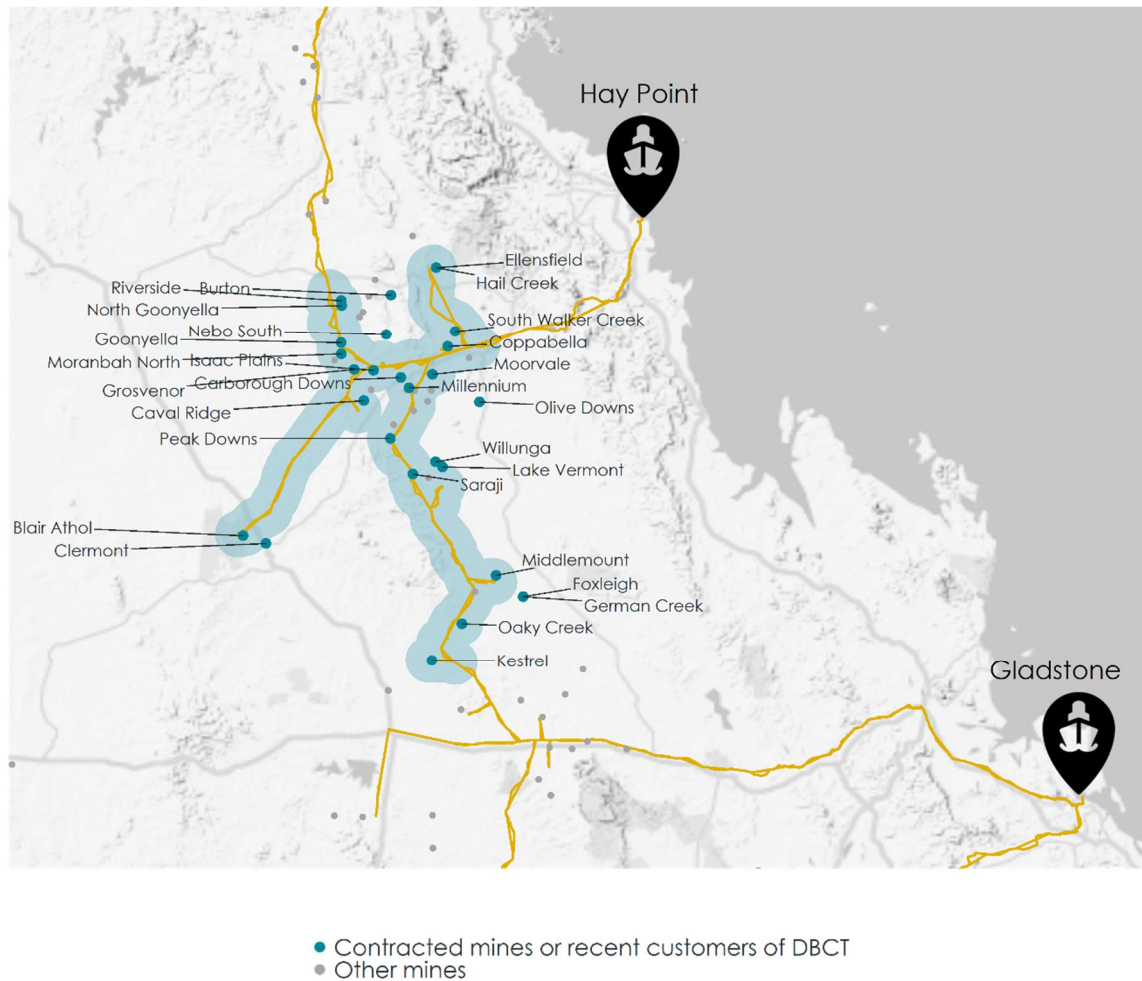
- listed in table 4.1 as being current or recent customers of DBCT; or
- identified above as having recently entered into contracts with DBCT.

The shaded area identifies the starting point for determining the geographic dimension of the market, being those parts of the railway system from which mines prefer to use DBCT. This area encompasses the entirety of the Goonyella system and part of the Blackwater system, extending:

- north to North Goonyella;
- northeast along the Hail Creek branch line to Hail Creek;
- west along the Blair Athol line to Clermont; and
- south to Kestrel.

Within the shaded area are mines that use coal handling services at other terminals, and parts of the Goonyella and Blackwater systems through which these mines would connect. Mines that are not current or recent customers at DBCT are identified with a small grey circle in figure 4.1, since the focus is on identifying the geographic region from which DBCT's customers are drawn.

Figure 4.1: Starting point for geographic dimension of the market using DBCT's current and recent customers



Source: DBCTM and AME data, HoustonKemp analysis

The bounds of this market include mines that use (or have recently used) coal handling services at HPCT, AAPT and RGTCT, in addition to those that use (or have recently used) the DBCT service. We list these mines at table 4.2 below and include all mines that are in production in 2018 and lie either within the shaded region at figure 4.1 above or which would connect to the Goonyella system within the shaded region.

In addition to the mines identified at table 4.2, a number of new mines are being developed (or have plans to develop) in this region and, to our knowledge, do not currently hold a contract for capacity with any terminal.

Table 4.2: Mines within the geographic market that use (or have used) other terminals

Company	Mine	Terminals used
BHP Mitsubishi Alliance	Caval Ridge	DBCT and HPCT
	Daunia	DBCT and HPCT
	Peak Downs	DBCT and HPCT
	Saraji	DBCT and HPCT
	Goonyella Riverside	DBCT and HPCT
	Gregory	HPCT and RGTCT
	Norwich Park	HPCT and RGTCT
BHP Mitsui Coal	South Walker Creek	DBCT, HPCT and AAPT
	Poitrel	DBCT, HPCT and AAPT
Anglo American	Capcoal	DBCT and RGTCT
Jellinbah	Lake Vermont	DBCT, AAPT and RGTCT
Middlemount Coal	Middlemount	DBCT and AAPT
Glencore	Oaky Creek	DBCT and RGTCT
	Clermont	DBCT and AAPT
Rio Tinto	Kestrel	DBCT and RGTCT
Terracom	Blair Athol	DBCT and AAPT

Source: DBCTM, HoustonKemp analysis

Table 4.2 shows that the boundaries of the starting point for the geographic market for the service in 2018 include mines which use coal handling services supplied by DBCT, HPCT, AAPT and RGTCT. This result is consistent with the observations made at section 2.4 above, which show that the geographic regions from which terminals draw their customers have significant areas of overlap.

4.2 Customers that prefer to use coal handling services at Hay Point

For the purpose of the criterion (b) assessment, it is necessary to define a market for the period from 2021 for at least 10 years. Since the geographic bounds of the market may change over time, to account for this possibility we have identified the geographic boundary of current and potential customers of DBCT in each year from 2021 until 2030.

It is not possible to be certain which mines will be customers of DBCT in each year from 2021 to 2030. In order to avoid speculation as to which mines will or will not export coal from DBCT in each of these years, we have estimated the geographic area from which DBCT's future customers may be drawn by reference to economic considerations.

In particular, we have identified those mines that would prefer to use coal handling services provided at the Port of Hay Point, assuming there were no constraints from existing supply contracts. We describe this as *'the market for coal handling services for mines that are proximate to the Port of Hay Point'*. The concept of mines that are proximate to Hay Point could also be described as the 'Hay Point catchment'.

The expected production from a mine is in this market if:

- it is physically feasible for that mine to use coal handling services at the Port of Hay Point; and
- it is financially preferable for that mine to use coal handling services at the Port of Hay Point, given:
 - > the coal handling options available to that mine; and

- > the rail and terminal charges involved with exercising each of these options.

On these considerations, a mine would prefer to use coal handling services provided at the Port of Hay Point, absent contractual constraints, when its total below rail, above rail and coal terminal charges associated with using these services are expected to be lower than those associated with any other option available to it. This calculation is informed by the data in table a3.1, table a3.2 and table a3.3 at appendix A3 to this report. We explain the basis for this approach to estimating the area from which DBCT's customers might be drawn in box 4.1 below.

Box 4.1: No need to distinguish the locations of DBCT and HPCT customers

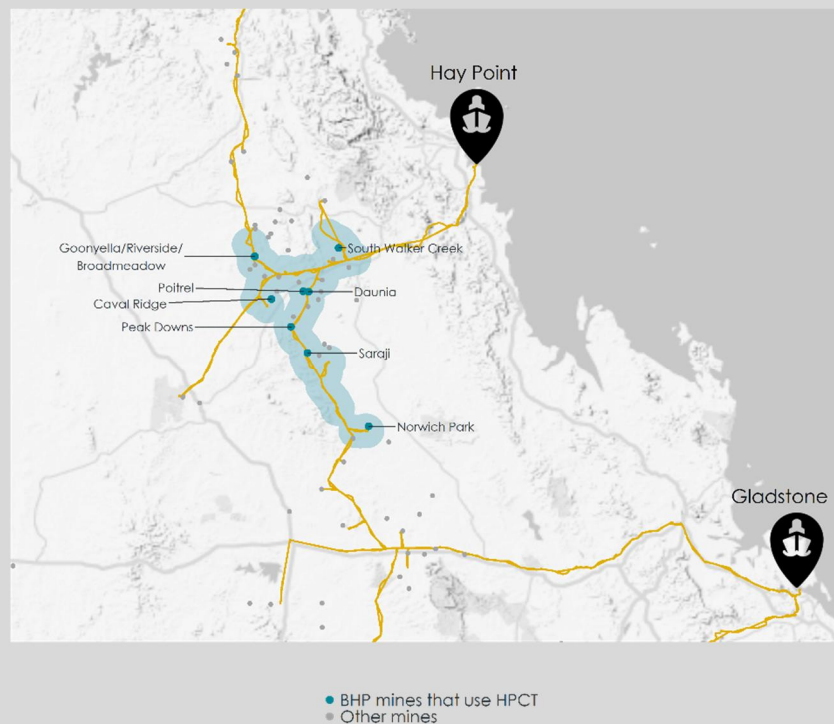
In identifying the location of customers who prefer to use coal handling services at the Port of Hay Point, we do not distinguish between customers that may prefer or may be constrained to use one or other of the services provided at either DBCT or HPCT. Put another way, we assume that a mine that would prefer to use coal handling services at HPCT would also be a potential customer for DBCT, since the terminals are immediately adjacent in their location at the Port of Hay Point.

Although HPCT has historically only provided coal handling services to BMA or BMC mines, many of the mines that currently use HPCT have, at some stage, also used coal handling services at DBCT. For example:⁴⁸

- BMC's South Walker Creek and Poitrel hold contracts with DBCT and AAPT as well as exported coal through HPCT;
- BMA's Goonyella/Riverside/Broadmeadow complex of mines exported █████ Mt of coal through DBCT between 2002 and 2018;
- BMA's Peak Downs mine exported █████ Mt of coal through DBCT between 2010 and 2018;
- BMA's Saraji mine exported █████ Mt of coal through DBCT between 2010 and 2017; and
- BMA's Caval Ridge mine exported █████ Mt of coal through DBCT between 2015 and 2018.

Figure 4.2 below shows the geographic region within which BMA and BMC mines that currently use or have recently used HPCT are located. It demonstrates that the area from which HPCT's customers are drawn is similar to, but wholly contained within, the area from which DBCT's customers are drawn.

Figure 4.2: Geographic region of mines using HPCT



Source: DBCTM and AME data, HoustonKemp analysis

⁴⁸ Data provided by DBCTM.

The geographic area defined by the customers that would prefer to use a coal handling service at the Port of Hay Point may not be precisely the same as that defined by reference to the actual customers of any terminal at any particular time because:

- the geographic area defined on preferences may be **less** than the area based on existing customers because contracts reflect the circumstances that prevailed (or were expected to prevail) at the time they were entered into, so that some mines that presently have a contract with DBCT may prefer to use another terminal if they did not hold that contract; or
- the geographic area defined on preferences may be **greater** than the area based on existing customers because the total number of mines that would prefer to use coal handling services provided at the Port of Hay Point is likely to be greater than the number of mines that currently have contracts with DBCT.

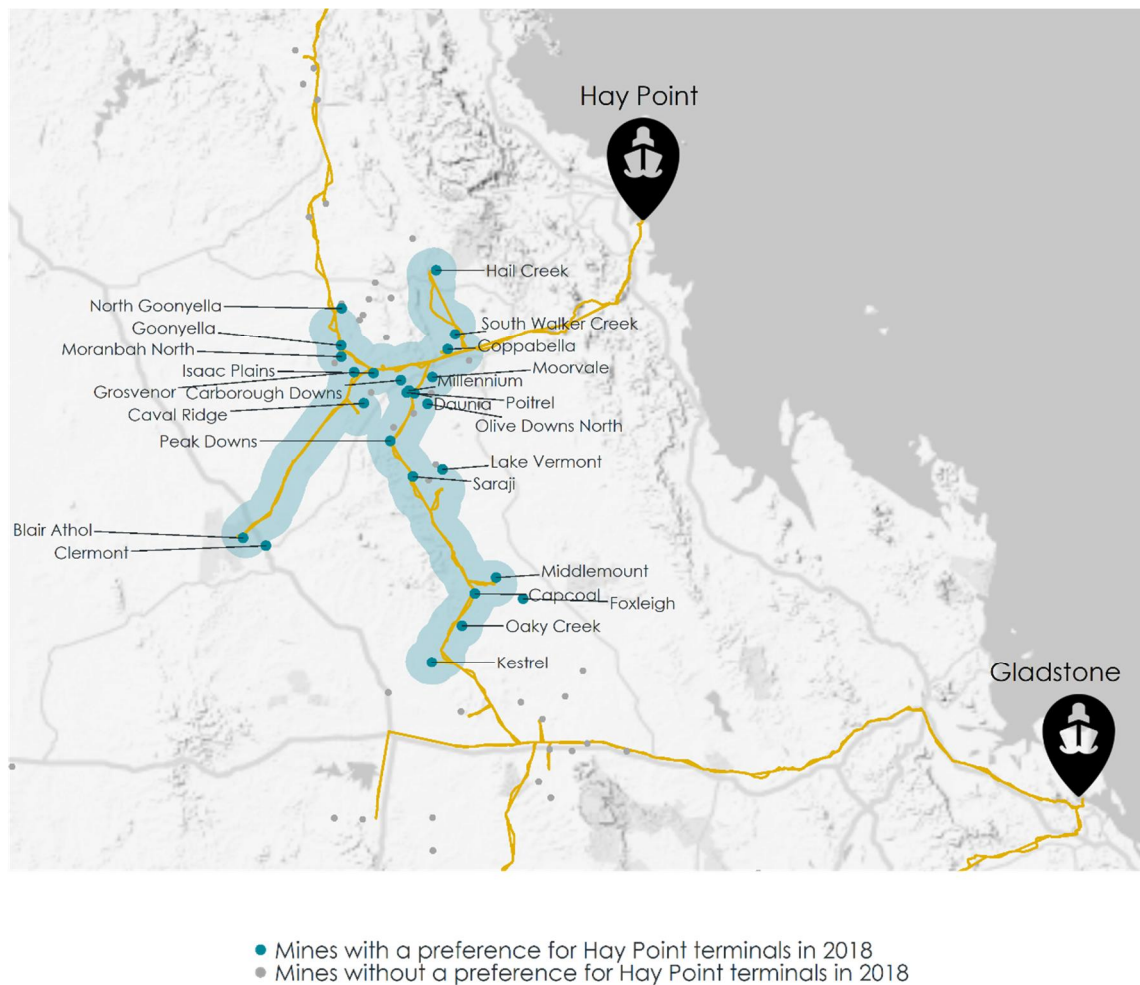
We conclude that geographic areas defined by DBCT's existing customers and by customers who would prefer to use coal handling services at the Port of Hay Point may not be the same but are likely to be very similar. This reflects that the geographic boundaries of any market are rarely definitive.

Rather, some differences in the boundaries drawn according to mine preferences and those drawn according to factual circumstances are likely because current customers of DBCT may reflect not only the set of potential customers of DBCT, but also the availability of capacity at the time it was sought by the customer.

Any mine that would prefer to use coal handling services at the Port of Hay Point is a potential customer of DBCT. Further, it is likely that mines who have a preference for other terminals could also be potential customers of DBCT depending on the availability of their preferred terminal, and so the geographic area defined strictly according to preferences is likely to be a conservatively small estimate of the geographic boundaries of the market.

Figure 4.3 below shows the geographic dimension of the market as defined by mines that would prefer to use coal handling services at the Port of Hay Point, assessed on the basis that we discuss above.

Figure 4.3: Starting point for geographic dimension of the market using preferences in 2018



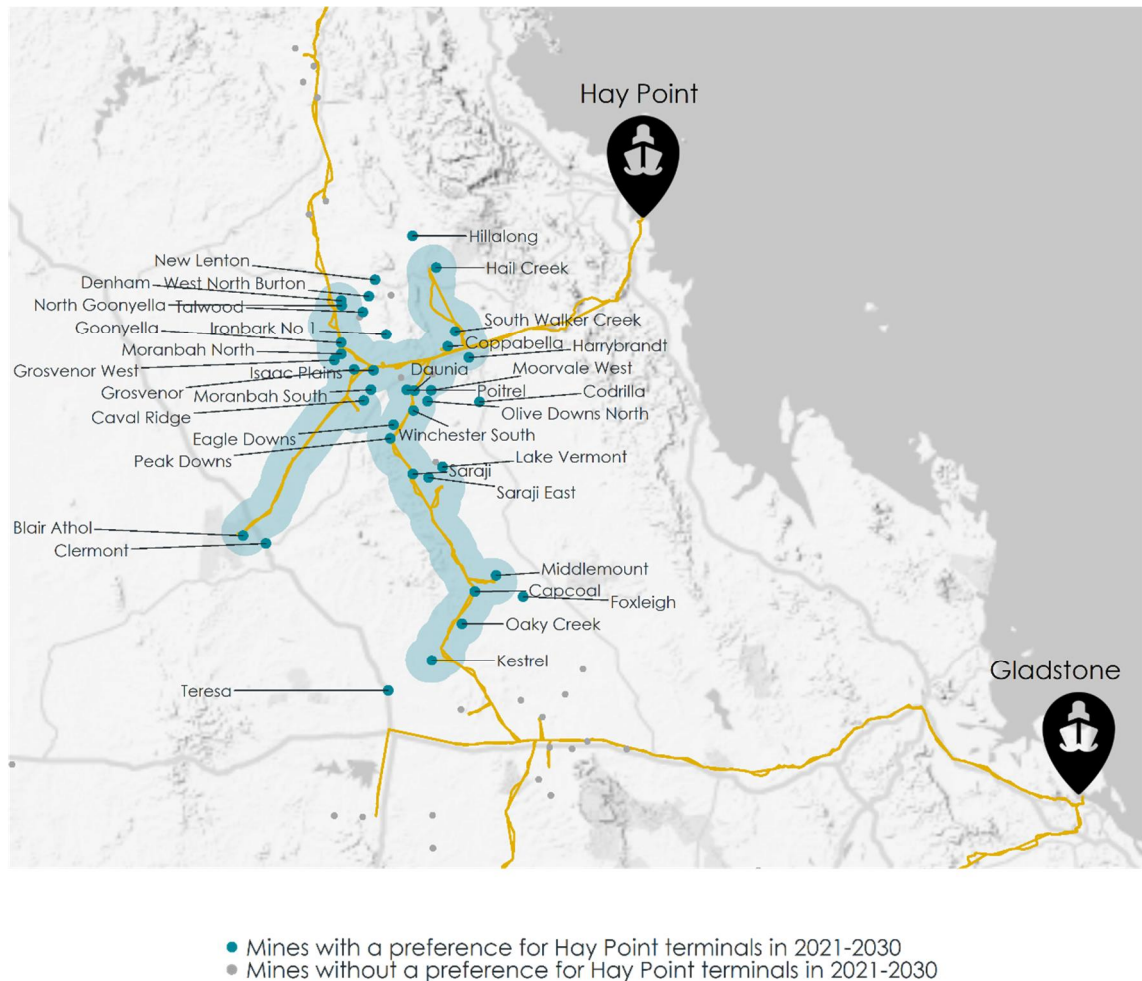
Source: DBCTM, AME and Wood Mackenzie data, HoustonKemp analysis

Note: Grey dots within or near the shaded area represent mines that are not expected to operate in 2018.

A comparison of figure 4.1 and figure 4.3 shows that the geographic area defined by mines that prefer to use coal handling services at the Port of Hay Point is nearly identical to the area defined by existing customers of DBCT in 2018.

Figure 4.4 shows the geographic market over years 2021 to 2030 as determined by the approach we describe above. This area is defined by mines that would prefer to export coal at the Port of Hay Point in any year or years during this period. Again, this area is very similar to the region defined by reference to current customers shown at figure 4.1 above and is almost identical to (but slightly smaller than) the region defined by preferences in 2018 shown at figure 4.3 above.

Figure 4.4: Starting point for geographic dimension of the market using preferences over 2021 to 2030



Source: DBCTM, AME and Wood Mackenzie data, HoustonKemp analysis

Note: Grey dots within or near the shaded area represent mines that are not expected to operate between 2021 and 2030.

We conclude that estimating the area within which customers would prefer to use coal handling services at the Port of Hay Point provides a good approximation of the geographic boundary that would include current customers in each of the years 2021 to 2030. Accordingly, this is the approach we have adopted for defining the geographic boundaries of the market in examining whether criterion (b) is satisfied.

We note that the approach of defining the geographic dimension of the market by reference to customer preferences is consistent with the ACCC's approach to market definition in the not dissimilar circumstance where it examined the level of competition between bulk wheat port terminals in Victoria. We describe the ACCC's approach in that instance in more detail at box 4.2 below.

Box 4.2: ACCC's approach to defining the geographic dimension of the market for wheat terminals

In examining the level of competition between the bulk wheat port terminals in Victoria in 2015, the ACCC considered the relevant grain catchment areas for each port terminal and the extent to which these areas can supply grain to alternative terminals to facilitate competition.⁴⁹

The ACCC explained that port terminals may be in competition with each other if, for instance, grain from one area could practically move to either of the two (or more) other terminals.⁵⁰

It explained that the relevant catchment area for each Victorian port terminal is likely to be related to established transportation links to each port including rail networks and road pathways that connect the port terminals to growing regions and the associated upcountry storage infrastructure.⁵¹

To assist in determining the relevant grain catchment areas for each port terminal, the ACCC considered it appropriate to examine the relevant transportation costs to move grain from upcountry locations to each of the Victorian port terminals.⁵²

This allowed the ACCC to identify the grain catchment areas for each terminal where the transport costs are lowest. This provided the ACCC with an indication of where these grain catchment areas overlap with each other and allow grain to be transported to alternative (or substitute) terminals at a similar transport cost which would facilitate competition between the terminals.⁵³

Our method for defining the geographic dimension of the market for the DBCT service is consistent with the approach adopted by the ACCC for assessing the degree of competition between bulk wheat port terminals.

4.3 Incorrect starting points for market definition

We describe above that application of the conventional approach to geographic market definition in the context of services provided at the Port of Hay Point starts by identifying the geographic span of DBCT's existing customers. We also show that, in assessing this same question over the period 2021 to 2030 (for which customers cannot be observed directly) the relevant geographic area can be well approximated by the locations of mines that prefer to use coal handling services at the Port of Hay Point.

Notwithstanding, we describe below two potential missteps in this approach that, if adopted, would give rise to different and misleading outcomes. These involve defining a starting point for a geographic market assessment that either:

- incorporates only the series of disparate geographic locations of mines that use DBCT, and so excludes mines located adjacent to or in between these locations that use other terminals; or
- seeks to constrain the production volume within the geographic region for which mines prefer to use coal handling services at the Port of Hay Point to be no more than the capacity of DBCT.

We explain below that the adoption of one or other of these missteps would give rise to incorrect starting points for defining the geographic boundaries of the market and would be inconsistent with the purpose of the criterion (b) assessment.

⁴⁹ ACCC, *Exemptions in respect of Emerald's Melbourne Port Terminal Facility, Graincorp's Geelong Port Terminal Facility and Graincorp's Portland Port Terminal Facility*, 25 June 2015, p 32.

⁵⁰ *Op. cit.*, p 41.

⁵¹ *Op. cit.*, p 41.

⁵² *Op. cit.*, p 46.

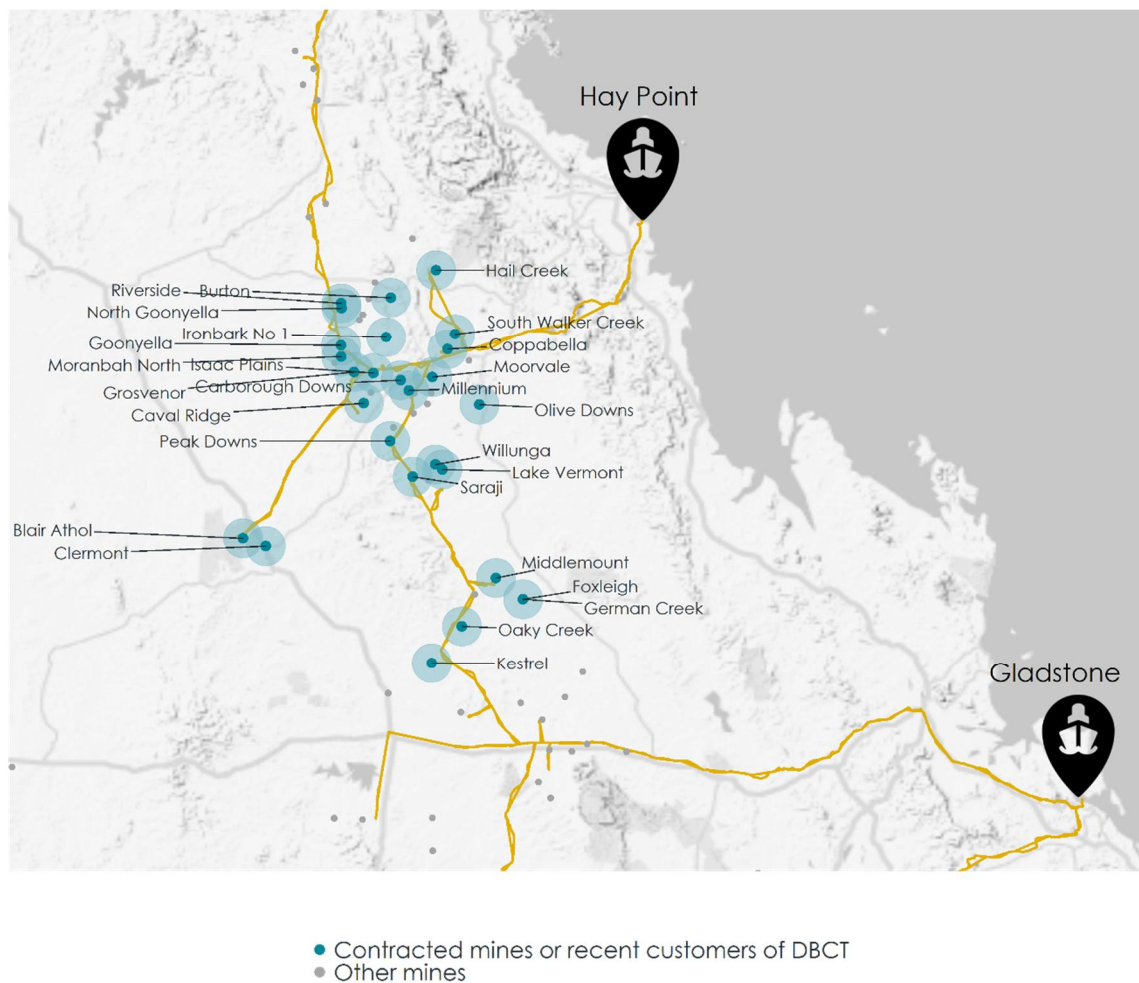
⁵³ *Op. cit.*, p 46.

4.3.1 Defining a market by reference to disparate geographic locations

The first potential misstep involves defining the geographic market of the narrowest reasonable market that is not contiguous, that is, composed of disparate locations that are not connected to each other by rail.

Figure 4.5 below demonstrates that the area defined under this approach would be a series of small circles drawn about the location of mines that use or have recently used DBCT. It illustrates that the region captured by this approach would exclude mines that are included in the geographic region defined in figure 4.1 above.

Figure 4.5: Disparate geographic areas of DBCT customers



Source: DBCTM, AME and Wood Mackenzie data, HoustonKemp analysis

To the best of our knowledge, there are no examples of the geographic dimension of a market being defined in this way. Further, such an approach could not be a reasonable basis for approaching geographic market definition, since it would exclude mines that are located adjacent to or in between mines that currently use DBCT and so can reasonably be expected to be potential customers of DBCT. Such mines can safely be presumed to regard DBCT as closely substitutable for whichever coal handling services they are using, and so must fall within the market. Put another way, this approach would explicitly disregard geography in its assessment of the geographic dimension of the market.

By way of example, miners at Lake Vermont and Middlemount currently utilise coal handling services at AAPT. However, both mines are significantly closer to DBCT than AAPT, and the charges associated with transporting coal to DBCT and handling it there are substantially less than the charges that would be

incurred to export through AAPT.⁵⁴ These volumes must therefore form part of foreseeable demand in the market for coal handling services provided at the Port of Hay Point because they represent potential customers for DBCT over the period for which the service would be declared.

Lake Vermont and Middlemount are within the area defined in figure 4.1 but excluded from the area defined in figure 4.5.

4.3.2 Defining a market that is constrained by the capacity of DBCT

The second potential misstep involves defining a market that is constrained by the capacity of the existing DBCT facility. Such an approach could potentially give rise to a contiguous geographic area, but this would be smaller than that indicated by our preferred approach because some mines would need to be excluded so that the total volume of coal delivered did not exceed DBCT's capacity.

Defining the scope of the geographic market by reference to the capacity of a facility is not consistent with the standard approach to market definition. We describe above that the standard approach starts with the area over which the product is supplied.

Further, we note above that the purpose for which any market is to be defined should be considered in selecting an approach to market definition. In this instance, the purpose is to identify whether criterion (b) is satisfied such that the facility for the service can meet total foreseeable demand in the market over the period for which the service would be declared at least cost compared to two or more facilities.

Foreseeable demand in the market encompasses coal volumes that, by preference, would be served by coal handling services at the Port of Hay Point. In principle, this volume is not constrained by the capacity of DBCT – either at present or in the future.

If foreseeable demand in the market is estimated so as to be constrained by the capacity of DBCT, then the assessment of criterion (b) would be predisposed to identify the service provided by that terminal as a natural monopoly in circumstances where this was not the case.

A facility that involves significant fixed or sunk costs is likely to be able to meet total foreseeable demand in the market at least cost if demand is constrained to be less than its capacity – because the costs of using capacity, once built, are very low. It follows that any approach that limits foreseeable demand in the market to that served by the facility of interest will typically find that the facility satisfies criterion (b), irrespective of the degree of substitution between any two facilities.

The economic reasoning as to why such an approach to determining foreseeable demand in the market is not capable of accurately assessing whether a terminal is a natural monopoly can be illustrated by way of example, set out in box 4.3 below.

⁵⁴ See appendix A3 to this report.

Box 4.3: Defining a market constrained by capacity is not consistent with the purpose of criterion (b)

Suppose that coal mine production in a region near terminal A grows by 40 mtpa, and:

- 10 mtpa of this additional production is handled using available capacity at terminal A, which is costless; and
- 30 mtpa of this additional production is handled at another terminal B, because the cost of expanding terminal A is greater than the cost of sending these volumes to terminal B.

The service provided at terminal A *is not* a natural monopoly because:

- foreseeable demand in the market for coal handling services in the region near terminal A cannot be met by that terminal; such that
- some additional production is handled at another terminal B, because the cost of expanding terminal A is greater than sending these volumes to terminal B.

By contrast, an approach that determines the geographic scope of the market served at terminal A by reference to the capacity of that terminal will not include the locations of the new mine production, because to do so would cause demand in the market to exceed the capacity of terminal A.

Application of such an approach would give rise to the incorrect conclusion that the service provided at terminal A *is* a natural monopoly, because the foreseeable demand in the market estimated on this basis can, at least cost, be served within the terminal's capacity.

4.4 Application of a SSNIP

The next step in the application of the hypothetical monopolist test is to examine whether it would be profitable for a hypothetical monopolist supplying (in each year) across the geographic area that has initially been defined to increase its prices by five to ten per cent.

Our analysis shows that such a SSNIP applied to the starting geographic market that we identify at figures 4.3 and figure 4.4 would be profitable (in each year) and so the market should not be expanded beyond these geographic boundaries.

4.5 Coal handling services for mines proximate to the Port of Hay Point

The analysis we set out above shows that the service at DBCT's facility is provided in the market for coal handling services for mines that are proximate to the Port of Hay Point.

Over the period for which declaration is to be considered (which we assume to be 2021 to 2030) the geographic extent of this market can be best approximated as the region within which mines would prefer to use coal handling services provided at the Port of Hay Point.

The suppliers of coal handling services in this market are DBCT, HPCT, AAPT and RGTCT.

5. Estimating foreseeable demand in the market

In this section, we present our estimate of total foreseeable demand in the market for coal handling services for mines that are proximate to the Port of Hay Point, over the period for which declaration of the service is to be assessed, which we have taken to be 2021 to 2030. We describe our approach to assessing the geographic scope of this market in section 4.

In addition to our preferred estimate of total foreseeable demand in the market, DLA has asked us to assess criterion (b) under the assumption that the production of BMA and BMC mines is excluded from the calculation of total foreseeable demand in the market. This is despite the evidence presented at section 4.2 above that there is significant substitution by many of these mines between HPCT and DBCT.

5.1 Total foreseeable demand

We express total foreseeable demand in the market in two (equivalent) terms:

- demand for coal handling throughput, estimated as the total expected production of mines that are located within the market; and
- demand for coal handling contract capacity, estimated from demand for coal handling throughput adjusting for an average of 90 per cent utilisation of contract capacity.

We explain the basis for the adjustment between coal handling throughput and coal handling capacity at section 5.2 below.

Table 5.1 below presents our estimates of total foreseeable demand in the market, on a throughput and contract capacity basis, as well as estimates for total foreseeable demand excluding production from BMA and BMC mines.

Table 5.1: Total foreseeable demand in the market

Year	Total foreseeable demand		Total foreseeable demand excluding BHP mines	
	Throughput (mtpa)	Capacity (mtpa)	Throughput (mtpa)	Capacity (mtpa)
2021	150.9	167.7	91.1	101.2
2022	156.1	173.4	95.2	105.7
2023	164.8	183.2	102.7	114.1
2024	172.7	191.9	109.6	121.8
2025	182.4	202.7	117.8	130.9
2026	186.7	207.4	120.6	133.9
2027	179.0	198.8	111.3	123.7
2028	181.9	202.1	112.7	125.2
2029	181.6	201.8	112.5	124.9
2030	182.1	202.3	113.0	125.5

Source: AME and Wood Mackenzie data, HoustonKemp analysis

Our estimates of total foreseeable demand in the market are established initially on a throughput basis, by reference to forecast production from mines located within the market. For example, appendix A1 sets out total foreseeable demand for throughput based on the expected annual production of each mine within the geographic bounds of the market.

DLA has asked us to assess criterion (b) under the assumption that the entire production of BMA and BMC mines is excluded from the calculation of total foreseeable demand in the market. In our opinion, the removal of these volumes is likely to underestimate total foreseeable demand in the market, because:

- in practice, BMA and BMC mines hold contracts with, or export coal through DBCT, or both, demonstrating that they are in fact (and potential) customers of terminals other than HPCT; and
- even if it is assumed that BMA and BMC mines have a strong preference to use HPCT, that facility may not always have sufficient capacity to satisfy this demand – however, the removal of all production from BMA and BMC mines from foreseeable demand in the market assumes that the ability of HPCT to meet this demand is unconstrained.

Notwithstanding these concerns, our estimates of total foreseeable demand under this alternative approach, consistent with DLA's request, are set out at table 5.1 above.

5.2 Total foreseeable demand for contract capacity

In practice demand for coal terminal capacity is realised as demand for take-or-pay contracts rather than for volumes of coal handled. Under these arrangements, it is normal for contracted capacity to exceed the volumes of coal handled by a significant margin, even in a long run equilibrium.

In practice, we understand that:⁵⁵

- despite having contracts with miners of approximately 80 mtpa, during 2017 DBCT served volumes of 65.0 mt – representing unserved contracted volumes of 19 per cent; and
- despite having contracts with miners for take-or-pay volumes of 72 mtpa, RGTCT served only 59.8 mt of coal in 2016-17, representing unserved contracted volumes of 17 per cent.

Although these values were affected by tropical cyclone Debbie, DBCT and RGTCT handled only slightly greater volumes in 2016 – 68.6 mt and 62.6 mt respectively.

Such apparently 'excess' levels of contracted capacity and the empirical observations underpinning its utilisation is consistent with rational decision-making by miners because it provides an option value for future expansions of mining capacity. In determining the optimal level of contract capacity at coal terminals, miners must weigh up:

- the costs of contracting capacity, by reference to the take-or-pay charges to terminal operators; against
- the costs of not contracting capacity, by reference to the potential lost revenues from future production volumes that may exceed contracted capacity, if that capacity cannot be procured at a later time.

Since the value of coal exceeds terminal charges by many multiples, the expected value of lost coal exports from potential mine expansions may often significantly exceed the costs of reserving capacity to ensure that such coal can reach its markets.

Over the long term, we assume that demand for contract capacity is derived from the demand for coal throughput, with demand for throughput being 90 per cent of the demand for contract capacity. This is equivalent to assuming that, on average, 10 per cent of contracted capacity is not used. This assumption reflects a cautious approach to estimating this parameter, since it is likely to underestimate the total foreseeable demand for capacity in the market, relative to the recent rates of capacity utilisation that we summarise above.

⁵⁵ North Queensland Bulk Ports and Port of Gladstone data on volumes, DBCTM data on contracts.

6. Meeting foreseeable demand at least cost

Having established the appropriate definition of the market and quantified foreseeable demand in that market, the final step in assessing whether the coal handling service at DBCT satisfies criterion (b) involves assessing whether it would be least cost for this demand to be handled at DBCT. On this question:

- if foreseeable demand in the market can be met at least cost by DBCT (or by expanded capacity at DBCT) then criterion (b) is satisfied; whereas
- if foreseeable demand in the market can be met at least cost by a combination of DBCT and available or expanded capacity at one or more other coal terminals then criterion (b) is not satisfied.

The remainder of this section describes:

- the modelling framework with which we assess how total foreseeable demand in the market can be met at least cost;
- the input assumptions that we have used to populate this framework; and
- the results of our modelling analysis under a 'base case' set of assumptions.

6.1 Modelling framework and assumptions

To assess whether the facility for the service can meet the total foreseeable demand in the market at least cost compared to two or more facilities, we have developed an economic model of coal production and export within the bounds of the central Queensland coal network.

6.1.1 Framework for the model

The model is in the form of an optimisation program that seeks to identify the least cost means by which total foreseeable demand in the market estimated at section 5 above can be met by coal handling services available to miners. It follows that:

- if the results of this assessment identify that the least cost means of serving total foreseeable demand in the market is through the use of the DBCT service alone, then criterion (b) is satisfied; whereas
- if the results of this assessment identify that the least cost means of serving total foreseeable demand in the market through the use of at least one other coal handling service apart from the DBCT service, then criterion (b) is not satisfied.

In section 3.3.2 we present our opinion that the costs captured in this assessment should include incremental costs to society (or resource costs), namely:

- rail transport costs, including both access and haulage costs and the costs of expanding rail infrastructure where necessary; and
- coal terminal costs, including the costs of expanding coal terminal infrastructure where necessary.

Consistent with this, our modelling captures the resource costs associated with the use and expansion of rail and terminal infrastructure. The model produces outputs showing not only the coal terminal (or terminals) used by the production from each mine, but also the total use of each terminal and railway system, and the extent to which these have been expanded to accommodate this use.

A more detailed description of our modelling methodology is set out at appendix A2 to this report.

6.1.2 Resource cost inputs to the model

To assess the least cost means of meeting total foreseeable demand in the market requires assumptions about the resource costs associated with the use of each of:

- existing terminal infrastructure;
- expanded terminal infrastructure;
- current rail infrastructure; and
- expanded rail infrastructure.

There is a significant degree of uncertainty as to how best to measure resource costs. This uncertainty arises because:

- the incremental costs of using existing terminal infrastructure are inherently unobservable;
- there is limited information available about the extent and expense of options to expand or construct terminal infrastructure; and
- it is not straightforward to describe (or quantify) the capacity of a rail network or the incremental costs required to expand this capacity.

We set out a summary of our base case assumptions for estimating the resource costs of terminal and rail infrastructure below. A detailed description of our approach is set out at appendix A2 to this report.

The resource costs of existing terminal services

The resource costs of using existing coal terminal capacity are likely to be much lower than coal terminal charges since many of the costs incurred in providing coal terminal capacity are fixed in nature, with terminal charges reflecting a return of and return on sunk capital costs.

Terminals recover handling charges that vary with throughput (variable costs) and charges that do not vary with throughput (fixed costs). We assume that the resource costs of utilising existing coal terminal capacity are equal to the variable component of coal handling charges applied at each terminal. These charges are set out in table a3.1 at appendix A3 to this report.

We estimate the variable proportion of charges at DBCT as equal to the Handling Charge Variable (HCV) as a proportion of the total coal handling charges for 2017/18 – 22 per cent.⁵⁶ We estimate resource costs of using existing capacity at other terminals by applying the same proportion to coal handling charges at those terminals.

The resource costs of expanded terminal services

We assume that the resource costs incurred to use expanded coal terminal capacity include both the fixed and variable costs of the expanded capacity. We estimate these costs as:

- the incremental capital expenditure required to realise this expansion – these capital costs are shown in table 6.1 below; and
- the variable component of port handling charges, as discussed above.

⁵⁶ The total port handling charges include the Terminal Infrastructure Charge (TIC), Handling Charge Fixed (HCF) and Handling Charge Variable (HCV). The HCV for DBCT effective from 1 April 2018 is \$1.0953 per tonne while the total port handling charges were \$4.9467 per tonne.

DBCT provides transparent information about potential capacity expansions and their costs in its Master Plan that it updates periodically. The most recent DBCT Master Plan was prepared in 2018.⁵⁷

Other terminals may also provide information about potential capacity upgrades. For example, AAPT and WICET have publicly revealed plans for significant increases in capacity. However, the potential costs of these expansions are typically not disclosed.

We therefore approximate the unit costs of capacity expansions for other terminals by the weighted average cost of expansions reported by DBCT, as shown in table 6.1 below. Reflecting this lack of certainty of coal terminal expansion costs, at section 7.2 below we present the results of sensitivities demonstrating the effect of assuming both higher and lower unit expansion costs for DBCT relative to other terminals.

Table 6.1: Future options for capacity expansion of coal export terminals in central Queensland

Port	Expansion name	Expansion capacity (mtpa)	Cumulative capacity (mtpa)	Capital cost (\$/t)	Capital cost (\$ million)
DBCT	Zone 4	4.0	89	98.84	533.76
	DB 8X Phase 1	5.0	94	78.74	251.97
	DB 8X Phase 2	8.0	102	113.10	780.42
	DB 9X Phase 1	12	114	144.62	1,735.46
	DB 9X Phase 2	12	126	151.75	1,820.98
	DB 9X Phase 3	10	136	159.24	1,592.45
HPCT	HPX4	20	75	124.00	2,480.00
AAPT	T0 Phase 1 (Adani)	35	85	124.00	4,340.00
	T0 Phase 2 (Adani) 1	12	97	124.00	1,488.00
	T0 Phase 2 (Adani) 2	12	109	124.00	1,488.00
	T0 Phase 2 (Adani) 3	11	120	124.00	1,364.00
	T3 Phase 1 (GVK-Hancock)	30	150	124.00	3,720.00
	T3 Phase 2 (GVK-Hancock) 1	10	160	124.00	1,240.00
	T3 Phase 2 (GVK-Hancock) 2	10	170	124.00	1,240.00
	T3 Phase 2 (GVK-Hancock) 3	10	180	124.00	1,240.00
WICET	Stage 2 (WEXP1) Phase 1	11	38	124.00	1,364.00
	Stage 2 (WEXP1) Phase 2	11	49	124.00	1,364.00
	Stage 2 (WEXP1) Phase 3	11	60	124.00	1,364.00
	Stage 3 (WEXP2) Phase 1	12	72	124.00	1,488.00
	Stage 3 (WEXP2) Phase 2	12	84	124.00	1,488.00
	Stage 4 Phase 1	10	94	124.00	1,240.00
	Stage 4 Phase 2	10	104	124.00	1,240.00
	Stage 4 Phase 3	10	114	124.00	1,240.00

Source: DBCTM

The resource costs of rail access and haulage

We estimate the resource costs for using rail infrastructure as equal to the charges for rail access and rail haulage.

⁵⁷ DBCTM, *Master Plan 2018: Expansion opportunities at the Dalrymple Bay Coal Terminal*, 26 April 2018.

Unlike for coal terminals, it is not straightforward to describe (or quantify) the capacity of a rail network or the costs required to expand this capacity, since this will always depend upon where in the network the incremental requirements for volume are experienced. It may therefore not be possible to know, given a level of total foreseeable demand, whether this can be met within existing rail network capacity or whether the network would require expansion in order to deliver this demand to the relevant terminals.

This raises difficulties in estimating the resource costs for using rail infrastructure since it may not always be clear whether any particular use can be accommodated by existing infrastructure or would require new infrastructure.

By using rail charges as a proxy for the resource costs of rail access and haulage, we assume that:

- rail charges substantially reflect variable costs; and
- the expansion costs of rail access and haulage capacity reflect the costs of past capacity as reflected in charges.

We expect that this approach will overstate the resource costs associated with the use of the existing rail network, particularly for rail access charges that reflect substantial fixed costs. By doing so, our assessment is more likely to find that the DBCT service satisfies criterion (b). This is because overstating the resource costs associated with meeting foreseeable demand using existing capacity at terminals other than DBCT makes it more likely we will find that the least cost means of meeting foreseeable demand in the market is by using existing or expanded capacity at DBCT.

6.2 Results of the base case scenario

In this section we set out the results of our assessment of the least cost means of meeting foreseeable demand in the market, under the assumptions in our 'base case' scenario.⁵⁸ We describe the framework for this assessment at section 3 of our report.

For clarity, in addition to the input assumptions set out above (and in more detail at appendix A2 below) the specification of the base case scenario in our modelling includes:

- assumptions pertaining to costs, prices and production projections have been sourced from independent industry analysts and public sources – we consider the sensitivity of results to a range of these input assumptions in sections 7.1, 7.2 and 7.3 below;
- the 9X expansion option at DBCT will not proceed during the declaration period and so DBCT cannot expand beyond a nameplate capacity of 102 mtpa during the period for which the service would be declared – we consider the sensitivity of results to this assumption in section 7.4 below;
- mines in the Galilee Basin do not commence operations during the period for which the service would be declared – we consider the sensitivity of results to this assumption in section 7.5 below;
- in assessing least cost, resource costs are equal to:
 - > charges faced by miners for rail access and haulage; and
 - > the variable component of charges faced by miners for coal handling services plus the costs of expansion for ports – however, we also consider alternative approaches to approximating resource costs below.

⁵⁸ In section 7 below we assess the sensitivity of these results to changes in the specification of the assumptions in the base case scenario.

6.2.1 Least cost provision of total foreseeable demand in the market

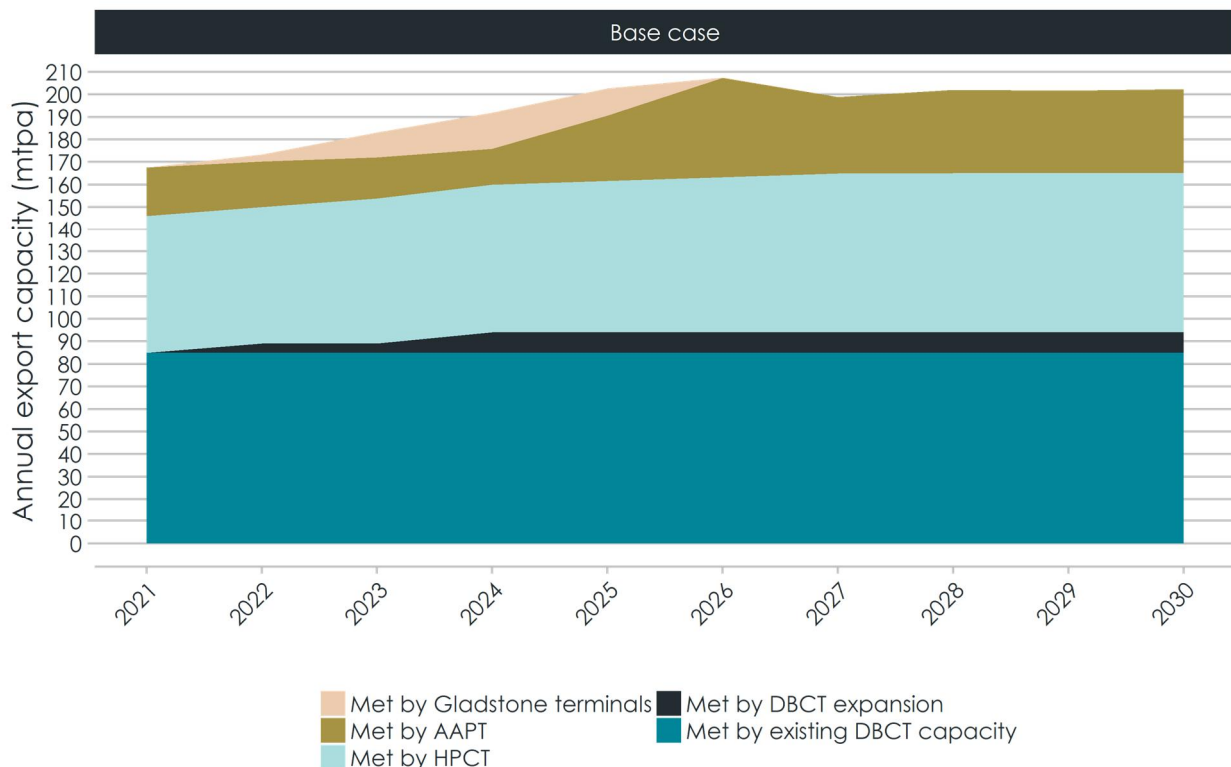
Figure 6.1 shows the result of this assessment for the base case assumptions. It shows which terminals or locations are deployed in order to meet total foreseeable demand in the market at least cost over the 2020 to 2031 period.

The results indicate that:

- total foreseeable demand in the market is materially higher over the entirety of the 2021 to 2030 period than DBCT has the capacity to meet – maximum foreseeable demand for capacity is over 200 mtpa, whereas the capacity of DBCT with the 8X expansion is capped at 102 mtpa (or 136 mtpa if the 9X expansion were feasible); and
- total foreseeable demand in the market is met at least cost by four facilities, being DBCT (including expansions of the facility), HPCT, AAPT and RGCTCT.

It follows that criterion (b) is not satisfied, since total foreseeable demand in the market cannot be met at least cost by DBCT (whether expanded or otherwise) and would be instead met by two or more facilities.

Figure 6.1: Least cost provision of total foreseeable demand in the market



6.2.2 Least cost provision of total foreseeable demand, excluding BMA and BMC mines

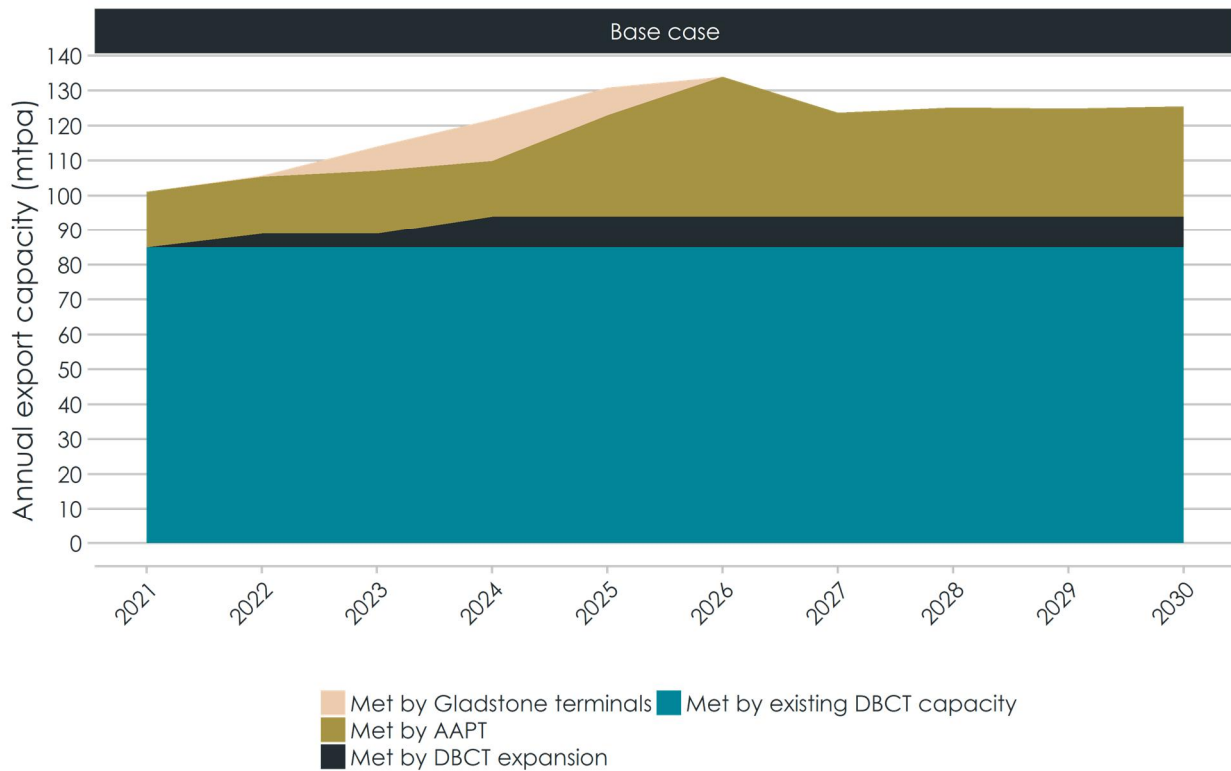
DLA has asked us also to assess criterion (b) under the assumption that the production of BMA and BMC mines is excluded from the calculation of total foreseeable demand in the market. This is despite the evidence that there is significant substitution by many of these mines between HPCT and DBCT. In section 5 above we estimate total foreseeable demand in the market after making this adjustment.

Figure 6.2 shows how total foreseeable demand in the market, assessed on this basis, is met at least cost. The results indicate that:

- even with all production from BMA and BMC mines removed from the market, total foreseeable demand in the market still substantially exceeds the capacity of DBCT – maximum foreseeable demand for capacity is over 130 mtpa; and
- total foreseeable demand in the market is met at least cost by three facilities, being DBCT (including expansions of the facility), AAPT and RGTCT.

It follows that criterion (b) is also not satisfied after exclusion of the BMA and BMC mines from the market, since total foreseeable demand in the market still cannot be met at least cost by DBCT (whether expanded or otherwise) and would instead be met by two or more facilities.

Figure 6.2: Least cost provision of total foreseeable demand (excluding BMA and BMC mines)



6.2.3 Least cost provision of total foreseeable demand under alternative resource cost scenarios

We discuss at section 6.1.2 above that there is a significant degree of uncertainty as to how best to measure resource costs, particularly in respect of the use of rail services, for which it is difficult to measure capacity and to estimate expansion costs.

Recognising the level of uncertainty regarding the resource cost component of charges, we implement the least cost step of our assessment of criterion (b) under three scenarios, as outlined in table 6.2 below. These scenarios reflect:

- two approaches to estimating the resource costs for coal handling services for existing capacity, based either on full coal handling charges or only the variable component of those charges; and
- three different approaches to modelling resource costs for rail services, which we discuss in more detail at appendix A2.2.2 to this report.

Table 6.2: Resource cost assumptions for least cost scenarios

Scenario	Rail costs	Terminal costs
Charges based	<ul style="list-style-type: none"> • Resource costs assumed to be equal to rail access and haulage charges 	<ul style="list-style-type: none"> • Resource costs for existing capacity assumed to be equal to terminal charges • Resource costs for new capacity equal to the variable component of terminal charges plus capital costs of expansions.
Variable costs	<ul style="list-style-type: none"> • Resource costs assumed to be equal to the variable components of rail access and haulage charges 	<ul style="list-style-type: none"> • Resource costs for existing capacity assumed to be equal to variable component of terminal charges • Resource costs for new capacity equal to the variable component of port charges plus capital costs of expansions.
No rail costs	<ul style="list-style-type: none"> • Resource costs assumed to be irrelevant for assessment of least cost 	<ul style="list-style-type: none"> • Resource costs for existing capacity assumed to be equal to variable component of port charges • Resource costs for new capacity equal to the variable component of port charges plus capital costs of expansions.

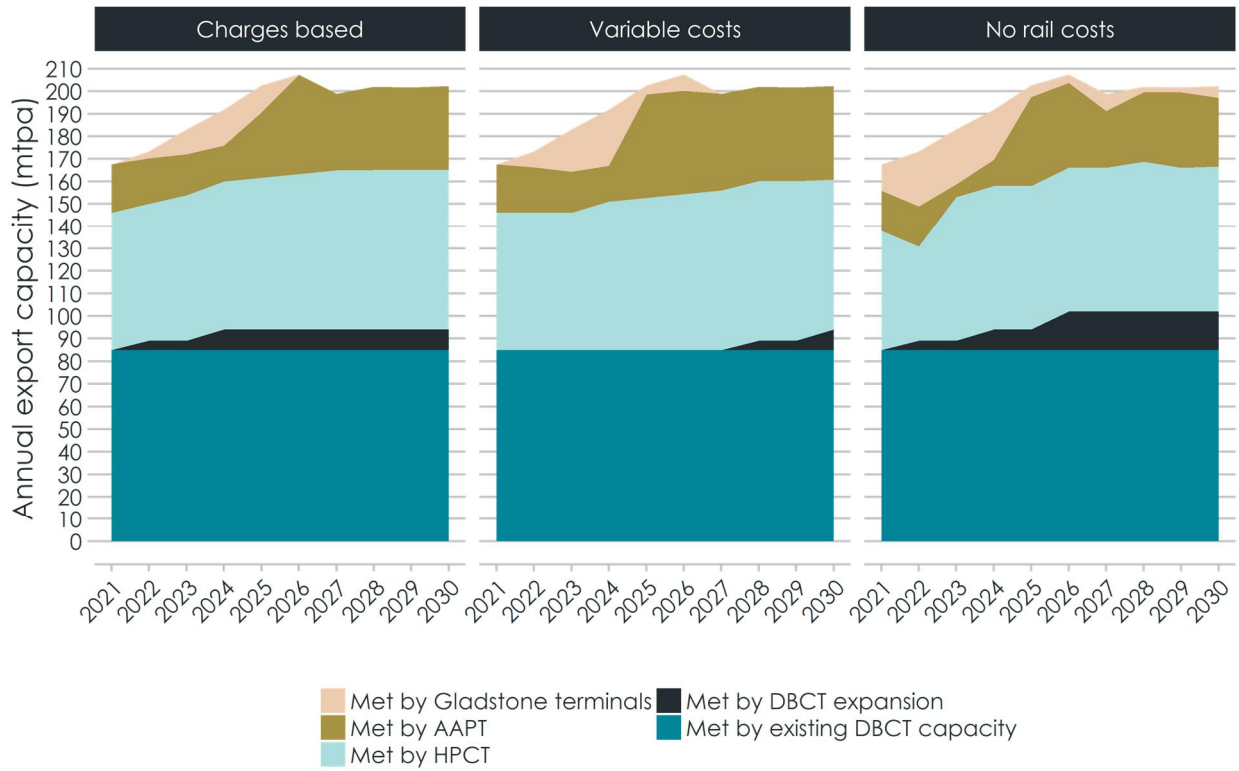
Figure 6.3 below shows the how total foreseeable demand in the market is met at least cost under each of these alternative approaches to resource costs. It shows that:

- total foreseeable demand in the market is not affected by assumptions about the measurement of resource costs, and in all cases this demand substantially exceeds the potential capacity of DBCT; and
- total foreseeable demand in the market is met at least cost by four facilities, being DBCT (including expansions of the facility), HPCT, AAPT and RGTCT.

It follows that criterion (b) is not satisfied, since total foreseeable demand in the market cannot be met at least cost by DBCT (whether expanded or otherwise) and would instead be met by two or more facilities.

These results remain unchanged if, as requested by DLA, all production from BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 6.3: Results of least cost provision under different approaches to estimating rail resource costs



7. Sensitivity of results to changes in assumptions

In this section we investigate additional sensitivities to our assessment of criterion (b) in addition to the base case results presented at section 6.2 above, showing how our results are affected by changes in input assumptions. This is particularly important in relation to those assumptions for which the publicly available information is limited and so are subject to a degree of uncertainty.

We consider the following additional sensitivities:

- low and high metallurgical coal prices – these cases consider outcomes where the price for metallurgical coal increases (+33 per cent) or decreases (-33 per cent) relative to the base case;⁵⁹
- low and high thermal coal prices – these cases consider outcomes where the price for thermal coal increases (+33 per cent) or decreases (-33 per cent) relative to the base case;
- low and high DBCT expansion costs – these cases consider outcomes across a range of potential expansion costs based on confidence intervals of the estimates of capital expenditure;⁶⁰
- low and high transport costs for Goonyella mines – these cases consider outcomes where travel costs for mines located within the Goonyella system to travel to DBCT are 25 per cent higher and lower than the base case;⁶¹
- low and high prices for GAPE system – these cases consider outcomes where costs to utilise the GAPE system are \$3 per tonne high or lower than the current charges assumed in the data;
- inclusion of 9X expansion option – this case considers outcomes where the 9X option for expansion of DBCT is deemed to be feasible within the proposed declaration period;
- mines in the Galilee Basin – this sensitivity assumes that mines in the Galilee Basin commence operations, reflecting the current uncertainty regarding future government support for these projects;
- a reasonable WICET charge – this case considers a scenario where terminal charges at WICET are aligned to charges at RGTCT and therefore provides for more low priced coal handling capacity at Gladstone; and
- compounding assumptions – this case considers a combination of low metallurgical and thermal coal prices, low expansion costs and feasibility of the 9X expansion within the proposed declaration period.

In all cases, the foreseeable demand for coal handling services in the market is met at least cost by two or more facilities over the period for which the service would be declared. In each case, these facilities include at least one other terminal aside from DBCT and HPCT.

7.1 Sensitivity to coal prices

Coal prices exhibit variation over time and this has a bearing on the future viability of some mines located in central Queensland. To assess the potential for changes in projects coal prices to alter the outcomes of assessment of criterion (b) we consider the sensitivity of the outcomes of the assessment to:

- metallurgical coal prices; and
- thermal coal prices.

⁵⁹ This variance is based on a historical analysis of the variance in coal prices. 33 per cent is approximately equal to one standard deviation of historic annual changes in prices.

⁶⁰ The low and high expansion cost estimates are derived based on the nature and detail of the cost estimates for each expansion. In particular, the range of expansion costs are: Zone 4 between -15 per cent and 20 per cent, 8X expansion between -25 per cent and 35 per cent and 9X expansion between -25 per cent and 50 per cent.

⁶¹ We consider sensitivities with +25 per cent (high) and -25 per cent (low) applied to transport costs, that is, rail access and rail haulage charges.

For both sensitivity analyses we have considered cases where the coal price is 33 per cent higher and lower than the base case price forecast. 33 per cent is based on an historical analysis of the variance in coal prices and is approximately equal to one standard deviation of the historical range, applied to the mean coal price forecast.

7.1.1 Sensitivity to metallurgical coal prices

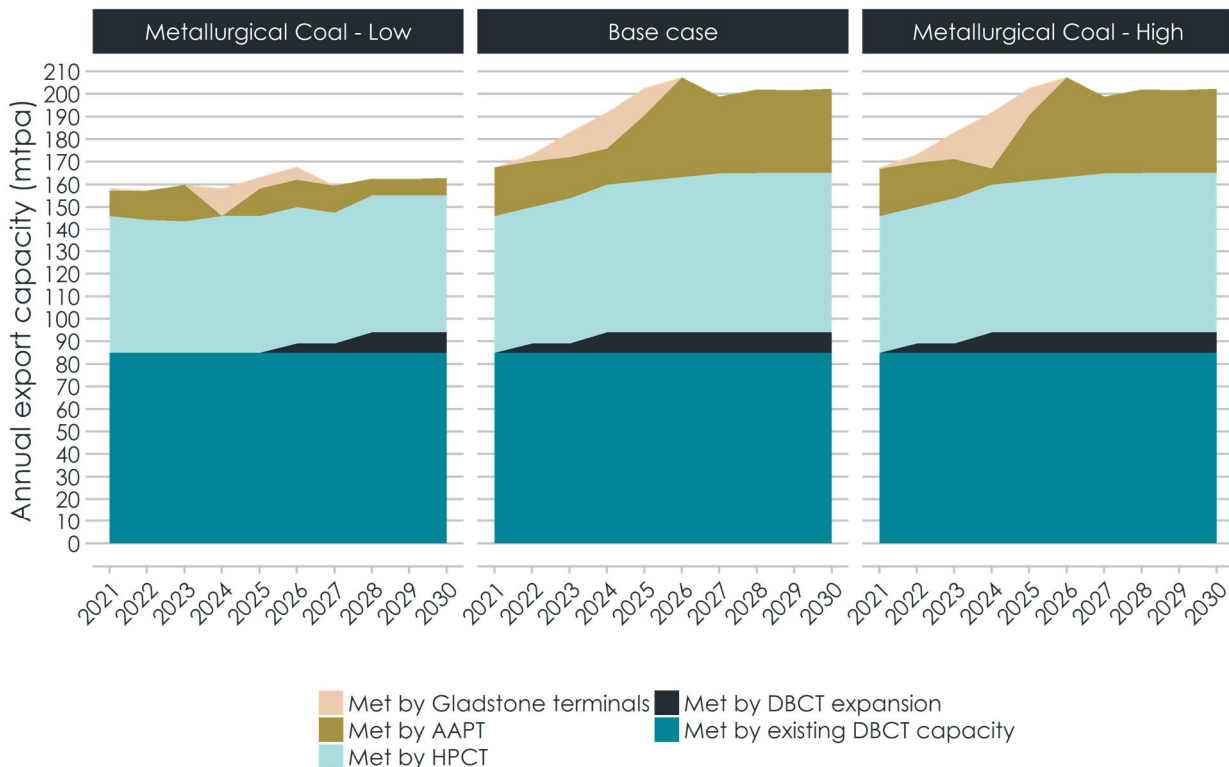
The majority of foreseeable demand in the market is metallurgical coal. It follows that the assessment of criterion (b) may be influenced by the forecast metallurgical coal price, because decisions to produce are driven by the expected profitability of mines. We reflect this in our analysis by assuming that, where mine expansions are deemed to be 'probable' or 'possible', only expansions that are profitable, given coal prices, go into production.

Figure 7.1 shows the decomposition of foreseeable demand in the market in response to different forecasts for the price of metallurgical coal:

- at low prices, we see a notable reduction in the foreseeable demand in the market; and
- at high prices, there is no difference in the foreseeable demand in the market as compared with the base case.

Notwithstanding, under both scenarios we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other terminal aside from DBCT and HPCT. These results remain unchanged if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 7.1: Sensitivity of results to changes in metallurgical coal prices



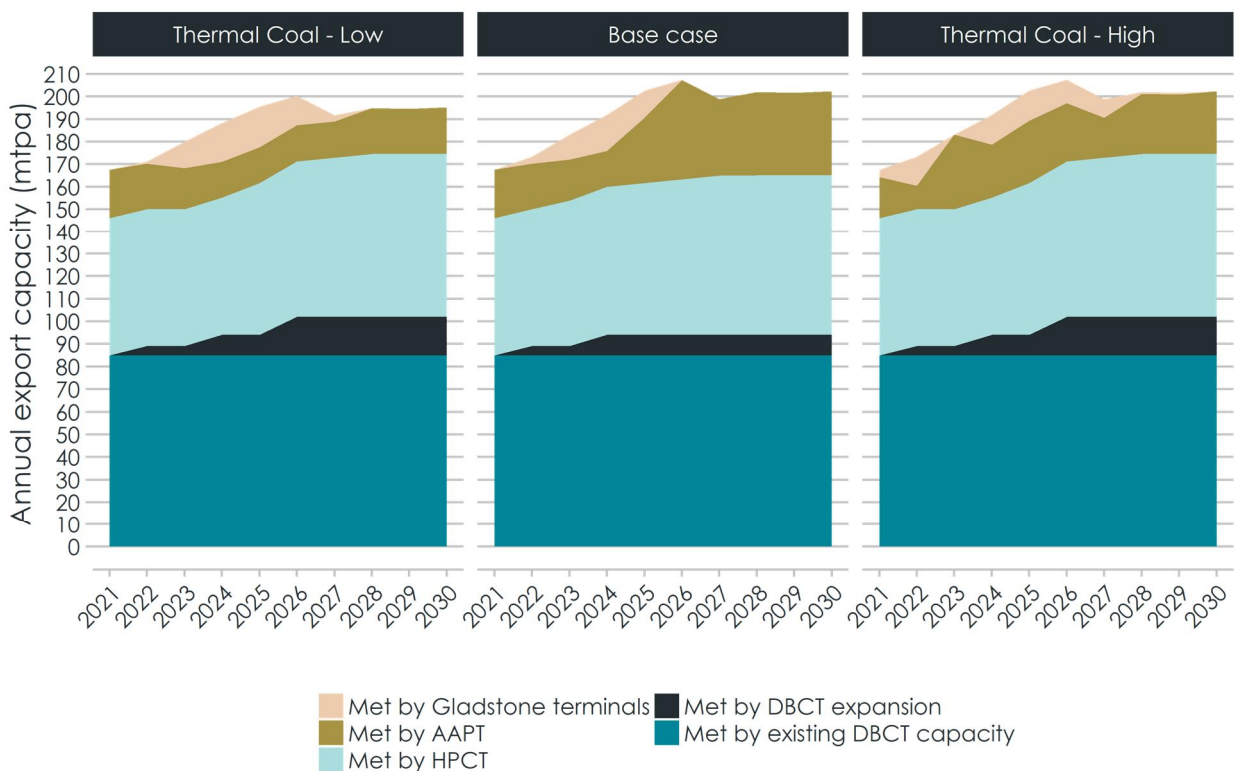
7.1.2 Sensitivity to thermal coal prices

Thermal coal comprises a smaller proportion of the foreseeable demand in the market relative to metallurgical coal. It follows that the sensitivity of the results to changes in thermal prices is less pronounced.

Figure 7.2 shows the sensitivity of the results to changes in thermal coal prices. As indicated in the figure, the assessment of foreseeable demand does not change significantly relative to the base case for either the high or low thermal price cases. This reflects the low proportion of thermal coal in the total foreseeable demand in the market.

Under both low and high terminal coal price scenarios, we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other terminal aside from DBCT and HPCT. These results remain unchanged if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 7.2: Sensitivity of results to changes in thermal coal prices



7.2 Sensitivity to DBCT expansion costs

The costs of coal terminal expansions are an important determinant of how future increases in coal production will be served at coal terminals in central Queensland. Lower costs of expansion at DBCT relative to expansions at other terminals, all things being equal, will increase the likelihood that total foreseeable demand in the market can be met at DBCT, rather than at other terminals.

We discuss at section 6.1.2 above that information regarding potential expansions at DBCT and their associated costs is publicly available. However, less information is available in relation to the options and costs for expansion of other terminals. In light of this uncertainty, we adopt a base case that assumes identical unit expansion costs at terminals other than DBCT, equal to the average cost per unit of capacity based on DBCT's expansion options.

Recognising the imprecision of this approach to cost estimates for expansions at ports other than DBCT, in this section we consider sensitivity cases in which DBCT's expansion costs are higher and lower than those assumed in the base case. The changes in expansions costs in each of the sensitivity cases reflect upper and lower bounds based on the estimated degree of precision of cost estimates. Table 7.1 shows the values assumed for the upper and lower values for the inflation/deflation for the sensitivities.

Table 7.1: Terminal expansion cost sensitivity assumptions

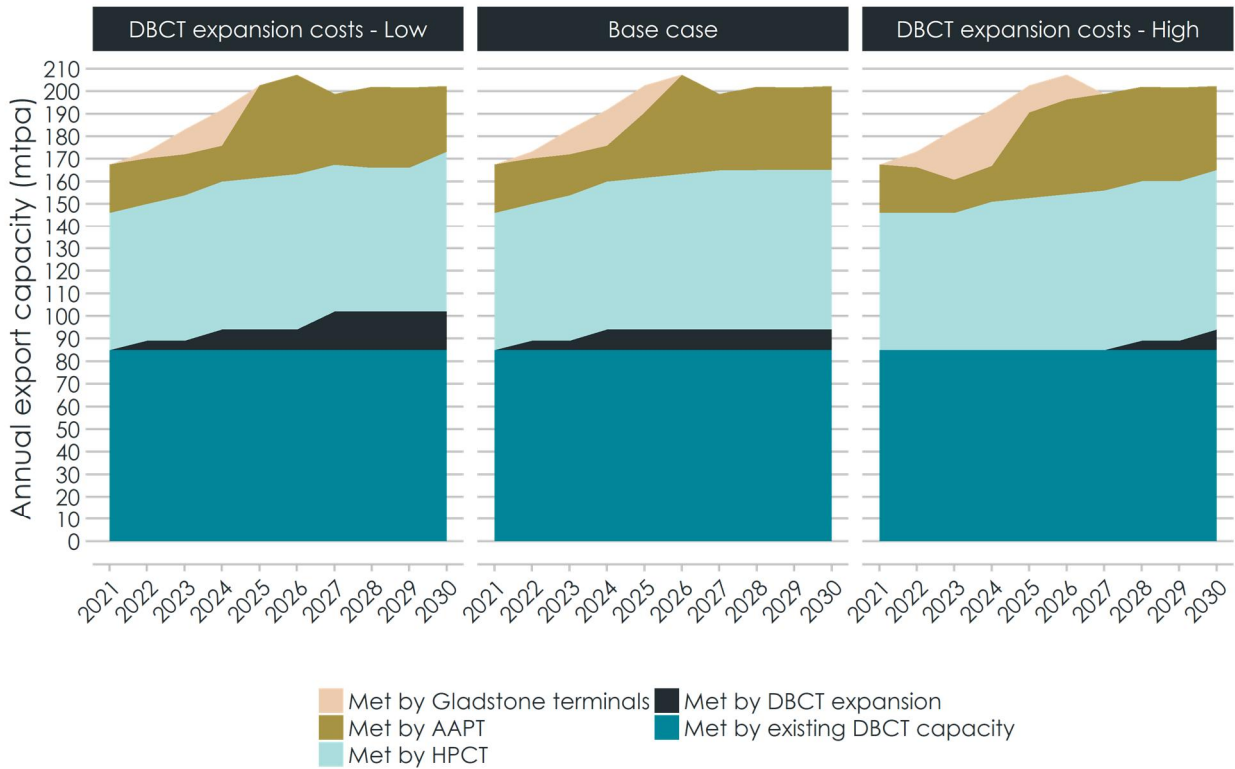
Expansion	Lower sensitivity	Upper sensitivity
Zone 4	-15%	20%
DB 8X	-25%	35%
DB 9X	-25%	50%

Figure 7.3 shows the sensitivity of our assessment of criterion (b) to changes in expansion costs for DBCT. The results indicate that changes to the relative expansion costs for DBCT has limited effect on the means by which foreseeable demand in the market is met:

- under the high DBCT expansion costs scenario, expansions to DBCT are delayed, with Zone 4 and the first phase of 8X implemented only towards the end of the period; and
- under the low DBCT expansion costs scenario, the second phase of the 8X expansion occurs in 2027.

Under both the high and low expansion costs scenarios, we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other terminal aside from DBCT and HPCT. These results remain unchanged if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 7.3: Sensitivity of results to changes in DBCT expansion costs



7.3 Sensitivity to rail transportation charges

We consider two sets of sensitivity cases for transportation costs faced by miners in utilising the rail network. These are:

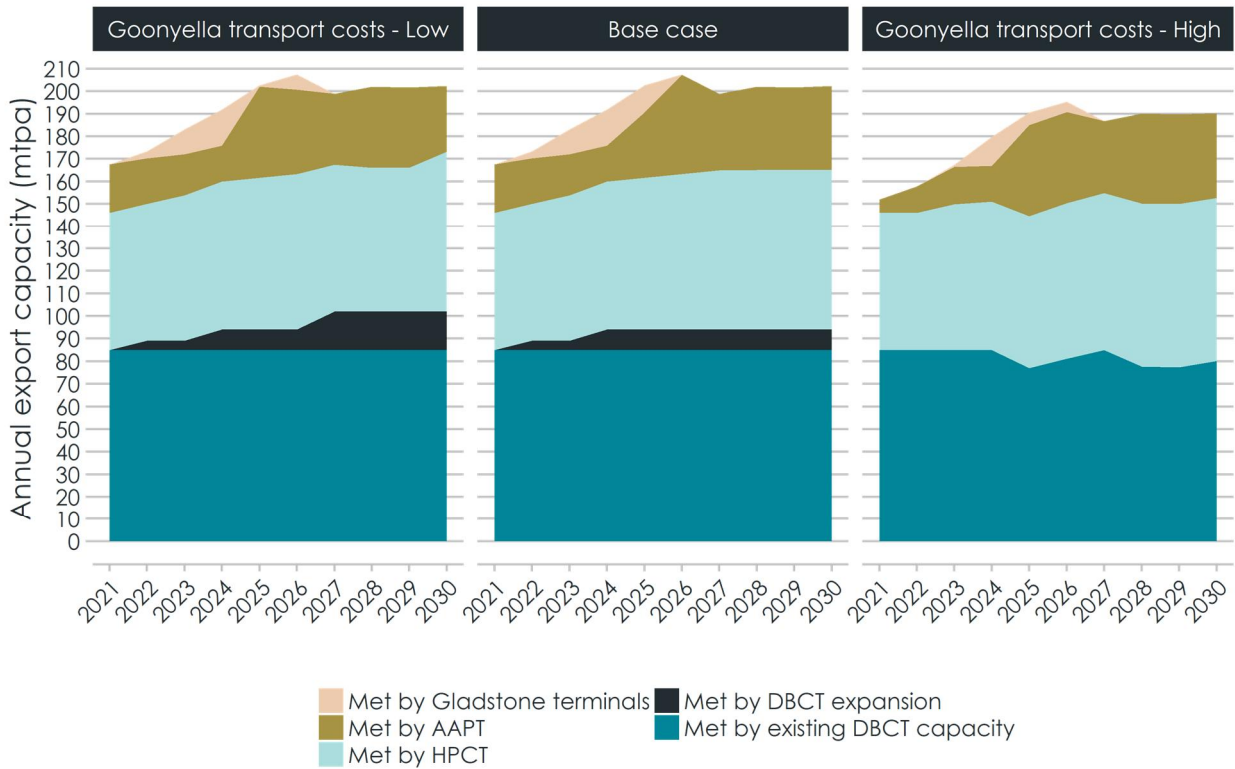
- sensitivity to transportation charges for mines utilising the Goonyella system – we consider cases where rail transportation charges for mines located within the Goonyella system are 25 per cent higher and lower relative to the base case; and
- sensitivity to charges associated with utilising the GAPE system – we consider cases where rail transportation charges for utilisation of the GAPE system are \$3 per tonne higher and lower than the base case.

Figure 7.4 shows the sensitivity of our results to changes in Goonyella rail system transport charges. With low transportation charges for mines within the Goonyella system, foreseeable demand in the market is not affected compared to the base case. However, in this scenario DBCT serves a higher proportion of total foreseeable demand than under the base case, and the 8X expansion is fully implemented.

With high transportation costs for mines within the Goonyella system, foreseeable demand in the market is lower than under the base case. The decrease in foreseeable demand is due to substitution to other terminals, rather than changing the extent to which mines are profitable.

Under both low and high transportation costs, we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other terminal aside from DBCT and HPCT. These results remain unchanged if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 7.4: Sensitivity of results to Goonyella rail system transport charges



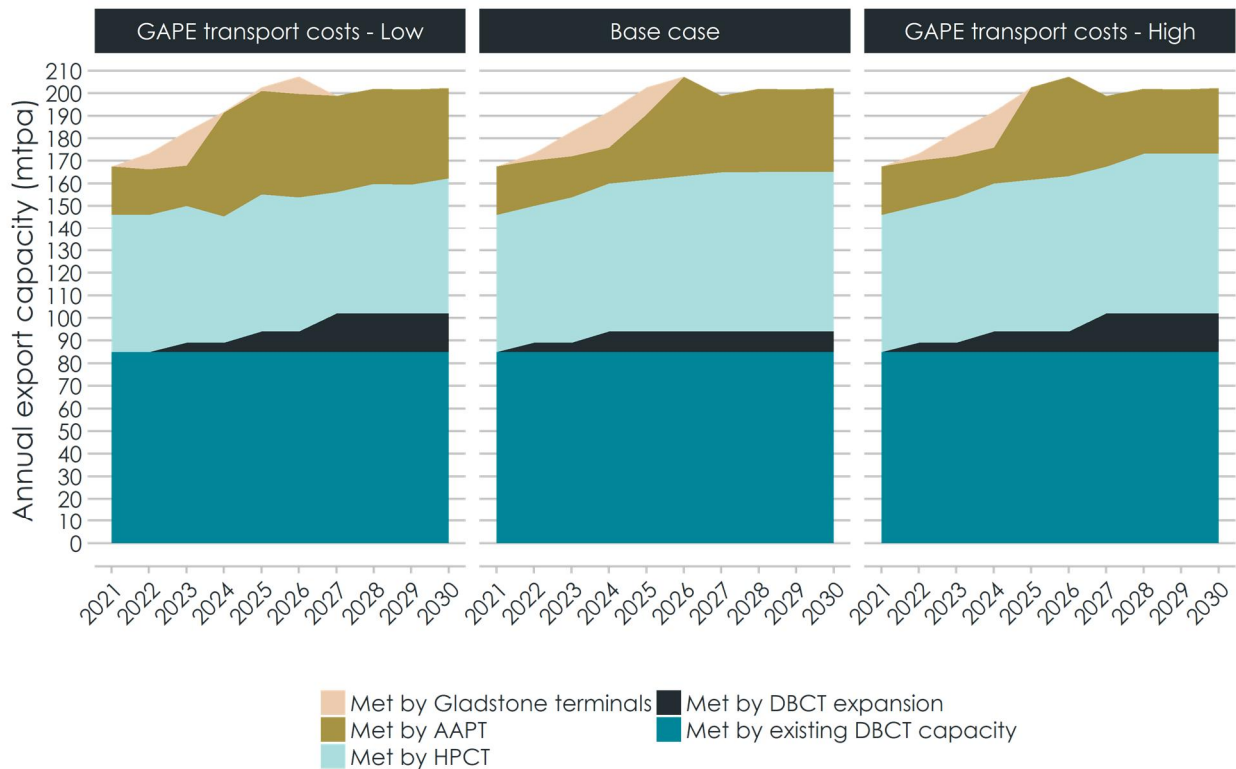
The GAPE system connects the Newlands and Goonyella rail systems. Current charges for usage of the GAPE system are high relative to other rail systems because the system is lowly utilised. The future utilisation of the GAPE system is expected to have a material influence on the rail charges incurred by users of the network, since any increase in volumes would enable the capital costs of the GAPE to be spread more thinly over its users.

Reflecting this uncertainty, we consider the sensitivity of the assessment of foreseeable demand in the market to the charge to users of the network to transport coal through the network by considering cases where the costs for utilisation of the network are \$3 per tonne higher and lower than the base case. Figure 7.5 shows the sensitivity to the cost of utilising the GAPE system.

Under this range of charges for GAPE system costs there is no change in the foreseeable demand in the market. However, the means by which foreseeable demand is met changes modestly. In particular, lower charges for the GAPE system increase the extent to which foreseeable demand is served at AAPT.

Under both low and high GAPE system costs, we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other terminal aside from DBCT and HPCT. These results continue to hold if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 7.5: Sensitivity of results to GAPE rail system transport charges



7.4 Sensitivity to the feasibility of the 9X expansion

If feasible, the 9X expansion would expand the capacity of DBCT by 34 mtpa. In combination with the 8X expansion option, this would result in the total capacity of DBCT increasing to 136 mtpa.

However, significant uncertainty exists as to the feasibility of the 9X expansion due to, amongst other impediments:

- the potential for restrictions on the dredging required for the completion of the project and
- the requirement for compulsory resumption of the land upon which the expansion would be developed.

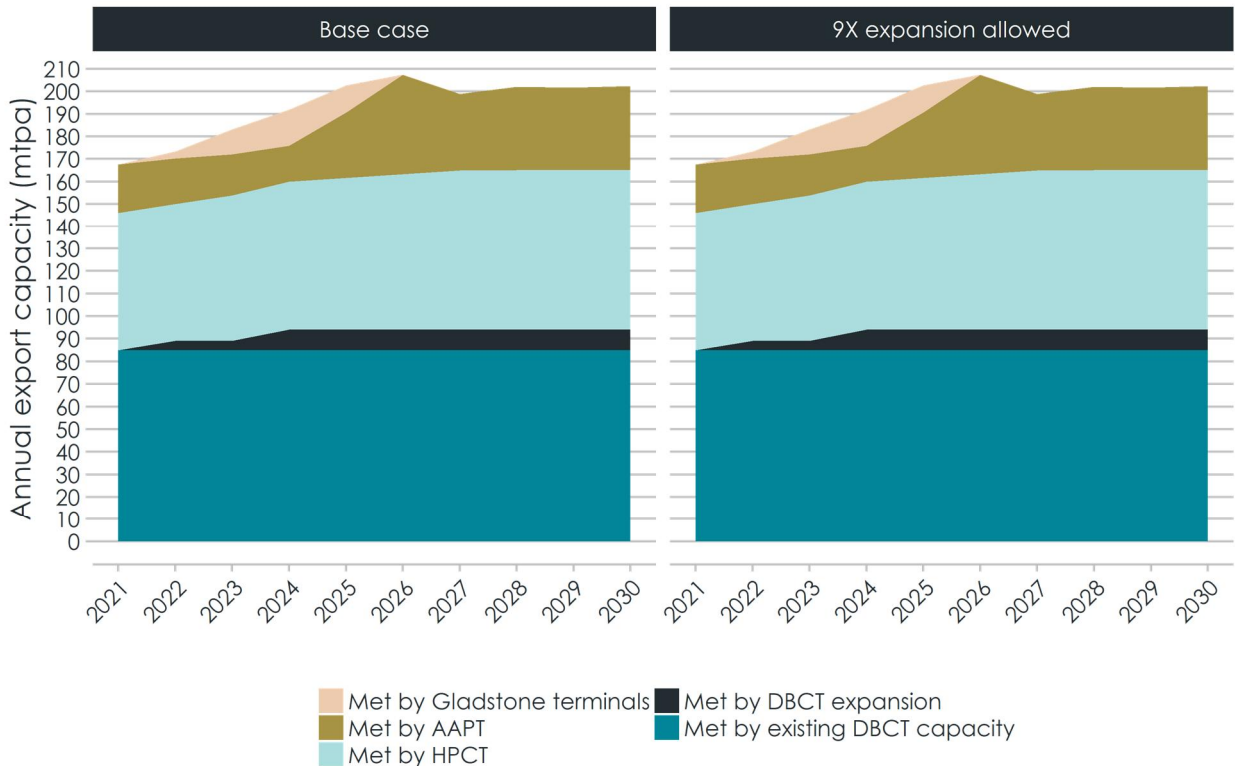
Further, notwithstanding these threshold issues, it is highly unlikely that the 9X expansion could in any case be completed within the declaration period because of the time it would take to plan and execute the Zone 4 and 8X expansions, which would need to be completed first.

Nonetheless, in this sensitivity, we consider a case where the 9X expansion is feasible within the declaration period. The 9X expansion is assumed to be implemented in three parts, as outlined in table 6.1 above.

Figure 7.6 shows the sensitivity of the assessment to the feasibility of the 9X expansion. Despite being feasible and reflecting an assumption that expansions can be completed every two years, our results indicate that no part of the 9X expansion would be used to meet total foreseeable demand at least cost, and the results of our base case analysis are not affected.

When we assume that the 9X expansion is feasible, we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other terminal aside from DBCT and HPCT. These results remain unchanged if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 7.6: Sensitivity of results to feasibility of the 9X expansion



7.5 Sensitivity to production from the Galilee Basin

In our base case scenario, we assume that production from the Galilee Basin is not forthcoming over the period for which the DBCT service would be declared. This assumption reflects that the success (or otherwise) of proposals to develop mines in the Galilee Basin is subject to a significant degree of uncertainty.

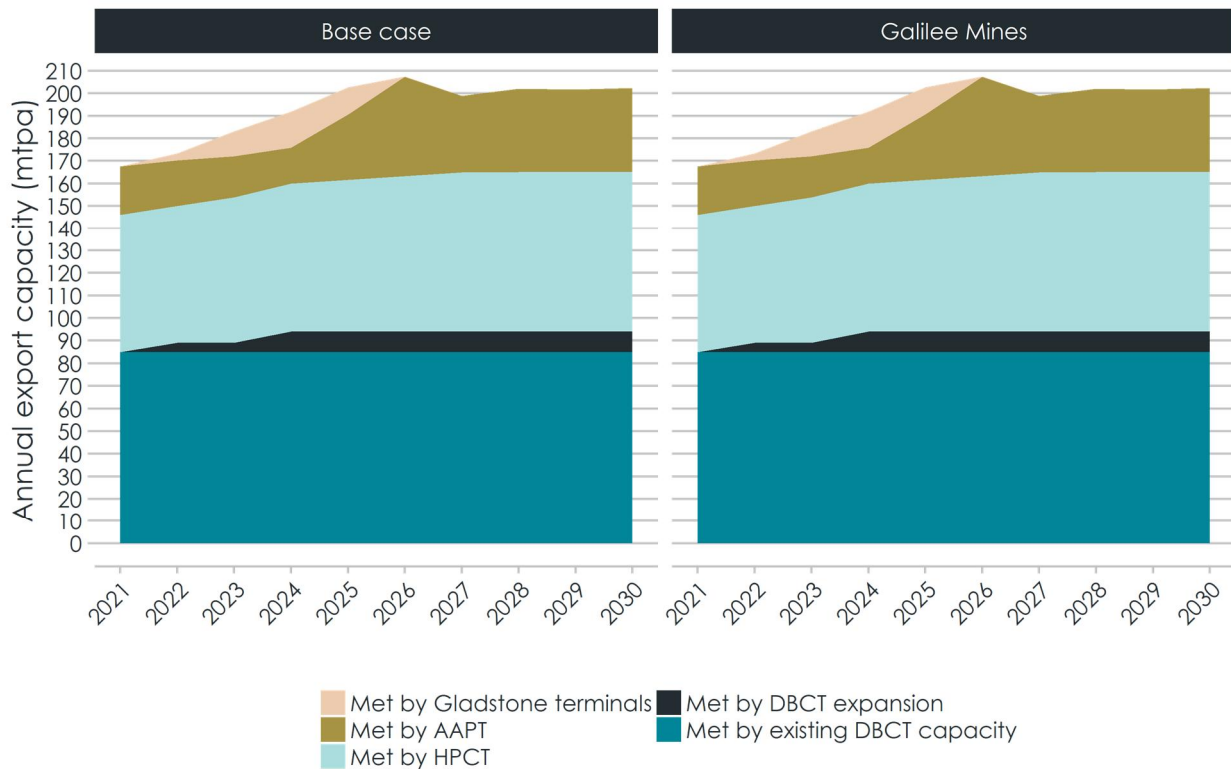
This sensitivity assesses criterion (b) under an assumption that mines in the Galilee Basin commence operations over the period for which the DBCT service would be declared. We assume that coal from the Galilee Basin utilises dedicated rail infrastructure to reach AAPT, and therefore does not substantially rely on new or existing Aurizon rail infrastructure to access export markets.

Figure 7.7 shows the sensitivity of the results to production from the Galilee Basin. The future status of Galilee basin mines is not projected to alter the extent to which foreseeable demand in the market is met by other terminals, including AAPT.

When we assume that mines from the Galilee Basin commence production during the period for which the service would be declared, we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other

terminal aside from DBCT and HPCT. These results remain unchanged if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 7.7: Sensitivity of results to production from the Galilee Basin



7.6 Sensitivity to the terminal charge for WICET

The unit charges at WICET in the assumptions set provided are substantially above the charges for other coal terminals. This is caused by a combination of:

- the socialised pricing policy adopted by WICET and;
- the reduction in contracted volumes through WICET that have been experienced over recent years.

The combination of these factors means that the remaining mines utilising WICET are charged higher relative prices as the fixed costs of WICET are spread over a smaller base of contracted volumes.

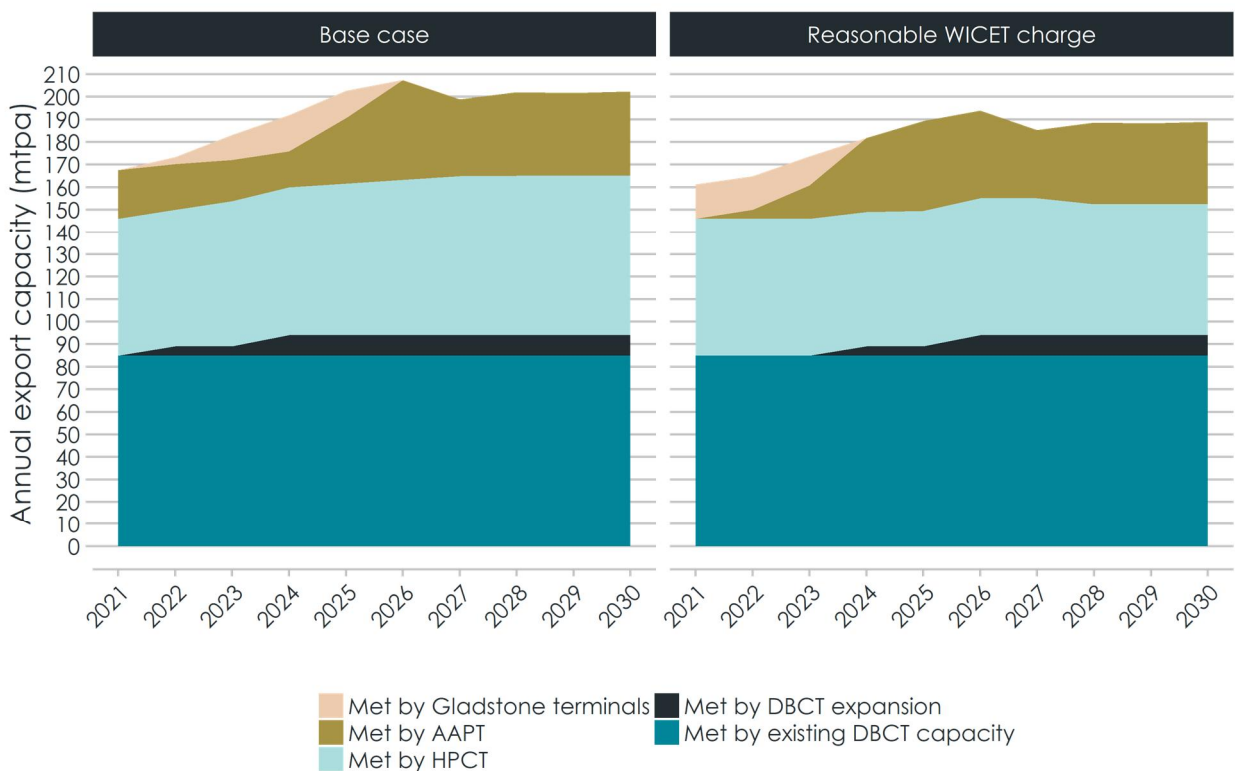
Should volumes increase in the future, the socialised pricing regime would mean that the terminal charges at WICET would reduce. However, our base case assessment of criterion (b) adopts the forecast of charges at WICET provided by AME, regardless of any conclusions that we draw about volumes that are exported from WICET.

To account for the uncertainty that this interaction creates in relation to future WICET charges, we consider a scenario where charges for existing capacity at WICET are equal to charges at RGTCT. This sensitivity reflects an extreme case where charges for WICET are at the bottom of the reasonable range of potential future charges. In effect, this sensitivity provides for a greater amount of competitively priced coal terminal capacity at Gladstone.

Figure 7.8 shows the result of this sensitivity. As the figure illustrates, the lower charge at WICET reduces total foreseeable demand in the market for coal handling services for mines proximate to the Port of Hay Point. However, it does not materially change how total foreseeable demand in the market is met.

When we assume that the WICET charge is aligned with the charge applied at RGTCT, we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other terminal aside from DBCT and HPCT. These results continue to hold if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Figure 7.8: Sensitivity to terminal charge at WICET



7.7 Sensitivity to compounding assumptions

In our assessment of sensitivities above, we consider each sensitivity to the base case assumptions in isolation. In this section, we consider the combined effect of those assumptions that appear to have the greatest effect on our assessment of criterion (b).

This scenario assumes:

- low prices for metallurgical and thermal coal, as described at section 7.1 above;
- that the costs of expanding the DBCT facility are low, as described at section 7.2; and
- that 9X is feasible during the period for which the DBCT service would be declared, as described at section 7.4.

This combination of sensitivities offers a scenario that is tilted towards a finding that DBCT is able to meet total foreseeable demand in the market at least cost.

Figure 7.9 and Figure 7.10 below show the results of our assessment of criterion (b) under this scenario. These result show that, even under this combination of assumptions, criterion (b) is not satisfied.

Figure 7.9 shows that DBCT is unable to meet total foreseeable demand in the market, since this demand exceeds the potential capacity of DBCT. Other terminals that meet this demand over the period for which the DBCT service would be declared include HPCT, AAPT and RGTCT.

Figure 7.10 shows that, even if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market, DBCT is still unable to serve total foreseeable demand in the market at least cost. In this scenario, DBCT is not expanded because, despite the relatively low total foreseeable demand, it is least cost to meet at least some of this using available capacity at other terminals.

Figure 7.9: Sensitivity to compounding assumptions (including BMA and BMC mines)

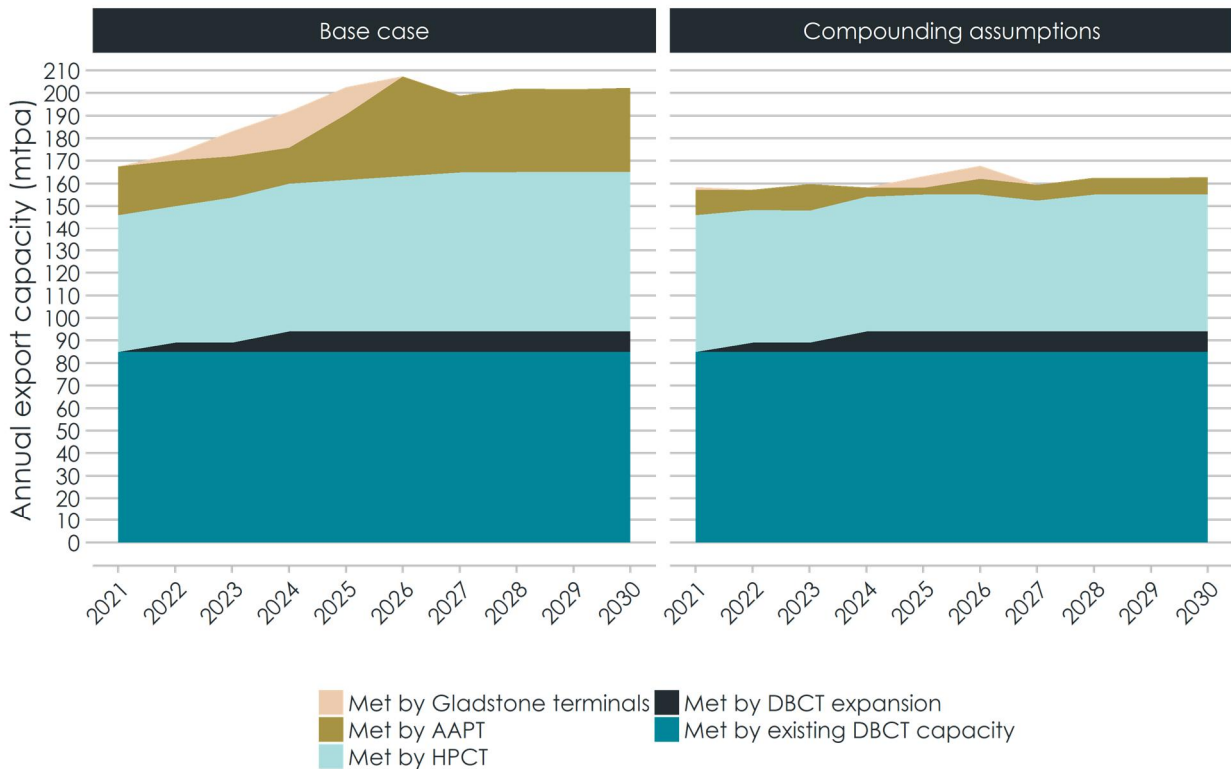
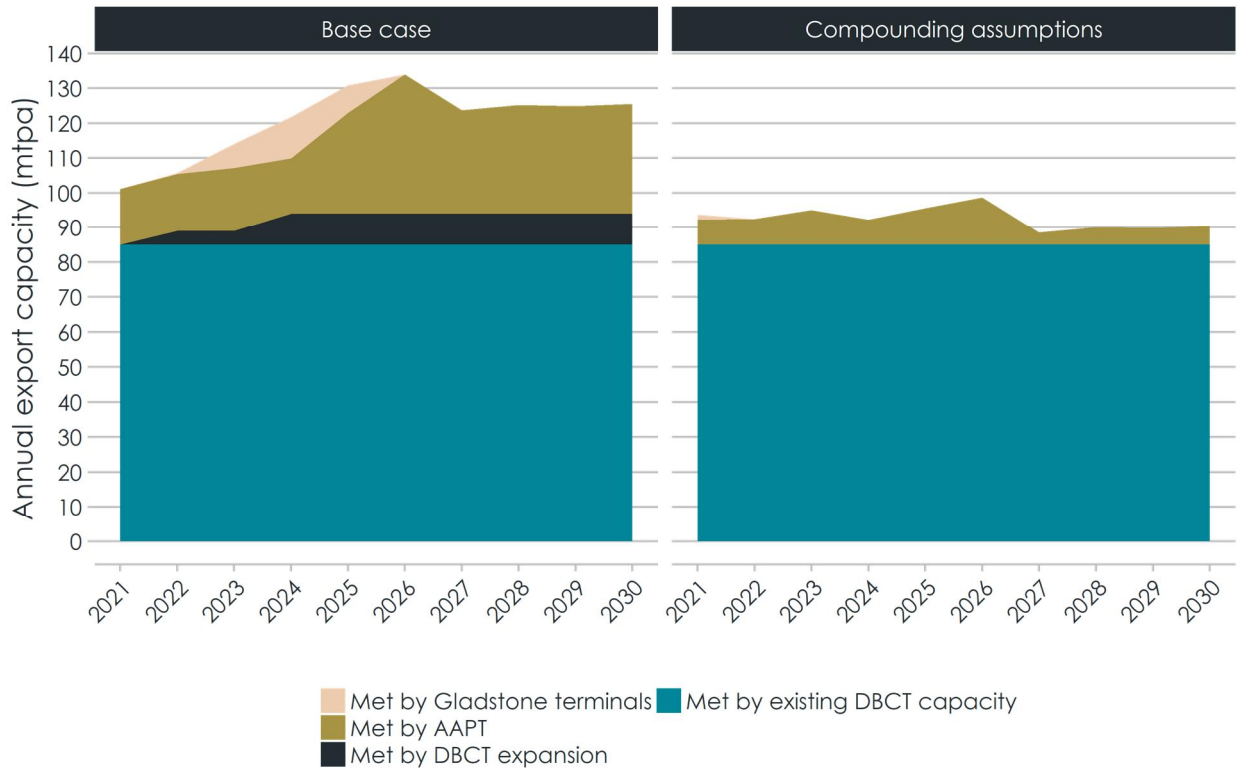


Figure 7.10: Sensitivity to compounding assumptions (excluding BMA and BMC mines)



8. Conclusion

In this report we assess whether the coal handling service provided at DBCT would satisfy criterion (b) under Part 5, Division 2 of the QCA Act, which is:

that the facility for the service could meet the total foreseeable demand in the market—

- (i) over the period for which the service would be declared; and
- (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service);

We conclude that the DBCT service does not satisfy criterion (b). Our finding derives from the following results established by our analysis:

- at current and forecast prices for coal terminal, rail access and rail haulage services, the forecast production of coal from mines proximate to the Port of Hay Point substantially exceeds the capacity of DBCT to serve these volumes;
- our finding that total foreseeable demand substantially exceeds the current and expanded capacity of DBCT remains even if the entire production volumes of BMA and BMC mines are excluded from the market;
- foreseeable demand in the market for coal handling services for mines proximate to the Port of Hay Point includes mines that are currently served by other terminals, including HPCT, AAPT and RGTCT; and
- an assessment of the resource costs of meeting foreseeable demand in the market shows that it is least cost for at least some of the foreseeable demand in the market to be met at HPCT, AAPT or RGTCT, instead of being met in its entirety by DBCT.

Despite these conclusions, our analysis employs a range of assumptions that cause our analysis to be predisposed to finding that criterion (b) is satisfied. These assumptions include that:

- our approach to defining the market limits the geographic dimension to the areas in which mines prefer to use coal handling services at the Port of Hay Point – this is likely to understate the geographic extent of the market and so underestimate total foreseeable demand in the market since some mines outside this area may also be potential customers of the DBCT service;
- our approach to taking into account physical constraints restricts the coal handling services that mines can access in competition to those provided by DBCT – this is likely to understate foreseeable demand in the market since these constraints could be relaxed with investment at the coal mine to allow greater choice of services;
- our exclusion of all BMA and BMC mines' production from foreseeable demand in the market overstates the effect of the preference of these mines to have their coal handling services provided by HPCT – this is likely to understate foreseeable demand in the market since some of these mines are likely to (and currently do) use DBCT either by preference or because HPCT capacity may not always be available;
- our approach to estimating foreseeable demand for contract capacity assumes that only 10 per cent of contracted capacity is unused over time – this is likely to understate foreseeable demand in the market since recent empirical evidence suggests the proportion of unused capacity is higher than this; and
- our approach to estimating resource costs in our base case analysis assumes that these are equal to coal terminal and rail charges – this is likely to overstate the incremental costs of serving foreseeable demand at terminals other than DBCT, making it relatively cheaper to meet total foreseeable demand at DBCT.

On all of these considerations, we regard our findings as robust, such that they are not sensitive to reasonable changes to the assumptions adopted in our analysis.

To test these conclusions, we have investigated a range of alternatives to the base case scenario, assessing the sensitivity of our findings to changes in input assumptions. In each of these sensitivities, we find that total foreseeable demand in the market is met at least cost by two or more facilities, and so criterion (b) is not satisfied. In each case, these facilities include at least one other terminal aside from DBCT and HPCT. These results remain unchanged if the production from all BMA and BMC mines is excluded from the estimate of total foreseeable demand in the market.

Consistent with these results, we find that the coal handling service provided at DBCT does not satisfy criterion (b) under Part 5, Division 2 of the QCA Act.

A1. Total foreseeable demand by mine

Table A1.1 presents our estimates of foreseeable demand in the market on a mine by mine basis, over the period for which declaration of the service is to be assessed.

The underlying forecasts of mine production from which these estimates are drawn are set out at table a3.6 at appendix A3 to this report. When assessing foreseeable demand, we assume that forecasts of production for existing mines and mine expansions that are deemed to be 'highly probable' will be realised. For mine expansions that are deemed to be 'probable' or 'possible', we assess whether they are expected to recover their costs using the cheapest combination of port and rail capacity. Only expansions that are expected to recover their costs on this basis are included in the assessment of foreseeable demand in the market.

Table A1.1: Total foreseeable demand for throughput in the market by mine

Operator	Mine	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Anglo American	Capcoal	■	■	■	■	■	■	■	■	■	■
	Grosvenor	■	■	■	■	■	■	■	■	■	■
	Moranbah North	■	■	■	■	■	■	■	■	■	■
	Moranbah South	■	■	■	■	■	■	■	■	■	■
Aquila	Eagle Downs	■	■	■	■	■	■	■	■	■	■
	Talwood	■	■	■	■	■	■	■	■	■	■
BHP Mitsubishi Alliance	Caval Ridge	■	■	■	■	■	■	■	■	■	■
	Daunia	■	■	■	■	■	■	■	■	■	■
	Goonyella	■	■	■	■	■	■	■	■	■	■
	Grosvenor West	■	■	■	■	■	■	■	■	■	■
	Peak Downs	■	■	■	■	■	■	■	■	■	■
	Saraji	■	■	■	■	■	■	■	■	■	■
	Saraji East	■	■	■	■	■	■	■	■	■	■
BHP Mitsui Coal	Poitrel	■	■	■	■	■	■	■	■	■	■
	South Walker Creek	■	■	■	■	■	■	■	■	■	■
Fitzroy Resources	Ironbark No. 1	■	■	■	■	■	■	■	■	■	■
Glencore	Clermont	■	■	■	■	■	■	■	■	■	■
	Oaky Creek	■	■	■	■	■	■	■	■	■	■
Jellinbah Group	Lake Vermont	■	■	■	■	■	■	■	■	■	■
Middlemount Coal	Middlemount	■	■	■	■	■	■	■	■	■	■
New Hope	New Lenton	■	■	■	■	■	■	■	■	■	■
Peabody	Codrilla	■	■	■	■	■	■	■	■	■	■
	Coppabella	■	■	■	■	■	■	■	■	■	■
	Denham	■	■	■	■	■	■	■	■	■	■
	Moorvale West	■	■	■	■	■	■	■	■	■	■

Operator	Mine	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	North Goonyella	█	█	█	█	█	█	█	█	█	█
	Olive Downs North	█	█	█	█	█	█	█	█	█	█
	Vermont East/Willunga	█	█	█	█	█	█	█	█	█	█
	West/North Burton	█	█	█	█	█	█	█	█	█	█
Realm Resources	Foxleigh	█	█	█	█	█	█	█	█	█	█
Rio Tinto	Hail Creek	█	█	█	█	█	█	█	█	█	█
	Kestrel	█	█	█	█	█	█	█	█	█	█
	Winchester South	█	█	█	█	█	█	█	█	█	█
Shandong Energy Group	Hillalong	█	█	█	█	█	█	█	█	█	█
Stanmore Coal	Isaac Plains	█	█	█	█	█	█	█	█	█	█
Terracom	Blair Athol	█	█	█	█	█	█	█	█	█	█
United Mining Group	Teresa	█	█	█	█	█	█	█	█	█	█
Yanzhou	Harrybrandt	█	█	█	█	█	█	█	█	█	█
Total foreseeable demand (including BMA and BMC)		150.90	156.10	164.84	172.73	182.42	186.70	178.96	181.87	181.60	182.10
Less volumes of BMA and BMC mines		59.85	60.95	62.15	63.15	64.65	66.15	67.65	69.15	69.15	69.15
Total foreseeable demand (excluding BMA and BMC)		91.05	95.15	102.69	109.58	117.77	120.55	111.31	112.72	112.45	112.95

Source: AME and Wood Mackenzie data, HoustonKemp analysis

A2. Description of modelling framework and assumptions

This appendix sets out a detailed description of:

- the modelling framework that we use to assess the least cost means by which total foreseeable demand in the market can be met; and
- the assumptions that we use to populate this framework in our assessment of criterion (b).

A2.1 Modelling framework for the assessment of least cost

To assess whether the facility for the service could meet the total foreseeable demand in the market at least cost compared to two or more facilities, we have developed an economic model of coal production and export within the bounds of the central Queensland coal network. In this section we describe the structure and functionality of our economic model.

Our modelling framework utilises a constrained optimisation approach that projects the optimal pattern of coal exports from mines located within central Queensland. This approach allows the model to capture a number of trade-offs inherent in the use and development of system capacity, for example that between expanding a port to accommodate higher demand or transporting the coal to an alternative port for export.

In specifying the model, we make a number of simplifying assumptions to ensure it is tractable:

- there is perfect foresight on behalf of an overall system planner; and
- there are negligible switching costs to a mine in changing its port of export, save for the change in rail haulage, rail access and coal terminal charges.⁶²

A2.1.1 Objective function

The model makes use of an objective function that represents the outcome the model is seeking to minimise – the resource costs of exporting total foreseeable demand in the market (as set out at section 5 above) over the period from 2021 to 2030.

A2.1.2 Model variables

To find the least cost means of meeting total foreseeable demand in the market, the model chooses the values of a range of variables that represent the inherently interrelated decisions that the mines, ports and rail network operators can make. The model variables are:

- mine expansions – binary variables representing the decisions of potential future mines to commence operations;
- rail flows – the flows of coal through each segment of the rail network;
- rail expansion – expansions (on a generic basis) to different networks within the broader rail network to accommodate higher coal throughput;
- port exports – exports of coal from each port; and
- port expansions – expansions to ports, based on specific expansion projects, to allow for increased coal export through the port.

⁶² We impose constraints on the locations to which individual mines can send coal, consistent with their existing infrastructure. The most common constraints that are taken into account are the loading loop direction, the rail interchange direction or a requirement for a new loading loop.

The model finds the unique value of each of these variables that gives rise to the least cost means of meeting foreseeable demand, subject to any constraints imposed on the solution.

A2.1.3 Model constraints

The constraints imposed upon the model's solution represent physical and economic limitations on the movement of coal in central Queensland. These constraints reflect the real-world dynamics of coal logistics. The types of constraints that are included in the modelling are:

- mine production constraints – constraints that require the outputs from a mine to be equal to its projected production, including both existing mines and new mine expansions that are determined within the model;
- port capacity constraints – constraints on the maximum volume of coal that can be exported through a terminal;
- port expansion constraints – constraints that influence the first year that each expansion can occur and the minimum time between expansions at the same terminal;
- rail network capacity constraints – constraints on the maximum quantity of coal that can utilise a system within the rail network;
- supply-demand constraints – constraints that ensure that the flow of coal in and out of each location within the network sums to zero at all points in time and for each mine;⁶³ and
- expansion consistency constraints – constraints that ensure that once capacity is expanded it remains expanded over the modelling period.

A2.1.4 Model outputs

The outputs of the model show the values of the variables that represent the least cost means of meeting total foreseeable demand and include:

- the volume of exports through each coal terminal by each mine in each year;
- the volume of haulage on each segment on the CQCN rail network in each year;
- the extent and timing of port expansions; and
- the extent and timing of rail expansions.

The granular level of model outputs allows us to examine the dynamics of coal export activity from central Queensland in detail and to track the flow-on effects of changes to constraints and inputs throughout the supply network.

A2.2 Input assumptions

This section introduces each of the assumptions that we utilise to estimate how total foreseeable demand in the market can be met at least cost by existing or expanded coal terminal capacity. It presents:

- the approach we take and assumptions we use approximating the resource costs of existing and expanded terminal and rail infrastructure; and
- other assumptions that we rely upon in our assessment of criterion (b).

There is a significant degree of uncertainty as to how best to measure resource costs. This uncertainty arises because:

⁶³ To model the movement of coal throughout the network, we describe the network as a series of 'nodes' representing mines, ports or rail junctions. At each node, coal is either injected by a mine, transported to or from by rail or exported through a port. These constraints ensure that the coal passing into each node is equal to the coal passing out of the node.

- the incremental costs of using existing terminal infrastructure are inherently unobservable;
- there is limited information available about the extent and expense of options to expand or construct terminal infrastructure; and
- it is not straightforward to describe (or quantify) the capacity of a rail network or the incremental costs required to expand this capacity.

A2.2.1 Resource costs of coal terminal capacity

In this section, we describe our approach to estimating the resource costs for:

- existing terminal infrastructure; and
- expanded terminal infrastructure.

Resource costs of existing coal terminal capacity

The resource costs of using existing coal terminal capacity are likely to be much lower than coal terminal charges since many of the costs incurred in providing coal terminal capacity are fixed in nature, with terminal charges reflecting a return of and return on sunk capital costs.

Terminals recover handling charges that vary with throughput (variable costs) and charges that do not vary with throughput (fixed costs). We assume that the resource costs of utilising existing coal terminal capacity are equal to the variable component of coal handling charges applied at each terminal. These charges are set out in table a3.1, at appendix A3 to this report. We estimate the variable proportion of charges at DBCT as equal to the Handling Charge Variable (HCV) as a proportion of the total coal handling charges for 2017/18 – 22 per cent.⁶⁴

We estimate resource costs of using existing capacity at other terminals by applying the same proportion to coal handling charges at those terminals.

Resource costs of new coal terminal capacity

We assume that the resource costs incurred to use expanded coal terminal capacity include both the fixed and variable costs of the expanded capacity. We estimate these costs as:

- the incremental capital expenditure required to realise this expansion – these capital costs are shown in table a2.2 below; and
- the variable component of port handling charges, as discussed above.

Although we capture the capital costs associated with expansions of coal terminal capacity, our approach to doing so takes into account the value of these investments beyond the period for which the facility for the service would be declared. We do this by:

- calculating an amortised value of the capital expenditure associated with a capacity expansion for each year of the useful life of the capacity – which we assume to be 40 years; and
- calculating the cost of the expansion as the present value of these amortised cashflows over the period for which the facility for the service would be declared – that is, 2021 to 2030.

This approach is likely to understate the resource costs associated with expanding terminal capacity to meet total foreseeable demand during the period for which the service would be declared. This is the case because:

⁶⁴ The total port handling charges include the Terminal Infrastructure Charge (TIC), Handling Charge Fixed (HCF) and Handling Charge Variable (HCV). The HCV for DBCT effective from 1 April 2018 is \$1.0953 per tonne while the total port handling charges were \$4.9467 per tonne.

- criterion (b) requires an assessment of the least cost means of meeting foreseeable demand over this period, which may be consistent with accounting for upfront capital expenditures in their entirety; but
- the approach we apply spreads a large proportion of the cost of expansions made during the declaration period to years beyond that period, thereby understating the total cost of meeting foreseeable demand *in that period*.

It follows that this approach to estimating resource costs will reduce the cost of meeting foreseeable demand using expanded capacity at DBCT relative to using available capacity at other terminals and so make it more likely that our assessment will find that the coal handling service at DBCT satisfies criterion (b).

Future terminal capacity expansions

The potential size and cost of future capacity expansions at DBCT and other coal terminals in central Queensland are an important input into an assessment of how total foreseeable demand in the market can be met at least cost.

If capacity expansions at DBCT require lower resource costs than those at other terminals, taking into account any difference in rail access and haulage resource costs, then this indicates that it may be lower cost to serve foreseeable demand at expanded capacity at DBCT than it would be to expand capacity at other coal terminals.

Table A2.2 sets out the list of potential future expansions of coal export terminal capacity that we have used in our assessment of how to meet foreseeable demand at least cost. In relation to these expansions, we assume that:

- each terminal must complete expansions in the order indicated;
- the earliest year in which expansions at any terminal can be completed is 2022; and
- each terminal can only undertake a maximum of one expansion every two years.

The information about potential capacity expansions shown in table a2.2 has been collected by DBCTM from publicly available information.

DBCT provides transparent information about potential capacity expansions and their costs in its Master Plan that it updates periodically. The most recent DBCT Master Plan was prepared in 2018.⁶⁵

Other terminals may provide information about potential capacity upgrades. For example, AAPT and WICET have publicly revealed plans for significant increases in capacity. However, the potential costs of these expansions are typically not revealed.

We therefore approximate the unit costs of capacity expansions for other terminals by the weighted average cost of expansions reported by DBCT, as shown in table a2.2 below. Reflecting this lack of certainty of coal terminal expansion costs, at section 7.2 we present the results of sensitivities demonstrating the effect of assuming both higher and lower unit expansion costs for DBCT relative to other terminals.

⁶⁵ DBCTM, *Master Plan 2018: Expansion opportunities at the Dalrymple Bay Coal Terminal*, 26 April 2018.

Table A2.2: Future options for capacity expansion of coal export terminals in central Queensland

Port	Expansion name	Expansion capacity (mtpa)	Cumulative capacity (mtpa)	Capital cost (\$/t)	Capital cost (\$ million)
DBCT	Zone 4	4.0	89	98.84	533.76
	DB 8X Phase 1	5.0	94	78.74	251.97
	DB 8X Phase 2	8.0	102	113.10	780.42
	DB 9X Phase 1	12	114	144.62	1,735.46
	DB 9X Phase 2	12	126	151.75	1,820.98
	DB 9X Phase 3	10	136	159.24	1,592.45
HPCT	HPX4	20	75	124.00	2,480.00
AAPT	T0 Phase 1 (Adani)	35	85	124.00	4,340.00
	T0 Phase 2 (Adani) 1	12	97	124.00	1,488.00
	T0 Phase 2 (Adani) 2	12	109	124.00	1,488.00
	T0 Phase 2 (Adani) 3	11	120	124.00	1,364.00
	T3 Phase 1 (GVK-Hancock)	30	150	124.00	3,720.00
	T3 Phase 2 (GVK-Hancock) 1	10	160	124.00	1,240.00
	T3 Phase 2 (GVK-Hancock) 2	10	170	124.00	1,240.00
	T3 Phase 2 (GVK-Hancock) 3	10	180	124.00	1,240.00
WICET	Stage 2 (WEXP1) Phase 1	11	38	124.00	1,364.00
	Stage 2 (WEXP1) Phase 2	11	49	124.00	1,364.00
	Stage 2 (WEXP1) Phase 3	11	60	124.00	1,364.00
	Stage 3 (WEXP2) Phase 1	12	72	124.00	1,488.00
	Stage 3 (WEXP2) Phase 2	12	84	124.00	1,488.00
	Stage 4 Phase 1	10	94	124.00	1,240.00
	Stage 4 Phase 2	10	104	124.00	1,240.00
	Stage 4 Phase 3	10	114	124.00	1,240.00

Source: DBCTM

We note that the approach to approximating the costs of capacity expansions at other terminals is an average of DBCT's reported expansion costs, including the costs of the 9X expansion, which is the most expensive expansion measured above and will not proceed during the period for which the DBCT service would be declared. This approach may have the potential to overestimate the average costs associated with expanding other terminals and therefore increase the prospect that it would be least cost to meet total foreseeable demand at DBCT.

A2.2.2 Resource costs and capacity of rail access and haulage

In this section, we describe our approach to estimating the resource costs for rail access and haulage.

Unlike for coal terminals, it is not straightforward to describe (or quantify) the capacity of a rail network or the costs required to expand this capacity, since this will always depend upon where in the network the incremental requirements for volume are experienced. It may therefore not be possible to know, given a level of total foreseeable demand, whether this can be met within existing rail network capacity or whether the network would require expansion in order to deliver this demand to the relevant terminals.

Although Aurizon Network makes available high-level information on expansion options in its network development plan,⁶⁶ this does not provide a straightforward basis upon which to estimate whether additional foreseeable demand from a specific mine (or combination of mines) in central Queensland would give rise to additional capital expenditure requirements and, if so, the amount of expenditure that would be required.

The complexity of capturing rail expansion costs suggests that a simplified approach is reasonable unless better estimates of rail capacity and expansion costs reach the public domain.

In our analysis, we consider three approaches to resources costs for rail access and haulage charges, where the resource costs for the provision of rail services are equal to:

- estimates of rail access and haulage charges;
- the variable component of rail access and haulage charges; and
- zero, on the assumption that resource costs for rail services should not be included in the least cost analysis.

The assumed rail access and haulage charges are set out in table a3.2 and table a3.3 at appendix A3.

All these approaches to assessing the resource costs of rail usage are simplified and reflect the paucity of public information that is available regarding the capacity and expansion costs of Aurizon's rail network.

We anticipate that the actual resource costs are likely to lie somewhere between those estimated by the first two approaches described above. There is no *a priori* reason to expect that either approach is likely to be best since it depends on the extent of expansion to the rail network capacity that is required and the associated costs of this expansion. We explain these approaches in greater detail below.

We also consider an additional scenario where we exclude the costs of transporting coal via the rail path that is required to access alternative facilities. This reflects the approach undertaken in analysis conducted by the QCA in its issues paper.⁶⁷ In our opinion, this approach is likely to underestimate the resource costs of utilising existing and expanded capacity, since it does not take into account relevant costs in coal supply networks that will be incurred in order to meet foreseeable demand.

Estimating rail resource costs equal to charges

Estimating resource costs as equal to rail charges assumes that:

- rail charges substantially reflect variable costs; and
- the expansion costs of rail access and haulage capacity reflect the costs of past capacity as reflected in charges.

We expect that this approach will overstate the resource costs associated with the use of the existing rail network, particularly for rail access charges that reflect substantial fixed costs. This approach to measuring the resource costs of existing rail infrastructure capacity is likely to make our assessment more likely to satisfy criterion (b). This is because it will overstate the incremental costs associated with meeting foreseeable demand using existing capacity at terminals other than DBCT and so make it more likely we will find that the least cost means of meeting foreseeable demand in the market is by using existing or expanded capacity at DBCT.

⁶⁶ Aurizon, *Network development plan 2016/17*, available online at https://www.aurizon.com.au/~media/aurizon/files/what%20we%20do/network/network%20development%20plans/ndp/networkdevelopmentplan_2016-17.pdf.

⁶⁷ The example provided by the QCA in Appendix B of the issues paper did not include the costs of transportation between facilities see QCA (2018), *Staff Issues Paper: Declaration Reviews*, April 2018, pp 31-32.

The assumption that expansion costs reflect the costs of past investments in capacity effectively assumes constant returns to scale and that capacity can expand continuously, that is, without lumpy investments. This is not likely to be an accurate reflection of expansion costs, particularly in relation to rail access.

Rather, the costs of expanding the capacity of a particular coal terminal in central Queensland to accommodate increases in foreseeable demand from nearby mines are likely to be lumpy and, on a unit basis, could be either lower or higher than the price of existing capacity depending upon the characteristics of the existing railway connecting these mines to the terminal. These costs may be affected by:

- the capacity of the existing railway – where the required rail path has available capacity this would be expected to reduce the costs of sizing the rail network to meet foreseeable demand;
- the configuration of the existing railway, reflecting the type of investment that would be required in order to increase its capacity – whether this requires additional signalling, new sidings or track duplication; and
- the geography of the existing railway – which is likely to influence the costs of implementing any plan to expand network capacity.

Estimating rail resource costs equal to the variable component of charges

Conversely, the approach that resource costs are equal to the variable component of rail charges assumes that:

- rail charges for existing capacity contain a substantial proportion that recovers fixed costs – the removal of this part of the charge will therefore increase the accuracy of resource costs for the use of existing capacity; and
- no expansions to the rail network capacity are required (or, rather, that the capacity of the rail network is more than sufficient to meet total foreseeable demand) or that the capital costs associated with these expansions is negligible.

By omitting the fixed cost component of current charges, this approach will provide a better estimate of the resource costs of using existing capacity. However, the use of the variable cost component alone will underestimate resource costs in circumstances where additional rail demand requires the existing capacity to be expanded.

We have estimated the variable proportion of rail access charges by reference to access undertakings for Aurizon's rail network. For the purpose of the analysis we assume that 50 per cent of rail haulage charges are variable.

A2.2.3 Other assumptions

Discount rate utilised in calculating present value costs

Assessing the costs of meeting total foreseeable demand in the market requires the use of a discount rate to estimate the present value cost of each means of meeting this demand.

For the purpose of this report, we adopt a central estimate for this discount rate of seven per cent. We examine sensitivities to this discount rate, modelling low and high values of four per cent and 10 per cent respectively.

Miners' ability to access services at coal terminals

The assumptions documented in appendix A3 dictate the extent to which it is physically feasible for a mine to utilise the coal handling services at any terminal – no data indicates a lack of feasibility.⁶⁸ These assumptions include that mines which are not operated by BMA or BMC are unable to utilise HPCT.

Miners' contractual positions

Consistent with the basis on which we define the market within which the service for the facility is provided, we do not take into account the existing contractual positions of miners in our analysis of the least cost means of meeting total foreseeable demand. In our opinion, taking into account contractual positions is not necessary in the least cost part of the assessment of criterion (b) because contracts do not impose or affect resource costs.

In any case, it would not be practicable to take contracts into account in an assessment of least cost because:

- insufficient information is available in respect of the contracting positions of miners with coal terminals and rail service providers to be able to draw robust conclusions about incentives to enter into new contracts; and
- predicting the behaviour of miners considering entering into new contracts with coal terminals and rail service providers, including the interaction of this with the availability of spare capacity, would be excessively complex even if good information on existing contracts were available.

⁶⁸ The most common constraints that are taken into account are the loading loop direction, the rail interchange direction or a requirement for a new loading loop.

A3. Schedule of input assumptions

In this appendix we set out the input assumptions (not otherwise presented in our report) that underpin our estimates of the geographic scope of the market, calculation of total foreseeable demand in the market and assessment of least cost. These assumptions have been provided to us by DBCTM and are sourced from independent industry experts, publicly available information and market data:

- table a3.1 presents forecasts of coal handling charges at each coal export terminal in central Queensland;
- table a3.2 presents forecasts of rail access charges faced by each mine in central Queensland to transport coal to each coal export terminal for which this is physically feasible without new capital expenditure;
- table a3.3 presents forecasts of rail haulage charges faced by each mine in central Queensland to transport coal to each coal export terminal for which this is physically feasible without new capital expenditure;
- table a3.4 presents forecasts of prices in the seaborne market (or markets) for the coal produced by each mine on the CQCN, by coal type;
- table a3.5 presents forecasts of production costs for each mine in central Queensland; and
- table a3.6 presents forecasts of coal production for each mine in central Queensland.

Table A3.1: Coal handling charges at each terminal (A\$ per tonne)

Year	AAPT	DBCT	HPCT	RGTCT	WICET
2018	█	█	█	█	█
2019	█	█	█	█	█
2020	█	█	█	█	█
2021	█	█	█	█	█
2022	█	█	█	█	█
2023	█	█	█	█	█
2024	█	█	█	█	█
2025	█	█	█	█	█
2026	█	█	█	█	█
2027	█	█	█	█	█
2028	█	█	█	█	█
2039	█	█	█	█	█
2030	█	█	█	█	█
2032	█	█	█	█	█
2033	█	█	█	█	█
2034	█	█	█	█	█
2035	█	█	█	█	█
2036	█	█	█	█	█
2037	█	█	█	█	█

Source: AME

Table A3.2: Rail access charge assumptions for each mine-terminal pair (\$A per tonne)

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Alpha	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Arcturus	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Baralaba	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Belvedere	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Belview	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Blackwater	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Blair Athol	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bluff	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bundi	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Byerwen	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Callide	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Capcoal	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Carborough Downs	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Carmichael	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Caval Ridge	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
China Stone	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Clermont	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Codrilla	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collinsville (Bowen Central)	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Columboola	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cook	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Coppabella	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Curragh	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Daunia	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dawson (Moura)	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Denham	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dingo West	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Drake	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Eagle Downs	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Elimatta	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ensham	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Foxleigh	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Galilee (China First)	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Goonyella	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor West	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hail Creek	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Harrybrandt	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hillalong	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ironbark No. 1	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Isaac Plains	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Jellinbah East	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kestrel	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kevin's Corner	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Lake Vermont	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Middlemount	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Millennium	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minerva	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minyango	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Monto	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale West	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah North	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah South	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Lenton	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Newlands	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Goonyella	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Oak Creek	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Olive Downs North	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Orion Downs	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Peak Downs	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Poitrel	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Red Hill (BMA)	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rolleston	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji East	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sarum Complex	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sonoma	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Galilee	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Walker Creek	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Springsure Creek	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Talwood	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Teresa	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
The Range	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Vermont East / Willunga	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wandoan	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Washpool	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West Rolleston	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West/North Burton	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Winchester South	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Yarrabee	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Source: Independent coal industry data

Table A3.3: Rail haulage charge assumptions for each mine-terminal pair (\$A per tonne)

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Alpha	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Arcturus	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Baralaba	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Belvedere	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Belview	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Blackwater	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Blair Athol	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bluff	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bundi	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Byerwen	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Callide	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Capcoal	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Carborough Downs	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Carmichael	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Caval Ridge	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
China Stone	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Clermont	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Codrilla	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collinsville (Bowen Central)	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Columboola	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Cook	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Coppabella	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Curragh	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Daunia	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dawson (Moura)	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Denham	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dingo West	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Drake	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Eagle Downs	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Elimatta	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ensham	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Foxleigh	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Galilee (China First)	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Goonyella	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor West	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hail Creek	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Harrybrandt	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hillalong	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ironbark No. 1	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Isaac Plains	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Jellinbah East	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kestrel	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kevin's Corner	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Lake Vermont	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Middlemount	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Millennium	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minerva	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minyango	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Monto	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale West	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah North	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah South	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Lenton	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Newlands	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Goonyella	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Oak Creek	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Olive Downs North	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Orion Downs	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Peak Downs	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Poitrel	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Red Hill (BMA)	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rolleston	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCTCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji East	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sarum Complex	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sonoma	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Galilee	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Walker	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Port	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Creek	HPCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Springsure Creek	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Talwood	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Teresa	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
The Range	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Vermont East / Willunga	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wandoan	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Washpool	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West Rolleston	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West/North Burton	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Winchester South	APCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	DBCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Yarrabee	RGCT	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	WICET	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Source: Independent coal industry data

Table A3.4: Seaborne coal price assumptions (\$US per tonne)

Mine	Product	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Alpha	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Arcturus	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Baralaba	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Belvedere	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Belview	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Blackwater	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Blair Athol	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bluff	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Broadlea North	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bundi	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Byerwen	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Callide	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cameby Downs	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Capcoal	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Carborough Downs	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Carmichael	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Product	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Caval Ridge	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
China Stone	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Clermont	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Codrilla	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collinsville (Bowen Central)	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Colton	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Columboola	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cook	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Coppabella	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Curragh	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Daunia	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dawson (Moura)	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Denham	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dingo West	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Drake	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Product	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Eagle Downs	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Elimatta	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ensham	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Foxleigh	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Galilee (China First)	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Goonyella	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor West	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hail Creek	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Harrybrandt	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hillalong	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ironbark No. 1	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Isaac Plains	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Jellinbah East	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kestrel	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kevin's Corner	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Lake Vermont	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Product	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Middlemount	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Millennium	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minerva	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minyango	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Monto	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale West	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah North	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah South	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Acland	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Lenton	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Newlands	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Goonyella	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Surat Joint Venture	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Oaky Creek	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Olive Downs North	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Product	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Orion Downs	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Peak Downs	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Poitrel	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Red Hill (BMA)	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rolleston	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji East	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sarum Complex	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sonoma	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Galilee	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Walker Creek	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Springsure Creek	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Talwood	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Teresa	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
The Range	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Vermont East / Willunga	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wandoan	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Washpool	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Product	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
West Rolleston	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West/North Burton	HCC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Winchester South	SS/HVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Yarrabee	LVPCI	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Source: Independent coal industry data

Table A3.5: Production cost assumptions for each mine (US\$ per tonne)

Mine	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Alpha																				
Arcturus																				
Baralaba																				
Belvedere																				
Belview																				
Blackwater																				
Blair Athol																				
Bluff																				
Bundi																				
Byerwen																				
Callide																				
Capcoal																				
Carborough Downs																				
Carmichael																				
Caval Ridge																				
China Stone																				
Clermont																				
Codrilla																				
Collinsville (Bowen Central)																				
Columboola																				
Cook																				
Coppabella																				
Curragh																				
Daunia																				
Dawson (Moura)																				
Denham																				

Mine	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Dingo West	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Drake	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Eagle Downs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Elimatta	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ensham	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Foxleigh	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Galilee (China First)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Goonyella	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor West	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hail Creek	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Harrybrandt	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hillalong	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ironbark No. 1	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Isaac Plains	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Jellinbah East	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kestrel	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kevin's Corner	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Lake Vermont	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Middlemount	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Millennium	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minerva	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minyango	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Monto	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale West	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah North	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah South	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Lenton	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Newlands	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Goonyella	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Oaky Creek	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Olive Downs North	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Orion Downs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Peak Downs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Poitrel	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Red Hill (BMA)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rolleston	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji East	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sarum Complex	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sonoma	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Galilee	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Walker Creek	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Springsure Creek	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Talwood	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Teresa	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
The Range	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Vermont East / Willunga	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wandoan	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Washpool	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West Rolleston	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West/North Burton	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Winchester South	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Yarrabee	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Source: Independent coal industry data

Table A3.6: Forecast production from existing and proposed mines (mt)

Mine	Type	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Alpha	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
Arcturus	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Athena	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Baralaba	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Belvedere	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Belview	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Blackwater	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Blair Athol	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Bluff	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Broadlea North	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Bundi	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Byerwen	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Callide	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Cameby Downs	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Capcoal	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Carborough Downs	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Carmichael	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Caval Ridge	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
China Stone	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Clermont	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Codrilla	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Collinsville (Bowen Central)	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Colton	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Columboola	Thermal	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

Mine	Type	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Cook	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Coppabella	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Curragh	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Daunia	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dawson (Moura)	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Denham	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dingo West	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Drake	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Eagle Downs	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Elimatta	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ensham	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Foxleigh	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Galilee (China First)	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Goonyella	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor West	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hail Creek	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Harrybrandt	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hillalong	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ironbark No. 1	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Isaac Plains	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Jax	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Jellinbah East	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kestrel	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kevin's Corner	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Lake Vermont	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Middlemount	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Type	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Millennium	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Minerva	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minyango	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Monto	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale West	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah North	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah South	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Acland	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Lenton	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Newlands	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Goonyella	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Surat Joint Venture	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Oaky Creek	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Olive Downs North	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Orion Downs	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Peak Downs	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Poitrel	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Red Hill (BMA)	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rolleston	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji East	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sarum Complex	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sonoma	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Galilee	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Walker Creek	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

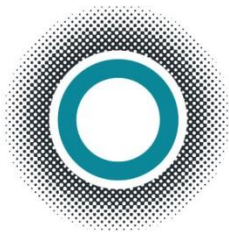
Mine	Type	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Springsure Creek	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Talwood	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Teresa	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
The Range	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Vermont East / Willunga	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wandoan	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Washpool	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West Rolleston	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West/North Burton	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Winchester South	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Yarrabee	Thermal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Alpha	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Arcturus	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Athena	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Baralaba	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Belvedere	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Belview	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Blackwater	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Blair Athol	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bluff	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Broadlea North	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Bundi	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Byerwen	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Callide	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cameby Downs	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Capcoal	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Type	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Carborough Downs	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Carmichael	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Caval Ridge	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
China Stone	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Clermont	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Codrilla	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Collinsville (Bowen Central)	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Colton	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Columboola	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Cook	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Coppabella	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Curragh	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Daunia	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dawson (Moura)	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Denham	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Dingo West	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Drake	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Eagle Downs	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Elimatta	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ensham	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Foxleigh	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Galilee (China First)	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Goonyella	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grosvenor West	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Hail Creek	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Type	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Harrybrandt	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Hillalong	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Ironbark No. 1	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Isaac Plains	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Jax	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Jellinbah East	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kestrel	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Kevin's Corner	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Lake Vermont	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Middlemount	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Millennium	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minerva	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Minyango	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Monto	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moorvale West	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah North	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Moranbah South	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Acland	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Lenton	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Newlands	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Goonyella	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Surat Joint Venture	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Oaky Creek	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Olive Downs North	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Orion Downs	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Mine	Type	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Peak Downs	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Poitrel	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Red Hill (BMA)	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Rolleston	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saraji East	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sarum Complex	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sonoma	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Galilee	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Walker Creek	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Springsure Creek	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Talwood	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Teresa	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
The Range	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Vermont East / Willunga	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wandoan	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Washpool	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West Rolleston	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
West/North Burton	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Winchester South	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Yarrabee	Metallurgical	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Appendix 11 Least cost analysis

This section illustrates that foreseeable demand in the market will be met at least cost by a combination of DBCT and other CQCN terminals, rather than by DBCT (as expanded) alone. DBCTM has used the same estimates of total foreseeable demand in the market as those in HoustonKemp's alternate Base Case in which HoustonKemp was asked to assume that the production of BMA and BMC mines is excluded from the calculation of total foreseeable demand in the market (using Throughput volumes, not Contracted volumes)³⁸⁸ (see Table 1). DBCTM refers to this scenario as Base Case 2 in this illustration.

Table 1: Total foreseeable demand in the market for Base Case 2 (Mtpa)

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
TFSD (Mtpa)	91	95	103	110	118	121	111	113	112	113

Under Base Case 2, total foreseeable demand in the market exceeds DBCT's 85Mtpa nameplate capacity from FY2021 onwards (91Mtpa in FY2021). The maximum demand figure over the declaration period is 121Mtpa (FY2026). For DBCTM to meet total foreseeable demand in the market, expansions will therefore be required. Table 2 sets out the options.

Table 2: Expansion options available to DBCT³⁸⁹

DBCT expansion	Incremental Capacity (Mtpa)	Terminal Capacity (Mtpa)	Construction Cost (\$M, FY2015)	Estimate Stage
Zone 4	4	89	356	FEL2 ³⁹⁰
8X Phase 1	5	94	160 ³⁹¹	Concept
8X Phase 2	8	102	473	Concept
9X ³⁹² Phase 1	12	114	1,002 ³⁹³	Concept
9X Phase 2	12	126	1,002	Concept
9X Phase 3	10	136	835	Concept

This least cost analysis has assumed that no more than one expansion project can be completed in each year (e.g. Zone 4 and 8X Phase 1 cannot be completed in the same year). For total foreseeable demand in the market to be met by DBCT, the following expansions, and associated timing of expansion completion dates, would be required:

- Zone 4 expansion completed by FY2019 (lifts capacity to 89Mtpa)
- 8X Phase 1 completed by FY2020 (lifts capacity to 94Mtpa)
- 8X Phase 2 completed by FY2021 (lifts capacity to 102Mtpa)
- 9X Phase 1 completed by FY2022 (lifts capacity to 114Mtpa), which DBCTM notes is not reasonably possible³⁹⁴
- 9X Phase 2 completed by FY2024 (lifts capacity to 126Mtpa), which DBCTM notes is not reasonably possible.³⁹⁵

³⁸⁸ Appendix 10 HoustonKemp Report on (b), p. iv

³⁸⁹ Appendix 19 2018 DBCT Master Plan, pp. 53-55 for the Zone 4 and 8X expansions

³⁹⁰ A front end loading (FEL) 2 study has already been completed

³⁹¹ The \$25.3m allowance for replacing ST1 has been deducted from the estimate of the 8X Phase 1 expansion, as this is expected to be completed as part of the NECAP program.

³⁹² DBCTM notes the 9X expansion options are not considered reasonably possible (see Appendix 18 Impediments to 9X), but has retained them for the purpose of the illustration only.

³⁹³ The total cost of the 9X project, for all three phases of the project, is based on Aurecon's concept study estimate of ~\$2.85B (June 2015). The costs for each of the three phases has been derived pro rata by capacity

³⁹⁴ Appendix 18 Impediments to 9X

³⁹⁵ Appendix 18 Impediments to 9X

DBCTM notes that the expansion profile highlighted above cannot be feasibly realised. Indeed, DBCTM considers that the earliest year in which the Zone 4 expansion can be completed is FY2023; this timing is possible only because a FEL 2 study has already been completed. The other expansion options can materialise by FY2027 at the earliest; no FEL studies have been completed for these options. Critically, DBCTM notes its position that the 9X expansion may never proceed (see Appendix 18 Impediments to 9X). Therefore, DBCTM considers it has failed the first limb of the criterion (b) test, namely that *‘the facility for the service could meet total foreseeable demand in the market over the period for which the service would be declared’*.

Nevertheless, as explored below, DBCT cannot meet total foreseeable demand at the least cost relative to two or more facilities, and in doing so demonstrates that DBCT also fails the second limb of criterion (b). A key tenet of the analysis is that when an expansion is involved, the sum of avoidable capital and operating costs will be much higher than that when an expansion is not required. This is because avoidable capital costs are zero (or close to it) when an expansion is not required.

In the subsection below, DBCTM presents its analysis on the capital and operating costs of meeting total foreseeable demand in the market under Base Case 2. Most of the commentary relates to what occurs in FY2021, where total foreseeable demand in the market first exceeds 85.0Mtpa.

Capital Costs

The upfront capital costs, in FY2021 terms³⁹⁶, that would be incurred by DBCTM are set out in Table 1

Table 1: Upfront capital costs (FY2021 terms) for DBCT to meet total foreseeable demand in market

FY	2019	2020	2021	2022	2023	2024	2025
Expansion	Zone 4	8X Phase 1	8X Phase 2	9X Phase 1	-	9X Phase 2	-
Cost (\$M)	410	184	544	1,154	-	1,154	-

DBCTM considers that it may be appropriate to measure the *net capital cost* of the expansions. This approach recognises that there will be a residual value associated with the expansions after FY2030.³⁹⁷ One way of accounting for the residual value of the expansions is by amortising their costs over the useful lives of the assets. DBCTM notes that, under the 2017 Access Undertaking, the terminal’s economic life (end of FY2054) is the reference point for regulatory depreciation.

Therefore, one option is to amortise the cost of each DBCT expansion over the following period: FY2054 minus the year in which the expansion is commissioned. For example in the case of the Zone 4 expansion, which is commissioned just before the beginning of FY2020, the period for amortisation would be 35 years. For the purposes of the amortisation analysis, DBCTM has assumed a real discount rate of 5.0% per annum. The results are presented in Table 2 below.

Table 2: Amortised terminal capital costs (\$M, FY2021 terms)

FY	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Zone 4	24	24	24	24	24	24	24	24	24	24
8X Phase 1	11	11	11	11	11	11	11	11	11	11
8X Phase 2	-	33	33	33	33	33	33	33	33	33
9X Phase 1	-	-	70	70	70	70	70	70	70	70
9X Phase 2	-	-	-	-	72	72	72	72	72	72

³⁹⁶ Assuming a CPI escalation rate of 2.37% per annum, consistent with the QCA’s recent UT5 draft decision, p. 4

³⁹⁷ An alternative approach is to use gross costs, rather than amortised capital costs. To be conservative, DBCTM has used amortised capital costs.

FY	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total	35	68	138	138	210	210	210	210	210	210

In FY2021, the total amortised capital costs for expanding DBCT are \$35m. From FY2022 to FY2025, costs lift from \$68m to \$210m, and then remain at \$210m over the rest of the declaration period.

Below-rail expansions would be required in the Goonyella system to facilitate the total foreseeable demand under Base Case 2. Under this scenario, the impact of the throughput behaviour of the BMA/BMC mines on the Goonyella below-rail system is not relevant to the analysis because their throughput does not form part of the foreseeable-demand assessment.

The demand exceedances at DBCT under Base Case 2 (i.e. where demand exceeds 85Mtpa) is set out in Table 3.

Table 3: Demand exceedances at DBCT (Mtpa)

FY	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Demand exceedance	6	10	18	25	33	36	26	28	28	28

DBCTM has referred to Aurizon Network's 2016-17 Network Development Plan (NDP) for an indication of below-rail capital expansions that can occur in the Goonyella system to meet potential demand requirements. DBCTM has selected the most cost-effective below-rail expansions, assuming no above-rail upgrades and improvements occur, described in the NDP.³⁹⁸ The NDP indicates that the Goonyella-system throughput growth requiring the next tranche of expansions is 14Mtpa, followed by the next tranche being 47Mtpa.³⁹⁹ Given this, the following below-rail expansions are needed by the end of FY2022:

- Signalling-infrastructure improvements to decrease headway between Hatfield and Yukan, costing \$110m (\$FY2021)⁴⁰⁰
- Construction of a fourth unloading loop at DBCT, costing \$49m (\$FY2021).

According to the QCA's UT5 draft decision, approved asset lives for core signalling systems is 15 years and that for heavy track in the Goonyella system (assumed to be the track type used the DBCT unloading loops) is 35 years.⁴⁰¹ The amortised below-rail capital costs are presented in Table 4 below.

Table 4: Amortised below-rail capital costs (\$M, FY2021 terms)

FY	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Decrease headway Hatfield - Yukan	-	-	10	10	10	10	10	10	10	10
Fourth loading loop at DBCT	-	-	3	3	3	3	3	3	3	3
Total	-	-	13	13	13	13	13	13	13	13

From FY2021 to FY2022, avoidable below-rail capital costs are zero (as the trigger volume of 14Mtpa is not met yet). However, over the rest of the declaration period, the figure is \$13m per annum.

Total terminal and below-rail costs are set out in Table 5 below.

³⁹⁸ Aurizon Network Development Plan 2016-17 page 44

³⁹⁹ The 31Mtpa throughput growth threshold mentioned in Aurizon Network's NDP is not relevant in this illustration because it relates to the behaviour of BMA/BMC mines (i.e. construction of third loop at HPCT).

⁴⁰⁰ Based on an inflation rate of 2.37% approved in the QCA's UT5 draft decision, p. 4

⁴⁰¹ QCA draft decision, Appendix E, p. 474

Table 5: Amortised capital costs (\$M, FY2021 terms)

FY	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
DBCT	35	68	138	138	210	210	210	210	210	210
Aurizon Network	-	-	13	13	13	13	13	13	13	13
Total	35	68	151	151	223	223	223	223	223	223

Total avoidable capital costs are \$35m in FY2021, and increase to \$223m in FY2025. Total costs are \$223m p.a. from FY2025 to FY2030.

Operating Costs

The avoidable (or incremental/escapable) operating costs that are relevant are the above-rail, below-rail and terminal operating costs, for the mines contributing to the excess demand over the declaration period. To draw a comparison with the capital costs in a particular year, DBCTM has focussed on what the avoidable operating costs are in FY2021, where the first demand exceedance occurs (i.e. 91Mtpa in comparison with 85Mtpa).

In HoustonKemp's Base Case 2 scenario, HoustonKemp has informed DBCTM that two Goonyella mines which contribute to total foreseeable demand in the market in FY2021 will use spare capacity at AAPT to meet their access requirements.⁴⁰²

These two mines are located closely to each other, and are almost equidistant to the two terminals. The distances are: 278 km for DBCT; and 280 km for AAPT. This illustration therefore simplifies the analysis by treating the demand exceedance of 6Mtpa as coming from a single mine.

Avoidable operating costs across the supply chain relate to items like track wear-and-tear, fuel (electricity/diesel) and labour (e.g. for handling of coal at a terminal). In the absence of precise information on such costs, DBCTM has generated operating cost estimates on the basis of, among other things, the above- and below-rail charge data in HoustonKemp's expert report on criterion (b),⁴⁰³ below-rail tariff data from the QCA's UT5 draft decision, and price data from DBCTM's website in relation to coal-handling services.

The Goonyella system predominantly uses electric trains (98% of current network utilisation is for electric trains⁴⁰⁴). Therefore, DBCTM has assumed that the mine in question will use electric trains to rail to DBCT. The estimate of the avoidable operating costs for the mine are set out below:

- **Below-rail avoidable costs:**⁴⁰⁵ Aurizon Network's AT1 tariff (gross-tonne kilometre basis) seeks to reflect the incremental maintenance costs (e.g. rail wear-and-tear costs) with providing access to the CQC. ⁴⁰⁶ The electrical-energy charge (EC) tariff (gross-tonne kilometre basis) recovers the cost of electricity used by electric train services.

In DBCTM's view, the AT1 and EC tariff components⁴⁰⁷ applied to 6.0Mtpa of demand for the mine will reflect the avoidable operating costs of providing below-rail access to the mine. DBCTM has estimated the AT1 and EC costs

⁴⁰² Note there are four mines in this category, however, this illustration simplifies the analysis by focusing on two of those mines.

⁴⁰³ See Appendix A of the HoustonKemp Report on (b)

⁴⁰⁴ Aurizon Network's 2017 Electric Traction DAAU, p. 6

⁴⁰⁵ DBCTM's approach for calculating below- and above-rail tariffs in this illustration differs to that adopted by HoustonKemp. DBCTM's approach is explained in subsequent footnotes.

⁴⁰⁶ QCA draft decision on UT5, p. 21

⁴⁰⁷ The AT1 and EC tariffs have been derived from Appendix B, p. 464 of the QCA draft decision on UT5. They have been calculated on the basis of the mine having to pay the Goonyella-system tariffs (averaged over the UT4 period, using 2.37% pa as the inflation rate as recommended by the QCA, to express the tariffs in each year in FY2021 terms), noting a nominal train payload of 10,055 tonnes and consist weight (without coal) of 3,485 tonnes.

to account for 20.5% of the total below-rail charge. Applying this percentage to HoustonKemp's below-rail-charge estimate of \$4.98/t⁴⁰⁸ yields an avoidable operating cost of \$1.02/t.

The below-rail avoidable operating cost is thus \$6.1m for 6.0Mtpa.

- **Above-rail avoidable costs:** DBCTM has assumed the share of avoidable operating costs in the above-rail charge (covering costs like crew labour) will be 50%, consistent with HoustonKemp's assumption. Applying this percentage to HoustonKemp's above rail charge estimate of \$7.10/t⁴⁰⁹ yields an avoidable operating cost of \$3.55/t.

The total above-rail avoidable operating cost is thus \$21.3m for 6.0Mtpa in FY2021.

- **Port-terminal avoidable costs:** DBCTM has assumed that the variable handling charge at DBCT (set by the user-owned DBCT Pty Limited, which would indicate the charge is competitively set and efficient, is an appropriate proxy for measuring avoidable terminal costs. This charge is \$1.1176/t in FY2018. Assuming an escalation rate of 2.37% per annum, consistent with the QCA's UT5 draft decision, the charge is \$1.1990/t in FY2021 terms. The total terminal avoidable operating cost is thus \$7.2m for 6.0Mtpa in FY2021.

Total avoidable operating costs in FY2021 are approximately \$34.6m (rounded to \$35m).

Comparing DBCT with AAPT

As noted above, HoustonKemp's modelling shows that two Goonyella mines (treated as a single mine in this illustration), which contribute to total foreseeable demand in the market, will use AAPT (without expansion) in FY2021 instead of DBCT. DBCTM has sought to quantify the avoidable supply-chain operating costs that would be incurred by AAPT to meet the demand exceedance of 6.0Mtpa at DBCT.

For AAPT to meet the demand exceedance at least cost when compared to DBCT, the avoidable supply-chain operating costs of accessing AAPT needs to be lower than \$70m (\$35m of capital costs and \$35m of operating costs at DBCT in FY2021). DBCTM considers this outcome highly likely. To support its view, DBCTM observes the following:

- **Below-rail avoidable costs:** DBCTM notes that only the AT1 tariff is relevant, since the GAP/Newlands system is not electrified and the EC tariff does not apply; DBCTM has estimated that the AT1 cost accounts for 10.7% of the total below-rail charge.⁴¹⁰ Applying this percentage to HoustonKemp's below-rail-charge estimate of \$9.49/t⁴¹¹ yields an avoidable operating cost of \$1.02/t. Avoidable below-rail costs would hence be \$6.1m in FY2021, for 6.0Mtpa throughout from the mine.
- **Above-rail avoidable costs:** The above-rail charge is \$8.19/t.⁴¹² Applying the 50% assumption to derive avoidable operating costs results in a unit rate of \$4.10/t. The total above-rail avoidable operating cost is \$24.6m.
- **Port-terminal avoidable costs:** In the absence of publicly available information on AAPT's handling charges, DBCTM has assumed that AAPT's variable handling charge is inversely proportionate with the relative nameplate capacities of the terminals. This reflects the assumption that bigger terminals have lower unit avoidable operating costs than smaller terminals. As DBCT has 70% greater nameplate capacity than AAPT (i.e. 85Mtpa compared with 50Mtpa), DBCTM has assumed that AAPT's handling charge is 70% higher than DBCT's.

⁴⁰⁸ \$4.64/t (\$2018) escalated by 2.37% per annum to express in the figure in FY2021 terms

⁴⁰⁹ \$6.62/t (\$2018) escalated by 2.37% per annum to express in the figure in FY2021 terms

⁴¹⁰ The AT1 tariff has been derived from Appendix B, p. 464 of the QCA UT5 draft decision on UT5. It has been calculated on the basis of the mine having to pay the Goonyella-system tariffs (averaged over the UT4 period, using 2.37% pa as the inflation rate as recommended by the QCA, to express the tariffs in each year in FY2021 terms), noting a nominal train payload of 6,871 tonnes and consist weight (without coal) of 2,845 tonnes.

⁴¹¹ \$8.85/t (\$2018) escalated by 2.37% per annum to express in the figure in FY2021 terms

⁴¹² \$7.63/t (\$2018) escalated by 2.37% per annum to express in the figure in FY2021 terms

The variable handling charge at AAPT is therefore assumed to be \$2.0382/t (\$FY2021) and total terminal avoidable operating costs for 6.0Mtpa of demand from the mine is \$12.2m in FY2021.

Table 6 provides a comparison of the avoidable costs, in FY2021, of the 6.0Mtpa from the mine being met at DBCT relative to AAPT.

Table 6: Avoidable costs of mine accessing DBCT relative to AAPT (for 6 Mtpa) in FY2021

Cost (\$M, FY2021)	DBCT	AAPT
Below rail (operating)	6.1	6.1
Below rail (capital)	-	-
Above rail (operating)	21.3	24.6
Above rail (capital)	-	-
Terminal (operating)	7.2	12.2
Terminal (capital)	35.0	-
Total	69.6	42.9

The total avoidable costs of the mine's demand of 6.0Mtpa utilising AAPT are \$43m in FY2021, compared to \$70m for DBCT. It is also noted that the cost difference of \$27m in FY2021 is understated for the following reasons:

- Amortised, rather than gross, capital costs have been used for the expansion costs at DBCT. If the gross capital costs of the Zone 4 and 8X Phase 1 were used, the avoidable capital costs incurred to meet total foreseeable demand in the market in FY2021 would have been approximately \$600m. The cost divergence of the mine's demand of 6.0Mtpa getting to DBCT (with the two necessary expansions) would be approximately \$630m higher than going through AAPT;
- HoustonKemp's estimate of below-rail charges for the mine to get to AAPT likely captures the price impact of access conditions (i.e. above-regulatory returns that Aurizon Network has agreed with its customers). Hence, the estimate of avoidable below-rail operating costs for the mine to get to AAPT would be overstated;
- Terminal operating costs (i.e. handling charge variable) at AAPT (\$2.04/t) are highly likely overstated. DBCTM anticipates that the resource cost would be closer to \$1.20/t (i.e. the price at DBCT), which reflects a competitively set price by the majority user-owned terminal operator at DBCT; and
- If below-rail expansions in the Goonyella system are required by FY2021 instead of FY2023, which may be an appropriate assumption given the preliminary and limited nature of the information in Aurizon Network's NDP, the costs divergence is greater.

As a sensitivity test, if DBCTM applies a 50% increase to the AAPT avoidable operating costs of \$43m, the uplifted costs of \$65m will still fall short of the \$70m of DBCT avoidable operating and capital costs. Conversely, if DBCTM halved the estimate of avoidable operating costs at DBCT (\$17.3m instead of \$34.6m), avoidable operating and capital costs at DBCT would be \$52m which is still higher than the figure of \$43m at AAPT.

Conclusion

DBCTM has demonstrated that it is least cost for the total foreseeable demand in the market, of 91Mtpa in FY2021, to be met by spare capacity at AAPT together with existing capacity at DBCT, rather than by expanding DBCT. This is because DBCT has to incur the capital costs to expand its capacity to meet the foreseeable demand, while AAPT (which has sufficient spare capacity) does not. DBCTM notes that this outcome is consistent with the principle that resource costs are high when expansions to terminals (and supply-network infrastructure) are required, and are low where existing capacity is available for use. Given it is least cost for a combination of (2 or more) facilities to meet the total foreseeable demand in the market, criterion (b) is not satisfied in respect to the DBCT service. Accordingly, the coal handling services at DBCT should not be declared.

Appendix 12 AME Coal Industry Report



21 May 2018

Mr. Jonathan Blakey
DBCT Management Pty Ltd
Level 25, Waterfront Place
1 Eagle Street
Brisbane, Qld 4000
AUSTRALIA

Dear Mr. Blakey,

RE: Coal Industry Report Update

AME Consulting Pty Ltd (“AME”) has been engaged by DBCT Management Pty Ltd (“DBCT”) to provide an Industry Report on the coal industry (the “Report”). We understand that the Report will be used, in part or whole, to support DBCT’s submission to the Queensland Competition Authority (“QCA”). This version of this report will be provided to DBCT and may be attached as a reference document to the submission. The Report may only be used for this purpose .

Production and Cost Analysis

Available data varies greatly between operations and projects. Much information is not reliable due to language difficulties, the confidential nature of the information, the inability to estimate the reliability of AME’s sources and general lack of data. Consequently, much information has to be estimated and the quality, accuracy and completeness of the resulting cost comparisons will reflect this and cannot be guaranteed. Furthermore, forecast costs embody a number of significant assumptions with respect to exchange rates and other technical variables. Because of these factors, direct comparability between individual projects may be limited and, as such, our supply and cost estimates must be treated with caution and cannot be relied upon.

Supply/Demand Analysis

In addition, AME has supplied tables of historical data and estimated future supply, demand and market trends by compiling, interpreting and analysing engineering, supply, economic, statistical and technical information from many third-party sources. Such company and country statistics usually contain inconsistencies and utilise sampling data techniques and, thus, should not be relied upon.

Data Accuracy

AME has prepared this Report using information from its in-house database as well as a wide range of public domain and industry data sources for which assessment cannot be made in regard to accuracy. This is because AME does not have access to confidential company information to verify our data quality. Therefore, reliance can only be provided where we have data of sufficient quality that is acceptable to an international commercial court.

Forward-Looking Statements

Statements in this document may contain forward-looking information identified by words such as 'estimates', 'intends', 'expects', 'believes', 'may' and 'will' and include, without limitation, statements regarding companies' plans of business operations, supply levels and costs, potential contractual arrangements and the delivery of equipment, receipt of working capital, anticipated revenues, mineral reserve and mineral resource estimates, and projected expenditures. There can be no assurance that such statements will prove to be accurate—actual results and future events could differ materially from such statements. Factors that could cause actual results to differ materially include, among others, changes to metal prices, risks inherent in the mining industry, changes in the economic environment, financing risks, labour risks, uncertainty of mineral reserves and resource estimates, equipment and supply risks, regulatory risks and environmental concerns. Caution is needed and no reliance on forward-looking information can be made. Except as otherwise required by applicable securities statutes or regulation, AME expressly disclaims any intent or obligation to update publicly forward-looking information, whether as a result of new information, future events or otherwise.

Third-Party Sources

AME's research is undertaken through both primary and secondary research from various sources. Primary sources include contact with market participants and industry experts, such as producers, industry consultants and associations. Secondary research involves desktop research of government departments and statistics, trade data, industry journals, company reports, public domain information, and data from the AME proprietary research database. AME makes attempts to obtain information from multiple sources to cross-reference and ensure consistency. Information and data collected has been analysed, assessed and reasonably validated using the in-house techniques of AME.

Best wishes,

AME Consulting Pty Ltd

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1.0 Executive Summary

AME Consulting Pty Ltd (“AME”) has been engaged by DBCT Management Pty Ltd (“DBCTM” or the “Client”) to provide a report on the export metallurgical and thermal coal industry, their drivers and the response of the Australian coal industry to changes in demand, as well as how this could impact the throughput of the Dalrymple Bay Coal Terminal (“DBCT”) (the “Report”).

DBCT is a multi-user coal export facility located at the Port of Hay Point, approximately 35km south of the city of Mackay in Queensland. The port was established in 1983, and after a series of expansions, currently has an annual capacity of 85Mt. DBCT is the largest terminal coal terminal servicing the Bowen Basin and exported 64.9Mt in 2017, down from 68.5Mt in 2016 due to the impacts of Cyclone Debbie. Over the next 18 years, the potential throughput of the terminal could reach around 130Mt by 2027, based on AME’s estimate of the potential response of mines in the Bowen Basin to forecast changes in global coal demand.

Metallurgical coal demand is driven by production of steel. Global apparent finished steel demand is estimated to have grown by 4.3% in 2017 and to further increase by 1.4% in 2018. Global steel demand is forecast to grow at a CAGR of 1.6% over 2017–2035 to reach over 2Bt.

AME estimates that global export metallurgical coal demand will grow around from 328Mt in 2017 to around 522Mt in 2035. The majority of this demand growth is expected to come from increased steel production in developing nations within in Asia, such as Vietnam and India. Demand growth from China is expected to moderate over the forecast period after increasing significantly in 2017.

AME forecasts the global supply of export metallurgical coal to grow from 334Mt in 2017, surging to 354Mt in 2018, and then continuing to grow to 522Mt in 2035. As the market gradually returns to a balance in 2017 with an oversupply of just 6Mt, global supply of export metallurgical coal is forecast to grow at a CAGR of 4.3% between 2017 and 2019. Over this period, Australia is forecast to continue to account for roughly 53% of export metallurgical coal supply.

Electricity production is the main driver of demand for thermal coal. With other sources of energy for power generation rising at a faster pace than coal, its share of total generation is forecast to fall from 41% in 2013 to around 34% in 2035. Despite this, overall electricity generation from coal is expected to grow in absolute terms, which is expected to support the continued growth in consumption of thermal coal.

AME estimates that global thermal coal import demand in 2016 to have declined approximately 1% to around 972Mt. However, there was a bounce back in imported thermal coal in 2017, with growth of around 5% to 1,020Mt. By 2035 AME is forecasting demand to reach around 1,353Mt, a CAGR of around 1.6%.

AME estimates that the global thermal coal exports rose 4.1% in 2017 to 1,020Mt, following an estimated 2.2% fall in 2016. Supply growth in the December Quarter of 2017 was moderate, quarter on quarter, as increased demand in China over winter saw prices strengthen, against an expectation that China would reduce imports over winter to combat pollution in major northern cities. Global thermal coal exports are expected to increase around 2.5% in 2018, and AME forecasts thermal coal supply to grow at a CAGR of around 1.5% over the period to 2035, growing to 1,333Mt.

Australia is expected to be well positioned to respond to an increase in the demand for both export thermal coal and export metallurgical coal. Based on the current schedule of coal projects in Australia tracked by AME, it is possible for Australian coal exports to reach up to around 800Mt by 2027. However, as part of AME’s base case for coal exports, from Australia, it is estimated that only around 406Mt of this production will be required to satisfy export coal demand. Queensland has the largest pipeline of projects covering both thermal and metallurgical coal projects. As DBCT is the closest to the Bowen Basin, it is expected to be the terminal that benefits most from the increase in demand for Australian coal.

2.0 Export Metallurgical Coal

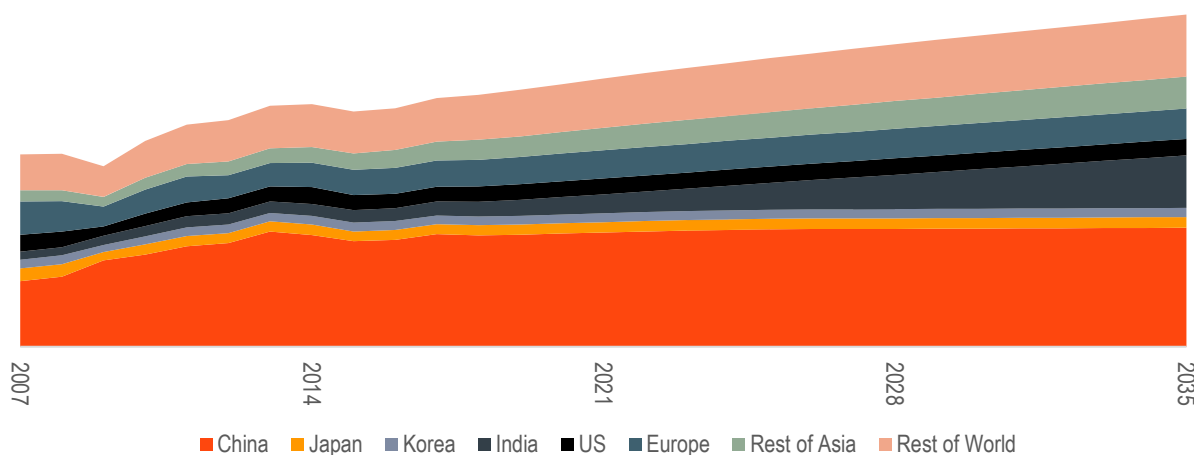
2.1 Overview

Metallurgical coal's primary use is in the production of coke for blast furnace steelmaking, with a small amount used in other metallurgical processes. As a result, demand for metallurgical coal is heavily dependent upon crude steel production.

2.2 Global Steel Outlook

The adaptability and cost effectiveness of steel sees it used extensively in construction, infrastructure development and manufacturing industries, such as the automotive, shipbuilding, machinery and consumer durables. AME believes that the construction, transport and consumer durables industries are the main drivers of steel demand. Growth in these sectors for a given country or region is typically correlated to a number of factors, including economic growth, represented by changes in GDP and IP, population growth and household formation, amongst others. Furthermore, the steel industry has historically been cyclical, as it is impacted by economic fluctuations of a country or region's business cycle and stage of development, in turn influencing changes in productive capacity utilisation and fluctuations in steel imports and protective trade measures.

Figure 1: Estimated Global Finished Steel Demand for Key Countries and Regions, Mt



Source: AME

Global apparent finished steel demand is estimated to have grown by 4.3% in 2017 and to further increase by 1.4% in 2018. Global steel demand is forecast to grow at a CAGR of 1.6% over 2017–2035 to reach over 2Bt. In the short term, growth is focused on China's apparent demand, with consumption expected to grow 5.3% in 2017, in response to the central government's continued efforts to target its stimulus programs to maintain growth. After pulling back stimulus in the real estate sector to cool an overheated market at the end of 2016, stimulus was then targeted towards infrastructure. As a result, infrastructure investment is up almost 20% in 2017, year on year, increasing demand for steel products, especially rebar, offsetting lower demand from the construction industry.

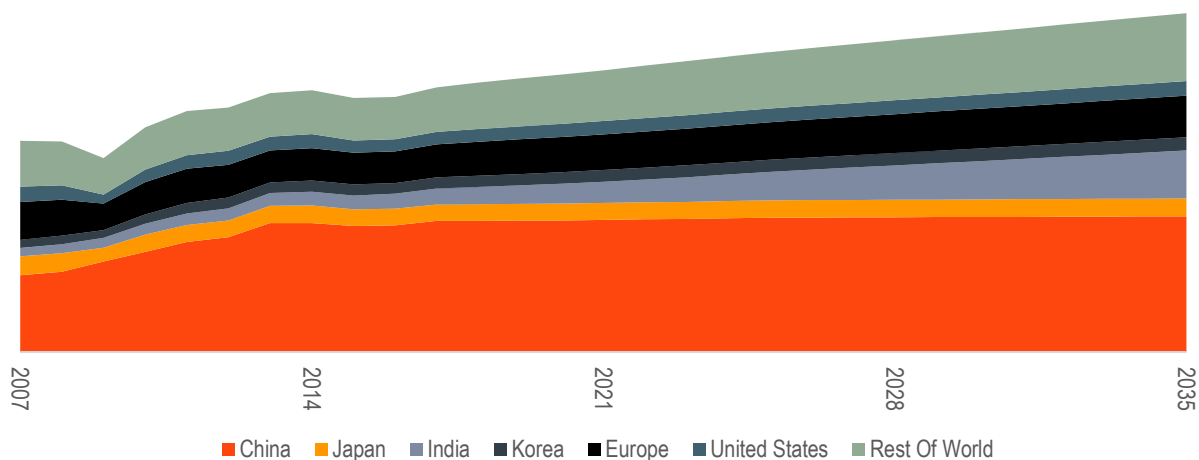
Global steel demand growth is forecast to pick up pace in the medium term, as China's relatively strong property sector and growing infrastructure investment flow through to improving steel demand, which saw absolute declines in 2014 and 2015. Chinese steel consumption over the last decade has been largely driven by fixed asset investments, but as steel demand moves toward more consumer-related sectors

(such as white goods), demand per capita consumption will begin to plateau. The key upside risk to this assumption is the potential of China's 'One Belt One Road' policy. The successful implementation of this global infrastructure pathway over the next few decades could see demand per capita continue to rise to the upper end of the demand per capita curve that has been seen from developed economies.

Long term, China's demand growth will continue to slow as the broader economy matures. Demand in China is forecast to grow at a CAGR of 0.3% in 2022–2035, similar to its medium-term forecast over 2018–2021. This forecast for China's consumption does not yet take into account increased consumption from China's Belt and Road Initiative, which is still too early to include in the base case scenario. Over time, other major emerging economies, notably India, will become more important centres of demand growth. However, although influential, this demand will not compensate for the slower rates of demand growth in China. Asian steel demand is expected to grow at a CAGR of 1.7% in 2022–2035. Demand in both Western Europe and North America is expected to rise at a rate of approximately 0.4% and 0.8% over the same period, as steel demand reverts towards historic levels. Asia will account for the majority of new demand in tonnage terms and is forecast to represent around 67% of total global demand by 2035.

By 2035, China is forecast to account for 36% of total demand, down from an estimated 45% in 2015, while Europe and the US will see their shares of world demand gently ease. In the long term, developing markets like India will emerge as the brightest demand prospects, with India expected to take over from China in around 2019 as the largest driver of demand growth in terms of volume. India's demand is forecast to grow at a CAGR of 7.6% in 2022–2035, similar to its growth rate in the medium term.

Figure 2: Estimated Crude Steel Production by Key Country and Region, Mt



Source: AME

For the majority of the 20th Century, global steel production was dominated by developed nations in Europe, North America and Asia. As the development of China ramped up from the 1990's, steel production in China surpassed Japanese production in 1996, to become the largest global producer. The dramatic growth of China, and to a lesser extent India, together with ongoing established steel production in Japan and South Korea, has seen Asia grow to dominate global steel production.

In 2017, global crude steel production continued with the strength seen in the second half of 2016, to end the year up 4% to 1,688Mt, as steel output was buoyed by strong demand and prices. In China, crude steel production rose 3.3% year on year to 832Mt, as more steelmakers returned into the market on restored profitability. Indian crude steel output was up 6.4% to 102Mt for the year, benefitting from new projects and robust demand. On the other hand, production from steelmakers in the UK stabilised at 7.6Mtpa after plant shut downs in 2016, while Brazilian output also grew 10% to 33.2Mtpa due to the recovery in the economy.

Although finished steel demand is estimated to have grown 4.3% in 2017 to 1,584Mt after returning to positive growth of 1.3% in 2016, in comparison, crude steel supply grew 3.8% in 2017 to 1,688Mt after growing just 0.4% in 2016 to 1,625Mt. In 2017–2020, finished steel demand is forecast to grow at a CAGR of 1.5%. The steel market supply and demand balance is set to improve moderately, as demand growth is expected to be quicker than that of supply, but overcapacity will overhang the industry in the short to medium term as it takes time to remove or absorb the excess capacity. In 2017, consolidation and restructuring amongst players in the industry has continued. In Europe, ThyssenKrupp has taken headlines with several asset sales as it transitions from its core business of producing steel into a technology conglomerate. In September 2017, ThyssenKrupp agreed to merge their European steel operations with Tata Steel Europe to form ThyssenKrupp Tata Steel, forming the second largest steelmaker in Europe, a formal agreement between the companies is expected in early 2018. London based metals trading and manufacturing company, Liberty House Group (LHG), has purchased a number of steelmaking assets around the UK and Australia, including Arrium's Whyalla works located in South Australia. An ArcelorMittal-Marcegaglia conglomerate (AM Investco) has been selected as the preferred bidder for ILVA's steelmaking assets in Italy, which includes the 6Mtpa Taranto works.

In China, the industry continues its restructuring in an attempt consolidate and streamline production, reduce operating costs, eliminate excess capacity and move polluting operations away from urban areas. Recent significant mergers have included Shangang's acquisition of Dongbei Special Steel, and Jianlong's acquisition of Beiman, Jianglong has announced that they will continue to try and increase their production capacity from 23 to 50Mtpa through mergers and acquisitions by 2020.

The majority of new steel plants for delivery over the short term are located in China and India. Upcoming Chinese projects are typically the result of capacity swaps, where old capacities are pulled down and the capacity quota is then relocated to a new and more efficient plant away from urban areas, and often on the coast to take advantage of access to seaborne raw materials. It is expected that Chinese capacity may drop by 11%, or approximately 135Mt, in 2016–2020, due to government-mandated capacity cuts. Projects in India are the result of the National Steel Policy, which aims to triple capacity to 300Mt by 2030. The CAGR for capacity growth in India is expected to be 8.9%, or 64Mt, of new capacity over 2018-2021.

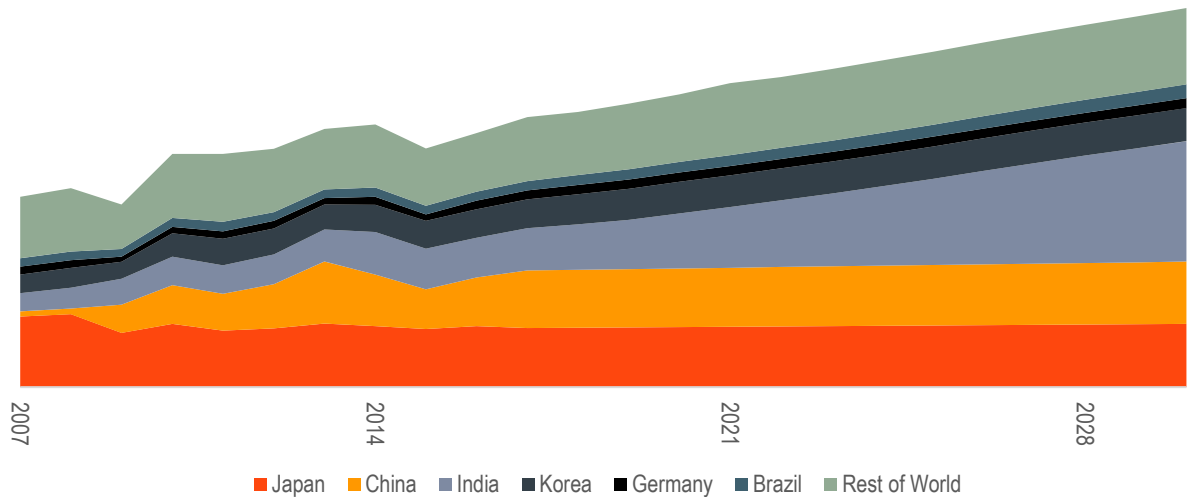
Looking forward, China will continue to dominate crude steel supply, but its share of global production will fall. AME expects that China will contribute 40% of global supply by 2035, down from 50% in 2016. Other developing countries, particularly India, will gain market share. It is expected that India will contribute 305Mt or 14% of global production by 2035, up from 96Mt or 5.9% in 2016. Further consolidations amongst steelmakers are likely, particularly for those in China, as China is targeting to achieve a top ten market share concentration above 60% by 2025, up from 34% in early 2016. After the ongoing merger of Baosteel and Wuhan Iron and Steel, state-owned steelmakers owned by the same provincial government are more likely to merge while those owned by different entities may face difficulties from political and operational issues.

Over the long term, India will remain the largest contributor of supply growth, up around 202Mt or 150%. In the developed regions of Europe and North America, growth is expected to be modest, broadly in line with economic growth in the two regions, with supply additions of around 32Mt, up 13%, and around 14Mt, up 11%, respectively. In China, capacity and supply growth are expected to remain largely flat over 2022–2035, as the Chinese economy is shifting from an investment-driven economy to a consumer driven one. Over 2022–2035, AME estimates steel production in China to grow by around 2% to around 864Mt, with a capacity utilisation rate of around 80%. China will continue to dominate steel production long term, although its share of global supply will begin to fall due to stronger supply growth in other developing economies. By 2035, China will account for 40% of steel supply, down from 50% in 2015.

2.3 Demand Analysis – Export Metallurgical Coal

AME estimates that global export metallurgical coal demand will grow around from 328Mt in 2017 to around 522Mt in 2035. The majority of this demand growth is expected to come from increased steel production in developing nations within in Asia, such as Vietnam and India. Demand growth from China is expected to moderate over the forecast period after increasing significantly in 2017.

Figure 3: Estimated Export Metallurgical Coal Demand for Key Countries and Regions, Mt



Source: AME

The demand outlook for export metallurgical coal over the next ten years is expected to shift from a focus on demand growth in China, to growth in India and other emerging markets, particularly in South East Asia. In the last decade, China shifted from being a net exporter of coal to a net importer. This shift since 2009 has been the largest single contributor to the growth in traded coal demand during this period. The pace of economic growth in China has now slowed, despite the current surge, and although there is optimism surrounding Indian demand into the long term, the scale of China's 2009–2013 boost to demand is unlikely to be replicated by any other country. Global metallurgical coal import demand growth between 2017 and 2022 is forecast to be around 2.8% CAGR, lower than the estimated 3.6% CAGR between 2012 and 2017.

After picking up moderately in the short term, metallurgical coal import demand growth in China is expected to slow from 2018, as the Chinese steel industry goes through a phase of consolidation and steel production growth slows. Chinese steel consumption over the last decade has been largely driven by domestic fixed asset investments. As domestic fixed asset investment growth slows, China's steel production is forecast to remain relatively steady, supported by continued steel exports. This is expected to be driven by construction in western regions, and partner nations as part of the government of China's Belt and Road Initiative.

In the medium term, steady production in China will see metallurgical coal demand growth driven more by other emerging giants, notably India. Indian demand will be assisted by the country's comparatively strong economic growth, and is likely to receive an additional boost from the government's plans to dramatically increase spending on infrastructure development, including railways. Although India aims to reduce reliance on imported coals, high Indian demand and the relatively poor quality of most domestic coals has still resulted in increased metallurgical coal imports, particularly from Australia.

Export metallurgical coal demand from major established steel producing nations Japan and Korea is expected to remain relatively stable, with demand growth growing at CAGR's of 0.5% and 0.9% respectively over the next five years.

In the long term, it is forecast that global demand for internationally traded metallurgical coal may increase at a CAGR of around 2.6% in 2022–2035 to reach around 522Mt, slowing from a CAGR of 2.8% in 2018–2022. As China moves away from manufacturing to consumption, other emerging economies, such as India and Brazil, will become more important centres of demand growth. Since 2015, India and China have competed for the position of second-largest importer of metallurgical coal. China’s significant increase in demand for imports in 2017 saw it almost overtake Japan as the largest importer of metallurgical coal, globally. As China’s demand growth moderates in subsequent years, AME anticipates India will become the global leader in metallurgical coal imports by 2021, surpassing both China and Japan.

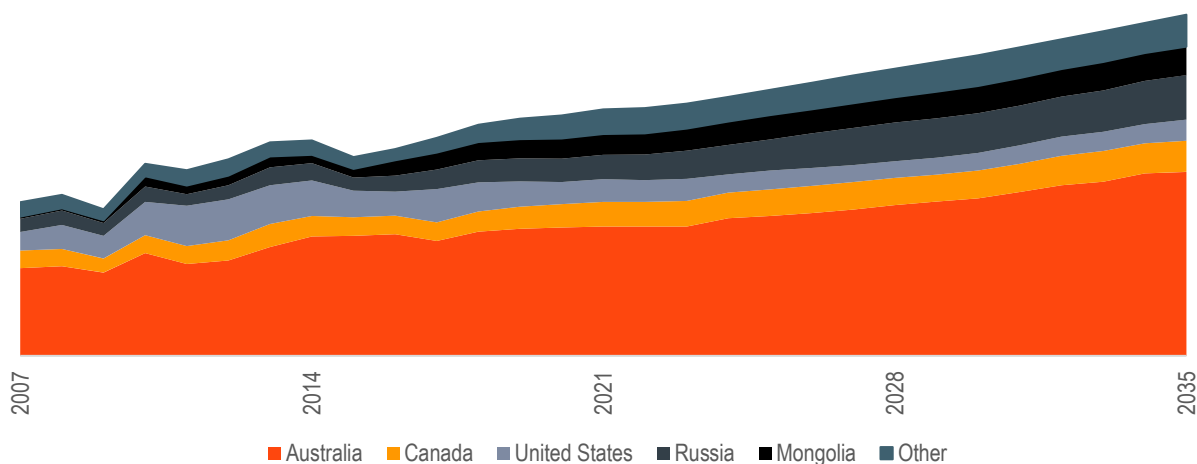
Demand from emerging markets will remain an important source of growth of metallurgical coal imports in the long term. Asian demand is expected to grow at a CAGR of 2.5% in 2022–2035. Internationally traded metallurgical coal demand in Europe is expected to remain relatively flat, with a CAGR of 0.6% over the same period, as its steel production reverts towards levels achieved in the mid-2000s. Asia will account for the majority of new demand in tonnage terms, and is forecast to represent approximately 78% of global internationally traded metallurgical coal demand by 2035.

China is estimated to account for approximately 21% of global metallurgical coal imports in 2017. This is anticipated to moderate to 15% by 2035, as stronger demand growth is experienced in other markets. India will be the brightest growth prospect going forward, with metallurgical coal import demand forecast to grow at a CAGR of 6.5% to around 190Mt between 2022 and 2035, driven by robust steel production growth and supported by the fact that the quality of its domestically produced metallurgical coal cannot compete with imports. India is anticipated to import around 35% of global internationally traded metallurgical coal by 2035.

2.4 Supply Analysis – Export Metallurgical Coal

AME forecasts the global supply of export metallurgical coal to grow from 334Mt in 2017, surging to 354Mt in 2018, and then continuing to grow to 522Mt in 2035. As the market gradually returns to a balance in 2017 with an oversupply of just 6Mt, global supply of export metallurgical coal is forecast to grow at a CAGR of 4.3% between 2017 and 2019. Over this period, Australia is forecast to continue to account for roughly 53% of export metallurgical coal supply.

Figure 4: Estimated Metallurgical Coal Exports from Key Countries and Regions, Mt



Source: AME

AME estimates export metallurgical coal supply to have totalled 316Mt in 2016, up around 4% year on year, as increased production spurred by higher prices offset the closure of high-cost operations, and delays in the development of new mines. Supply rates increased throughout the year as market conditions improved, with around 27% of the annual 2016 production occurring in the December Quarter. This supply recovery has continued into 2017, through to the end of the year, with an estimated increase of 6% year on year to 334Mt. Strong supply growth is expected to continue into 2018, with additional supply contributed mainly by Australia, Russia, Mozambique and Mongolia, increasing to around 354Mt. In the long term, it is forecast that export metallurgical coal supply will increase at a CAGR of around 2.5% based on current mine plans and scheduled openings.

Export metallurgical demand is estimated to have totalled 308Mt in 2016, up around 6% from 290Mt in 2015. Consequently, the metallurgical coal market is estimated to have been oversupplied by around 8Mt over 2016. This represented a 45% reduction from the 15Mt oversupply in 2015. And in 2017, this oversupply is estimated to have reduced again to around 6Mt, before starting to grow again from 2018.

Significant disruption to supply from mines in Queensland as a result of Tropical Cyclone Debbie in March-April 2017, had a substantial impact on total export supply, as did geological issues in the following months at two key underground operations in Australia, resulting in a further tightening of supply. These short-term reductions in supply lead to significant increases in benchmark metallurgical coal prices through the last three quarters of 2017. Continued market tightness has seen prices hold up into the first quarter of 2018.

With the dramatic increase in global metallurgical coal prices that occurred in the second half of 2016 and the first half of 2017, several producers have recommenced or announced plans to recommence production at idled operations in 2017. Some examples include Conuma Coal's Perry Creek and Willow Creek mines in Canada and ICVL's 2Mtpa Benga mine in Mozambique. After having approximately 32Mt of coal removed from the market in 2015, US metallurgical coal exports are estimated to have grown by 14Mt in 2017. As a result, it is forecast that supply growth will outstrip demand growth over the next three years, rapidly increasing the oversupply in the market. Whether all these mines restart may depend on a combination of how quickly they can commence operations, and whether coal prices remain sufficiently elevated through the remainder 2018.

In the long term, metallurgical coal supply is forecast to grow, with additional supply expected to be required to meet the demand growth from India and other industrialising countries. Medium-term supply is set to increase at a faster rate, with supply in 2022 estimated to hit 379Mt, up approximately 20% from the 316Mt produced in 2016. The high rate of short- to medium-term growth is due to the large number of committed projects that were planned to commence despite low coal prices prevailing from 2014-2016. This increase in supply is expected to be driven by increased production in Mozambique, the restart of Canadian and Mongolian production, and the ramp up of projects in Russia and Australia. Over the longer term, an anticipated gradual rise in coal prices, along with increased demand from China and India, will lead to a gradual increase in supply from brownfield and greenfield sites as demand and prices are expected to stabilise.

AME expects metallurgical coal supply to grow at a CAGR of 2.5% to approximately 522Mt by 2035. This supply will be needed to meet the rapidly growing demand of India and other developing countries. Short to medium-term supply is set to increase at a faster rate, with supply in 2020 estimated to hit 368Mt, 16% higher than the 316Mt produced in 2016. From 2020 to 2035, global export metallurgical coal supply is forecast to increase more slowly, at a CAGR of 2.5%. The high rate of short- to medium-term growth is due to the large number of projects and mines that have announced intentions to commence producing. It is uncertain which idled mines will reopen, with several already delaying restarts to 2018. Over the longer term, while prices are expected to decrease from the heights seen in 2016-17, steady demand growth from emerging markets such as India will lead to a gradual supply increase from both brownfield and greenfield sites, as well as a steady uptick in prices. AME's analysis assumes demand and supply to

balance in the long run, with the short- to medium-term oversupply and medium-term growth expected to be muted over time as market forces in the metallurgical coal industry once again revert to equilibrium.

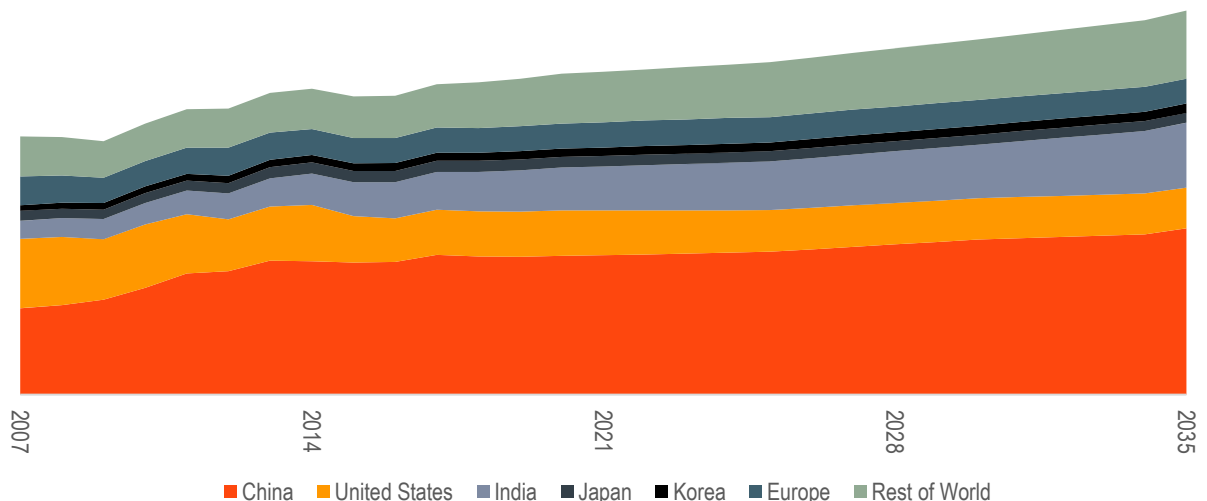
3.0 Export Thermal Coal

3.1 Overview

Thermal coal's primary use is for the raising of steam for electricity production. The next largest user of thermal coal is for the production of cement. Smaller amounts of thermal coals are used in industrial processes for steam generation, reduction and various chemical processes. As a result, thermal coal demand is driven strongly by electricity generation.

3.2 Global Energy Outlook

Figure 5: Estimated Electricity Generation from Coal for Key Countries and Regions, bn kWh



Source: AME

The energy mix is a key driver of demand for various forms of energy, and assumptions about future shifts in the energy mix are an integral part of energy demand forecasts. Essentially, the energy mix breaks down total primary energy demand into the different energy sources that feed it, i.e. oil, coal, gas and hydro and other renewables.

Forecasting consumption of the individual energy sources is inherently difficult as it is subject to various independent external factors. Still, it is necessary to derive an in-depth analysis of the future role and limitations of each energy resource, as well as the sectors they are utilised in. Government policies, economic activity, demographic change, energy prices, as well as the rate of energy efficiency play significant roles in the future energy mix—and, hence, also call for consideration.

- Strong economic growth usually implies higher industrial output and higher demand for electricity, while rising income levels can lead to increases in average gas consumption per person.
- Population growth is also important for gas demand. Holding other factors constant, faster population growth and a larger population base implies higher electricity demand, residential gas consumption and transportation demand.

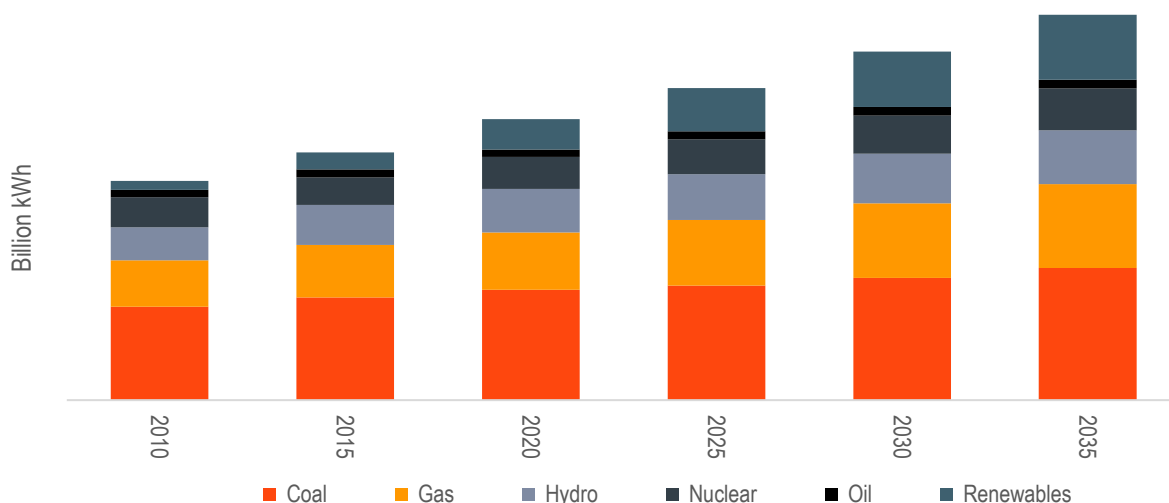
The concept of 'energy intensity' is of increasing importance in energy analysis. This analysis relates energy consumption compared to total economic activity. Usually, this is expressed in energy units used

per US\$1 billion of GDP at constant prices. This index reflects the relative efficiency with which energy is used to generate economic growth.

Energy intensity at the global level has been falling since at least 1980. Energy intensity is brought down by more efficient use of energy in a wide range of areas, such as better insulation of buildings and more fuel efficient vehicles. Technological advancements in industry are also a key driver, which helps explain why China’s economy has become steadily less energy intensive even at a time when it has been rapidly industrialising. High energy prices tend to act as an incentive to increase efficiency. For example, in the aluminium smelting industry—one of the most energy-intensive processes—Chinese producers’ proprietary smelting technology has rapidly caught up with Western technology, motivated by high power costs.

Due to the environmental implications of using thermal coal for electricity generation, there have been considerable shifts in government policies towards limiting its use. For instance, China targets increasing the share of non-fossil fuels in primary energy consumption to 20% by 2030. As countries move to reduce their carbon intensity, in order to meet commitments made under international agreements, power grids will see increasing deployment of renewable energy sources, as well as energy storage facilities to back up intermittent sources of generation.

Figure 6: Estimated Historical and Forecast Global Electricity Generation by Source



Source: AME, IEA

Notwithstanding efforts to curb carbon emissions, thermal coal is estimated to remain one of the cheapest and most reliable sources for electricity generation. However, demand growth is expected to slow over the long term due to the continuing maturation of economies and the implementation of new energy based technologies targeting alternative energy sources such as renewable energy and energy storage. Despite this, overall electricity generation from coal is expected to grow in absolute terms, which is expected to support the continued growth in consumption of thermal coal. Should thermal coal prices remain relatively cheap and accessible (compared to other energy sources), power utilities are expected to remain incentivised to consume thermal coal.

Over the long term, global demand for electricity will continue to rise, albeit at a slower pace than in the past, driven by income and population growth in developing economies. At the same time, electricity generation will make additional efficiency gains, both in terms of the quantity of primary energy to produce one unit of electricity, and the amount of electricity lost in transit from power plants to the end-user. Demand for electricity and demand for primary energy to produce electricity will, therefore, not increase at the same rate. Nevertheless, in light of the continued rise in demand for electricity, consumption of

primary energy by the electricity sector is forecast to rise at a CAGR of 2.2% between 2013 and 2035, compared with 2.4% in 1990–2013.

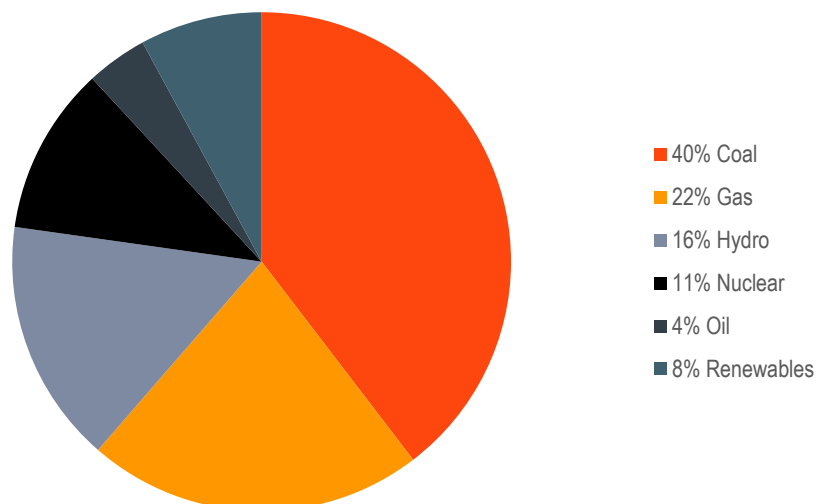
Over the past century, coal has been the fuel of choice for electricity generation in many nations. However, environmental policies are encouraging a shift to cleaner fuels. Due to its current size and continued growth, coal will remain the backbone of electricity generation. Especially in large developing regions such as China and India, coal’s cost advantage over other fuels will make it the dominant source of energy over the forecast period. Nevertheless, with other sources of energy for power generation rising at a faster pace, its share of total generation is forecast to fall from 41% in 2013 to around 34% in 2035.

Despite the shadow that the Fukushima disaster has cast over the nuclear sector, nuclear energy will remain a firm pillar in the energy generation industry over the medium term. However, owing to lingering public concern over the safety of nuclear energy, its share in total electricity generation is expected to ease to 10.4% by 2030, after the gradual restart of nuclear plants in Japan is expected to drive up nuclear’s global share in the medium term, to 11.3% in 2020 from 10.6% in 2013. Following Fukushima, Germany reaffirmed its intention to phase out nuclear energy entirely by 2022.

In terms of the electricity generation energy mix, natural gas and renewables will see stronger growth rates over the next two decades as electricity producers shift to lower-carbon sources. Natural gas emits up to 60% less CO₂ than coal when used during the electricity generation process and will, therefore, maintain or even gain importance as a fuel. This shift has already been evident in the US where coal fired electricity generation has been declining for over ten years. According to the IEA, by 2035, natural gas will account for 26.2% of global electricity generation, compared to 21.5% in 2015. However, the exact mix of fuel remains a big variable, as producers are exposed to influential factors such as government policies, gas prices outside the US and available supplies to major consuming regions such as Asia. Issues surrounding supplies also include available infrastructure to transport natural gas from the producing counties to domestic utilities—gas pipeline infrastructure is, hence, a hotly debated topic.

Electricity generation from renewable sources (excluding hydro) is forecast to have the greatest market share increase worldwide, rising from 6.8% in 2015 to 11.4% in 2035. Europe is a leader in this regard, with 23% of the EU’s electricity forecast to come from renewables by 2030, compared with 16.3% in 2015.

Figure 7: Estimated Global Electricity Generation by Source 2017

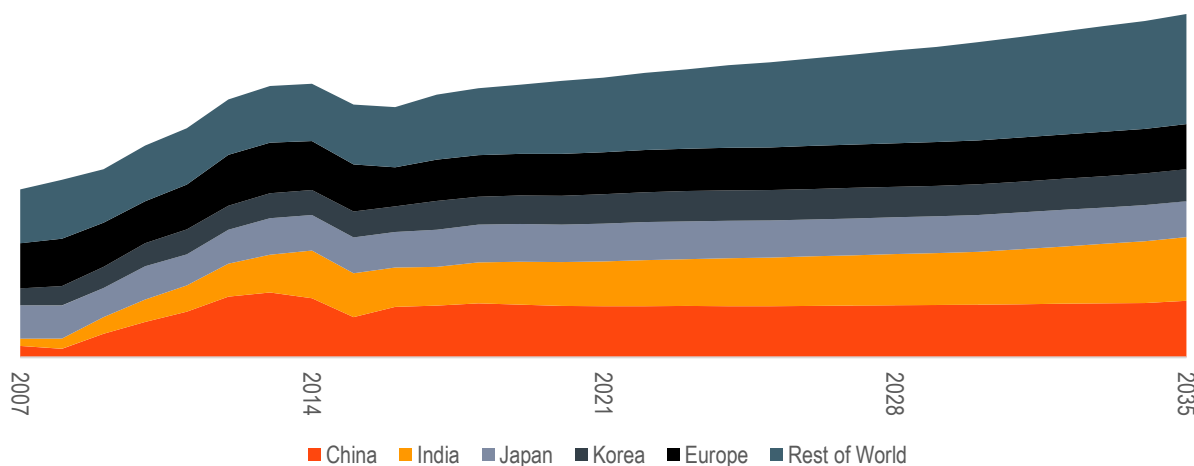


Source: AME, IEA

3.3 Demand Analysis – Export Thermal Coal

AME estimates that global thermal coal import demand in 2016 to have declined approximately 1% to around 972Mt. However, there was a bounce back in imported thermal coal in 2017, with growth of around 5% to 1,020Mt. By 2035 AME is forecasting demand to reach around 1,353Mt, a CAGR of around 1.6%.

Figure 8: Estimated Export Thermal Coal Demand for Key Countries and Regions, Mt



Source: AME

During the first half of 2016, China imported 70Mt of thermal coal (including bituminous, sub-bituminous and lignite), up a moderate 4.3% year on year. However, with the Chinese government's restriction on domestic coal supply had a flow-on effect to power utilities' stockpiles. As a result, demand for thermal coal imports increased to 127Mt for July–December, up a significant 57% year on year. Overall, China's thermal coal imports increased 26% year on year in 2016 to 196Mt, while China's domestic thermal coal production decreased 10% to 2.7Bt over the same period. However, production from unauthorised mines and the large number of small coal mines is not included in the production figures. Imports grew marginally in 2017, to be an estimated 201Mt, and are estimated to remain stable at around this level over the forecast period.

Indian 2016 thermal coal imports were approximately 152Mt, down 11% year on year. State-owned Coal India Limited (CIL) produced 514Mt thermal coal in 2016, and aims to produce approximately 600Mt thermal coal in FY2017/18. CIL has already fallen behind its target for the new Indian financial year, and is expected to fall approximately 5% behind this target at 567Mt. Extensive transport disruptions have impacted the ability of CIL to meet the needs of its main power customers, with Indian power utilities unable to sufficiently restock. However, high export thermal coal prices have discouraged Indian buyers from making up for the shortfall in domestic produced via imports. AME estimates that Indian import demand declined a further 4% in 2017, with thermal coal imports of around 149Mt for the year.

The demand outlook for thermal coal has weakened in recent years due to the slowdown in the Chinese economy, the US gas supply glut, and governments pushing for cleaner energy. Conversely, with the Indian domestic producers regularly falling short of their production targets by 5–8%, demand for imports may be higher than anticipated.

As with other established markets and more developed economies, Chinese GDP growth in the future is expected to be less electricity and energy intensive. Additionally, the Chinese government has expressed aims to further diversify the country's energy mix away from coal. The energy mix assumptions for China comprise a reduction in coal's share of total electricity generation from 70% in 2015 to 51% by 2035, with renewables, nuclear and gas all increasing their shares. In India, coal's electricity production share is

forecast to remain stable over the medium term at around 72%, but decline to 51% by 2035. In Japan, coal has benefitted in recent years from the nuclear shutdown following the 2011 Fukushima accident, but is expected to see its share of the energy mix decline slightly by 2020, as nuclear capacity is gradually brought back on line, but remain stable over the longer term.

In the longer term, AME forecasts global thermal coal imports to grow at a CAGR of 1.7% in 2022–2035. The growth outlook has diminished over the past 18 months, primarily attributable to stable import demand from India, as the country moderates its thermal coal imports and slows its coal-fired generation growth, compared to previous plans. While many other sizeable emerging economies (such as Indonesia) are expected to be largely self-sufficient in coal production, Vietnam and Malaysia are expected to be increasingly reliant on imports.

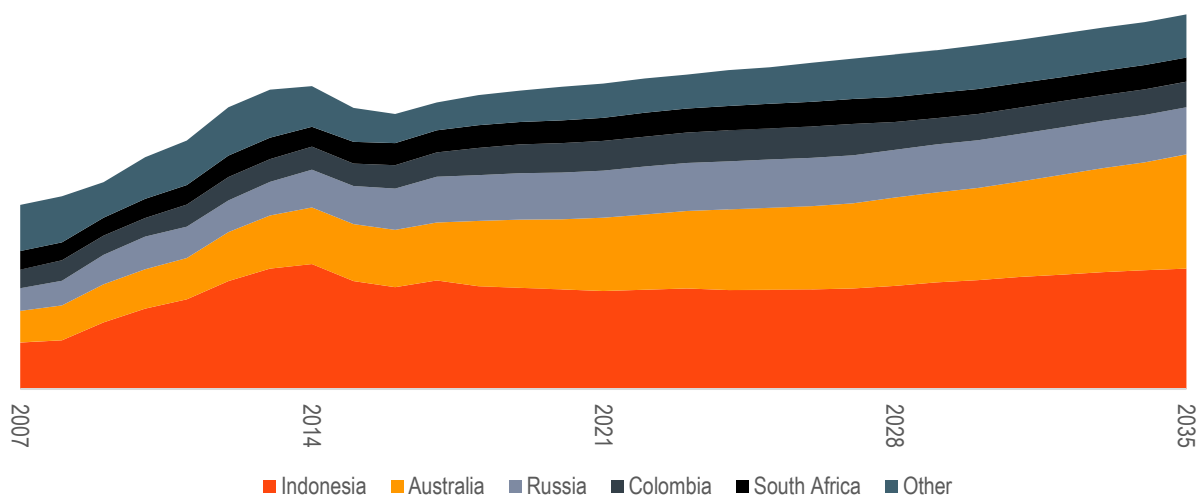
Indian thermal coal imports are forecast to post solid growth of 2.8% CAGR over the period 2022-2035, down on a CAGR of 5.1% in the short to medium term, while Malaysian and Vietnamese imports are forecast to grow at CAGRs of 2.8% and 10.5%, respectively over the same period.

Overall, emerging markets are anticipated to remain the primary contributors to thermal coal demand growth in the long term, with Asian thermal coal imports forecast to grow at a CAGR of 1.9% over 2022–2035. Meanwhile, the developed world—in particular, the EU and US—is expected to continue to shift its energy mix away from coal under the increasing impact of environmental policies. Even China and India are anticipated to shift their energy input marginally away from coal over the forecast period, albeit still with significant growth in coal-fired electricity production. The impact of the global climate deal reached in Paris in December 2015, which will take effect in 2020, will depend on the approach taken by individual countries to implement their pledged targets, but it does add to the growing movement towards lower-emission energy sources.

3.4 Supply Analysis – Export Thermal Coal

AME estimates that the global thermal coal exports rose 4.1% in 2017 to 1,020Mt, following an estimated 2.2% fall in 2016. Supply growth in the December Quarter of 2017 was moderate, quarter on quarter, as increased demand in China over winter saw prices strengthen, against an expectation that China would reduce imports over winter to combat pollution in major northern cities. Global thermal coal exports are expected to increase around 2.5% in 2018, and AME forecasts thermal coal supply to grow at a CAGR of around 1.5% over the period to 2035, growing to 1,333Mt.

Figure 9: Estimated Export Thermal Coal Supply from Key Countries and Regions, Mt



Source: AME

With China relaxing its domestic production restrictions in December 2016, premium thermal coal spot prices have moved over a broad range from US\$98.5/t at the end of 2016, a low of US\$71.0/t in May 2017, a high of US\$108/t in January 2018, to settle around US\$92.0/t at the end of the March Quarter 2018. AME estimates that Indonesian thermal coal exports increased approximately 6% year on year in 2017 due to strong demand for lignite from China. To limit this growth in lignite imports, China banned the import of coal into its provincial ports in the south and in September closed Guangzhou port to further coal imports for 2017, although these restrictions were temporarily relaxed in December. Australian thermal coal exports were flat in 2017, although New South Wales exports increased on the back of increased Chinese demand for bituminous coal, including high ash Hunter Valley coal.

South African thermal coal exports were flat at around 79Mt in 2017, as increased demand in South Asia and North Asia offset decreased Indian demand. In contrast, Russian thermal coal exports increased by an estimated 11% to 162Mt in 2017, as operators continue to expand production and increase market share in the Asian region. US exports are forecast to rise over 50% to 33Mt, as high thermal coal prices make exporting profitable again.

The period from 2006–2011 saw strong increases in supply of thermal coal, as demand increased and prices rose. This supply continued to increase around the world, peaking in 2014, as demand for thermal coal reached new highs. In 2015, demand levels tapered off, causing prices to fall and high-cost supply to no longer be economically viable to produce. This supply decrease is expected to reverse in 2017, mirroring demand, with price recovery allowing producers to consolidate their current operations.

AME expects net thermal coal exports to continue to recover over the period 2018-2022 as conditions slowly improve and low-cost producers increase production at the expense of higher-cost mines. This new supply is not regarded as a certainty, since some of these projects are yet to gain approval or funding.

Over the next 13 years, AME forecasts thermal coal exports to increase at a CAGR of around 1.5% to reach 1,333Mt by 2035. Indonesia will remain the largest contributor in 2035, however, its market share is anticipated to decrease from 38% in 2017 to 32% by 2035, starting in the short term, as power utilities turn to higher energy coal, Indonesia's deposits of medium calorific value coal are depleted and increased domestic demand reduce the total amount of coal available for export. Australia is expected to remain the second largest thermal coal exporting country by volume, increasing its market share from 20% in 2017 to 31% by 2035, due to its low sulphur, high calorific value coal, combined with its supply security and relative proximity to Asia.

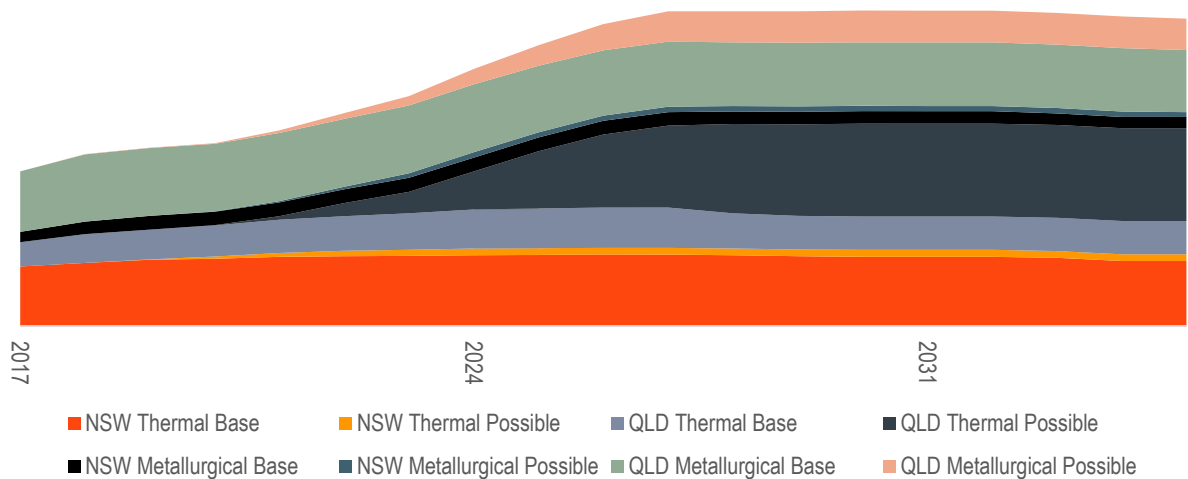
AME anticipates demand and supply to balance in the long run. Short-term constraints and medium-term growth are expected to be muted over time as market forces in the thermal coal industry come to equilibrium. This rebalancing of the market will support a reversion to more normal market dynamics and sustainably higher prices.

Indonesia and Australia will remain the largest exporters, although Indonesian production faces challenges from government policies and the depletion of higher-quality deposits in the longer term. Nevertheless, with its low ash content, demand for Indonesian sub-bituminous coal is likely to remain, primarily as a blending product. In the long term, AME anticipates the majority of new supply growth to come from Australia, Indonesia, Colombia and South Africa. US exports are forecast to increase from 33Mt in 2017 to 35Mt in 2022, as stabilises from the previous volatility seen in exports. Supplies from South Africa are expected to remain restricted by the lack of infrastructure in the medium term, with the railway to the Richards Bay export terminal currently operating at approximately 12% below Richards Bay's 91Mtpa nameplate capacity. However, the rail operator Transnet Freight Rail plans to increase capacity to 96Mtpa by 2020. South African thermal coal exports are expected to peak at around 90Mt by 2028. Colombian thermal coal exports are anticipated to increase at a CAGR of 5% to approximately 107Mt by 2022, before slowing to a CAGR of 0.2% from 2022 to 2035.

4.0 Australian Supply Analysis

Australia is expected to be well positioned to respond to an increase in the demand for both export thermal coal and export metallurgical coal. Based on the current schedule of coal projects in Australia tracked by AME, it is possible for Australian coal exports to reach up to around 800Mt by 2027. However, as part of AME’s base case for coal exports, from Australia, it is estimated that only around 406Mt of this production will be required to satisfy export demand. Queensland has the largest pipeline of projects covering both thermal and metallurgical coal projects, and in particular, the potential supply of large quantities of thermal coal out of the Galilee Basin. As a result, it is expected that growth in exports will be centred around the projects in Queensland. For both thermal and metallurgical coal, projects outside of the base case projects may be required in order to meet projected exports, which may include a significant proportion located in Queensland.

Figure 10: Estimated Profile of Australian Coal Exports, Mt

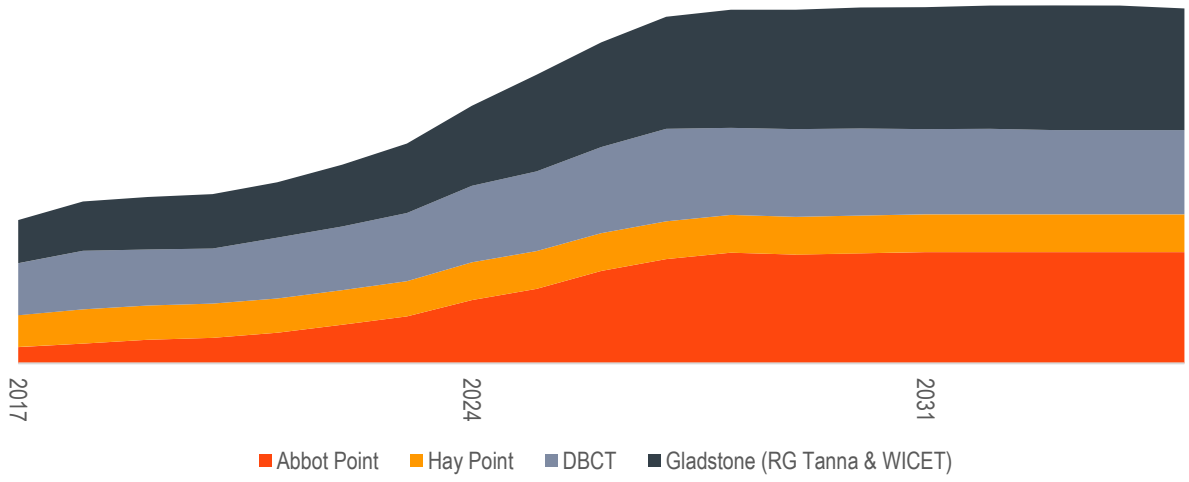


Source: AME

Focusing on the potential of exports out of central Queensland, there are five coal terminals located at three ports, that are used for current exports, and may be expanded to account for future exports. These are the Abbot Point Coal Terminal at the Port of Abbot Point, the Hay Point Coal Terminal and DBCT at the Port of Hay Point, and the RG Tanna Coal Terminal and the Wiggins Island Coal Terminal (WICET) located at the Port of Gladstone. It is expected that the catchment for these terminals will be geographically focussed, with Abbot Point exporting coal from the northern Bowen Basin and Galilee Basin, Hay Point and DBCT exporting coal from the central Bowen Basin, and the Gladstone terminals exporting coal from the southern Bowen Basin and northern Surat Basin. Currently, there are rail links required to be constructed in order for exports from the Galilee Basin and northern Surat Basin to reach their respective ports.

The expansion of exports for thermal coal out of Queensland is expected to be through Gladstone and Abbot Point, as most large thermal projects are located in the Galilee and Surat Basins. Whereas, additional metallurgical coal exports are expected to be through Hay Point and DBCT, as most new metallurgical projects are located in the central Bowen Basin.

Figure 11: Estimated Profile of Queensland Exports by Ports, Mt

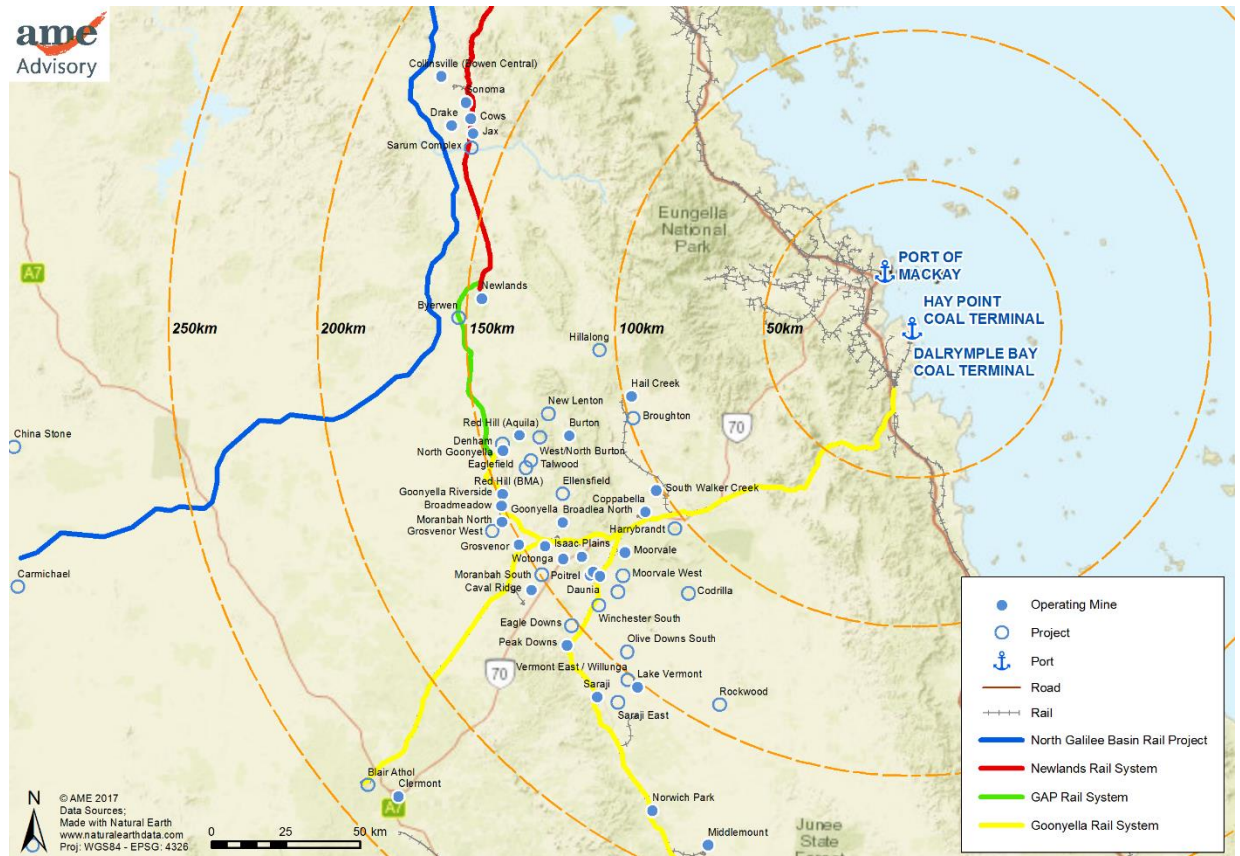


Source: AME

5.0 DBCT Throughput Analysis

DBCT is a multi-user coal export facility located at the Port of Hay Point, approximately 35km south of the city of Mackay in Queensland. The port was established in 1983, and after a series of expansions, currently has an annual capacity of 85Mt. DBCT is the largest terminal coal terminal servicing the Bowen Basin and exported 64.9Mt in 2017, down from 68.5Mt in 2016 due to the impacts of Cyclone Debbie. The terminal currently services a number of mines in the Central Bowen basin area.

Figure 12: DBCT, Rail Network and Nearby Mines



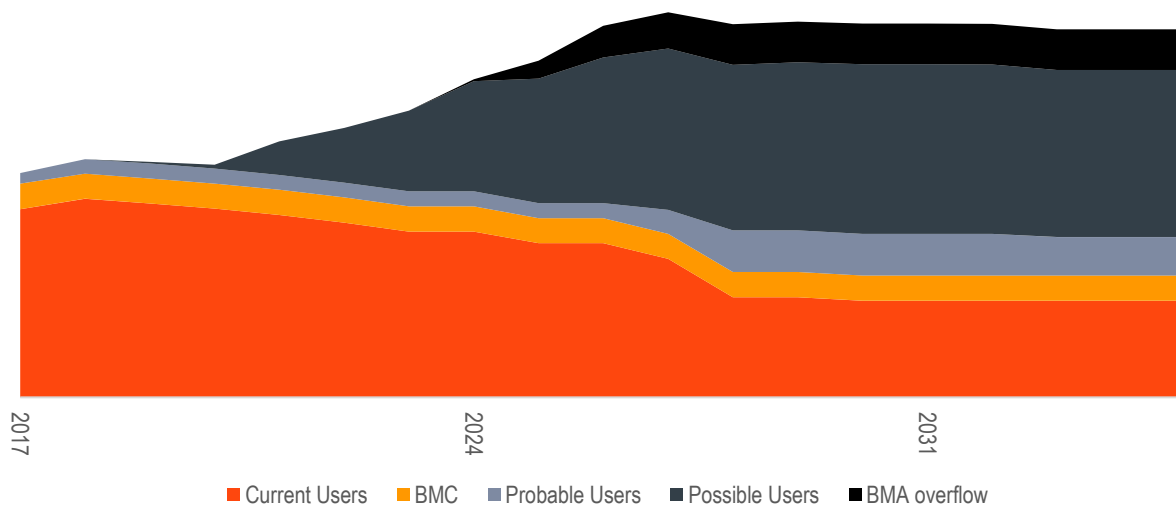
Source: AME

AME's analysis of the mines within the Bowen Basin have identified a number of mines that currently utilise DBCT to export their coal, as well as mines and projects that may utilise the terminal in the future. Due to the various logistics structures, these mines have been placed into four separate categories:

- Current users of DBCT
- BHP Mitsui Coal ("BMC")
- BHP Mitsubishi Alliance ("BMA")
- Potential future users of DBCT

BMC is a current user of DBCT, but also has contracted capacity at the Abbot Point Coal Terminal. However, due to the integrated logistics chains of BMC and BMA, including BMA's own Hay Point Coal Terminal, nominal port capacity is shared amongst all the mines in order to be utilised in the most efficient way. There are other users of DBCT that also utilise capacity at more than one port due to reasons such as blending requirements or the requirements to utilise contracted capacity at other terminals, particularly those mines that are further south and also have the ability to rail coal to the terminals in Gladstone. As a result of these factors, the total production of DBCT users and BMC is greater than current DBCT throughput.

Figure 13: Estimated Production Profile of Actual and Potential DBCT Users



Source: AME

The production profile of the current users of DBCT is expected to peak in 2018, and then slowly decline until 2027, as smaller mines reach the end of their life. However, 2027 is expected to be the last year of operation for the large Clermont mine, which would see the production base of current users decline by approximately 13Mt over a twelve month period.

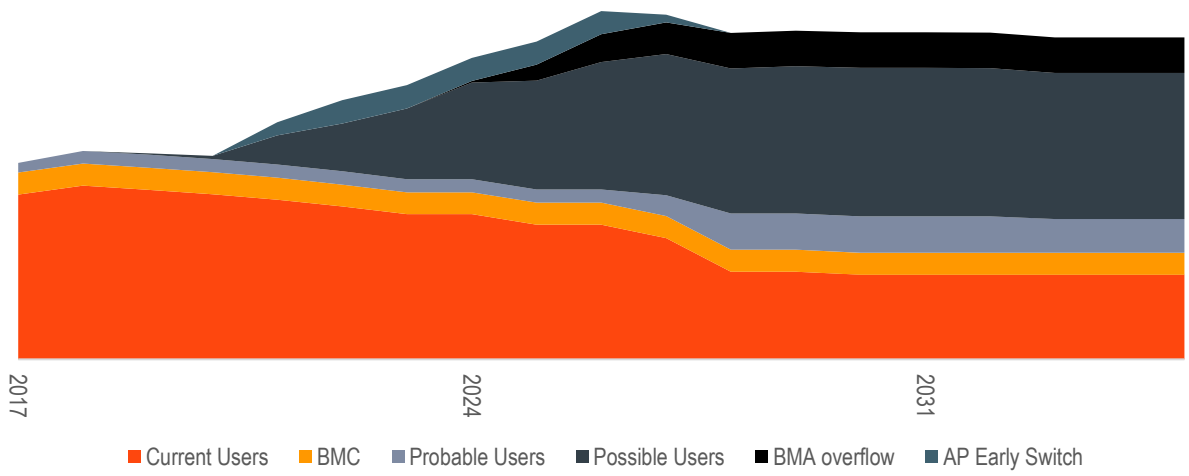
For future throughput of DBCT, there are several potential sources, which have been placed into two categories. The first category is possible users, which is comprised of mines in the central Bowen Basin who do not currently use DBCT as their primary terminal, and future projects in the central Bowen Basin, for which DBCT is the most likely terminal due to proximity. The two key mines that do not currently utilise DBCT as their primary port are Jellinbah Resources' Lake Vermont mine and Middlemount Coal's Middlemount mine. These mines are within the catchment area of DBCT, however, due to these mines coming into production at a time of little available capacity at DBCT, these tonnages were contracted elsewhere. These two mines currently utilise the Abbot Point Coal Terminal as their primary port with contracts that expire in 2028 and 2027, respectively. There is the potential for these two mines to send their production that is in excess of their current allocation at the Abbot Point Coal Terminal to DBCT to take advantage of shorter rail distances, as well as blending and marketing opportunities.

The second category is BMA overflow, which is comprised of the projected production by the BMA mines in the Goonyella-Hay Point logistics system that would be in excess of the 55Mtpa capacity of BMA's Hay Point Coal Terminal. Without expansion of the Hay Point Coal Terminal, this coal would require capacity through third party port, the most likely of which is DBCT, as the closest terminal and situated adjacent to the BMA terminal, presenting greater marketing synergies than sending coal to other ports.

With a number of projects within the catchment area of DBCT planning on commencing production between 2019 and 2025, there is the potential for DBCT to exceed its 85Mt capacity before 2023. If all available coal within the catchment area was shipped through DBCT, throughput could reach a peak of around 130Mt by 2027, which would fall slightly to 125Mt by 2035. With Abbot Point Coal Terminal potentially reaching capacity on the start-up of the Carmichael project, it is most likely that projects within the catchment area will seek to use DBCT.

With the planned start-up of the Carmichael Project in 2021, there is the possibility that the Lake Vermont and Middlemount mines may use this opportunity to switch to their natural port of DBCT early by trading their Abbot Point capacity to the Carmichael Project. This would allow these mines to switch their primary capacity to DBCT earlier than expected, which could provide an upside case scenario to the throughput of the port.

Figure 14: Possible DBCT Throughput Upside Scenario



Source: AME

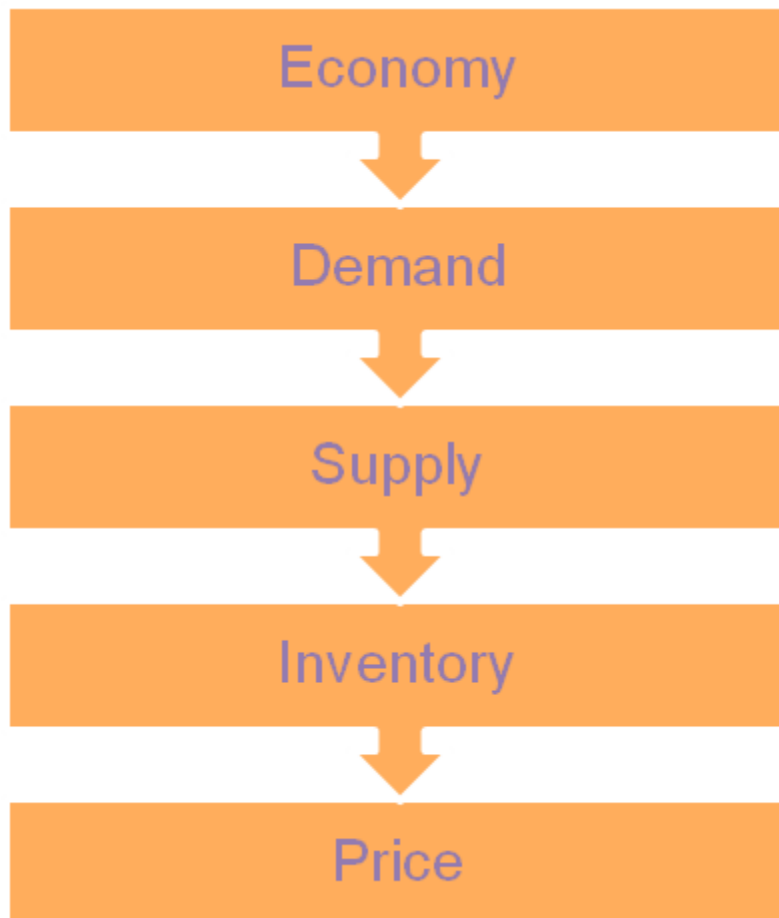
AME Research Methodology

General Principles of AME's Economic Model

The AME Economic Model is a transparent and consistent framework for analysis and forecasting of the basic materials supply chain. The first principle of AME's analytical framework is the aggregation of supply, demand, economic and market data into a single system to track and model developments in commodity markets.

The second principle of the framework is simplicity of assumptions. The AME framework does not rely on 'black-box' models to forecast prices. Rather, AME's modelled outputs are rational, deduced consequences of the inputs into the framework. The generalised methodology incorporates five sequential stages of analysis.

AME's Generalised Methodology



Economic assumptions and methodology

AME regards demand as the independent variable, which is determined by economic conditions. AME's demand analysis considers individual industry sectors, such as transport, construction, and various durable goods, and takes into account changing consumer tastes, barriers to entry and substitution factors.

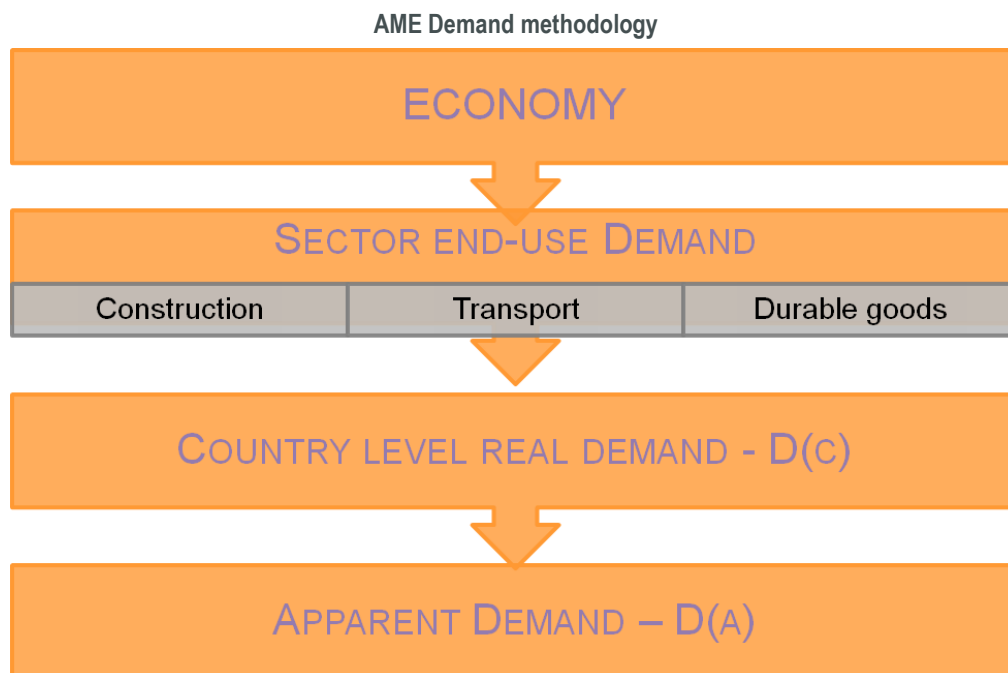
The economic growth inputs into AME's model are country-level GDP forecasts taken from the IMF. Inputs beyond the IMF's forecast horizon are from the OECD and World Bank (where available), or based upon AME's own assessment of likely long-term average growth rates. All of the GDP and Industrial Production (IP) assumptions which underpin the model are available here, including long-term economic assumptions.

Demand then drives supply (over the medium to long term), which in turn determines inventories and prices. AME's supply analysis takes into account various factors affecting suppliers as they attempt to meet demand requirements. AME also examines in detail material flow from mines through the beneficiation process and on to buyers, as well as assessed changes in inventory, infrastructure capacity, regulatory issues and other influences on demand.

Demand methodology

The AME Economic Model assumes the following demand parameters:

- The model examines four distinct periods—short term (next 18–24 months), medium term (out to five years), long term (6–10 years into the future) and into the extra long term (11–15 years).
- Growth in metal demand depends primarily on the construction and automotive sectors and secondarily on the consumer sector. On the regional level, Asia will continue to be a dominating factor in the market's growth.
- Inflation is not assumed and all modelled results are displayed in real terms. Historical numbers are in nominal terms.
- Exchange rates are held constant. No exchange rate impacts are assumed.
- Laws and regulations legislated at the time are assumed constant, unless stated otherwise.
- AME assumes general political environments will continue to favour lower energy intensity.



AME has three measures of demand. These are as follows:

D(a): Apparent demand—Apparent demand is expressed by country and is a measure of national production plus imports, less exports, plus or minus movements in stockpiles. On a global aggregate basis, under D(a), exports net out and are equal to global production less stockpile movements.

D(b): Downstream business demand—Business demand is AME's measure of demand movement in the downstream supply chain. It is a measure of metal held in manufacturer's inventories, stockpiled production, goods in transit and end use goods waiting for sale. Changes to D(b) are affected by expansions or contractions of inventories in the supply chain as manufacturers, wholesalers and retailers run inventories and finished stock levels up and down over the business cycle.

D(c): Consumer end use demand—This is the measure of consumer metal consumption contained in final end use products. AME estimates that the end use of metals in the largest forty-five countries accounts for over 97% of global metals usage. For the purposes of our estimates, this coverage is assumed to constitute the entirety of global demand.

As mentioned, when forecasting demand the outlook for the economy is our starting point. Our link between the economy and metals demand is our demand measure of D(c). AME's D(c) demand measure is calculated using a wealth of real quarterly data published by state and intergovernmental organisations to capture and measure changes in the end use sectors which account for the majority of metal consumption—construction, transport and consumer durables. D(a) does not utilise this amazing volume and quality of data prepared by each national government. As such, real demand offers supremacy in the details and examination of this data.

- By calculating and forecasting underlying demand changes in end use sectors, we are better able to estimate the requirement for metals over the ten-year forecast period. This offers substantial insight over and above a simple

D(a) forecast, which is effectively a forecast for manufacturers' demand without taking into account manufacturers' forecast output.

- Although there will be inventory fluctuations in the short term which will vary over the economic cycle, changes in end use metal demand will drive long-term apparent demand. This is captured by the changes in metal held at various downstream stages of the supply chain, D(b). Estimates for D(a), without analysis of D(b) and D(c), are inherently less robust and may fail to account for the underlying changes in markets, economies and wealth. Indeed, AME believes this is the only defensible methodology for medium- and long-term metals demand forecasting.
- By developing a framework which incorporates quarterly statistical data, the framework can be readily updated to include the most recent current estimates of end metal use.

Reconciling D(a), D(b) and D(c)

Given the verisimilitudes, in the long term, D(a) and D(c) must be equal with long-term CAGR's for the two measures being the same. However, fluctuations in inventories and build ups and run-downs in the global supply chain in the short and medium term will mean that the two measures will vary from year to year as reflected by D(b).

- As D(c) is a measure of end use demand and D(a) manufacturer demand, there is a large difference in the treatment of inventories. For example, suppose a Canadian consumer purchases a washing machine manufactured in China. Under the D(a), the c.50kg of metal contained in the washing machine would be counted as 'demand' in China at the point in time the appliance manufacturer accepts delivery of the metal. Under the D(c) method it is not counted as demand until the end use customer purchases the washing machine at a store in Canada, and the sale is recorded in the Canadian retail sales statistics. In 2009, Chinese manufacturers stockpiled metal as prices fell (build up in business chain inventories), represented by a sharp increase in D(b).
- D(c) will apportion a much larger share of global metal consumption to wealthier service-orientated countries, where considerable metal is imported in end use goods. Conversely, there will be a decrease in metal demand apportioned to countries with large export manufacturing bases, such as China.
- Intuitively, this will mean there can be a considerable time lag between when demand is recorded between the two measures. Metal spends a longer time in the supply chain under the D(c) method, as it needs to undergo downstream processing before sale. The time lag is dynamic and will vary over the economic cycle and will cause differences in D(b). Ultimately, each tonne of metal must be recorded as D(a) before it can be counted under D(c), as it first needs to be purchased by a manufacturer. As markets turn down, consumers will typically cut back on purchases of metal-intensive goods before manufacturers are able to adjust production. This leads to a build up of metal in the supply chain, as unsold goods sit with both manufacturers and retailers, or an increase in D(b). As the market once again turns, these inventories will usually be cleared before manufacturers once again ramp up production in anticipation of further growth—that is, D(c) will typically lead D(a) on the upturn.

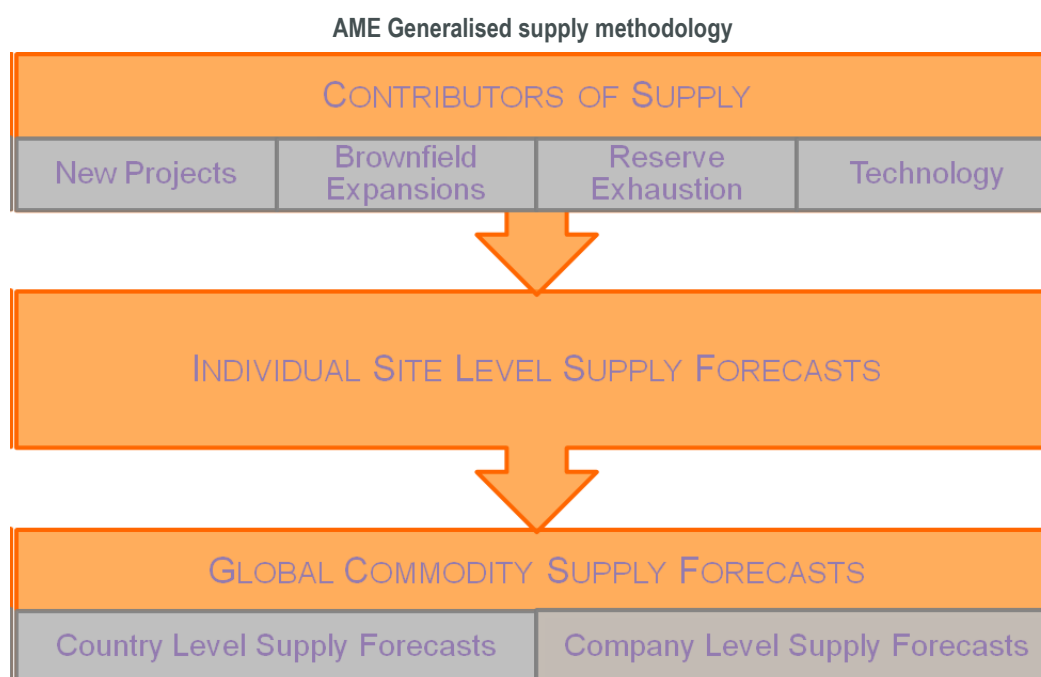
AME's calculations and forecasts for real demand, whilst adding to our apparent demand forecasts, are a new approach for the resources industry in forecasting demand. The forecast tonnages for each country rest upon our assumptions of economic size and composition, growth rates and estimation of inventories in our base year, 2008.

The second caveat is the availability of data from state statistical agencies, which form the basis of the real demand framework. This limits the real demand history to ten years, with estimates for real demand starting in 2000.

2008 has been adopted as the base year for the real demand framework. For the base year, we need to determine global aggregate metal usage, as this will become the reference point for prior and subsequent years.

Our methodology for this process was first to estimate total metal demand growth rates under both the apparent and real methods and changes in inventories over the base year. As the intrinsic metal contained in real demand needs to first be transformed into an end use product, our estimate for real demand starts with apparent demand in the previous years (assuming a nine- to 18-month period as WIP in the supply chain), then adjusting for a change in inventories between the apparent and real methods (as defined under the real demand framework) over the same period.

Supply methodology



Over the long term, supply in the AME economic model is ultimately determined by demand. Producers will enter into the market to meet prevailing demand. A shortage for any sustained period will elevate prices to the point it entices new supply, and prices once again revert to equilibrium. Conversely, a fall in prices will force some producers out of the market to the point that the market again reverts to equilibrium.

Through this process, it is the responsiveness of supply which will determine inventories through the cycle and it is this balance which drives prices in the model.

Mine by mine supply forecasts

At the heart of AME's supply analysis is our proprietary mining and metals database. This database includes thousands of operations from around the world, including all the world's substantial production sites and producers.

- Every operation in the AME database is reviewed and updated on a quarterly basis to include the latest reported production and cost updates. Forward production and costs are estimated every quarter at the individual project level to reflect any changes to production guidance, expansion plans, equipment upgrades and reserve/resource extensions. Our base case supply assumption for mine life is that a mine will extract all of its reserves plus 80% of its resources. As resource discoveries are announced, this extends out the mine life at the individual assets.
- All projects which have not yet reached commercial production are similarly reviewed to incorporate any changes in their production schedule or forecast costs.

All of the country and global supply and production numbers in the AME economic model are generated through a granular 'bottom up' approach as the sum of operations in the database. Company, country and regional production are calculated by the database. Company production is calculated on equity ownership and may differ from company-reported aggregate production due to equity accounting treatment of minority interests by companies.

Data Sources and collection methodology

The AME economic model makes use of the wealth of available economic, production and cost data. In the first instance, the model is an aggregation of this data.

In compiling this information, AME has a defined methodology and data collection procedures. We have an established hierarchy of data sources to ensure the accuracy and integrity of data in the model. The general principles of AME data collection are as follows:

Company Supply data

- We have strict protocols surrounding the treatment of different demand sources.
- If there is any inconsistency or ambiguity in data sources, the 'higher ranked' data source takes precedent.
- If there are any differences in the English and foreign language publications, the higher ranked data prevails. If both sources are of the same 'rank', the English prevails.

1. Annual reports

- The company annual report is the pinnacle of available data. This is an official document produced by the company and is audited. All of our cost work reconciles back to the Annual report.
- This information is 'reliable' and classified as 'reported'.
- This classification encompasses 10-K's Annual Information Forms (Canada) and other reporting required of companies under disclosure requirements.

2. Half yearly reports

- After the annual report, the half yearly report is the second most important document. This is typically audited.
- This information is 'reliable' and classified as 'reported'.

3. Quarterly Reports

Quarterly reports are typically not audited and as such are subordinate to audited financial data. Still, the information contained is very useful and the basis of our quarterly updates.

- This information can be sometimes be 'reliable'.
- This information is classified as 'reported'.

4. Company presentations and websites

- This information is not audited.
- However, often companies will disclose information in corporate presentations which are a valuable source of information. All corporate presentations must be viewed with the requisite data captured in AJAX.
- All this information is 'reported'.

5. State-produced information and statistics

- Varying state agencies collect different amounts of information about the mining sectors.
- There are differing approaches. Some government bodies estimate numbers; others collect and publish information from companies.
- For example, ABARE estimates information and has no access to information other than what is in the public domain. In Peru, however, the Ministry of Mining and Energy collects and reports detailed mine by mine statistics.
- This means that the ABARE information is at best an estimate; whereas the Peruvian data would be reported.
- Caution must always be taken in using this information, especially to determine whether it is admissible into the database, and whether it should be considered estimated or reported

6. Intergovernmental bodies (such as the United Nations)

- The United Nations collects production and trade data across varying commodities. This is delivered through UN Comtrade, the UN Study Groups and UNCTAD.
- It must be used with caution and is always subordinate to company-produced information.
- It is know that there are inconsistencies in the definitions used in the compilation of this style of information.

The model relies on primary information, and does not make specific provisions for secondary source information. For some privately or state-owned operations, where no publically available information is available, we may incorporate into our estimates information obtained from secondary sources (such as media).

Demand and Economic data

AME's value-add is data and analysis of commodity markets and the supply chain. We do not forecast economic variables per se, but rather use the information from National statistical agencies or the IMF.

Historical Data

Historical economic data is frequently used in the demand sections of reports to demonstrate recent market movements. Like supply and costing data, we have a hierarchy of preferred data sources.

- This ensures that we have consistency in the research.
- For example, the IMF and the World Bank have different techniques to estimate global GDP. We must therefore be consistent and always use the IMF data where ever it is available.

1. National Statistical Agencies

- All around the world, different statistics agencies collect information about national economies.
- We access this information via Bloomberg and the websites of the statistical agencies.

2. IMF

- After information provided by national statistical bureaus, the IMF data global and country level data is used.

3. OECD & World Bank, United Nations

- For information not provided by the IMF, we use data from the World Bank, UN and OECD.
- For practical purposes, this is generally population and demographic indications, as well as the World Bank 'ease of doing business' measures.

Forecasts

AME's over-riding demand-driven methodology is very specific with respect to which forecast assumptions are used.

1. IMF

- The IMF's GDP forecasts form the basis of our medium-term demand forecasts.
- As such, we treat the IMF's view as the relative authority, as this is what feeds into our GDP forecasts.

2. OECD & World Bank, United nations

- For information not available from the IMF (such as population forecasts), we use data from these bodies.

3. Specialist forecasters

- We may from time to time incorporate into our reasoning views from specialist forecasters.
- This is only applicable to very specialist forecasts. For example, we may use Boeing's forecasts for aircraft production.

Site level Supply forecasting

Individual site level supply forecasts in the AME economic model are based on reported nameplate capacities and estimated reserves (for mines). Where production guidance is provided by the company, this is incorporated into the supply forecasts.

For forecasting supply at mine sites, in general:

- Grades (quality) at mines will on average fall over time, but will never fall below the reported reserve grade.
- Mine production rarely exceeds reported (or demonstrated) capacity, and only expansions considered 'committed' are reflected in forecasts.
- Recovery rates remain constant. However, in general, recoveries will fall slightly with decreasing grades.
- Production in some regions may be seasonal (e.g. wet seasons in tropical regions) and so quarterly production cannot always be simply a case of the annual number divided by four.
- Pre-feasibility and feasibility studies are used whenever available to forecast supply. When a mine commences production, the company usually provides some background information on the mine plan—this is the annual production plan/rate for the life of the mine.
- Our default assumption is that a mine will extract all reserves plus 80% of resources. Empirically, this is a high reserve conversion; however, this compensates for the fact that no exploration upside is factored into assumed mine lives.

For forecasting downstream (refinery/smelter/plant) facilities:

- Depending on the commodity, a production plant may be able to exceed operational nameplate capacities, but this is usually reported by the company.
- Material flow and upstream constraints may impact on the supply profile. For example, if the mine supplying a plant changes output or has some sort of supply disruption, this can affect production forecast for a refinery/smelter.
- Major maintenance will impact production. This is factored into short-term production forecasts.
- Plants based on more complex technologies will take longer to construct and also to ramp-up than simpler facilities. Ramp-up times at production facilities for different commodities and different regions will take different length of time—for example, a nickel project may take 3–4 years to ramp-up to full output, whereas an aluminium project may reach full capacity within 12–18 months.

Project definitions

AME has a universal project classification methodology across all commodities. It covers both greenfield and brownfield projects alike.

Greenfield projects

All greenfield projects in the AME Economic Model have both a status and a likelihood reflecting the probability and timing of it entering production.

- A project's status pertains to its stage of the development cycle.
- A project's likelihood is the assessed probability that it will reach commercial production.
- AME's Base Case Supply comprises projects in production plus projects classified as committed or probable. Possible and Concept projects are not added into our base case supply forecasts.

Status

The status of a project describes the state of production and development. We employ six project status classifications. These are the same across all commodities.

1. **Production**—a site which is in commercial operation
2. **Care and Maintenance**—a site which has been in operation and has been suspended. It has a production forecast at a future date, however. If there is no forecast future production, it is closed.
3. **Construction**—A site in development but which has not yet commenced commercial production.
4. **Feasibility**—A site at feasibility or permitting. At this point an initial resource should have been established. Projects at 'pre-feasibility' are classified as exploration.
5. **Exploration**—a site at initial exploration through to pre-feasibility. Projects at pre-feasibility are classified here.
6. **Closed**—a site which was in production or exploration, but where no future production is anticipated due to exhaustion of economically extractable resources or a disbanded project.

Likelihood

All projects in the development stage must have an associated likelihood. The likelihood is the assessed probability of each project coming on line. We have four likelihood classifications for projects in development stages:

1. **Committed**—AME believes these projects will come online by their planned start date with the highest degree of probability. In AME's assessment, this category contains projects that are already completed and awaiting commissioning, or those projects that are in a sufficiently advanced stage of construction, such that it AME considers it uneconomic to discontinue construction. Some projects have been included that fall outside these two categories, as these projects are owned by major mining companies or have strong financial backing.
2. **Probable**—AME believes these projects will come online with the next highest degree of probability. AME considers that these projects are very likely to begin production, but are differentiated by those in the 'committed' category because the degree of certainty is reduced by key factors, which include (but are not limited to) current stage of construction/development, location of project, owner/financiers and product mix.
3. **Possible**—AME regards these projects to have sufficiently strong fundamentals to consider that they will possibly begin production by the end of AME's long-term forecast period, but there remains some uncertainty as to aspects of the project.

4. Concept—AME considers it is unable to provide any concrete assessment of the timing of these project start dates or capacity with any great detail without further information. The majority of these projects are unlikely to proceed to development.

Project classification criteria

1. The status of a project will limit the number of applicable likelihoods. This is summarised in the table below.
2. Projects without a resource will be 'concept', unless there are exceptional drill results and/or other salient characteristics (see guidelines below).
3. Additional production cannot be allocated to 'other' projects until six years into the production forecast.
4. Possible projects cannot be assumed to start before 18 months. Anything closer than this would be considered 'probable'.

Project status and associate likelihoods

Status	Likelihood Selections
Construction	<ul style="list-style-type: none"> • Committed
Feasibility	<ul style="list-style-type: none"> • Probably • Possible
Exploration	<ul style="list-style-type: none"> • Probable • Possible • Concept

The status of a project will naturally dictate its associated likelihood.

- Projects in the construction phase are obviously committed, as they have attained all required finance and approvals.
- Projects at the permitting stage are considered at feasibility (if they have all the necessary finances, they are probable). Projects not proceeding past feasibility would be considered 'closed'.
- Projects at feasibility are either probable or possible. Unfavourable projects would not progress to this stage.
- Exploration projects can be either probable, possible or concept. An exploration project would become probable only in the event of very favourable characteristics (such as grade, location, financial backing etc.). Projects which do not progress would be classified as 'on hold' or 'closed'.
- Projects at pre-feasibility are counted as exploration projects.

General considerations for determining likelihood

When we assess a project and determine the likelihood, we consider the following principles:

- Access to infrastructure.
- Availability of equity and debt finance.
- Projected cash costs—first or second quartile cash cost is most likely to proceed.
- Credibility of the owner—projects owned by large producers are viewed more favourably.
- Political risk attributes—the lower the better.

Any project without a defined resource is typically not included in the database, as it is too early a stage for consideration.

- The only exceptions to this would be if the project satisfies four of the six following criteria
 - Ready access to infrastructure
 - Top decile drill results
 - Developed by global diversified miner
 - In a very prospective province
 - Is the site of a previous mine
 - Bottom quartile capex costs
 - A known pre-feasibility study has given an indicative tonnage volume.

Additional Considerations—Copper

The status of the mine is the first criteria for determining the likelihood. After this, the following criteria then apply:

- A project without a resource is in the 'concept' stage
- Grade criteria:
 - A project with copper equivalent >2.5% is probable, >1.5% if in Chile
 - All projects in Africa must have grade equivalent >4.5%
- Resource size:
 - A probable project must have a mine life >7.5 years
 - A project with a mine life less than four years is concept
 - A mine between four and 7.5 years is possible
- The likelihood of projects developed by large diversified miners may be upgraded one level if they do not meet one of the criteria but meet the others.

Additional Considerations—Zinc

The status of the mine is the first criteria for determining the likelihood. After this, the following criteria then apply:

Zinc will be in short supply in the middle of the decade. Hence, the thresholds are lower.

- A project without a resource is 'concept'
- Grade criteria:
 - All projects with equivalent zinc >10% are probable
 - All projects with equivalent zinc >6% are possible, otherwise concept.
- Resource size:
 - A probable project must have a mine life >7.5 years
 - A project with a mine life less than four years is concept
 - A mine between four and 7.5 years is possible
- The likelihood of projects developed by large diversified miners may be upgraded one level if they do not meet one of the criteria but meet the others.
- For projects in the Middle East or Africa, thresholds are 25% higher.

Additional Considerations—Gold

The status of the mine is the first criteria for determining the likelihood. After this, the following criteria then apply:

- A project without a resource is 'concept'
- Grade criteria:
 - All projects with equivalent gold >8g/t are probable
 - All projects with equivalent gold >5g/t are possible, otherwise concept.
- Resource size:
 - A probable project must have a mine life >7.5 years
 - A project with a mine life less than four years is concept
 - A mine between four and 7.5 years is possible

The likelihood of projects developed by large diversified/major gold miners may be upgraded one level if they do not meet one of the criteria but meet the others.

- For projects in the Middle East or Africa, thresholds are 25% higher.

Additional Considerations—Iron Ore

- A haematite body of iron ore is the most likely to progress, provided that its characteristics (impurities) are similar to those of recognised benchmarks.
- Access to infrastructure in a stable political environment.
- Lump product is favoured over fines given its increasing scarceness, provided the grade and impurities are in the prescribed benchmark range.
- Therefore, generally speaking, lump and fines haematite projects are ‘committed’ or ‘probable’.
- In the case of magnetite iron ore, the decisive factor for the go ahead of a project is grade and impurities
- A project that is required to build its own infrastructure and which is owned by a non-‘Big Three’ miner will be ‘possible’.
- However, a project with access to infrastructure or an integrated transport network and better sources of funding is more likely to be considered ‘probable’ rather than ‘possible’.
- Thresholds are 25% higher in for developments in Africa given the higher level of political risk.
- There is an increased influence of environmental considerations for project approval and are more likely to be ‘possible’ or ‘conceptual’.

Additional Considerations—Aluminium

The status of the smelter is the first criteria for determining the likelihood. After this, the following criteria then apply:

- A project without an established electricity supply is ‘conceptual’.
- A project that is based in a low-cost energy country (below US\$70/MWh) that has no history in producing aluminium is ‘possible’.
- A development in a high-cost energy country (above US\$70/MWh) with a history of producing aluminium is also ‘possible’.
- A project that is in a low-cost energy country that already produces aluminium is ‘probable’.
- Projects in Africa are deemed ‘conceptual’ until actual construction begins, given the significant project delays that have historically taken place with development and the issues over availability of power.
- Large, diversified miners are not seen more favourably for aluminium, as factors are more about the country’s power cost and availability.

Brownfield projects

All brownfield projects in the development stage have an associated likelihood. The likelihood is the assessed probability that the expansion project reaches commercial production.

- The production profile and costs for projects with planned brownfield expansions are input as per the company-indicated production plans.
- The brownfield expansion is then given likelihood. We use the same classifications for greenfield projects. The thresholds for a brownfield project to reach a higher likelihood of development are lower. See definitions and thresholds below.
- All likelihoods are re-assessed each quarter as the project moves through the development cycle.

The criteria for brownfield classifications differ by industry to reflect the relative determinants of mine success. These are as summarised in the matrix below:

Brownfield likelihood classification criteria

	Concept	Possible	Probable	Committed
Company Development Stage	Mentioned by company	Evidence of progression through development process		Board approval for expansion

Financing and availability of capital	No requirement	No requirement	DFS imminent or underway	Finance approved or funding available through cash flow
Cost and risks	No requirement	Looks likely to achieve at least industry average return on asset	Looks likely to achieve above average ROA in high risk jurisdiction, or at least average ROA in low risk jurisdiction	
Infrastructure and access to market	No requirement	In established or known emerging precinct	Likely to access market	Committed access to infrastructure including rail and port where required
Environment	No requirement	No requirement	Has not had approval rejected at least once	Approved
Competition	No requirement	Oversupply of market expected in the medium to long terms	Balanced or undersupplied market expected in the medium to long terms	

'Other' supply categories

The AME production model has production allocated to 'other' for a variety of countries and large producing provinces. This captures both small immaterial producers, and future production which cannot yet be attributed to the site level.

Micro-producers

Ideally, all production would be tracked at the site level. For practical purposes, this is not possible as some mines are too small to track at the individual site level. For example, there are an estimated 30,000 coal mines currently operating in China. Even if these mines were hypothetically tracked, each is too small to be material and there is insufficient information to benchmark these producers alongside larger mines.

Secondly, in the case of base metals mines, there is usually a small amount of by-product production at most mines, even if the amount produced is too trace to be payable. This is small and often immaterial at the individual mine, but in aggregate, forms a significant part of global supply.

Undefined future production

AME provides production forecasts for operating mines and projects over a 15-year forecast horizon. It is not possible to foresee all of the projects which will enter the market. In the long term, there will be production entering the market from projects and orebodies which have not yet been discovered.

- The AME economic model assumes that in the long term, markets will balance. Under this framework, a prolonged supply shortage is not sustainable. Ultimately, if a shortage exists for long enough, higher prices will encourage other projects into the market.

The quantum of production is allocated to the 'other' category for each country, or in the case of large producers, each state/province. In making these projections for 'other' categories, our assumptions are as follows:

- For production from these projects, we always assume flat line production.
- We assume that from six years into the future (i.e. the long term in our model), production at 'other' operations for each country may step up depending on the intrinsic shortage or undersupply of identified projects.
- This implies that new operations will open, but at this stage are not known about.
- We don't assume that 'others' step up before six years into the future (i.e. the long term). The methodology assumes it is inappropriate for this to occur before six years, due to the duration of the mine development cycle.

AME 'Base Case' Supply

The AME economic model looks at the interrelation between demand and the 'Base Case' supply to derive modelled prices and forecasts. Global supply in the model is the aggregate of individual projects. Specifically, our base case supply will comprise production from the following projects:

- Existing sites in production

- Projects with the likelihood status of 'committed' or 'probable'
- Production allocated from 'other' projects
- Net of the production disruption allowance

Production at 'possible' and 'concept' projects does not feed into our base case supply scenario. This production is still costed and is re-assessed quarterly for inclusion into the model. Every quarter, we review each project and re-assess its likelihood to see whether the probability needs to be upgraded or downgraded. Typically, over the life of a project, a project's likelihood will either increase as it moves through the development cycle, or if not prospective, be abandoned and set to 'closed' in the database.

Disruption allowance

AME's base case supply includes a disruption allowance to account for unforeseen production reductions due to strikes, mechanical failure, weather and other force majeure events. This is deducted from notional production forecasts to determine base case supply.

Over the short to medium term, we apply a disruption allowance of 2% of supply for sites which involve mining processes and a 1% allowance for downstream sites without mining processes. In the long term, this falls to 1% for both mining and downstream processes. The lower disruption allowance in the longer term reflects the higher uncertainty which is by default captured within the 'other' production allocation.

Country and regional groupings

AME has identified the 45 major countries that account for around 95% of global metal usage. As such, these countries are grouped in the following regions for metal demand (consistent across the commodities).

Region	Countries	Region	Countries	
North America	Canada	CIS	Kazakhstan	
	Mexico		Russia	
	United States		Ukraine	
Central and South America	Argentina	Middle East	Iran	
	Brazil		Israel	
	Chile		Saudi Arabia	
	Peru			
EU-15	Austria	Africa	Egypt	
	Belgium		Nigeria	
	France		South Africa	
	Germany			
	Greece			
	Ireland			
	Italy			
	Netherlands			
	Portugal			
	Spain			
	Sweden			
	United Kingdom			
	Czech Republic		Asia	China
	Hungary			India
Norway	Indonesia			
Poland	Japan			
Turkey	Malaysia			
		South Korea		
		Taiwan, China		
		Thailand		
		Vietnam		
		'other'		
Oceania	Australia	World Total		
	New Zealand			

Time horizon

The AME economic model looks at market trends in four distinct time periods:

Short term: Up to 18–24 months

Medium term: This is the period between the short term and up to five years (2–5 years)

- The IMF GDP forecasts form the basis of assumptions in this period
- The focus of the analysis in the Strategic is on this period.
- Supply and demand mismatch will drive price forecasts during this period

Long term (6–10 years): The 'long term' is divided into two periods to reflect the economic development expected over the next decade

- We apply a national long-term GDP growth rate for each country. This factors in the likelihood of a recession. Our assumed GDP forecasts are available [here](#).
- We assume that markets balance in the long term—we do not assume substantial supply demand mismatches in this period. This is because, in the long term, markets always reach an equilibrium point.

Extra Long term (11–15 years)

- Similarly, we apply a lower GDP rate for each country in this period
- Demand growth rates are assumed to step down further in this period to reflect the general maturation of economies.

Price forecasting methodology

To ensure consistency across our assumptions and parity in our price forecasts, we employ the following methodology to prices in our economic supply-chain model.

Prices are modelled in three defined horizons to reflect the increased uncertainty surrounding longer-term expectations and the differences in assumptions which need to be made. Our price expectations are not forecasts driven through a stochastic or statistical model. Rather they are assessments based upon our supply and demand framework.

'Short term': 0–2 years

In compiling our short-term price expectations, we consider the following at the individual commodity level:

- Demand and supply balance.
- General market conditions
 - Monetary policy setting
 - Financial market performance
 - Investor sentiment and confidence
 - Demand for metals as an asset class (base metals)
- Likely impact of policy decisions, economic/business cycle, fundamental economic analysis
- Inventories

When considering the above factors, we apply the following approximate weightings. These weightings may change to reflect current market circumstances. For some commodities, such as base metals, inventories are typically more influential than for bulk commodities, where the practicalities of storing surplus material are less feasible:

Short term price expectations – factor weightings

Factor	Weight
Market Conditions and Sentiment	20%
Political Risks	10%

Economic Environment	20%
Supply and Demand Balance	50%

Medium term': 3–5yrs

In compiling our medium-term price expectations, we consider the following at the individual commodity level:

- The medium-term price profile is dictated by supply. Supply is shaped by:
 - Delivery of projects
 - Exhaustion of mines
 - Expansions
 - Relative supply barriers including barriers to entry e.g. freight costs
- The IMF's GDP forecasts form the basis of our medium-term demand forecasts.
- These IMF forecasts and assumptions feed into our demand assumptions.
- AME's demand analysis considers individual industry sectors, such as transport, construction, and various durable goods, and takes into account changing consumer tastes and substitution factors. This is also applicable in the longer term.
- Our model assumes a reversion of imbalances which may exist in markets (if applicable).
- Material flow from mines through the beneficiation process and on to buyers
 - Supply chain bottlenecks
 - Assessed changes in inventory
 - Infrastructure capacity
 - Regulatory issues
 - Other influences on demand such as substitution
- Geopolitical risks (especially for oil).

When considering the above factors, we apply the following approximate weightings:

Medium term price expectations – factor weightings

Factor	Weight
Market Conditions and Sentiment	0%
Political Risks	10%
Economic Environment	20%
Supply and Demand Balance	70%

Long term: greater than five years

In compiling our long-term price expectations, we consider the following at the individual commodity level:

- We assume markets balance and are in equilibrium over the long term.
- Our long-term model considers the expected size of the market and the types of projects which will need to be commissioned to meet this demand.
- Market conditions, sentiment and political risks have no bearing on our long-term forecast as it is not possible to make reasonable assumptions on these factors this far into the future.
- Underlying Economic fundamentals will have some bearing. We assume that economies are growing at their potential growth rate or they revert back to their trend growth rate.
- Other factors that are considered include economic development cycle, technological advancements and structural economic changes.
- Cost of production
 - Cash cost—declining grades, labour costs, input costs
 - Capital costs for new projects and expansions

Required return on capital to justify new investment

When considering the above factors, we apply the following approximate weightings:

Long term price expectations – factor weightings

Factor	Weight
Market Conditions and Sentiment	0%
Political Risks	0%
Economic Environment	30%
Supply and Demand Balance	0%
Cost of Production, Return on Assets	70%

AME News database

The AME Industry News Database is a core component of the service and one of the foundations of our analytical work. News is collected by analysts and uploaded to the server on a daily basis.

AME news is collected from primary sources and conversations from producers and industry participants. The news database is dissimilar to general financial press. It is a production and market news service to track what is happening at the margin. News is typically collected on site-level issues to provide a detailed and nuanced supply picture.

News items are intended to cover the following production or supply related items:

- Production interruption or strike, weather
- Expansion announcement
- M&A activity
- TC/RC's (Base metals)
- Price information and negotiations (bulks), spot price changes (bulks)
- Key infrastructure developments, bottlenecks and problems (bulks)
- Production forecasts by companies
- Capacity changes
- Items affecting forecasts at a company or operation
- Changes in government policy which would affect production (e.g. royalty changes, capacity elimination in China)

We don't include:

- Management changes
- Dividend payments, profit numbers etc.
- Generic stock exchange announcements
- Management quotes, unless announcement of expansion or intention etc.
- Third-party commentary, quotes or forecasts

Gold supply and demand

Measurements of gold supply and demand are dissimilar to other base metals. In any period, total gold supply is equal to total demand, whereby production in excess of end user demand becomes part of invested gold stock. Conversely, excess end user demand is satisfied through a rundown of investment stocks. The net result is that the gold market does not have a formal inventory level like other base metals.

The demand and supply categories for gold can be summarised as follows:

Gold Supply Components	Gold Demand Components
<ul style="list-style-type: none"> • Mined gold • Recycled gold scrap • Net disinvestment • Central Bank and Official sales 	<ul style="list-style-type: none"> • Jewellery Fabrication • Industrial and other applications • Central Bank and Official purchases • Net investment • Gold bar hoarding

Data audit and quality control

A fundamental part of the research methodology to ensure quality of data is internal data verification and audit. Internal checking procedures focus on the following five areas:

- 1) Methodology
- 2) Completeness
- 3) Data accuracy
- 4) Investigation of all potential data
- 5) General quality

Frequently, data sample sets are selected and are subject to an audit. This data will be checked against available information including company reports and press-releases, presentations, and official government statistics.

AME's data capture works on a quarterly cycle. Every quarter, most companies will release a report detailing operational activities and financial statements. This data is collected and inputted into database. Below is a list of components that are refreshed each quarter and subject to audit:

Site Descriptive information:

- This is checked for currency and accuracy and includes relevant news items.

Production:

- This will differ according to the way each company reports its information.
- Production for each operation in the database is reconciled against reported information.
- This ensures requisite conversions (for example from short tonnes to metric tonnes or adjusting from partial to 100% production) are made from reported information.
- Ensure company guidance is captured.

Costs:

- This is also reported on a 100% basis.
- The process is similar to the checking of production.
- Ensure company guidance is captured.

News

News items are also checked as part of this process to ensure accuracy and completeness. In the instances that production changes are indicated in news items, that these are replicated in the production and cost information.

AME Production Definitions and Standards

Processes are at the heart of the AME costing model. As outlined in the costing methodology section, processes form the base unit of site costs.

Each process has a specific definition in the costing model. Collectively, the processes combined form AME's supply chain approach to costing.

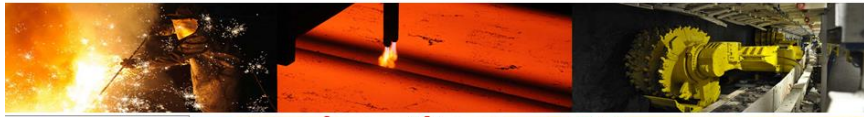
Supply Chain methodology

Mapping

AME applies an integrated supply chain approach to production and costs for all mines and plants, whether for copper smelters, pellet plants, coke ovens or blast furnaces. That is, from the initial extraction of the raw material from the ground ("mining processes"), then each process through to converting the material into its finished product is tracked and costed.

This provides a holistic supply chain perspective, allowing users to understand and identify the flow of material between, for instance, a copper mine, smelter and refinery, or coal mine, coke oven and blast furnace.

Material Flow Example (Mount Keith Nickel Mine)



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Show big map

For example, the figure above illustrates the flow of nickel concentrate from the Mt Keith mine site.

- From the mine, the nickel concentrate is railed to Kalgoorlie where it is processed to a granulated nickel matte. Much of this nickel matte is then transported to a different site, the Kwinana Nickel Refinery.
- In the supply chain modeller, users are able to identify that the Kalgoorlie smelter also receives nickel concentrate from other nearby operations (in this case Leinster and Kambalda). The Kalgoorlie site then sends the majority of its output to the Kwinana nickel refinery. Although not visible in the figure above, Kwinana delivers its output (finished nickel) to customers in Japan and China.

AME's integrated approach allows every point in the supply chain to be costed, compared and benchmarked against the industry. Individual processes form the base unit of costing. These processes are then aggregated up to provide a complete site and industry costing.

Mining processes

Underground Mining—Bord and Pillar

The basic method of underground mining. Also called room-and-pillar, tub-and-stall, and bord-and-wall method. It involves developing roadways (the bords) that intersect at right-angles as development through the seam continues, leaving relatively small square or rectangular pillars, measuring 10–50m side length, that effectively support the roof of the workings. This method means that as little as 40% of the coal seam or ore body may be extracted by mine development, with the remaining material left in the supporting pillars. However, once the outer limit of the reserves in a particular panel or development block is reached, retreating begins. The material is cut by large machines called continuous miners, tracked vehicles incorporating a large cylindrical cutting head, of around 1m diameter, rotating about a horizontal axis. The drum is laced with hard steel picks, which cut the coal or ore when the rotating drum is pressed against the coalface or orebody. A system of belts collects the material once it is cut and discharges it from the rear of the miner from where it is transported to the surface.

Underground Mining—Longwall

A more efficient method of underground coal mining. Longwall mining involves the removal of a large portion of a seam from a long working face or wall in one virtually continuous operation. The workings advance (or retreat) through large blocks of

coal, which may be several kilometres in length. Face widths may be up to 300m. The space immediately adjacent to the working face is protected against roof falls by large hydraulically operated chocks which support the roof and move forward as coal is removed from the face ahead of it. Each chock is typically around 1.5m wide, so the supports follow the shearer in a snake-like motion as it passes along the face. The shearer generally has two pick-laced drums rotating on a horizontal axis, which travel along the face cutting the coal. The shearer takes a slice up to one metre thick with each pass and advances automatically.

Open-Cut Mining—Truck and Shovel

A typical method of open-cut mining. Shovels and excavators are used to remove the overburden (waste) before extracting the coal seam or orebody. Rope-type shovels have bucket capacities ranging up to about 55m³. Shovels and excavators can be used for both overburden removal or coal extraction and must be supported by a truck fleet. A truck and shovel operation allows greater operational flexibility and allows overburden dumping out of pit.

Open-Cut Mining—Dragline

A more efficient method of open-cut mining. A dragline is a piece of excavation equipment that utilises its long boom to cast a rope-hung bucket over a considerable distance, collects material by pulling the bucket toward itself, elevates the bucket, swings around and dumps the contained material onto a bank or pile, or into a hopper. Large draglines have bucket capacities of approximately 100m³. As with truck and shovel, coal extraction must be supported by a truck fleet. Dragline operations are generally more capital intensive to construct. Dragline is generally inappropriate for hard rock mining.

Base Metals Processes

Base Metals Concentration

In the base metals concentration process, ore is first crushed and ground into minute particles (less than 75µm), during which process water is added to make a slurry. Chemical reagents are added into the slurry to separate the sulphide particles from the gangue by flotation. The key to flotation of an ore pulp is to make the desired minerals hydrophobic ('water hating') or aerophilic ('air loving'), so that they will adhere to the bubbles of air. Final concentrates come from the flotation machines as diluted slurry which will be dewatered to isolate the concentrate for further treatment.

SXEW

Copper oxide ores can typically be economically extracted at grades lower than sulphide ores. These ores are typically beneficiated onsite through a process called Solvent Extraction Electro-Winning (SXEW). With the SXEW process, copper ore is processed to refined copper, a saleable product. SXEW processes do not incur any smelter or refiner treatment charges or refining costs. SXEW is a chemical process whereby the ore is crushed and the copper is leached from the ore at the mine site using a leachant, such as sulphuric acid.

Copper Smelting

In the copper smelting process, the dry powdered copper concentrate is discharged into a fluidised bed reactor fed with oxygen. The reduced metal melts and settles to the bottom of the chamber. This produces about 98% pure copper known as blister. By-products of the process are sulphur dioxide and slag. The blistered copper is put into an anode furnace to remove the remaining oxygen. This produces a copper anode which is about 99% pure.

Copper Electrolytic Refining

In the electrolytic refining process of copper, copper anodes are placed in a solution of 3–4% copper sulphate and 10–16% sulphuric acid. The copper anodes become positive electrodes and thin sheets of pure copper are used as negative electrodes. Oxidation occurs at the anode when an electric current is passed through the solution and metal ions migrate from the anode to the cathode via the aqueous solution. This is allowed to take place for two weeks, after which the cathodes are pulled from the tank, each weighing approximately 350lb and are typically of 99.999% copper purity.

Caron

The Caron process involves heating the milled ore to over 700°C in a reducing atmosphere to reduce nickel and cobalt to the metallic form. The product is allowed to cool in non-oxidising conditions, and is selectively leached in an ammoniacal-ammonia carbonate solution at low temperature and atmospheric pressure. Nickel is precipitated from solution as carbonate by boiling off the ammonia. Calcination of the carbonate at 1,200°C produces nickel oxide.

Nickel HPAL

HPAL technology is a hydrometallurgical process and allows the recovery of nickel and cobalt from low-grade lateritic (oxide) ore. It is also a more popular process where nickel is bound within clay or secondary silicate substrates in ores. The nickel and cobalt metal is extracted using acid and high temperatures, usually greater than 250°C. HPAL plants are characterised as high-energy intensive processes, required to heat the ore material and acid, and having greater maintenance and replacement costs from the wear and tear caused by the hot acid upon plant and equipment. These greater energy costs are only sustainable with higher-grade ores. The output from the Ni HPAL process is nickel intermediate, specifically, nickel hydroxide.

Nickel Smelting

In the nickel smelting process (flash smelting is a common practice), dry sulphide ore is fed into the furnace with preheated air, oxygen-enriched air, or pure oxygen. The heat resulting from the exothermic reactions smelts the concentrate and produces a liquid matte, containing up to 45% nickel, and an accompanying fluid slag. Slags are processed in an electric furnace to recover the nickel.

Nickel Refining

In the nickel refining process, input is nickel matte output from the nickel smelting process or nickel intermediate, HPAL plant or nickel carbonate from the Caron process. Using electrical cells which are equipped with inert cathodes is the more common technology in the nickel refining industry. Sulphuric acid solutions or chloride electrolytes are used. Electrowinning is another popular method used to purify nickel. The output from nickel refining is refined nickel (usually of 99.9% purity).

Gold Heap Leaching

In a gold heap leaching operation, a solution of cyanide and lime or caustic soda is distributed over the top of an open mound or levelled heap of coarse gold ore piled onto an impervious pad. After the cyanide solution has percolated through the ore, the pregnant liquor is collected from the base of the heap. Between 50% and 90% of the gold can be extracted, depending on ore permeability, heap construction and pre-treatment of the ore.

CIP/CIL

In the CIP (carbon in pulp)/CIL (carbon in leach) processes, ore is first ground and water is added to produce a slurry or pulp. A solution of cyanide and air is added to oxidize and dissolve metallic gold into soluble aurocyanide and other complex ions. Carbon is then added to absorb gold from the complex until it comes to an equilibrium with the gold in solution. The coarse carbon will then be separated from the slurry by screening using a wire mesh. In the CIP process gold absorption takes place in a slurry containing activated carbon, while in the CIL process absorption is carried out directly in the cyanide leaching tanks. After carbon stripping, the pregnant liquor is usually passed to electrolytic cells where the gold is deposited on steel wool cathodes. Doré bullion is produced by melting the loaded cathodes or precipitate with an oxidising flux of silica, borax or nitre.

Refractory Ore

Refractory ores are resistant to recovery by standard cyanidation, therefore pre-treatment is necessary before the cyanidation process. The most common methods are roasting, pressure oxidation (autoclave), and bio-oxidation (bacterial oxidation). Roasting involves heating the ore or concentrates in an oxidising environment or kiln. Pressure oxidation is undertaken at high pressure and temperature in an autoclave, with oxygen as the oxidising agent. Bio-oxidation utilises the

catalytic activity of iron- and sulphur-oxidising bacteria to break down sulphide minerals using atmospheric oxygen, thus rendering the gold accessible to the cyanide lixiviant.

Aluminium processes

Alumina refining

The alumina refining process takes bauxite ore as input to produce alumina, through a process called the Bayer process. After bauxite is crushed and grinded, the smaller pieces are mixed with caustic soda (NaOH) and water and put through a digestion process (with steam) at above 120°C in order to separate the un-dissolved dust. To achieve greater purity, the dissolved alumina is further washed and filtrated and then goes through the precipitation and hot calcinations process to drive off the remaining unwanted but dissolved materials and chemicals. The final product, alumina, is a dry, pure white and sand-like material, which will then be used to produce primary aluminium.

Aluminium smelting

Taking alumina (Al₂O₃) and carbon anode as inputs, aluminium producers make use of the Hall-Héroult (H-H) reduction technique to produce primary aluminium (pure aluminium). As electrical current flows through liquefied mixture of alumina and cryolite (sodium aluminium fluoride) at high temperature, pure aluminium metal is separated out from alumina. The simplified chemical reaction can be expressed as:

Alumina + Carbon ---> Aluminium + Carbon dioxide

The H-H process is electricity-intensive and power costs, on average, account for around 30–40% costs in primary aluminium production. About two tonnes of alumina are required for every tonne of primary aluminium production.

Iron Ore and Steel Processes

Direct Shipping Ores Processing

When haematite ore is of sufficient contained iron content, it may be mined and processed using crushing and screening procedures before being exported for use in steel mills as direct shipping ore (DSO).

Concentration

Magnetite is magnetic and possesses polarity in its naturally occurring state. The magnetic properties of magnetite permit magnetic separation techniques to produce iron concentrates. Due to its lower iron content compared to haematite ores, magnetite requires an energy intensive grinding process to liberate the iron from the matrix it associates to naturally. Different orebodies require different grind sizes to allow adequate concentration of the iron content.

The grinding phase reduces the ore to a very fine size and separates the iron from undesirable non-iron impurities such as silica or sand. A variety of magnetic separation techniques can be employed. Most massive magnetite deposits use wet magnetic separation processing routes. Under this process, Magnetite ores are finely ground to as small as 0.1mm and the grounded ore is mixed with water to create slurry and fed through magnetic separators. Iron-bearing material 'sticks' to the separator and is transferred to the next process phase while waste materials are discarded. Plants may employ as many as five magnetic separation stages at progressively finer grind sizes before producing a final concentrate.

Gravity separation may also be used in the concentration of iron ore. This utilises the differences in the specific gravities of materials and the size of the particles being separated. Lighter gangue and impurities are suspended and transported away from the heavier valuable minerals. The processes preceding gravity beneficiation are generally crushing and grinding, washing and desliming, and screening or hydraulic classification.

In instances where flotation is used, particles of one mineral or group of minerals are made to adhere to air bubbles in the presence of agitated water and chemical reagents. The recovery rate of flotation activities is heavily dictated by particle size, water conditions and the compatibility of reagents with the mineral.

Sintering

The purpose of agglomeration is to improve burden permeability and gas-solid contact. This reduces blast furnace coke rates and increases the rate of reduction. A secondary consideration is the lessening of the amount of fine material blown out of the furnace into the gas recovery system.

Sintering is the burning of fuel mixed with ore under controlled conditions. The continuous sintering process is carried out on a travelling grate that conveys a bed of ore fines or other finely divided iron-bearing material, intimately mixed with approximately 5% of a finely divided fuel such as coke breeze or anthracite.

Pelletising

Pelletising differs from sintering in that a green unbaked pellet or ball is formed and then hardened by heating. Fine magnetite concentrate can be pelletised in a balling drum if the balls are fired at sufficiently high temperature, generally below the point of incipient fusion. The pelletising process is common for finely divided concentrates given their favourable balling characteristics. Concentrates and high-grade ores not suitable in size for pelletising are ground to the required size when pellets are desired as the final product.

(Pelletising) Shaft Furnace

The shaft furnace is an older technology than the preceding two systems and pellets produced are typically not of sufficient quality to be fed into large-sized steel making blast furnaces. This technology is only employed in countries with small- to medium-sized blast furnaces, such as China. Green balls are dried on a bed separate from the furnace and then fed by the feeder at the top of the furnace to go through the other three phases, driven by gravity, of preheating, firing and cooling. Burnt pellets are then cooled in the cooling zone by cold air generated by cold water running through the cooling air inlet.

(Pelletising) Grate Kilns

In a Grate-Kiln system, green balls undergo drying, preheating, firing and cooling. Green balls are burnt in a rotary kiln after being dried and preheated on a shorter travelling grate, then cooled in an annular cooler with multiple cooling zones. This allows greater flexibility because the speed of the grate, kiln and cooler can be independently controlled whilst in the straight grate system, any change in one section impacts the residence time in another. The Grate-Kiln system is considered superior, due to less power and energy consumption, better pellet quality, lower maintenance cost as well as lower capital and operating costs..

(Pelletising) Straight Grate

Green balls are carried by grating cars which are affixed to a moving conveyor belt through the updraft drying phase, where drying is conducted by recuperated hot air at 200–300°C to prevent the condensation of water and pellet deformation. In the following downdraft stage, drying continues through hot gases coming from the firing zone of the furnace and hotter gas from the second cooling zone (the temperature rises to 300–400°C). In the preheating phase, pellets are heated to about 1,000–1,200°C by downdraft gas flowing from the bed. Pellets are completely dried in this phase. At the firing stage, the gas temperature is raised to ~1,350°C by multiple burners (as many as 50). The strength of pellets increases due to recrystallisation and sintering. In the final cooling stage pellets are cooled by ambient air drawn upward through the bed via air boxes below the moving strand.

Coke Making

Coke making involves the heating of coal in the absence of air, resulting in the separation of non-carbon elements from the coke. The production process includes the following steps: coal preparation and charging; coking and pushing; quenching; and by-product recovery.

Blast Furnace (BF)

The blast furnace process is the most commonly used steel making technique. Commonly used blast furnace feedstocks are DSO lump and fines, as well as blast furnace-grade pellets agglomerated from concentrates. In a blast furnace, iron ore is converted into primary iron (pig iron), which subsequently becomes feed material primarily for basic oxygen furnaces (BOF) in the production of steel, and could also be used in electric arc furnaces (EAF).

Direct Reduction (DR)

Direct reduction is a process used to make solid or molten iron products by using natural gas or coking coal as a reductant. The most common feed material for the direct reduction process is pellets produced from high-grade magnetite concentrate. Direct reduction plants are generally operated in the Middle East as the region has access to inexpensive and abundant supplies of natural gas and energy. There are typically three products produced in a direct reduction plant: direct reduced iron (DRI), hot briquetted iron (HBI) and Hot DRI. DRI and HBI products, as well as scrap, are generally used as feed material in EAFs to produce molten steel.

Basic Oxygen Furnace (BOF)

The BOF process injects gaseous oxygen into the furnace as the primary agent for auto-thermic generation of heat. This results in the oxidation of dissolved elements like carbon, silicon, manganese and phosphorus—and to a limited extent, from the oxidation of the iron.

Steel scrap and molten iron, generally transferred from the blast furnace, are charged into the BOF vessel and oxygen is injected in one of many different methods into the furnace for purposes of producing a steel melt of specific chemical and physical properties. Liquid pig iron generally contains 4.6% carbon, much higher than the 0.4% required for quality liquid steel. To remove the excess carbon, the pig iron is burnt with pure oxygen.

To produce steel through BOF, the proportion of pig iron as part of the feed must be over 70%, with scrap accounting for the remainder of the feed.

Electric Arc Furnace (EAF)

The EAF produces molten steel, which is used for the high-grade alloy steel cutting tools, die steels, and stainless steel where the metal must be refined and melted under rigidly controlled conditions to minimise the introduction of impurities. EAF is generally included in the basic design of a typical mini-mill plant for melting scrap or for taking sponge iron from a DRI plant. The main advantage of the arc furnace lies in its flexibility in accepting charge materials in any proportion, namely scrap, molten iron, pre-reduced material and pellets. It is possible to have precise control of the refining reactions because the electric power can be carefully controlled to impart heat to the bath at different desired rates.

Refining and Casting

There are post steelmaking processes performed prior to casting and hot metal desulphurisation. Ladle refining and degassing make it possible for the steelmaker to exert much tighter control over the properties of the final product through improved accuracy in the composition of the final product as well as its cleanliness by being able to control inclusion morphology.

In the ladle furnace, liquid steel is reheated using graphite electrodes whilst homogenising the steel temperature and chemistry via inert gas stirring. The refining of steel comprises of deoxidation, desulphurisation, dephosphorisation, controlled additions of alloying elements and inclusion modification.

Vacuum degassing is used for hydrogen removal as well as the production of ultra low carbon (ULC) steels, with carbon contents of 30ppm or less, and interstitial-free (IF) steels, with carbon and nitrogen contents of 30ppm or less. To achieve these carbon and nitrogen grades, treatment under vacuum is essential.

Following secondary refining, continuous casting is the process whereby molten metal is solidified into a semi-finished steel product—billet, bloom or slab, for subsequent rolling in the finishing mills. Casting machines are designated to be billet, bloom or slab casters.

Coal Processes

Coal Handling and Processing Plant (CHPP)

A coal handling and preparation plant (CHPP, but also known as coal preparation plant CPP), is a facility that handles coal by washing it of impurities and preparing it for transport to the end user or market. Cleaning of coal consists of separating the coal from the mineral matter. The processes of separation are almost invariably performed in water, or a water and medium (magnetite) mix. A washery essentially is a large assembly of hydraulic operations in which water handling and recovery processes are complex and often more extensive than the separating stages. Large volumes of water are required

to transport coal as slurry to ensure the particles are discrete and have freedom to move within units and to wash products on screens. This water must be removed from the product to meet moisture specification and must be recovered for reuse.

Coal cleaning plants treat coal in several ranges of size. There may be circuits for large coal, small coal and fines, or for small coal and fines only, but there will always be a fines section in some form. The section treating fine coal can be expensive both to construct and to run. Ultimate plant and mine size can be controlled by the size of the fines circuit in the wash plant. The fines section can be the most costly to operate.

In AME's database, we have three CHPP process: CHPP Metallurgical, CHPP Thermal, and CHPP Both. These different CHPPs reflect the differences in processing based on the final output product. Typically mines that produce metallurgical coal will require more extensive washing and screening than a pure thermal coal output. Many coal mines produce both a metallurgical coal and thermal coal, hence we have included a CHPP Both process. Generally washing metallurgical coal will incur a greater share of cost than washing thermal coal.

Oil and Gas Processes

Onshore Production—Conventional

Onshore production is the oldest and most economical method of producing hydrocarbons. Oil rigs which are located on the continental shelf are responsible to lift and regulate the crude oil and natural gas steam, which during the first stage of production naturally flow towards the surface. The pressure differential between the hydrocarbon reservoir and the surface serves as a natural drive during the first stage of production. However, once the reservoir's pressure begins to decline, additional measures are taken to guarantee a continuous flow of hydrocarbons. These stages are referred to as secondary and tertiary recovery, also known as enhanced recovery, and utilise injection wells to maintain a desired reservoir pressure.

Offshore Production—Conventional

Offshore oil production refers to the process where crude oil and natural gas are lifted through the seabed. This production method is categorised according to the drilling depth. Drilling in less than 300m of water is known as shallow water drilling, between 300m and 800m of water as deep drilling and between 800m and 3,600m as ultra-deep water drilling. There are several types of offshore production rigs, which vary according to their designated depth of operation. The most common types being submersibles, jackups, fixed platforms, semisubmersibles and dynamically positioned drill ships.

Unconventional Production

Over the last decade, oil and gas producers increasingly commenced hydrocarbon production from unconventional sources. 'Unconventionals' refers to hydrocarbons which cannot be lifted via conventional methods, as those hydrocarbons do not naturally flow through drilled pipelines. In order to guarantee production from unconventional sources, producers must utilise techniques such as horizontal drilling, hydraulic fracturing or in-situ heating.

Production Definitions

In the AME costing model, 'production' is the output of costed processes. Unit process costs are generated by dividing the process cost by resulting production.

Each output in the model has a specific definition.

Base Metals Outputs

Concentrate

Concentrate is the main saleable sulphide product of base metals mines. Miners are paid for the metallic copper content of their concentrates. In addition, miners may also receive revenue for the metallic by-product elements in their concentrates such as gold, silver and molybdenum. A deduction is usually made for the presence of deleterious elements in the concentrate such as arsenic and fluorine.

Ferronickel

The production of ferronickel basically involves the reduction of laterite ore in a blast furnace, kiln or electric furnace. Before full reduction begins, the ore is dried by preheating at temperatures of up to 760°C to minimise the ore's tendency to boil during furnace melting. In the pre-reduction reactions, both hydrogen and carbon monoxide gases reduce the nickel and iron oxides. Although some reduction occurs in the furnace before the charge melts, the major part is achieved by solid carbon reacting with the oxides dissolved in the silicate melt. The final product usually contains 28% to 52% of nickel, although the recent low-grade ferronickel (nickel pig iron, or NPI) invented in China contains 4% to 14% of nickel.

Sulphide Ore

The sulphide ore is the natural mineral formation consisting of metal sulphides. Sulphide ores are most commonly processed by conventional concentration procedures to produce a concentrate. Around 80% of mined copper and 98% of mined zinc comes from sulphide ores.

Laterite Ore

The laterite ore is the ore where the nickel-containing minerals are in an oxidised form and are not readily extracted by flotation or other methods to produce concentrates. Laterites come in the common forms of limonite (lower nickel, ~1.5%) and saprolite (higher nickel ~2.4%), but there are other forms, including serpentine and garnierite. These are processed through ferronickel smelting or hydrometallurgical techniques like HPAL or the Caron process.

Oxide Ore

Oxide ore refers to the mineralised rock in which some of the original minerals, usually sulphide, have been oxidized. For oxide ores, a hydrometallurgical liberation process is normally undertaken, which uses the soluble nature of the ore minerals to the advantage of the metallurgical treatment plant.

Copper Anode

Copper anode is produced from blister copper by reduction with natural gas or wood to remove oxygen and other impurities in an anode furnace. Copper anode usually contains over 99.5% of copper and is further refined to copper cathode by electrolysis. It is usually in the form of slabs cast with two lugs for suspending them in the electrolytic tank.

Refined Metal

The refined metal is the metal that has completed the processing route and is ready for consumption by first users, such as downstream fabricators or stainless steel mills.

Nickel Matte

The nickel matte is a nickel intermediate produced from pyrometallurgical smelting, containing up to 45% of nickel.

Matte

Copper or Nickel matte is the intermediate product from primary furnace, containing from 50% to 75% metal, the remaining major elements being iron and sulphur and small percentages of residual metals and oxygen. Matte is further oxidized in a converter to produce blister copper containing a higher percentage of metal.

Doré

The doré bar is a semi-pure alloy of gold and silver, usually created at the site of a mine. It is then transported to a refinery for further purification.

Nickel Intermediate

Nickel intermediate refers to nickel products that have yet to complete the processing route to finished nickel. Typical examples include nickel matte or mixed sulphide or hydroxide concentrates (usually as a product of HPAL processing).

Yellowcake

Yellowcake (also called urania) is a uranium concentrate powder obtained from leach solutions, in an intermediate step in the processing of uranium ores. Typically, yellowcakes are obtained through the milling and chemical processing of uranium ore, forming a coarse powder which has a pungent odor, is insoluble in water and contains about 80% uranium oxide.

Zinc silicate ore

Zinc silicate ore refers to the zinc ore containing high acid-soluble zinc and silica contents. Hydrometallurgical treatment could be applied to recover zinc from zinc silicate ores. It needs to be processed by specialised treatment plants.

Iron Ore and Steel Outputs

Saleable Ore

Saleable ore is the metric tonnes of iron ore produced in its wet state without deducting free moisture.

Lump (~5mm–30mm)

Lump, derived from haematite or DSO, are un-beneficiated, naturally occurring clumps of iron ore. Upon crushing and screening of the ore, lump ores are shipped directly to the steel mills, at which point the product is further screened by size before being fed into the blast furnace. Lump ores that do not break into smaller pieces during transport and do not quickly decrepitate (break down under thermal load) in the blast furnace are highly valued by steel makers. Lump ores typically command a premium over fines as the product can be directly charged into the blast furnace and relatively fewer deposits worldwide produce lump ore.

Lump ore that are suitable for direct reduction plants—which require high percentages of iron concentration, low acid impurity and very low friability feed—are even more limited. Currently, major lump-producing countries include Australia, South Africa, Brazil and India.

Fines (~150µm, ~6.3mm)

Fines make up the bulk of the world's run-of-mine (ROM) ore supply. Due to their small size, fines are generally considered to be unsuitable for use in a blast furnace without first being processed. As such, fines are usually agglomerated into larger sinters or pellets before being used for steel making. There are two main types of fines: (i) DSO fines, which are predominately processed into sinters and then into 'cake' by being fired together with limestone or dolomite and further processed and used as blast furnace feed; and (ii) concentrate, a beneficiated product derived predominantly from magnetite ore sold primarily as feedstock for pellet production.

Fines products containing iron content closer to the standard 62% Fe benchmark (with relatively limited processing) are typically derived from haematite. DSO fines typically range from 58% to 64% Fe grade, and generally consist of particles

less than 6mm in diameter. This product is created through simple processing stages involving screening, crushing, and sometimes washing if required. Primarily used as sinter feed, DSO fines product is shipped to the customer or a downstream sinter plant for further agglomeration.

Concentrates and Pellet Feed

Concentrates are fines which have undergone a beneficiation process. Concentrates are generally beneficiated from magnetite ore and typically exhibit higher iron grades and lower levels of impurities compared to DSO products.

Concentrates are commonly used as pellet feed to create pellets used in both the blast furnace and direct reduction processes of steel making. Concentrates and high-grade ores not suitable in size of pelletising are ground to the required size. On occasion, concentrate product may be blended with sinter feed in the sintering process.

Relative to DSO products, magnetite concentrates possess 'value-in-use' qualities which may attract a quality premium in pricing, including comparatively higher iron content, low impurities, and exothermic, energy-efficient qualities in the blast furnace steel making process. However, a discount is generally applied to pellet feeds to reflect the relatively higher energy costs of pelletising as compared to sintering.

Pellets (~8–20mm)

Pellets are the product of an agglomeration process that mixes very fine pellet feed with a binder (e.g. a slurry of bentonite) with the mixture rolled into 'green' balls. The product is then fired on a grate or in a kiln to produce the final indurated product. Similar to lump, pellets are most commonly used as they can be charged straight into a blast furnace or into a direct reduction plant.

Pellets tend to have the highest value-in-use characteristics, and hence have generally commanded the highest pricing premium. Furthermore, pellets generally have a more stable chemical composition and lower levels of impurities compared to sinter or lump. Pelletising plants in the CIS countries, Brazil, Canada and Sweden are generally located near or are adjacent to mine sites or loading terminals, and hence lighter pellet products, processed for shipping, reduces transport costs.

Iron Content

The most important quality of an iron ore product is the Fe grade, or contained iron content, which is required to be within a particular range for commercial use in different steelmaking processes.

While iron ore in-situ grades vary widely within a range of 25% up to around 70%, iron ore products generally contain iron content levels above 55% depending on the steelmaking process. Steel mills pay more for higher amounts of iron, but penalise producers for concentrations of impurities (such as phosphorus, aluminium and silica) in excess of a certain specified range. A cargo penalty is also applied for higher than specified amounts of moisture, as this is effectively 'shipping water'.

In addition to quality premiums and penalties, consistencies in quality and delivery volumes are other key factors considered when negotiating iron ore product prices. Balancing the blend of charge used in a blast furnace can be delicate and time consuming, therefore steel mills generally prefer stable, reliable sources of supply.

Dry Metric Tonne Unit (dmtu)

Dry metric tonne unit means 1% of Fe content in each dry metric tonne. Iron ore is priced in cents per dry metric tonne unit (¢/dmtu). This pricing basis takes into account the iron and free moisture content of the ore. To convert a price in ¢/dmtu into \$/t of wet ore, first multiply the price in ¢/dmtu by the iron content of the ore (as a percentage), and divide by one plus the moisture content.

Dry Metric Tonne (dmt)

Dry metric tonne means a metric tonne of iron ore dried at 105°C.

Moisture

The free moisture loss of the ore at 105°C.

Coke Oven Gas

Coke oven gas is a combustible gas formed during the production of coke. The yield of gas is about 300m³/t of dry charge. Coke oven gas is often used as a fuel and as a raw material for the synthesis of ammonia.

Sinter

Sinter is the product of an agglomeration process (sintering) that mixes sinter fines with concentrates suitable for sintering.

Billet

Billet is a semi-finished long product of up to 150mm² cross-section with round corners. Billets can be continuously cast or hot rolled from either ingots or larger concast billets and blooms.

Bloom

Bloom is a semi-finished long product of greater than 150mm² or rectangular cross-section. Blooms can be produced by continuous casting or by rolling from ingot. Continuously cast rounds of 300mm diameter or greater are also referred to as blooms. Both billet and bloom are used to produce numerous long steel products by rolling or forging into other shapes such as concrete reinforcing bars, merchant bars, structural sections or wire rods.

Slab

Slab is a flat rectangular semi-finished solid steel product, which is used for the production of heavy machinery or for hot rolling into other thinner flat products such as plates and coils.

Crude Steel

Steel is an alloy of iron with carbon or other elements, used extensively as a structural and fabricating material. Containing generally between 0.2% and 1.5% carbon, steel is a hard, strong, durable and malleable alloy.

Long Products

Long products are so called because they come off the mill as long bars of steel. These products come in a wide range of shapes and sizes. They can have cross-sections shaped like an H or I (joists, beams and columns), a U (channel) or a T. These types of steel section are primarily used in the construction industry. Long products can also be in the form of bars and have cross-sections the shape of squares, rectangles, angles, hexagons and circles. Other types of long products include railway rails, piling and reinforcing bars for concrete (rebars).

Flat Products

Flat products are so called because they come in flat shapes (sheets or plates). These products are typically made by rolling steel through sets of rollers to produce the final thickness. Flat products include plates, hot-rolled strips and sheets, and cold-rolled strip and sheets. These products come with a great variety of thickness and surface conditions. Hot-rolled sheets are one of the most widely used steel products and many other downstream products are made from them. Hot-rolled sheets are also the substrate material for cold-rolled sheet, galvanised steel, silicon steel and other products. Flat products have applications in construction, transport, pipe manufacture and domestic appliances.

Coal Outputs

Run-of-mine (ROM) Coal

The coal that is extracted from the seam in its unprocessed state. This is the raw material for the CHPP, and consists of coal, rocks, middlings, minerals and contamination. In some cases, ROM coal can be sold as a saleable product, where the unprocessed coal's qualities are sufficient. This is typically the case for thermal coal.

Wash Yield

The wash yield is the ratio between the saleable product and ROM coal. Wash yields can range from 100% where ROM coal is sold unwashed to as low as 50%, where a producer will wash coal significantly to remove impurities, thereby increasing the saleable product's quality.

Saleable Coal

Saleable product by definition is the end use coal that meets contract specifications by removing impurities. Saleable products include thermal coal and metallurgical coal (also known as coking coal). Saleable product can, in some cases, include ROM coal, where the coal meets contract specifications without being washed.

Thermal coal

Thermal coal is primarily used as an energy source in the generation of electricity. Other applications include direct heating, space and water heating, process heating and cement manufacturing. Thermal coal covers all black coal other than those which are specifically designated as coking coal. In broad terms, all coal can be used as thermal coal; however, not all coal can be used for coking purposes.

Hard Coking Coal (HCC)

HCC is used to produce metallurgical coke, which is used as a reductant in the manufacturing of iron and steel. HCC forms a high-strength coke. Coke is an essential raw material with unique physical and chemical properties which supports a variety of basic industrial activities—most importantly the production of pig iron in blast furnaces. To a lesser extent, coke is also used in the casting and smelting of base metals.

Semi-Soft Coking Coal (SSCC)

SSCC is also used to produce metallurgical coke, which is used as a reductant in the manufacturing of iron and steel. However, SSCC produces coke of a lesser quality. It is often used as a blending coal, to supplement HCC. Coke is an essential raw material with unique physical and chemical properties, which supports a variety of basic industrial activities—most importantly the production of pig iron in blast furnaces. To a lesser extent, coke is also used in the casting and smelting of base metals.

Low Volatile Pulverized Coal Injection (LVPCI)

LVPCI coal is generally not considered to be a coking coal; rather it is used primarily for its heat value and is injected into a blast furnace to replace expensive coke. Steel mills are able to implement new technology for injecting LVPCI into a blast furnace as an auxiliary fuel to reduce the amount of coke consumed, and therefore to reduce operating costs in the production of pig iron and ultimately crude steel. The technology involves injecting very fine particles of coal at high rates into the chamber of the blast furnace as a fuel. Most modern furnaces are equipped with a coal grinding and coal injection system.

Oil and Gas Outputs

Crude Oil

Crude oil is a mixture of naturally occurring hydrocarbons which are extracted from kerogen-bearing source rocks buried in the earth's crust. In order to convert crude oil into a marketable product, it needs to be refined into diesel, gasoline, heating oil, jet fuel, kerosene, and literally thousands of other products called petrochemicals. Crude oils are classified according to their per-unit weight, called specific gravity. Heavier crudes yield more heat upon burning, but have lower API gravity (the

American Petroleum Institute gravity, or API gravity, is a measure of how heavy or light a petroleum liquid is compared to water) and market price in comparison to light (or sweet) crudes.

Natural Gas

Natural gas is also a mixture of hydrocarbons but—as opposed to crude oil—reveal a different chemical structure. Natural gas is constituted primarily of methane (about 85%), ethane (about 10%), and propane (about 3%) and hence is gaseous. It can be discovered whilst drilling for crude oil, in which case it is referred to as associated gas. In cases where only gas is found, the products are classified as non-associated gas. Natural gas, which has lower CO₂ per unit of energy, is highly sought after as it firstly reduces the projects emission footprint and secondly lowers further processing costs.

Natural Gas Liquids (NGL)

Natural gas liquids are heavy hydrocarbon chains found in any natural gas stream, typically propane, butane and ethane. NGL's are produced in gas processing plants through absorption, condensation or freezing and commonly classified in accordance with their vapour pressure. The most common forms are natural gas condensates, which feature low vapour pressure and separate naturally from the gas stream. NGL's are either distilled with crude oil in refineries or blended with refined petroleum products, depending on their characteristics.

(Natural-Gas) Condensate

Natural-gas condensate is a form of natural gas liquids which is lifted as gaseous components in the raw natural gas stream. However, it condenses naturally out of the raw gas once it is exposed to normal atmospheric pressure and temperature. The industry refers to natural gas condensate also as condensate, gas condensate, lease condensate or natural gasoline, because it contains hydrocarbons within the gasoline boiling range. A natural gas field producing condensate is said to produce 'wet gas' as opposed to 'dry gas'.

Liquefied Natural Gas (LNG)

Liquefied natural gas is, as the name suggests, natural gas which has been liquefied. It consists of methane and is cooled to approximately -162°C to achieve its liquid aggregate state. The main purpose of the liquefaction is to facilitate easy and safe transport. Liquid gas utilises only 1/600th of volume as opposed to its gaseous aggregate state. Hence, in cases in which pipeline gas is unfeasible, LNG proves to be an economic alternative. Once LNG reaches its export destination, it is converted back into its gaseous state and fed into the local pipeline grid.

Liquefied Petroleum Gas (LPG)

LPG constitutes principally of propane and is synthesised by refining petroleum or 'wet' natural gas. This petroleum product is manufactured during the refining of crude oil or extracted from petroleum or natural gas streams as they emerge from the ground. As its boiling point is below room temperature, LPG will evaporate quickly at normal temperatures and pressures and is therefore required to be supplied in pressurised steel vessels or metal cylinders. LPG is mainly used for heating, cooking and refrigeration purposes, as well as a source of automotive fuel.

AME Costing Model Standards

Overview of AME 'Cash Cost' definition

AME applies universal costing definitions across the various commodities. We provide site and supply chain 'cash cost' and 'total cost' assessments on the following basis

Base and precious metals

- By-product method (AME default)
- Equivalent method
- Revenue pro-rata (or co-product) method
- No credits method

Bulk commodities

- FOB method (AME default)
- Customs, Insurance, Freight (CIF)

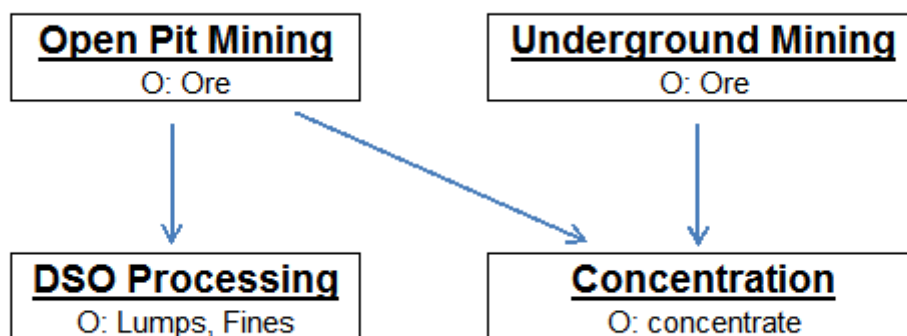
The cash cost is a benchmarking indicator of mine operational efficiency (and profitability). Cash costs consist of two types of cost—on-site costs and off-site costs. AME cash costs are provided on a payable metal basis. On-site and off-site costs are treated identically under every of the cost basis. Cash costs are a non GAAP (generally accepted accounting principle) metric and there are differences in what different companies will include in reported cash costs. As such, AME does, on occasion, make changes to reported cash costs for benchmarking purposes.

On-site costs

At 'mining sites' on-site costs pertain to the production costs borne by the miner to extract and process mined material for sale, whether into a concentrate, finished metal (in the case of SXEW or integrated HPAL operations), direct ship ore or saleable coal product.

In the AME costing model, on-site costs are comprised of process costs and an allocated administrative and support cost. Process costs (See process definitions) pertain to the site operations which extract and beneficiate raw mined output. The diagram below provides an example as to the process flow at a hypothetical iron ore site.

Iron ore mining—typical processes



In this example, run-of-mine (ROM) or 'crude ore' is extracted from the ground (the 'output' of the open-pit or underground mining process in the AME costing model), and then becomes the 'input' into the DSO and concentration. The on-site costs are the costs associated with the processes: mining, DSO processing into lumps (output) and fines (output) and concentration to produce the output (concentrate).

In addition, an administrative cost is included. This is either reported from the company or deduced from the company accounts (see AME financial statement cost reconciliation). For private companies or where this information is not provided, an allocation for administrative and support costs is 10% of the site processing costs.

Off-site costs

In the AME cost model, the offsite costs are the costs associated with bringing product to market which occur 'beyond the mine gate'. The costs include:

- Realisation costs (for gold and base metals i.e. treatment and refining charges)

- Royalties
- Transport costs
- Input feed costs

Off-site costs are a fundamental part of the AME costing methodology and for some commodities can constitute over half of cash costs. These instances are typically where there are very high transport costs to get material to market.

Off-site costs allow the comparison and benchmarking of mines, which otherwise have different characteristics and in other instances would be difficult to compare. Off-site costs make it possible to compare operations in different locations, produce varying quality of product and are subject to different royalty regimes (in the case of mining operations).

Realisation costs

Base and precious metals mines producing concentrate are subject to realisation charges in the form of treatment and refining charges. Treatment charges are levied per tonne of concentrate produced at the mine. The AME costing model applies annual benchmark treatment charges. Refining charges do not apply to zinc, lead or molybdenum. Where they do apply, they are only applicable to payable metal.

Royalties

Under the AME cash cost definition, royalties are included for sites where mining (or extractive) processes occur. It should be noted that royalties are not, by definition, included in some alternative costing methodologies (such as 'C1' costs).

AME applies the reported royalty paid by producers where available, or alternatively estimates the royalty levied based upon the prevailing royalty regime where the mine is located. Corporate income taxes, as well as extractive industry profit-based taxes and export duties fall outside of the royalty definition and are excluded.

Transport costs

The cost of transporting material to the point of export (or overland to the next processing stage) are included as an off-site cost. For practical purposes, this is typically the same as the FOB transport cost treatment. A more detailed overview of AME's transport cost standards is available in the transport section.

Input feed costs

Purchased feed (such as iron ore and coal into a steel plant, or alumina into an aluminium smelter) are captured as an 'input feed cost', part of off-site costs.

These costs are excluded from process costs as feed costs can distort comparisons of the operational efficiency of processing plants.

By-product method (Default costing methodology)

AME adopts the by-product costing method as our default method of mine cost analysis. This applies to base/precious metals and bulk commodities alike.

This is the conventional method of costing for mine cost analysis, where production of secondary metals are 'credited' against the mining, processing admin costs (on-site costs) and off-site realisation charges, transport and royalties (offsite). AME employs the same definitions as the World Gold Council and often reported by producers. Payable metal production in ounces (precious metals), pounds (base metals) or tonnes (bulk commodities) to arrive at the FOB cash cost.

In our internal database, we collect and record all cost information on a by-product basis. Other cost types (equivalent, no credit and revenue pro-rata) are derived from calculations in the database.

Equivalent production method

In this method, we convert the value of all metals produced into a single 'equivalent' measure. This is a derived calculation in the database.

The calculation performed in the database to calculate equivalent production is as follows:

1. **Equivalent metal production = total site revenue/metal price**
2. **(onsite + offsite cost)/equivalent metal production**

Where:

- Total Site Revenue is mine site total revenue recorded in US\$m.
- Metal Price is the period average metal price.

The resulting calculation returns the equivalent metal produced. This amount of metal is then divided by the sum of on-site and off-site costs (as defined above) to return an 'equivalent pound' or 'equivalent ounce' cash cost.

For mines producing one metal only, or where the by-product metal production is so trace it is not payable, the resulting cost under the by-product method will be identical to the equivalent method.

Revenue Pro-rata method

Revenue pro-rata costs (sometimes called 'co-product costs') are derived by multiplying the total on-site plus off-site cost by the percentage of revenue contribution from gold. No 'credits' are netted off against the production cost.

Like equivalent metal costs defined above, Revenue pro-rata costs are calculated in the database using the following formula:

1. **Revenue pro-rata cost = (on-site + off-site costs)* metal revenue/total site revenue**
2. **Revenue pro-rata cost/payable metal**

Where:

- Total site revenue is mine site total revenue recorded in US\$m.
- Metal revenue is the revenue ascribed to the metal being costed.
- Payable metal is the amount of metal for which the miner receives payment (see payable calculations for further information).

For mines producing one metal only, or where the by-product metal production is so trace it is not payable, the resulting cost under the by-product method will be identical to the revenue pro-rata method.

No Credit method

This is a derived cost calculation, calculated in the database as:

(On-site + off-site costs)/payable metal

Where:

- On-site and off-site costs are defined above and recorded in US\$m.
- Payable metal is the amount of metal for which the miner receives payment (see payable calculations for further information).

For mines producing one metal only, or where the by-product metal production is so trace it is not payable, the resulting cost under the by-product method will be identical to the no-credits method.

'Total Costs'

In the AME costing model, total costs are calculated as sum of the US\$m by-product (base and precious metals) or FOB (bulk commodities) cash cost plus the US\$m depreciation cost applicable to the site.

The resulting total cost number is then divided by payable production.

Unlike the various 'cash cost' measures, which are a measure of operational performance, total costs takes into account the capital charges associated with the site. Conceptually, total costs are more akin to the unit production costs deduced from an EBIT basis.

In our costing methodology, operating cost benchmarking takes precedence over total cost benchmarking. If there is a discrepancy in the costs which would be deduced under an operating (or cash cost) basis and total cost basis, the operating cost basis prevails in the AME database.

Total costs exclude interest charges, capex or any implied 'opportunity cost' charges.

CIF costs

For bulk commodities, AME provides CIF (customs, insurance, freight) costs for bulk commodities including coal, iron ore, pellets, DRI/HBI, Alumina and Bauxite. CIF costs are not provided for base metals as the freight component relative to the value of the material is not such that it warrants CIF analysis in the majority of cases.

In the AME costing model, CIF costs are derived costs which incorporate the FOB cost for each operation plus an allocated sea freight cost (see sea freight for explanation on how this is calculated).

CIF cost = FOB cash cost + sea freight

Whereas FOB costs are a good indicator of the operational efficiency of an asset, CIF costs are a better reflection of the competitiveness of a site to bring a product to market. AME tracks the following destination points in the model:

- CIF Europe (Rotterdam port)
- CIF China (Shanghai port)
- CIF Japan (Matsuyama port)
- CIF India (Mumbai port)

Transport methodology

We employ a universal transport classification system across all industries including mines and processing plants. Total transport costs throughout the supply chain are categorised into on-site and off-site costs.

In the AME costing model, every site bears the cost of transporting its product to the point of export (either port or border crossing), or the next site of processing, whichever is closer. Finished products (i.e. finished steel products or refined metal), have no transport costs in the AME costing model. Internal haulage costs are captured within the process costs and do not form a part of the transport cost definition.

Where a processing plant receives material through a border point (either port or border crossing), the cost to transport the material from the point of import to the plant is treated as an 'input freight cost'. This is a component of on-site process costs and accounts for the higher costs incurred by processing sites located further afield.

When the cost is an OFFSITE cost

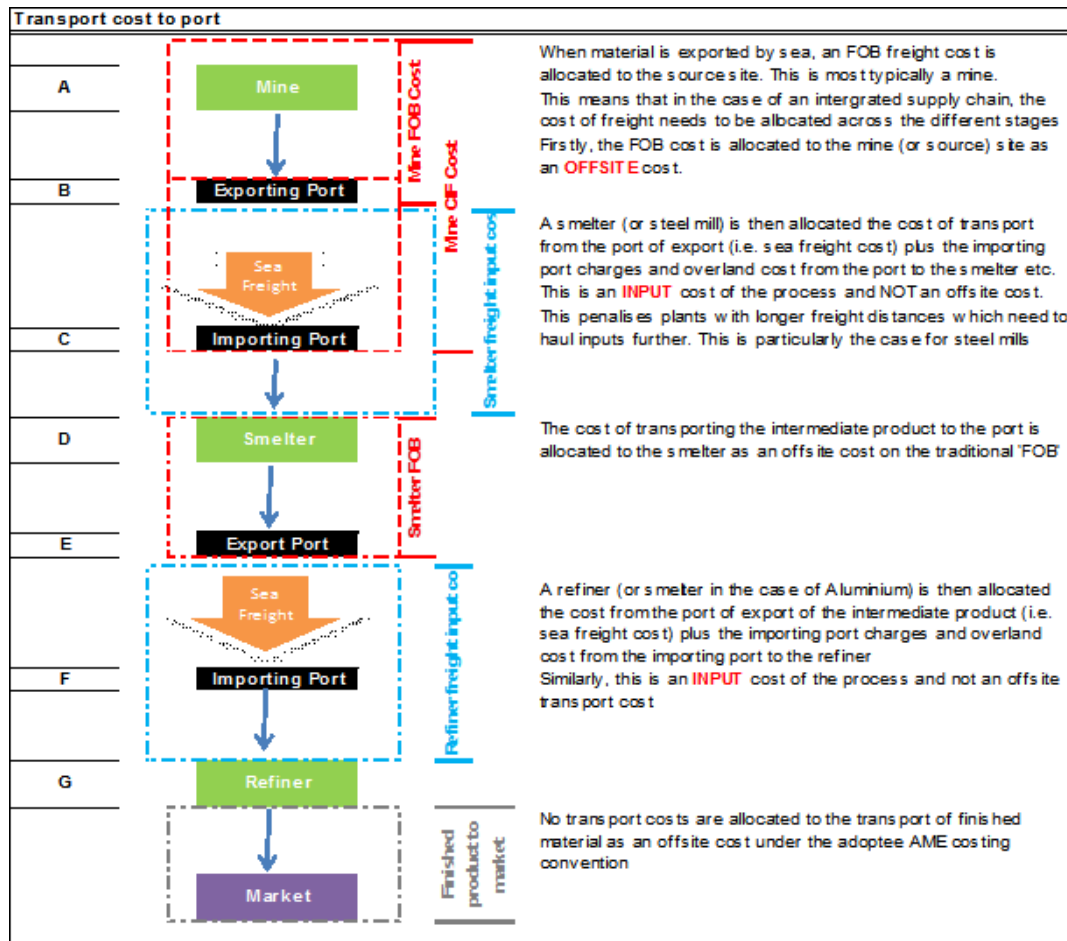
- A site is allocated the cost of transporting its production to either:
 1. Port of Export
 2. Overland border (in the case that it is exported overland)
 3. Next destination if sent overland to next site.
- For practical purposes, this is the same as the FOB cost definition. Point three is typically only applicable to base metals where an integrated supply chain is costed.
- For smelters (or alumina refineries) which produce an intermediate product, there are off-site costs allocated to their outputs on the same basis as the mines.

When the cost is a component of the process or an INPUT cost

- The 'importing' site is allocated the cost of the freight from the port of export (i.e. sea freight), plus the land cost from the importing port to the site.
- This becomes an input cost of the process (i.e. smelting or steel making).
- This means that a site can have two freight costs—an input cost as well as an off-site freight cost.

The flowcharts below show the freight treatment for different material flows.

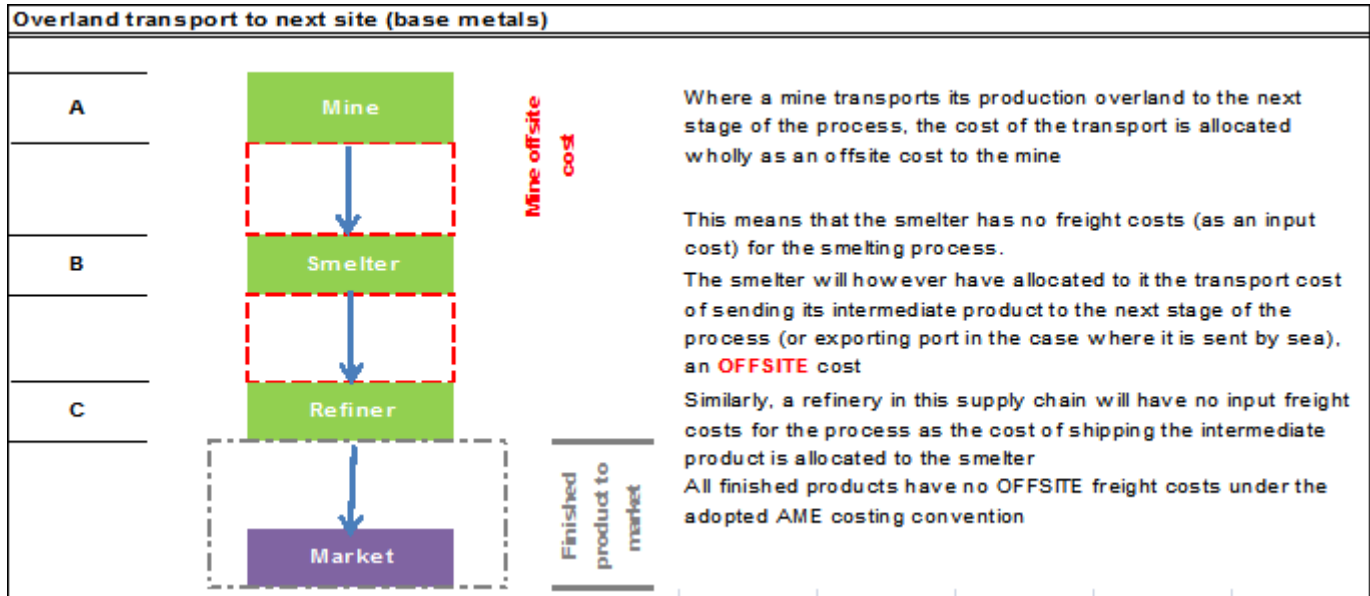
Transport where material flow through port



In the above material flow, where material is shipped through ports, the cost allocation through the supply chain is as follows:

Component	Allocated to:	Cost type under methodology
A=> B	Mine	Off-site transport cost
B=> D	Smelter	Input freight cost to smelting process
D=> E	Smelter	Off-site transport cost
E=> G	Refinery	Input freight cost to refining process
G=> Market	No freight charge	Finished product—no freight cost

Transport overland transport to next site

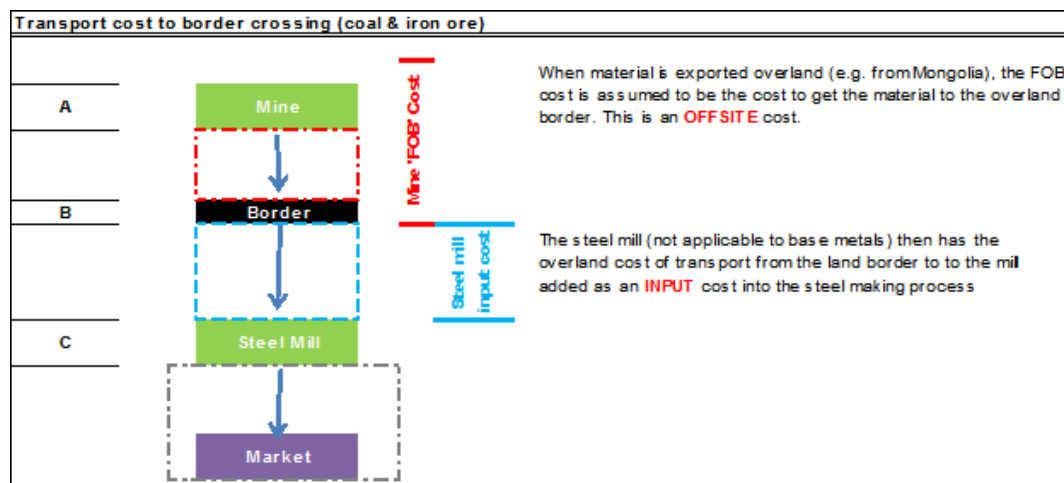


In the above material flow where material is shipped overland, the cost allocation through the supply chain is as follows:

Component	Allocated to:	Cost type under methodology
A=> B	Mine	Off-site transport cost
B=> C	Smelter	Off-site transport cost
C=> Market	No freight charge	Finished product—no freight cost

In this scenario, there are no input freight charges as the entire cost of transporting material is allocated as an off-site cost to the source site.

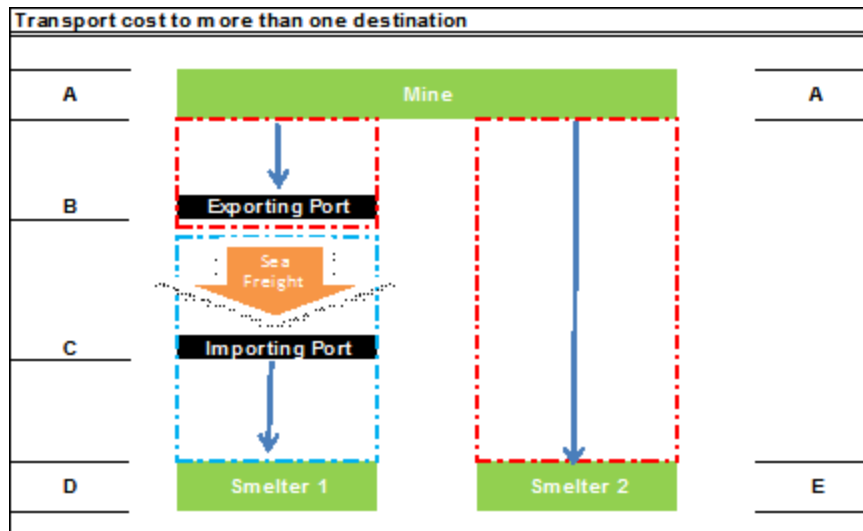
Transport to border crossing



In the above material flow where material is shipped to a border the cost allocation through the supply chain is as follows:

Component	Allocated to:	Cost type under methodology
A=> B	Mine	Off-site transport cost
B=> C	Steel Mill	Input freight cost to steel making process
C=> Market	No freight charge	Finished product—no freight cost

Transport to more than one destination



In the above material flow where some of the material is shipped through a port, and the balance overland, then the off-site freight cost allocated to the mine is on a pro-rata basis. In this example, Smelter 1 will have an input freight cost to (as per the freight convention); however, smelter 2 would have no input freight cost for the smelting process.

Component	Allocated to:	Cost type under methodology
A=> B	Mine	Off-site transport cost
A=> E	Mine	Off-site transport cost
B=> D	Smelter 1	Input freight cost to smelting process

AME's costing model uses four freight link types as per the diagrams above.

Off-site freight costs

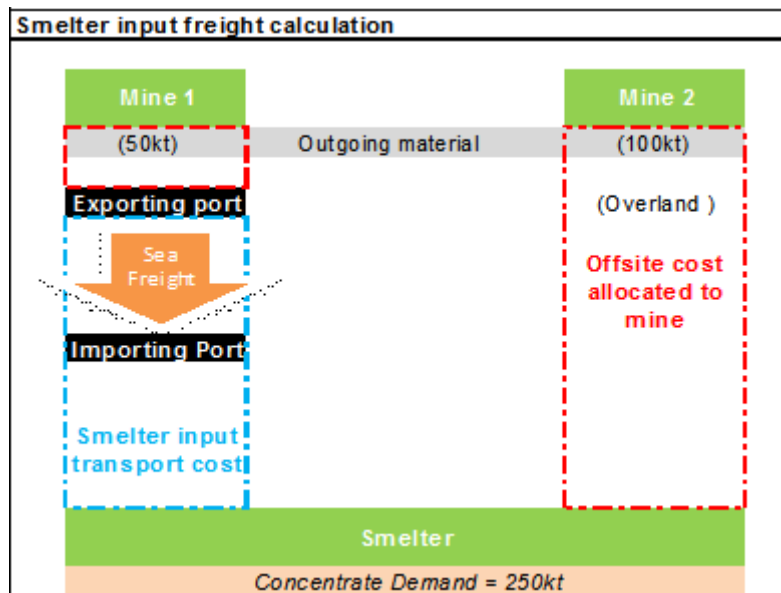
- Freight to Port:** (where the material is sent to a sea port for export). Each site in the database has a corresponding port. It is this port which is used in the freight calculation.
- Freight to Border Crossing:** (Where freight is sent overland to a land border for export; for example Mongolian or Eastern European mines). The treatment of this is the same as freight to port. Each operation which exports through an overland border crossing will have that border crossing identified as the point of export.
- Freight to next site:** This is where material is sent overland directly to the next step of the supply chain as part of an integrated producer). A site can have any number of these receiving sites—each with their own transport.
- No Freight:** (Where there is no freight cost or no material is actually transported)

Input freight costs

Under the freight treatment convention, a downstream producer pays for a share of the freight under the methodology defined above.

- Input freight costs are calculated using the distance from the local port (part of the static data) and then add the sea freight cost derived from multiplying the unit sea freight cost from the Bastille by the distance between the exporting and importing ports from the port database.
- Where the material is received from more than one source, freight costs are calculated on a pro-rata basis.
- On some occasions, the amount of material being input in a process will not equal the amount of material being output (or sent) from the sum of source sites. On this occasion, the volume or tonnage on the input is used to calculate input freight costs, i.e. the model does not assume build ups of unprocessed inventories at sites.

Below is a worked example of the input cost calculation for a smelting operation.



In the above material flow, the smelter sources its feed from two mines, mine 1 and mine 2. The mine records for these two show that they shipped 50kt and 100kt respectively, whereas the smelter has concentrate demand of 250kt.

- In this example, the only 60% (150/250) of the concentrate demand can be accounted for from the source sites through the material flow.
- 50kt, or 33% of identified supply is from Mine 1 and 100kt or 66% is from Mine 2.
- The transport tonnage is based on the concentrate (or material) demand, not the amount of material recorded as being sent from the source sites.

The calculation steps are as follows.

1. First, we calculate the unit transport cost of each tonne coming from Mine 1. Under the costing definition, this is the sum of the sea freight cost from the exporting port, the port cost at the importing port and the overland journey from the importing port to the smelter.
 - **Overland cost:** Working backwards, the overland cost is the distance from the port multiplied by the unit freight cost (for the selected transport method). This distance information is calculated from the information in the static data panel.
 - **Importing port charge:** This is the per tonne port charge which is taken from the port database. This is calculated by dividing the per ship port charge into a per tonne cost.
 - **Sea freight cost:** This is calculated by finding the distance between the importing and exporting ports (from the static data for each operation) and multiplying the distance by the unit freight cost (for the applicable ship size).

(For the purposes of the example, let's assume that this results in a transport cost of US\$100/tonne of concentrate)

2. The same process is then calculated for Mine 2. As this mine sends all its material to the smelter overland, the entire transport cost is allocated to the mine as an off-site cost. As such, there is no input freight cost.
3. Now that we have the unit cost delivered from each mine (Mine A = US\$100/t, Mine B = US\$0/t), the weighted average cost per tonne delivered is: $(33\% * US\$100) + (66\% * US\$0) = US\$33/t$
4. This cost is then multiplied by the concentrate demand at the site: $250,000 (250kt) * \$33 = US\$8,250,000$

Transport unit costs

AME's estimates for transport unit costs are based upon the analysis of various project feasibility studies and company reports.

- As outlined in the transport methodology, the cash cost definition includes the cost of transporting concentrate from the 'mine gate' to the port or next stage of downstream processing.
- A constant port charge is assumed for all base metals mines. This is because port costs are immaterial to total costs for base metals mines and differentiation by port is, for the most part, immaterial.

Our standard unit to express transport costs is US\$/kt/km. That is, the cost to move one kilotonne of material by one kilometre.

Land freight

Rail

Contract rail – Base and Bulks: Contract rail is the unit cost applied to material moved by a third-party provider at 'arms length' rates. Different unit rates are applied for base vs. bulk commodities to reflect the different volume of material transported. Future contract rail cost is forecast to escalate at 0.5% per annum.

Private rail: Private rail is the unit cost applied to material moved along a captive or private railway. Most commonly, this applies to the large iron ore producers who own their own rail lines. This transport method has higher capital costs, but a considerably lower operating cost. We have only one private rail cost as it only applies to bulk commodities, not base metals. Future private rail cost is forecast to escalate at 0.5% per annum.

Transport by rail – adopted costs (rates per kt/km)

	2005	2006	2007	2008	2009	2010	2011	2012
Contract Rail—Bulk	15.66	18.35	19.63	22.11	24.76	26.34	28.15	28.29
Contract Rail—Base	15.66	18.35	19.63	22.11	24.76	26.34	28.15	28.29
Private Rail	3.88	4.62	5.26	7.40	7.20	8.50	9.80	10.94

	2013	2014	2015	2016	2017	2018	2019	2020
Contract Rail—Bulk	28.43	28.57	28.72	28.86	29.01	29.15	29.30	29.44
Contract Rail—Base	28.43	28.57	28.72	28.86	29.01	29.15	29.30	29.44
Private Rail	10.99	11.05	11.10	11.16	11.22	11.27	11.33	11.39

	2021	2022	2023	2024	2025	2026	2027	2028
Contract Rail—Bulk	29.59	29.74	29.89	30.04	30.19	30.34	30.49	30.64
Contract Rail—Base	29.59	29.74	29.89	30.04	30.19	30.34	30.49	30.64
Private Rail	11.44	11.50	11.56	11.61	11.67	11.73	11.79	11.85

Road

Transport by road does not lend itself to the same economies of scale as rail transport. Cost between volumes and costs are assumed to be linear, and as such the same rates are used for both.

Road – OECD: This is the unit cost to for material moved by road in an OECD country. This takes into account the higher labour costs and relative labour intensity of road transport relative to rail transport. Future road cost for OECD country is forecast to escalate at 0.5% per annum.

OECD Member Countries		
Australia	Hungary	Norway
Austria	Iceland	Poland

Belgium	Ireland	Portugal
Canada	Italy	Slovak Republic
Chile	Japan	Spain
Czech Republic	Korea	Sweden
Denmark	Luxembourg	Switzerland
Finland	Mexico	Turkey
France	Netherlands	UK
Germany	New Zealand	US
Greece		

Road – non-OECD: This is the unit cost to for material moved by road in non-OECD countries. This takes into account the lower labour costs and relative labour intensity of road transport relative to rail transport. Future road cost for non-OECD country is forecast to escalate at 0.75% per annum.

- Although labour costs will vary by country, the other costs borne by transport companies will be quite similar globally—namely fuel cost, and capital costs (reflected in transport rates)

The table below has a summary of road unit costs used in the model. Costs up to 2012 are in nominal terms, and future costs are in constant \$2012 in line with the costing methodology. In future years, we assume that road costs increase at 0.75% p.a. in real terms in OECD countries and 1.5% p.a. in non-OECD countries to reflect the faster relative wage growth in the developing world.

Transport by road – adopted costs (rates per km)

	2005	2006	2007	2008	2009	2010	2011	2012
OECD	71.59	73.38	75.22	77.10	79.02	81.00	83.03	85.10
Non-OECD	56.93	58.64	60.40	62.21	64.08	66.00	68.31	70.70

	2013	2014	2015	2016	2017	2018	2019	2020
OECD	85.74	86.38	87.03	87.68	88.34	89.00	89.67	90.34
Non-OECD	71.76	72.84	73.93	75.04	76.16	77.31	78.47	79.64

	2021	2022	2023	2024	2025	2026	2027	2028
OECD	91.02	91.70	92.39	93.08	93.78	94.49	95.19	95.91
Non-OECD	80.84	82.05	83.28	84.53	85.80	87.09	88.39	89.72

Slurry pipeline

The material is first mixed with water to produce slurry, which will then be pumped to the destination through the pipeline. At the end of the pipeline, the slurry will undergo a filtration process to separate the material from the water. The separated water will be treated in a waste treatment process. Pipeline transport methods are often associated with transport from a high altitude location to low altitude destination. Therefore, it has relatively lower operating costs than other freight options, as part of the energy requirement is achieved through the help of gravitational force. All the reported freight cost information is based on bulk material. We assume the slurry pipeline freight cost for base metals to be 25% higher than bulk. This assumption is taken from information from Bechtel, comparing the different unit costs of pipeline technology with different throughputs. Base metals operations typically ship concentrates on a smaller scale. As such, assumed freight unit costs have been scaled up based on the Bechtel information.

Pipeline: This is the unit cost applied to material moved by a pipeline. The treated water will be disposed or reused at the destination. Future pipeline cost is forecast to escalate at 0.2% per annum, due to its lower weightage on labour and fuel costs as cost components. Labour and fuel costs are the main drivers for the increase in transport costs.

Dual pipeline: This is the unit cost applied to material moved by a pipeline, while using a second pipeline to pump the treated water back to the mine site for recycling purposes. While dual pipeline has a higher operating cost than pipeline as it is more energy intensive, it has lower operating costs than the other freight options. Dual pipelines are more commonly found in countries or regions that are potentially impacted by water shortage, such as Australia and Western America.

Future dual pipeline cost is forecast to escalate at 0.3% per annum, due to its lower weightage on labour and fuel costs as cost components. Labour and fuel cost are the main drivers for the increase in transport cost.

Transport by pipeline – adopted costs (rates per kt/km)

	2005	2006	2007	2008	2009	2010	2011	2012
Bulk	2.18	2.26	2.34	2.67	2.81	3.20	3.53	3.82
Base Metals	2.73	2.83	2.93	3.34	3.51	4.00	4.41	4.78

	2013	2014	2015	2016	2017	2018	2019	2020
Bulk	4.11	4.53	4.95	4.96	4.97	4.98	4.99	5.00
Base Metals	5.14	5.66	6.19	6.20	6.21	6.22	6.24	6.25

	2021	2022	2023	2024	2025	2026	2027	2028
Bulk	5.01	5.02	5.03	5.04	5.05	5.06	5.07	5.08
Base Metals	6.26	6.27	6.29	6.30	6.31	6.32	6.34	6.35

Barge

This is the unit cost applied to material moved by barges through waterway. Barges that are not self-propelled will be towed or pushed by tugboats. Barge has higher energy efficiency than rail, but will often require longer transport time due to curvature of rivers and lock transit time. Future barge cost is forecast to escalate at 0.5% per annum. There is no distinction between base metals and bulk commodities. Barge is very seldom used for base metals.

Sea freight

This is the unit cost applied to material moved by sea with a sea vessel. Shipping unit cost is derived from a spot rates study on a compilation of shipping routes. Sea freight cost is one of the significant cost components for dry bulk CIF costs. Spot rates of 48 dry bulk shipping routes are covered in our study, which includes key shipping routes for iron ore and coal. Spot rates are differentiated by three main ship vessel sizes—Capesize, Panamax and Handysize. Capesize and Panamax are further categorised into iron ore and coal haul. This detailed classification is done to fully reflect the differences in sea freight unit costs corresponding difference ship sizes, commodities involved and haul distances.

Larger ships generally on 'trunk' routes typically achieve economies of scale and have lower sea freight units cost than a smaller ships. Sea freight unit costs for different categories are aggregated to obtain a benchmark for historical years, while forecast unit costs are derived based on AME's forecasts for the Baltic Dry Index.

In calculating CIF costs, the sea freight cost is derived from sea freight distance, sea freight unit rate and tonnage hauled.

Total sea freight distance consists of:

- distance from ballast point (nearest shipping hub) to loading port
- distance from loading port to destination port

Sea freight unit rates are classified in the table below for haulage distance less than or equal to 9,000 nautical miles. A discount rate of 5% is applied on the unit freight rate for distances in excess of 9,000 nautical miles. This discount only applies to the portion of the journey in excess of 9,000 nautical miles.

The total sea freight cost can be calculated as follows:

For sea voyage distance of less than or equal to 9,000 nautical miles,

Total sea freight cost = sea voyage distance * corresponding unit freight rate * tonnage hauled

For sea voyage distance greater than 9,000 nautical miles,

Total sea freight cost = corresponding unit freight rate * (9000 nautical miles + [total sea voyage distance – 9000] * 0.95)

Sea freight rate are greatly influenced by commodities supply and demand, as well as the voyage distance. Shorter voyage distances are more favoured by either the supplier or the buyer in delivering products to the market, as this corresponds to lower delivery cost. As such, short distance haulages are more desirable, and hence will have higher shipping demand. Higher shipping demand will induce a higher unit freight rate. As the voyage distance increases, we will notice a gradual decline in unit freight rate due to lower shipping demand.

Treatment and Refining Charges

Treatment Charges

Base and precious metals mines producing concentrate are subject to realisation charges in the form of treatment and refining charges (TC/RCs). Treatment charges are a simple calculation and are levied per tonne of concentrate produced at the mine. Coal, iron ore and bauxite mines do not have associated realisation charges.

Sales and offtake agreements between mines and smelters use a reference price (usually the forward LME price) as the basis of the transaction price less a 'fee' for converting concentrate into refined metal. Although the term 'charge' implies a fee paid by the miner, in reality, it is a deduction from the revenue received by the miner. In the cash cost definition, TCs and RCs form part of the off-site cost. TC/RCs do not apply to SX/EW production, as this production leaves the mine as finished metal.

TC/RCs are applied at the individual site level as part of the costing process. In some cases, the operator of the mine will disclose the realisation costs associated with their mines. These reported costs are incorporated into the database. Where actual realisation charges are not disclosed, the costing model applies annual benchmark treatment charges for copper, zinc and lead concentrates. These charges vary by year and are set forth in the treatment charges section of the Strategic Study. Traded nickel concentrate is a very small market, and we apply a flat US\$100/t treatment charge when the mine does not fall within a closed supply chain.

The treatment charge calculation is as follows:

Treatment charge = Tonnes of concentrate produced * Treatment charge per tonne

Refining Charges

Refining charges are the implied fee to convert semi-processed material into finished metal. For copper, this is the fee levied by a refiner to convert copper anode into refined copper. For nickel, this is the cost to convert a nickel matte or hydroxide into finished nickel

Refining charges do not apply all base metals. The following have no refining charge assumed in the costing model: zinc, lead, molybdenum, cobalt, ferronickel (including 'nickel pig iron') and the bauxite/aluminium supply chain.

Unlike treatment charges, which are a function of concentrate tonnage, Refining charges are only applicable to payable metal.

Payable metal calculations

'Payable metal' or 'payable production' is the production (or share of production) for which a site receives revenue (for more information on revenue calculations in the AME model, see revenue calculation).

The concept of 'payable metal' originates from the historic recovery rates of downstream smelting and refining processes. Smelters cannot recover 100% of the metal contained in concentrate. As such, miners of metals do not receive payment for 100% of their product. A smelter which can recover more metal than for which they pay is able to produce 'free metal'. For modern smelters with more efficient recovery, this can constitute an important source of revenue.

The payability of metals varies depending on the type of metal and the concentrate in which it is derived. The degree to which a metal is payable depends on the relative ease of extracting and recovering the metal from concentrate.

For bulk commodities, the payable concept does not apply. The costing model simply generates a revenue number by multiplying the saleable production by the assumed or forecast prices.

AME's costing model for base metals provides unit costs in terms of payable metal rather than total metal produced. Costs in terms of payable metal are a much better indicator of relative profitability over and above cost per tonne of metal produced. For mines producing outputs which require significant further upgrading (such as unprocessed ores), the payable deduction can be quite punitive. For example, some nickel laterite ore producers typically receive payment for a little as 20–25% of the intrinsic metal value of the ore produced.

The tables below set forth the assumed deductions and payabilities incorporated into the AME costing model.

Copper concentrate payability table

	Unit	Deduction	Payable component	Refining charge applicable?
Copper	%	3.5%	100%	Yes
Cobalt	%	Not payable	Not payable	No
Molybdenum	%	0.2%	60%	No
Gold	g/t	1g/t	90% payable	Yes
Silver	g/t	30g/t	95% payable	Yes

Zinc concentrate payability table

	Unit	Deduction	Payable component	Refining charge applicable?
Zinc	%	15%	100%	No
Silver	g/t	90g	65%	Yes
Copper	%	Not payable	Not payable	No
Gold	g/t	1g/t	75%	Yes
Lead	%	Not payable	Not payable	No

Lead concentrate

	Unit	Deduction	Payable component	Refining charge applicable?
Lead	%	5%	100%	No
Silver	g/t	90g/t	90%	Yes
Gold	g/t	N/A	If <3g/t then 0% If >3g/t then 90% If >10g/t then 95%	Yes
Copper	%	1%	30%	Yes
Zinc	%	Not payable	Not payable	No

Bulk concentrate

	Unit	Deduction	Payable component	Refining charge applicable?
Lead	%	3%	95%	No
Silver	g/t	100g/t	90%	Yes
Gold	g/t	N/A	If <3g/t then 0% If >3g/t then 90% If >10g/t then 95%	Yes
Zinc	%	7%	80%	No
Copper	%	3.5%	100%	Yes

Worked example – copper concentrate payability and refining charge calculation

Copper Concentrate			
Concentrate tonnes	t		100,000
Cu grade	%		30
Au grade	g/t		22
Cu contained in concentrate	t		30,000
Au contained in concentrate	t. oz		70,732

Suppose a mine has the above output for copper and gold in copper concentrate.

- The first step to calculating the RC is to calculate the proportion of payable metal by weight (not value)
- Using the assumptions outlined above in the payable metals section, For copper this would be: = 30,000 *(1-0.035)*100%

Where:

- 30,000 is the tonnes of contained copper,
- 3.5% (or 0.035) is the deductible component,
- 100% is the payable component (as copper in copper concentrate is 100% payable after the 3.5% deduction).

This equals = 30,000*0.965*100%

= 28,950 tonnes of payable metal.

This is the quantity of metal on which the RC is payable. However, RCs are quoted as US\$/lb, not US\$/t for TCs. This means that the tonnes need to be converted to pounds (i.e. multiplied by 2204.623)

This equals = 28,950* 2204.623 = 63,823,835lb of payable copper.

The RC is then applied to this tonnage. So, let's assume that the RC is US7.5\$/lb, then the refinery charges would be:

$$= 63,823,835 * 0.075 = \text{US\$4,786,787}$$

- For Gold, the calculation is a bit different. This is because gold contained in concentrate is quoted in grams per tonne rather than a % of concentrate weight.
 - Once again, the first step is to calculate the proportion of payable gold. This is as follows:
 - Payable gold = $100,000 * (22-1) * 90\%$

The 100,000 is the tonnes of concentrate, the "(22-1)" is the calculation of the deductible component. As this is expressed in grams per tonne, it is a simple arithmetic calculation. Gold is deductible at 1g/t.

The 90% is the payable component. For gold in copper concentrate, after the deduction is made, a miner receives revenue on 90% of contained gold.

So, working through these calculations:

- $100,000 * (21) * 0.9 = 1,890,000$ grams of gold.
- As the R's are expressed in troy. oz., this number needs to be converted.
- This is $1,890,000 / 31.10348 = 60,764$ tr. oz.
- So, for example, assuming that gold RCs were US\$5.0 per tr. oz, then the RC = $60,764 * 5 = \text{US\$303,820}$.

This example is similar to the one above but slightly more complicated, as there are more metals and variations in deductible and payable components.

Refining charge calculation—lead concentrate

Lead Concentrate		
Concentrate tonnes	t	100,000
Pb grade	%	57%
Cu grade	%	4%
Ag grade	g/t	950
Au grade	g/t	8
Pb contained in concentrate	t	57,000
Cu contained in concentrate	t	4,000
Ag contained in concentrate	kg	95,000
Au contained in concentrate	tr. oz	25,721

Working through the RC components for this concentrate is as follows:

Lead

- Lead has no RC, so this is simply zero.

Copper

- Copper in lead concentrate has deductible of 1% and is then 30% payable.

So, this would be calculated as follows:

$$= 4,000 * (1 - 0.01) * 30\%$$

$$= 4,000 * 0.99 * 0.3$$

$$= 1,188 \text{ tonnes}$$

Similarly, this amount needs to be converted to pounds (i.e. times 2204.623)

$$= 1,188 * 2,204.623 = 2,619,092 \text{ pounds}$$

So, once again, assuming RC of US\$7.5¢/lb, then RC =

$$= 2,619,092 * 0.075 = \text{US\$196,431}$$

Silver

- Silver in lead concentrate has deductible of 90g/t and is then 90% payable. This would be calculated as:

$$= 100,000 \times (950 - 90) \times 90\%$$

$$= 100,000 \times 860 \times 0.9 = 77,400,000 \text{ grams of payable silver.}$$

Silver RCs are quoted per oz, not per gram (or kg, which is the AJAX silver standard measurement). This means, the 77,400,000 grams needs to be converted to oz.

$$= 77,400,000 / 28.34952 = 2,730,204 \text{ oz.}$$

We assume that silver RCs are a flat US50¢/oz. So, the RC calculation for silver would be:

$$= 2,730,204 \times 0.5 = \$1,365,102$$

Gold: Lead concentrate with a gold grade between 3g/t and 12g/t is assumed to have no deductible and be 90% payable. The payable gold would be simply calculated as:

$$= 100,000 \times (8 - 0) \times 90\%$$

$$= 100,000 \times (8) \times 0.9$$

$$= 720,000 \text{ grams of gold.}$$

Now, to convert this to troy oz:

$$= 720,000 / 31.10348 = 23,148 \text{ tr. oz.}$$

Once again, assuming a gold RC of US\$5.0 per tr. oz, then the RC =

$$= 23,148 \times 5 = \text{US\$}115,742$$

So, the aggregate RC for this lead concentrate would be the sum of each of the RC components

$$= \text{Pb RC (US\$0)} + \text{Cu RC (US\$196,431)} + \text{Ag RC (US\$1,365,102)} + \text{Au RC (US\$115,742)}$$

$$= \text{US\$1,677,275}$$

Refining charge calculation—gold and silver doré

Mines which produce gold or silver as doré have no TCs, but do have an RCs. This is because they don't send concentrates to be smelted, but do need to refine the doré.

Gold and Silver Doré		
Gold metal produced	tr oz	100,000
Silver metal produced	kg	50,000

The RC charges calculation for this example is as follows:

Firstly, there is no deductible or payable component. The doré is produced at the mine site.

- **Gold:** This is very simple, it is just the tr. oz of gold, multiplied by the RC

So, assuming for example that the RC is US\$5/oz, then the gold RC is simply:

$$= 100,000 \times 5 = \$500,000$$

- **Silver:** This has an additional calculation step which is to convert the silver from kg to oz as the silver RC is expressed in oz. The RC is then applied to this amount.

$$= 50,000 \times 35.27392 = 1,763,696 \text{ oz of silver.}$$

Once again, we estimate silver as a flat US50¢/oz, so the RC =

$$= 1,763,696 \times 0.5 = \text{US\$}881,847.$$

Once again, the total RC for this mine is the sum of the gold and silver RC's

$$= \text{US\$}500,000 + \text{US\$}881,000 = \text{US\$}1,381,848$$

Toll concentration charges

Some mines will ship an unprocessed ore rather than a concentrate. Generally, these are small mines in close proximity to other mines, or large-scale concentrators which can purchase and aggregate production from a number of small mines. This arrangement can substantially reduce the capital costs for setting up mines as no mill needs to be constructed.

These mines are then subject to an off-site concentration charge, which covers the cost of converting ore to concentrate for on-sale by the concentrator. In the AME costing model, this is allocated as an off-site cost.

In practice, there is little transparency on the actual fees paid as this information is commercially confidential. This trade is localised, as the cost of transporting unprocessed ore too far will quickly render the operation unviable.

AME has developed the following per tonne of ore cost assumptions with the help of industry consultants. These costs are applied as an off-site realisation cost.

Year	Charge per tonne
2005	13.86
2006	14.19
2007	15.05
2008	16.27
2009	14.14
2010	15.34
2011	15.73
2012	16.28

The general formula for off-site concentration charges is as follows:

Tonnes of ore* per tonne offsite concentration charge.

Process sub cost estimation

The AME costing model is a hybrid financial-engineering costing approach which reconciles a technical or engineering-based costing model to reported company financial statements.

The cost breakdown information in the AME costing model is generally not reported by producers. Where information on cost breakdowns is reported or made available by producers, this is always captured. Where it is not provided, it is estimated based on the technical parameters of the process.

This estimation technique differs between the types of processes at the site being costed. Generally speaking, sites with mining processes are treated differently to downstream plants. For mining processes, grades, internal haulage distances and ore-to-waste ratios are the most significant parameters determining costs. For downstream processing plants, the cost of energy inputs and the relative efficiency of technology are more important drivers of costs.

For every site, the AME cost model provides processes cost analysis including an estimated breakdown of costs into standard sub-cost breakdowns.

Standard sub-cost breakdowns

The AME costing model provides cost breakdowns for the following cost components. These cost categories are used universally through the cost model where appropriate. For processes where the estimated cost component represents a small share of costs, it is omitted and grouped under 'other'. Below are the cost categories used in the model:

Labour costs: Labour and related on-costs

Fuel: Diesel and oil fuels

Power and Electricity: Non-petroleum energy and electrical contracting services

Sundry: Non-allocated costs such as catering, medical, training, safety and environmental compliance

Mining Services: Mining service costs, explosives, consultants, assays, software etc.

Maintenance: Mine site parts and repairs (mobile and non-mobile)

Reagents: Chemicals procurement, storage and direct process inputs.

Consumables: General consumables including machine lubricants, wearing blades, drills, tyres, water and other expensed capital items

Crush and Grind: Power: Power, energy and electrical contracting services for the first stage of crushing and grinding in the concentration process

Crush and Grind: Consumables and Sundries: General Consumables and machinery parts including mill balls, wearing parts, maintenance and other expensed capital items, as well as non-allocated costs such as medical, training and safety expenses) used in the first stage of crushing and grinding in the concentration process

Milling: Power: Power, energy and electrical contracting services to run the mill

Milling: Consumables and Sundries: General Consumables and machinery parts including wearing parts, maintenance and other expensed capital items as well as non-allocated costs (such as medical, training and safety expenses)

Flotation: Power: Power, energy and electrical contracting services for the flotation and drying process

Flotation: Consumables and Sundries: General Consumables and machinery parts including wearing parts, maintenance and other expensed capital items and tailings disposal as well as non-allocated costs (such as medical, training and safety expenses) for the flotation and drying process

SXEW: Acid and Chemicals: Sulphuric acid and other chemical costs including storage

SXEW: Sundries and Disposal: Other SXEW consumables, tailings disposal and sundries (which include non-allocated costs such as medical, training and safety)

For some processes, rather than having the 'other' share of costs increase too significantly, some costs are combined (such as Fuel and Energy). On these occasions, the definitions are the simply the sum of the above.

Mine site processes

For mine site processes, sub-cost estimation is calculated by working backwards from the assumed process cost. Once the assumed process cost has been established, labour costs are isolated using an assumed labour productivity and labour cost with the balance of costs depending on the technology and equipment employed at the site.

Step One:

Firstly, the site process costs are reconciled to the company accounts and to the engineering model. This is done as per the AME costing process.

Step Two:

Next, the labour productivity of the site is determined based upon the number of employees at the site. This information is often reported by companies or governments. Where it is not available, it is estimated based upon like mines with similar operating parameters. This labour cost is then allocated to the site processes.

Step Three:

Once the labour costs of the processes have been deduced, the model estimates the share of costs attributable to each of the sub-costs. These estimates are based upon feasibility studies and publically available input cost information.

For example, fuel costs at mine sites are not deduced by assuming tonnes of litres of fuel consumed times diesel price.

Downstream site processes

Downstream processing sites are subject to less variability in operating parameters. As such, process costs do not tend to experience the same variability in operating costs. The AME costing model reflects this. For downstream processing plants like smelters, refineries and steel plants, relative operational performance is more typically a function of the facility age (technical efficiency) and location (input costs).

Step one:

For downstream processing sites, the AME costing model relies on technical consumption inputs such as the kWh/tonne, kg oxygen/tonne, MJ/tonne of gas per tonne of output. AME establishes these consumption rates from the companies, their engineering companies or third-party technical consultants.

Step two:

These unit consumption rates are then multiplied through by the assumed production and unit input costs. For many costs (such as gas or electricity), these are subject to regional differences. This is factored into the costing model at this stage.

Step Three:

Labour costs are factored in based upon the number of employees at the plant and the assumed unit labour cost. The resulting site cost is then divided by the amount of production to generate a cash cost per tonne.

Step Four

The resulting cash cost is then reconciled with the reported company financials.

Energy costs

Energy costs in the AME costing model form an important input factor for downstream processes. AME collects from the IEA, EIA and various market data sources energy costs for electricity and gas by country by year. Our country average electricity prices are for industry usage rather than end-sector consumption, as these are more indicative of the rates paid by miners and plant operators

AME then forecasts the costs incorporating our own forecasts (where applicable) or using consensus market forecasts. Where no reasonable forecast exists, we apply global industry average price trends to forecast input prices.

These feed into the costing models as the default input price assumptions. For some sites, the default country industrial prices can overstate the actual cost paid by the operator. This is most commonly the case with electricity costs for aluminium smelters. On these occasions, actual energy prices are adjusted.

Wherever these adjustments occur, the assumed unit cost price is given in the costing information.

Depreciation and sustaining capital expenditure estimates

AME employs a simple depreciation and sustaining capital expenditure (capex) model to ensure parity and comparability across depreciation and sustaining capex estimates. These are used to calculate forecast total cost and NPV values for assets.

Depreciation

Depreciation is calculated universally on a straight line basis. On this basis, in the absence of guidance from the company or through discussions with producers, we employ a depreciation rate of 6.5% on the assumed asset base of the site for mining sites and 8.5% for downstream processing sites like smelters and plants, where the asset base is the assumed replacement cost of the asset. This typically differs to the carrying value of the asset in the company accounts.

Sustaining Capex

Theoretically, if a mine were to operate into perpetuity, then its sustaining capex would be equal to its depreciation as the mine would need to continually replace itself.

- For practical purposes, we assume that mine the sustaining capex for mines with long lives will be equal to the depreciation.
- As mines start to approach the end of their life, sustaining capex decreases.
- A mine right at the end of its life would have no sustaining capex. The repair of equipment would be minimised where possible and often be expensed.
- In the first years of a mine, sustaining capex is less as the equipment is new.

The following tables summarises the base case assumptions of the amount of depreciation assumed to be invested into sustaining capex for different mine lives:

Assumed Mine Life	Sustaining capex as proportion of depreciation
> = 20 years	100%
> = 10 years but < 20 years	75%
> 3 but < 10 years	50%
< = 3 years	0%

In the first years of a mine being in operation, the sustaining capex requirement for the mine is lower as it will have new equipment etc. The following deductions are applied

1. Less than four years old—66% deduction.
2. Less than six years old—40% deduction.

Initial and Expansion Capex

Expansion is only input when a company announces an expansion project. Expansion capex is then depreciated the same as the original capex, and is then 'fed into' the sustaining capex—i.e. the expansion needs to be maintained.

Initial and expansion capex numbers are input from company announcements or feasibility studies. Some companies do not report this information.

- In this event, we need to estimate the construction (or replacement cost) for the mine.
- This is required for two reasons. Firstly, we need an assumed construction cost to calculate the NPV of a project.
- Secondly, for an existing mine, we need to know the assumed 'asset base', which is depreciated and ultimately needs to be depreciated and maintained.

Revenue calculations and output valuations

Revenue numbers in the AME costing model are included as reported by the company. Where site-level revenues are not provided by the company, AME estimates these revenues based upon period average prices times payable production for historic years. For future years, AME's forecast prices are used as the basis of revenue calculations.

In the costing model, subsequent calculations are derived from these revenue estimates such as tax payments, in some cases royalties, and site NPV values.

Our revenue estimate methodology as outlined above is consistent across all across all commodities; however, the specific calculation steps differ depending on the product for which a revenue is being estimated.

Iron ore

AME estimates the price for an iron ore product of a given operation or project using basic netback approximations based on available information. Other than the major producers (Vale, BHP Billiton and Rio Tinto), iron ore producers have little power over pricing negotiations. Prices for smaller producers are generally set against benchmark prices and adjusted for the value-in-use characteristics of the product, and freight costs.

The chemical composition of the ore results in differing costs at the blast furnace. For instance, lower silica and alumina content levels decrease the coke consumption rate and slag formation in the blast furnace. As such, depending on the quality, steel producers may pay a premium or discount as compared to a product's price against a benchmark price. This value-in-use represents the adjustment to the benchmark price to account for differences in chemistry.

AME estimates the value-in-use differences between a specific ore and the benchmark ore. The chosen benchmark price varies depending on the form of the iron ore product and the location.

- In the Pacific basin, we use Hamersley/Mt Newman lump and fines to be the most representative price benchmark.
- Concentrates in China are priced against the Hebei concentrate price or Xinjiang/Gansu price, depending on locality.
- In Europe, products are priced against Vale's Itabira (SSF) fines and Tubarao pellets.

All price estimates for revenue approximations are estimated on a dry metric tonne unit basis. Dry metric tonne unit means 1% of Fe content in each dry metric tonne. This conversion is performed as iron ore is priced in cents per dry metric tonne unit (US¢/dm_{tu}). This pricing basis takes into account the iron and free moisture content of the ore. To convert a price in US¢/dm_{tu} into US\$/t of wet ore, first multiply the price in US¢/dm_{tu} by the iron content of the ore (as a percentage), and divide by one plus the moisture content.

The assumed freight premium is factored into the premium or discount against the benchmark price where appropriate.

Coal

AME estimates the price for the coal products of a given operation or project using basic 'netback' approximations based on available information.

Historically, coal has traditionally been traded on a contract basis. Prices were generally determined through negotiations between the major coal producers and largest buyers (energy suppliers and steel manufacturers). This benchmark price is then followed by the other market participants, subject to discounts and premiums.

Coal products can vary significantly in terms of qualities, including calorific value, ash, moisture, sulphur, carbon, and volatile matter. As such, coals produced from different mines are subject to premiums and discounts when compared to the benchmark coal product. This value-in-use represents the adjustment to the benchmark price to account for differences in qualities. AME estimates the value-in-use differences between a specific coal and the benchmark coal. The chosen benchmark price varies depending on the type of coal product and the location. For instance, in the Pacific basin, we believe the Anglo American's German Creek HCC to be the most representative price benchmark for coking coal. Meanwhile for thermal coal, Xstrata's Hunter Valley thermal coal is believed to be the most representative price benchmark.

The assumed freight premium is factored into the premium or discount against the benchmark price where appropriate.

Refined metals

Refined metals use LME average prices for historic values. Chinese smelters, which typically use SHFE reference prices, are still costed with LME prices due to the VAT included within SHFE prices.

AME's forecast metals prices are multiplied by production without any adjustment for premium or discount.

Base metals concentrates

Base metals concentrates typically grade 24–40% for copper metal content (in copper concentrate), 48–55% for zinc (in zinc concentrate) and 50–65% for lead (in lead concentrate). Concentrate produced by a miner is sold to smelters, and is traded either via spot contracts or under long-term contracts for multiple deliveries. The miner is paid for the payable metal contained in the concentrate based on an average of future LME price quotations less the treatment and refining charges (TC/RCs) for the smelting and refining of the concentrates.

Credits are paid for other metals such as silver or gold contained in the concentrates if the concentration of the metal is above a certain agreed range. These thresholds are detailed in the payable metal calculations section.

Penalties are also applied for moisture or for high levels of deleterious elements such as arsenic, bismuth, tungsten or lead. The allowable levels of impurities vary from smelter to smelter. Analysis is conducted by third-party assayers on the concentrate at the load port to determine levels of payable metal, moisture and impurities. The revenue calculations in the AME model does not account for deductions for these qualities. These are seldom reported by producers.

In practice, the final price of copper concentrates is often not determined until around 3–4 months after the product has been received by the smelter at the port. Miners generally first receive an initial provisional payment at the time the concentrate is loaded onto a ship at the port and is calculated based on 90% of the copper metal contained in concentrate using the LME spot copper price at the time of delivery. The final pricing is established about 3–4 months from the initial delivery and is usually based on the average LME price during this quotation month. A final invoice is issued, minus the initial provisional payment and adjusted for the final copper price.

Smelters and refiners historically would participate in the upside of copper price movements, whereby smelters and refiners would share in 10% of the value of the copper price above a predetermined threshold with miners. This 'price participation' arrangement, however, is now less common in smelter sales contracts.

AME estimates concentrate revenues by first determining the payability of the concentrate as described above, then multiplying this by the assumed metal price.

Revenue = payable metal in concentrate* metal price – TC – RC

Unprocessed sulphide base metals ore

Ultimately, ore sales terms are confidential and there is no available benchmark for pricing. AME's methodology for pricing these ores deducts the toll concentration charge as an additional realisation cost from the payable metal. Through the concentration process, there is an assumed recovery loss which is deducted from the amount payable to the miner. Based on the historical recoveries for the nickel mines which dominate the traded sulphide ore market, this is around 25% in the concentration process.

Once this material is processed, it is then sold to a smelter, and standard treatment charges are applied. The following calculation is used to determine the applicable treatment charge.

{[(Metal in Ore) *75%] / 0.13} * Concentrate charge per tonne]

Nickel laterite ore sales

Nickel laterite ores are sold by a number of mines to smelters. There are no 'benchmark' terms for such sales agreements.

Antam is the only producer which provides detailed information for its ore sales volumes and sales prices. Working back from this information, it has been deduced that, on average, Antam receives between 14% and 17% of the prevailing nickel price for its ore. Higher-grade ores have usually attracted slightly higher pricing.

A universal proportion of 16% of the LME nickel price has been adopted to calculate revenue and input costs. The default revenue calculation for these ore sales (when not reported) is as follows:

Nickel contained in ore (Dry tonnes) * nickel price * 16%

Ferronickel

Ferronickel revenues are calculated as tonnes of contained nickel multiplied by the period average nickel price. No credit is allocated for contained iron.

Nickel contained in ferronickel * nickel price

Base metal mattes

The traded market for semi-processed mattes is small. Information on trading terms is typically confidential in these very shallow markets. We assume 90% of the metallic value is realised by the producer.

Metal contained in matte * metal price * 90%

Alumina

Alumina revenues are calculated by multiplying the assumed alumina price (period average spot price) by production. No quality premiums or discounts are assumed.

Benchmark NPV calculations

Based on AME's production, cost, capex and revenue estimates over 15 years, we are able to produce benchmark NPV calculations.

AME's benchmark revenue calculations are derived calculations from the database using the outputs and assumptions of the costing models. The resulting NPV calculations are intended as a benchmarking tool rather than an absolute valuation.

The assumptions in the NPV calculation are as follows:

- AME's cost and production revenues at the site are included
- A universal 10% discount rate is applied irrespective of mine type or location
- Mines are expected to recover 100% of reserves and 80% of resources. For mines with no disclosed reserves and resources, a 15-year mine life is assumed
- AME's commodity price forecasts are used as the basis of the calculation
- Sustaining capex and depreciation are assumed as per the depreciation and capex methodology
- Current corporate tax rates are applied. No provision is made for export taxes nor windfall taxes.

Appendix 13 Reference paper

This Appendix provides information in relation to the data used in HoustonKemp's assessment of criterion (b).

AME Group

DBCTM engaged AME to provide data inputs for the HoustonKemp quantitative optimisation model. AME is a highly regarded resource and industry analyst with a strong research team and expertise in central Queensland coal. AME forecasts have been used by the Queensland State Government⁴¹³ in providing an outlook to investors about Queensland's metallurgical coal resources and development potential. Consistent with this outlook, AME supplied DBCTM with an updated forecast of production for all current and prospective mines connected to the CQCN.⁴¹⁴ AME provided these production forecasts up to 2035 to a high level of detail, including available reserves, mining costs, development and maintenance capex, and transport costs (including terminal charges).

This same data is accessible by any organisation by means of a subscription to AME. The data is sourced from a large volume of publicly accessible information including mining tenements, environmental applications, annual reports, media, investor presentations etc. AME then applies its analysis and estimating expertise informed by relevant macro-economic factors and industry knowledge to derive a production outlook for the sector of reasonably possible mine developments that remain profitable for the relevant period. An NPV analysis is then applied to determine profitability in the outlook period. If so, and providing a number of other criteria are satisfied, the development is considered reasonably possible, and included in the forecast.

AME data and research is used by other parties, such as industry representative Queensland Resources Council (QRC)⁴¹⁵, Australian Government commodity forecaster the Office of the Chief Economist⁴¹⁶, and miner BHP⁴¹⁷ to name a few.

AME's research methodology is attached to the AME Market Report in Appendix 12.

General assumptions relating to the data used in HoustonKemp's analysis of criterion (b) include:

- Forecast covering the assessed declaration period (forecasts out to 2035)
- Forecast base case includes existing and prospective mines with access to existing infrastructure
- Pricing of mine's coal based on benchmark global pricing for the specific coal type being produced, with a discount or premium relating to the known coal quality in the existing reserves
- Mine life based on extraction of 100% of proven reserves and 80% of available resource
- Exchange rate of A\$1.30 = US\$1.00

Wood Mackenzie (WoodMac)

DBCT engaged WoodMac to provide data inputs for HoustonKemp's quantitative optimisation model. WoodMac is a recognized research analyst which has previously provided analysis for DBCTM submissions⁴¹⁸ to the QCA.

The HoustonKemp model required more granular data as an input to the least cost analysis. WoodMac provided:

- Rail costs split into above and below rail
- Terminals that mines can physically access with existing infrastructure

WoodMac data and research has been used by other parties, such as competition regulator QCA,⁴¹⁹ industry representative QRC,⁴²⁰ and miner BHP⁴²¹ to name a few.

⁴¹³ Queensland Government Outlook profile for Queensland's priority commodities - Metallurgical coal 27 February 2017.

⁴¹⁴ Appendix 12 AME Market Report

⁴¹⁵ QRC Submission to the QCA on Aurizon's UT3 October 2013

⁴¹⁶ OCE Resources and Energy Quarterly March 2018

⁴¹⁷ BHP Half Year Financial Results December 2016 and Unlocking shareholder value presentation August 2014

⁴¹⁸ DBCT 2015 DAU Shipper Mine Life Analysis by Wood Mackenzie October 2015

⁴¹⁹ WoodMac Review of Coal Railings Forecast for QCA October 2008

⁴²⁰ The Australian Queensland mines in battle for survival: QRC 8 February 2016

⁴²¹ BHP Coal - the path to improved returns June 2016

Appendix 14 Comparison of planned coal export terminal expansions

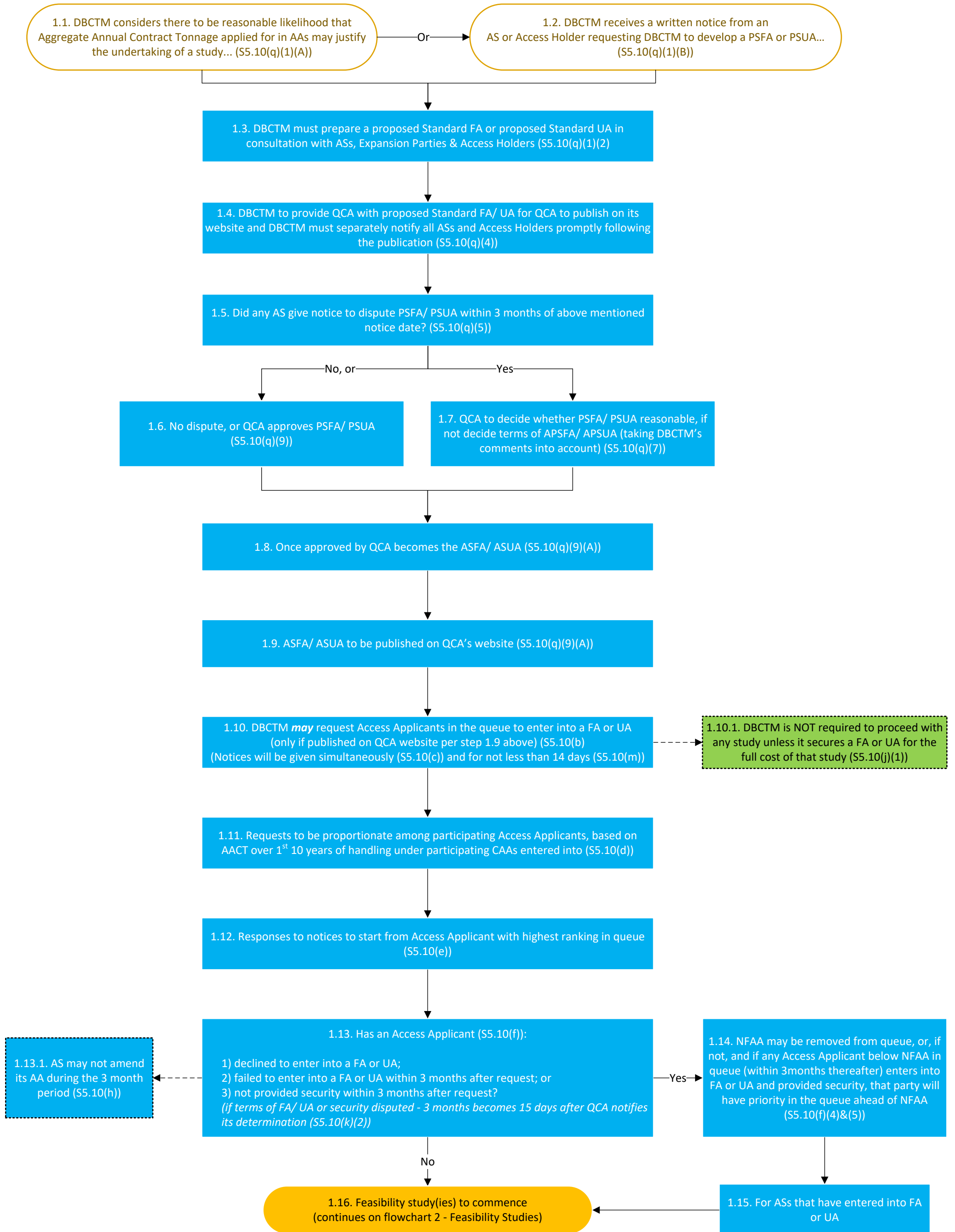
DBCT's expansion pathways are described in Appendix 19.

Competing ports at HPCT, AAPT, WICET and RGTCT have all undertaken studies into expansions in some detail. Some of these ports have existing approvals. The expansion pathway of DBCT, as outlined in its 2018 Master Plan, can provide as much as 17Mtpa of expansion capacity with some certainty. Given the extent of works required DBCTM expects that both HPCT and RGTCT expansions could provide expansion tonnage at a lower cost than DBCT Zone 4 and 8X combined. The expansion options at all 4 competing terminals will be cheaper than DBCT 9X. The DBCT expansion pathway is compared with the planned expansions at the 4 competing terminals in Table 1 below.

DBCT (85Mtpa)	HPCT (55Mtpa)	AAPT (50Mtpa)	WICET (27Mtpa)	RGCT (75Mtpa)
<p>Zone 4: Additional 4Mtpa</p> <ul style="list-style-type: none"> Expansion is well understood (almost to FEL3 as defined by the DBCT 2017 AU) Involves significant earthworks for the development of Row 8 inclusive of vertical concrete walls and 2 new yard machines Total Cost \$356m at June 2015. All approvals are in place 	<p>Additional 20Mtpa</p> <ul style="list-style-type: none"> Planned expansion includes 3rd outloading string on existing jetty (no marine works and no dredging) Approvals to 75Mtpa already exist but need extension of time Support structure for 3rd outloading string built into onshore conveyor system and jetty structure during HPX3 such that only the conveyor needs to be added 	<p>T0: Additional 30-60Mtpa</p> <ul style="list-style-type: none"> Adani holds approvals for development of T0 at Abbot Point T0 can deliver as much as 60Mtpa of capacity if 2 berths are built Dredging is required but approval has already been granted Cost is unknown but given the shorter jetty length and the fact that conveying distances are shorter, and bulk earthworks are less substantial, the first 30Mtpa will be significantly less expensive than DBCT 9X The second 30Mtpa will be significantly cheaper than the first Requires 2 new rail loops by Aurizon 	<p>WEXP1: Additional 32Mtpa</p> <ul style="list-style-type: none"> Approvals for WEXP1 and WEXP2 were in place but may need extension WEXP1 is well understood to FEL2 level Project consists of a second inloading station, a second stockyard on the existing reclaimed land, 3 Stacker Reclaimers Dredging already done for one more berth but would be required for second additional berth Cost not known by DBCTM but estimated to be similar to DBCT Zone 4 and 8X combined but for double the capacity The comparatively short outloading system, construction in a calm water port and significantly less earthworks would make WEXP1 significantly less expensive than DBCT 9X Requires additional rail loop by Aurizon 	<p>Additional 15-25Mtpa</p> <ul style="list-style-type: none"> Planned expansion to 90-100Mtpa Existing inloading capacity could be easily expanded to accommodate 90Mtpa Stockyard space available on existing reclamation without significant earthworks Existing jetty can accommodate third outloading string without marine works Expansion cost for first 15Mtpa will be cheaper than DBCT Zone 4 and 8X combined because no marine works or significant earthworks are required. Expansion from 90Mtpa to 100Mtpa will be cheaper than first phase of DBCT 9X because 9X requires extensive marine works and 1 berth in a rough water port as opposed to calm water port in Gladstone. Further, DBCT's outloading conveyor system is significantly longer than required at RGCT Fifth berth to the north proposed which would require dredging. Marine construction in a calm water port makes berth cost significantly cheaper than DBCT 9X berths No rail work required to get to 90Mtpa
<p>8X: Additional 13Mtpa up to 102Mtpa</p> <ul style="list-style-type: none"> FEL1 only. Mainly brownfield in existing yard. 8X seeks to maximise throughput from the existing 3 inloading and outloading strings Requires Aurizon to make track modifications to feed a new inloading station Detailed scope not resolved but likely scope to cost \$700m +35% -20% at June 2015 No approvals sought but likely not to be a declared project 	<ul style="list-style-type: none"> Can be expanded beyond 55Mtpa (~65Mtpa) without additional rail loop and third inloading station Full 75Mtpa expansion requires further land reclamation Cost of expansion unknown but first 10Mtpa would be substantially less than DBCT Zone 4 and 8X combined due to lack of major civil works 			
<p>9X: Additional 34Mtpa up to 136Mtpa</p> <ul style="list-style-type: none"> FEL1 only Operational mode and service provision unknown Land acquisition required Requires significant capital dredging with disposal onshore Extensive earth moving component Several difficult environmental hurdles for approvals Long lead times for FEL2, FEL3 and approvals will lead to long period of uncertainty for a funding Access Seeker Requires additional rail loop by Aurizon plus significant rail infrastructure in Goonyella rail system 				

Appendix 15 Expansion flowcharts

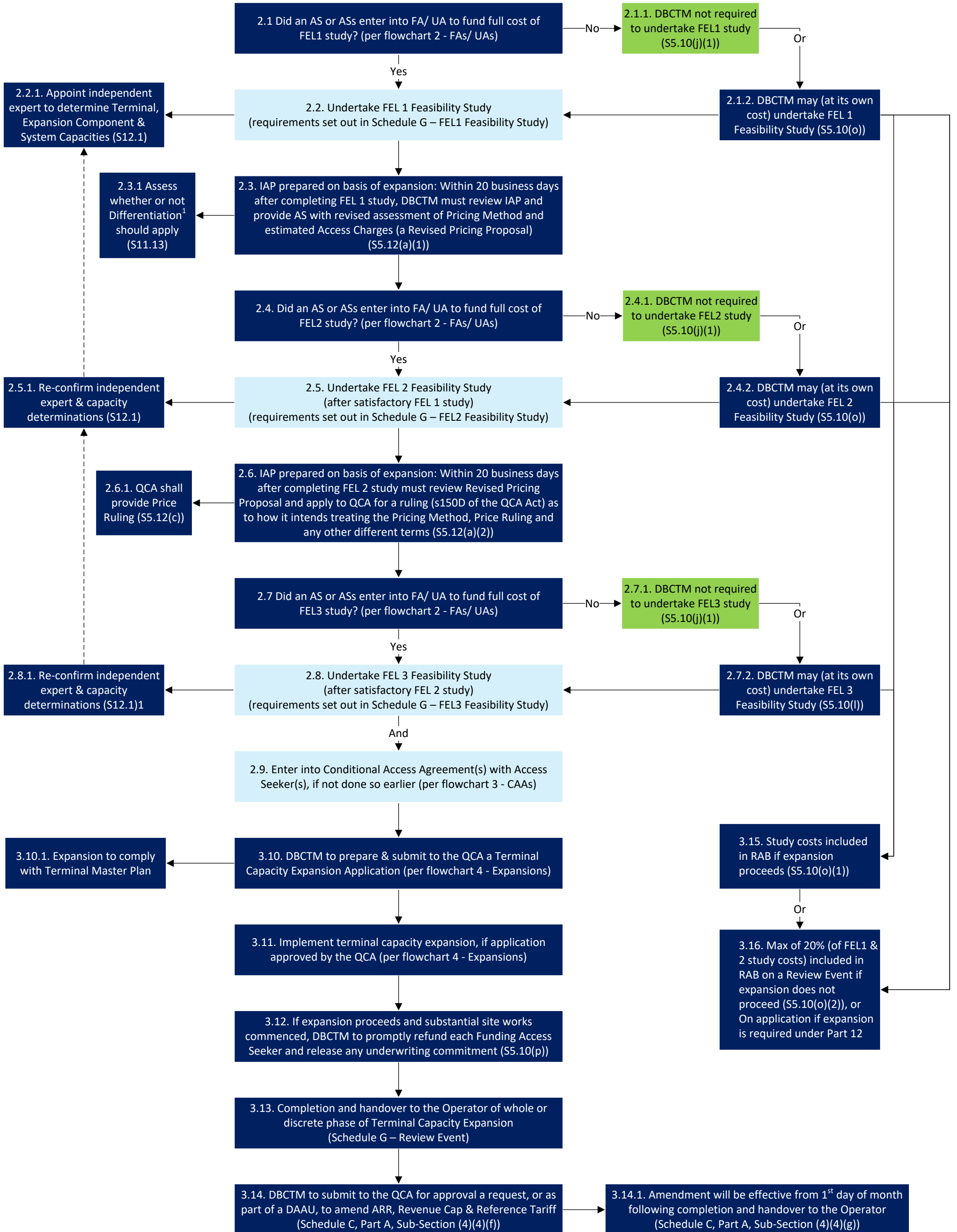
1. Funding or Underwriting Agreements (s5.10)



Acronyms used:
 AA – Access Application
 AS – Access Seeker
 AACT – Aggregate Annual Contract Tonnage
 APSFA – Alternative Proposed Standard Funding Agreement
 APSUA – Alternative Proposed Standard Underwriting Agreement
 ASFA – Approved Standard Funding Agreement
 ASUA – Approved Standard Underwriting Agreement

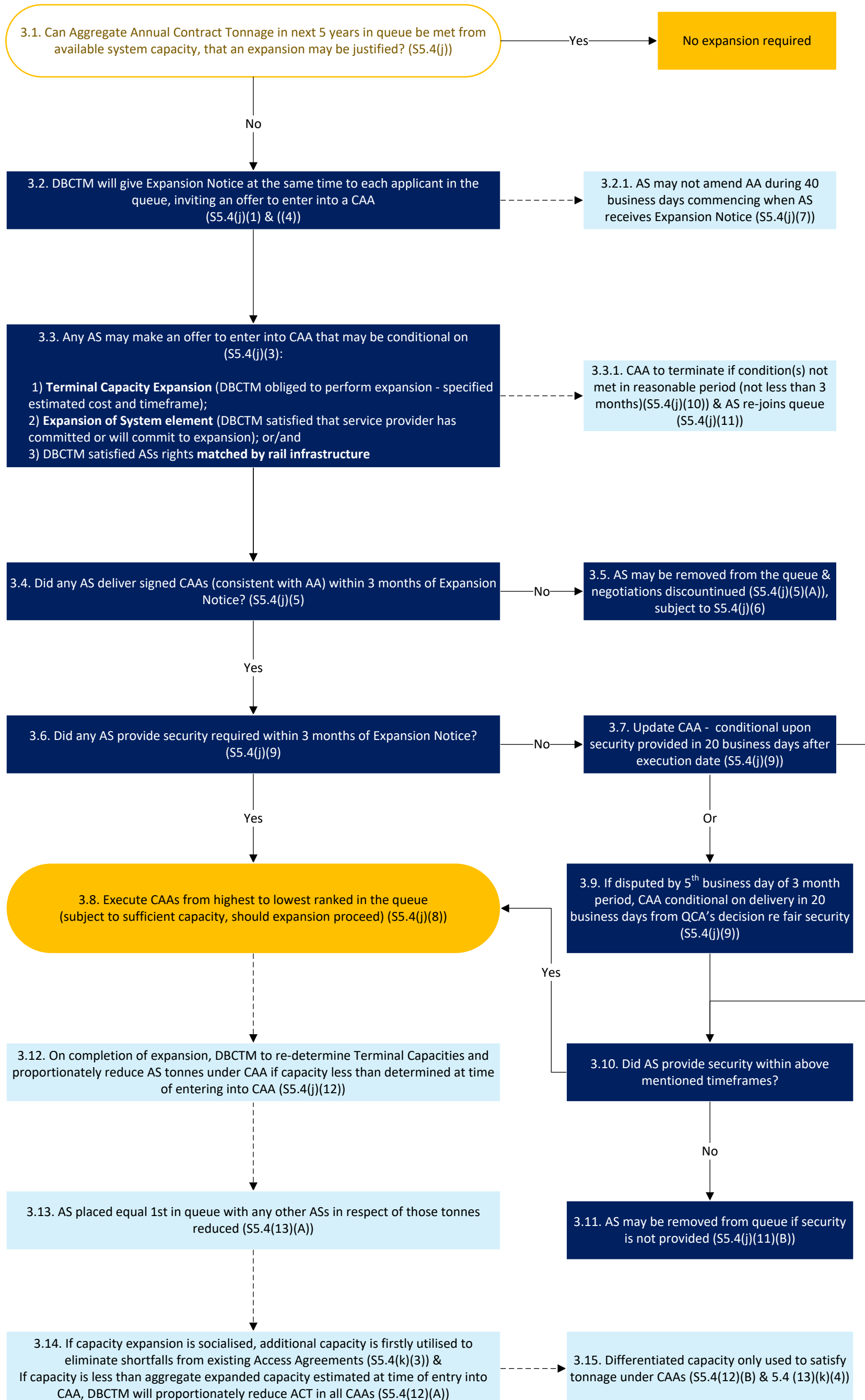
CAA – Conditional Access Agreement
 FA – Funding Agreement
 NFAA – Non-funding Access Applicant
 PSFA – Proposed Standard Funding Agreement
 PSUA – Proposed Standard Underwriting Agreement
 UA – Underwriting Agreement

2. Feasibility Studies (s5.12, 5.10 & 12.1)



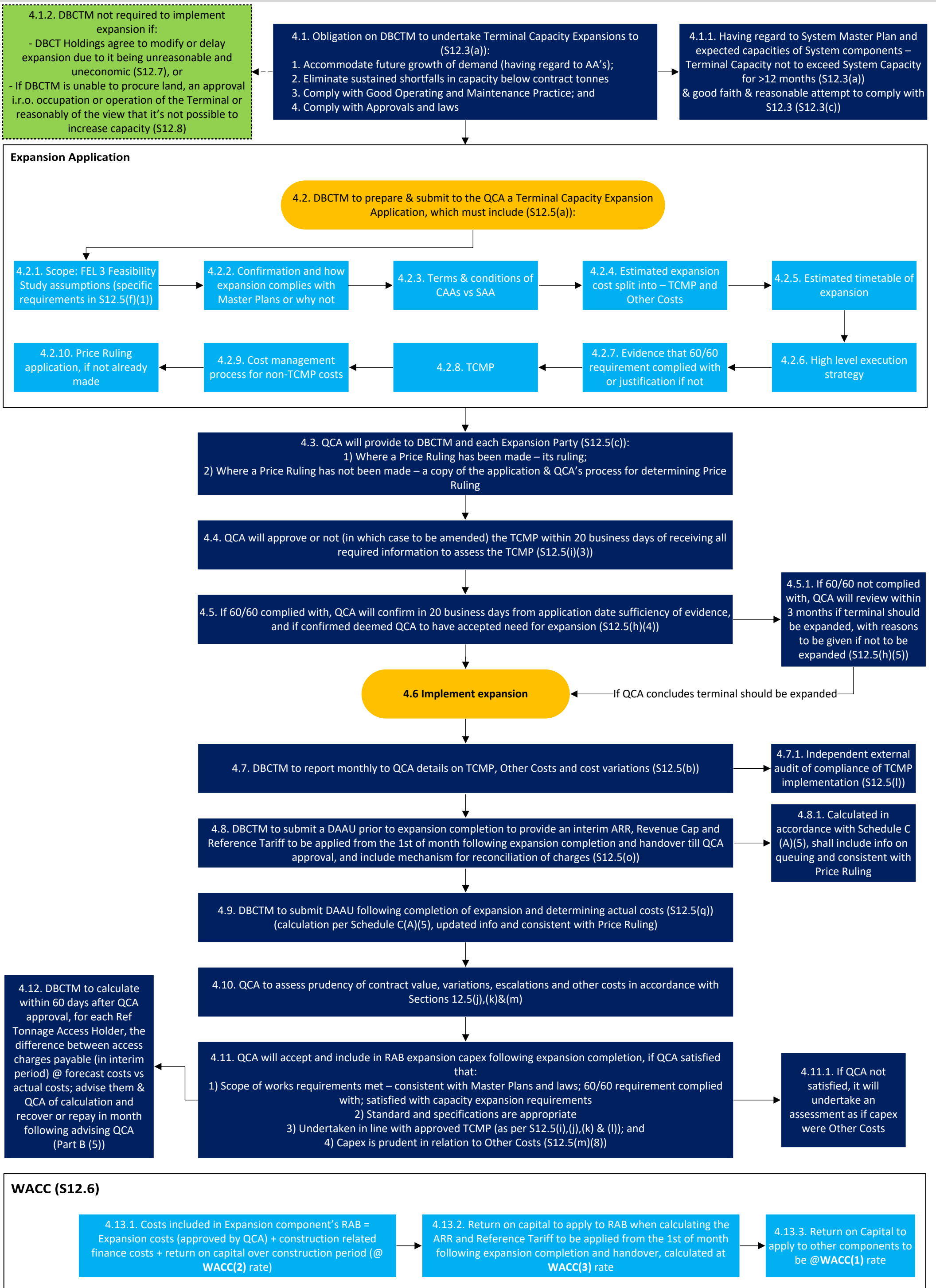
¹ Differentiation: Where Socialisation would decrease reference tariff at existing terminal, it should be a **Socialised Expansion**; where socialisation would increase reference tariff (cost sensitive expansion), it should be a **Differentiated Expansion** (S11.13). Circumstances where cost sensitive expansion can be a socialised expansion (S11.13(c))

3. Conditional Access Agreements (s5.12, 5.10 & 12.1)



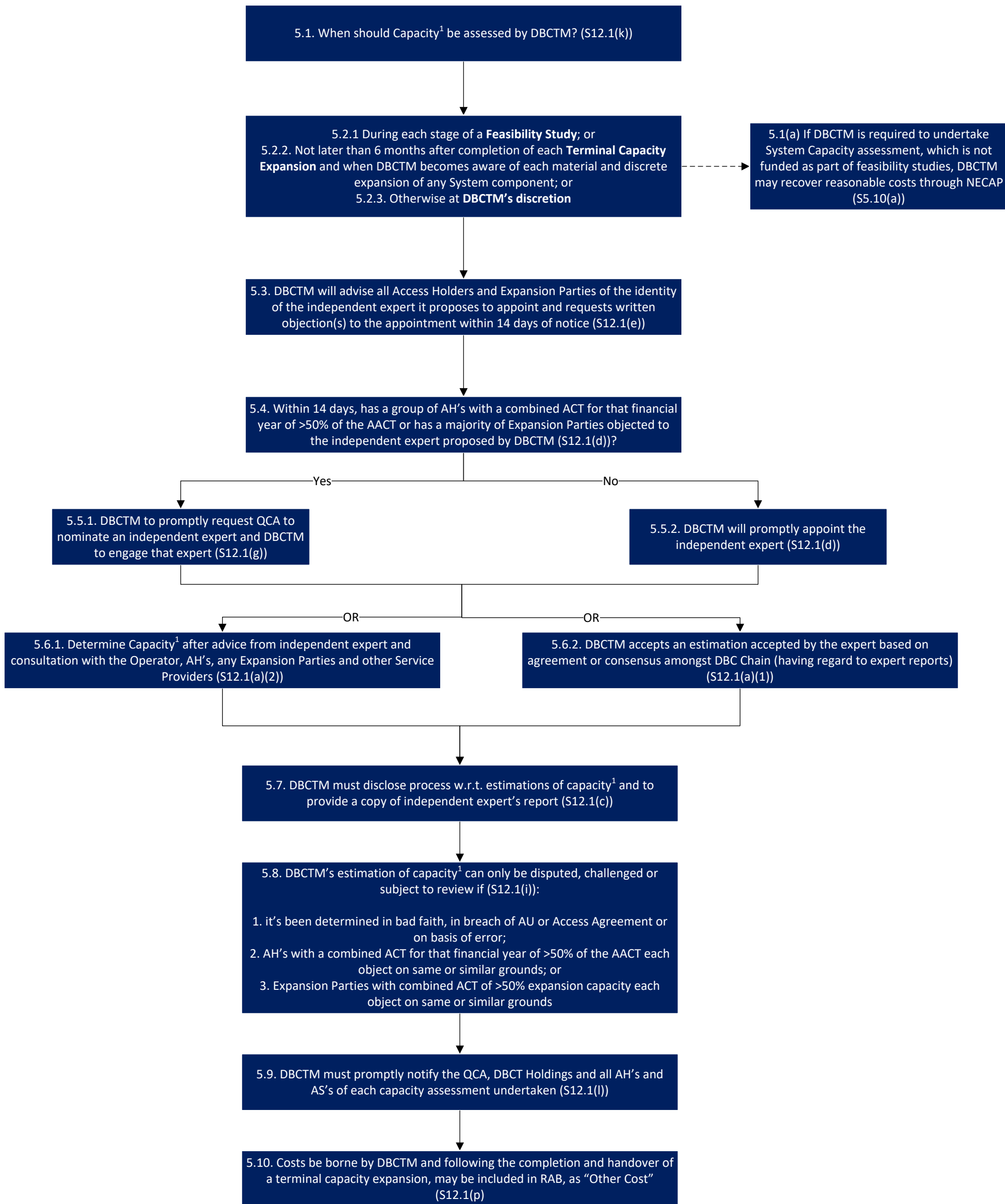
Acronyms used:
 AA – Access Application
 ACT - Annual Contract Tonnage
 AS – Access Seeker
 CAA – Conditional Access Agreement

4. Expansions (s12.3, 12.5 & 12.6)



¹ **60/60 requirement:** DBCTM has executed access agreements with AH's each for a period of at least 10 years and at least 60% of proposed Terminal Capacity increment; and 60% of all AH's and Expansion Parties do not oppose the expansion

5. Capacity Assessment



¹ Capacity refers to Terminal, Expansion Component and System Capacity

Notes:

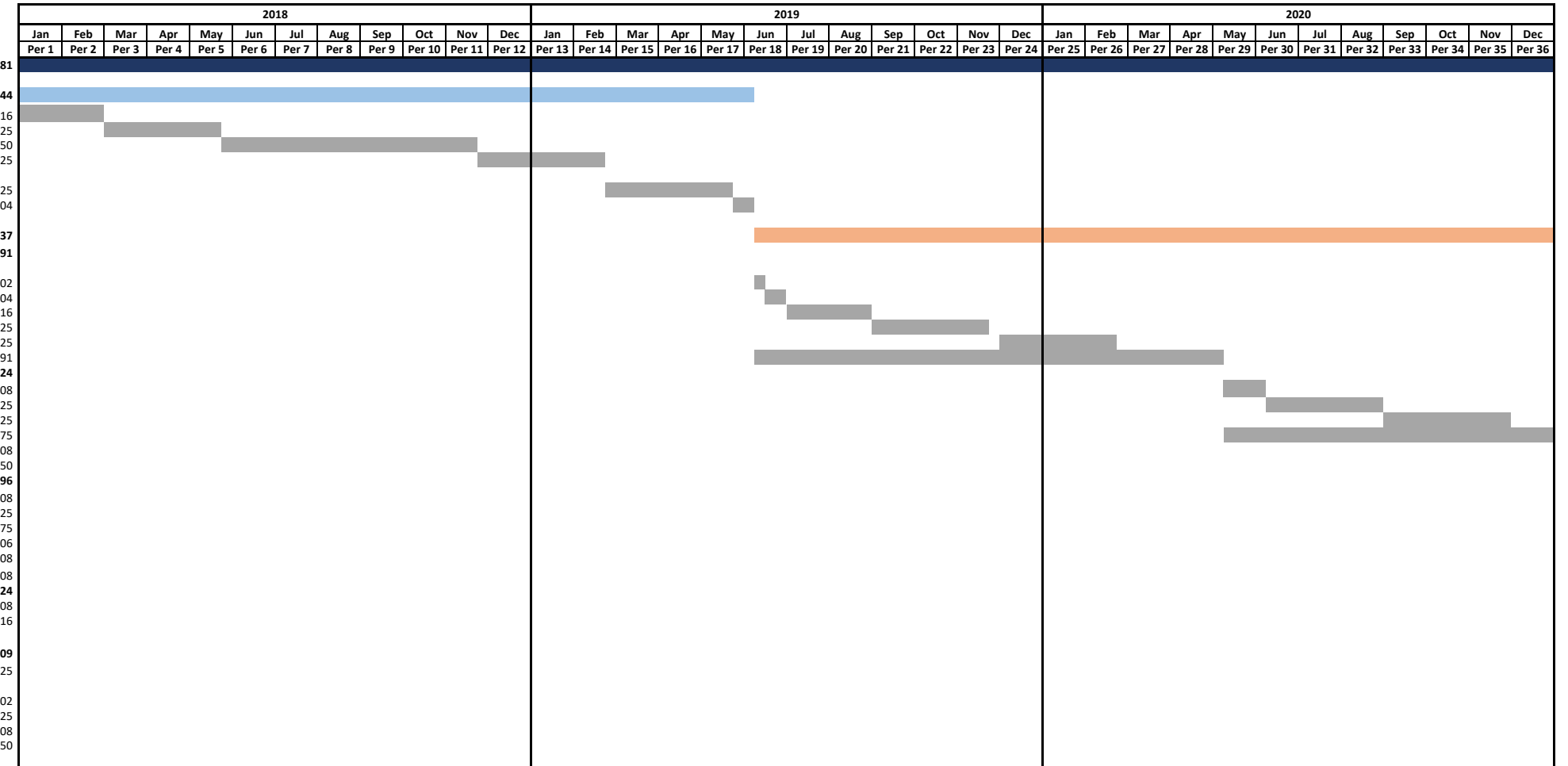
i). Assumptions to be taken into account when determining capacity set out in S12.1(a)(1)(2)(C,D & E) & S12.1(b)

Acronyms used:

- CAA – Conditional Access Agreement
- AACT – Aggregate Annual Contract Tonnage
- AS – Access Seeker
- FA – Funding Agreement
- UA – Underwriting Agreement
- AA – Access Application
- TCMP – Tender & Contract Management Process

Expansions - with disputes

	Start	End	Calendar Days	Years
Total time (incl. all disputes)	01/01/2018	22/10/2023	2,121	5.81
Funding/ Underwriting Agreement (S5.10)	01/01/2018	11/06/2019	527	1.44
Prepare proposed Standard FA/UA ¹ & submit on QCA's website	01/01/2018	01/03/2018	60	0.16
FA/UA disputed - within 3 months (S5.10(q)(5))	02/03/2018	30/05/2018	90	0.25
If disputed, QCA to decide reasonable APSFA/ APSUA (S5.10(q)(7))	31/05/2018	28/11/2018	183	0.50
ASs enter into FA/ UA and provide security (S5.10(f))	29/11/2018	26/02/2019	90	0.25
In the event that security or terms are disputed (S5.10(k)(2)):				
QCA to determine fair security, terms, etc.	27/02/2019	27/05/2019	90	0.25
ASs to deliver security - 15 days from QCA's decision	28/05/2019	11/06/2019	15	0.04
Feasibility Studies & Expansion Application (S5.10, 5.12 & 12.1)	12/06/2019	22/10/2023	1,593	4.37
FEL1 feasibility study:	12/06/2019	09/05/2020	332	0.91
Capacity assessment:				
Identify Independent Expert (IE) for capacity assessment	12/06/2019	18/06/2019	7	0.02
Identity of IE to all parties (14 days to object) (S12.1(e))	19/06/2019	02/07/2019	14	0.04
QCA to nominate IE (S12.1(g)), if objected per S12.1(d))	03/07/2019	31/08/2019	60	0.16
IE & DBCTM to determine capacity per S12.1(a))	01/09/2019	29/11/2019	90	0.25
Capacity estimation disputed per S12.1(i), QCA to determine	30/11/2019	27/02/2020	90	0.25
FEL1 - other required study work per Schedule G	12/06/2019	09/05/2020	333	0.91
FEL2 feasibility study:	10/05/2020	06/08/2021	453	1.24
IE ² & DBCTM to re-confirm assumptions per Schedule G	10/05/2020	08/06/2020	30	0.08
Re-estimate capacities, if different from FEL1 (Schedule G)	09/06/2020	06/09/2020	90	0.25
Capacity estimation disputed per S12.1(i), QCA to determine	07/09/2020	05/12/2020	90	0.25
FEL2 - other required study work per Schedule G	10/05/2020	05/02/2021	273	0.75
Prepare for and apply with QCA for price ruling (S5.12(a)(2))	08/01/2021	04/02/2021	28	0.08
QCA to provide price ruling (S5.12(c))	05/02/2021	06/08/2021	183	0.50
FEL3 feasibility study & Expansion Application:	07/08/2021	24/07/2023	717	1.96
IE ² & DBCTM to re-confirm assumptions per Schedule G	07/08/2021	05/09/2021	30	0.08
Re-estimate capacities, if different from FEL1&2 (Schedule G)	06/09/2021	04/12/2021	90	0.25
FEL3 - other study work (per Schedule G), TCMP development & other	08/08/2021	06/05/2023	638	1.75
Obtain 60/60 approval	07/05/2023	27/05/2023	21	0.06
Prepare & submit capacity expansion application (S12.5(a))	28/05/2023	26/06/2023	30	0.08
QCA review of application and acceptance ³ (S12.5(a))	27/06/2023	24/07/2023	28	0.08
Post application approval	25/07/2023	22/10/2023	89	0.24
QCA review of standards, specifications & terms for works per contract	25/07/2023	23/08/2023	30	0.08
Mobilisation period prior to commencing design	24/08/2023	22/10/2023	60	0.16
Conditional Access Agreement (S5.4(j))⁴	05/04/2022	06/05/2023	397	1.09
Expansion notice period to deliver CAA	05/04/2022	03/07/2022	90	0.25
In the event that security disputed (S5.4(j)(9)):				
Period allowed for dispute by AS	04/07/2022	10/07/2022	7	0.02
QCA to determine fair security	11/07/2022	08/10/2022	90	0.25
Extension period to deliver security	09/10/2022	05/11/2022	28	0.08
CAA negotiation period (6 months)	06/11/2022	06/05/2023	183	0.50



* QCA timelines assumed to be 6 months, based on prior experience, which include submissions, board approvals, draft decisions, comments from stakeholders and final decision
¹ Includes consulting with ASs, Expansion Parties and Access Holders. Further includes submission to QCA, QCA publishing on its website and notifying all parties once published
² Assumed the same Independent Expert (IE) as FEL1
³ Assumed QCA's review and acceptance of: scope of works, standards and specifications, 60/60 requirement & TCMP will happen in parallel and that all required information submitted with the Access Application
⁴ CAAs assumed to be executed during FEL3, being the most likely timing. It can however be done earlier
 FEL1 duration includes time allowed for IE appointment & capacity estimation dispute; FEL2 duration includes time allowed for capacity estimation disputes and FEL3 includes time allowed for CAA dispute

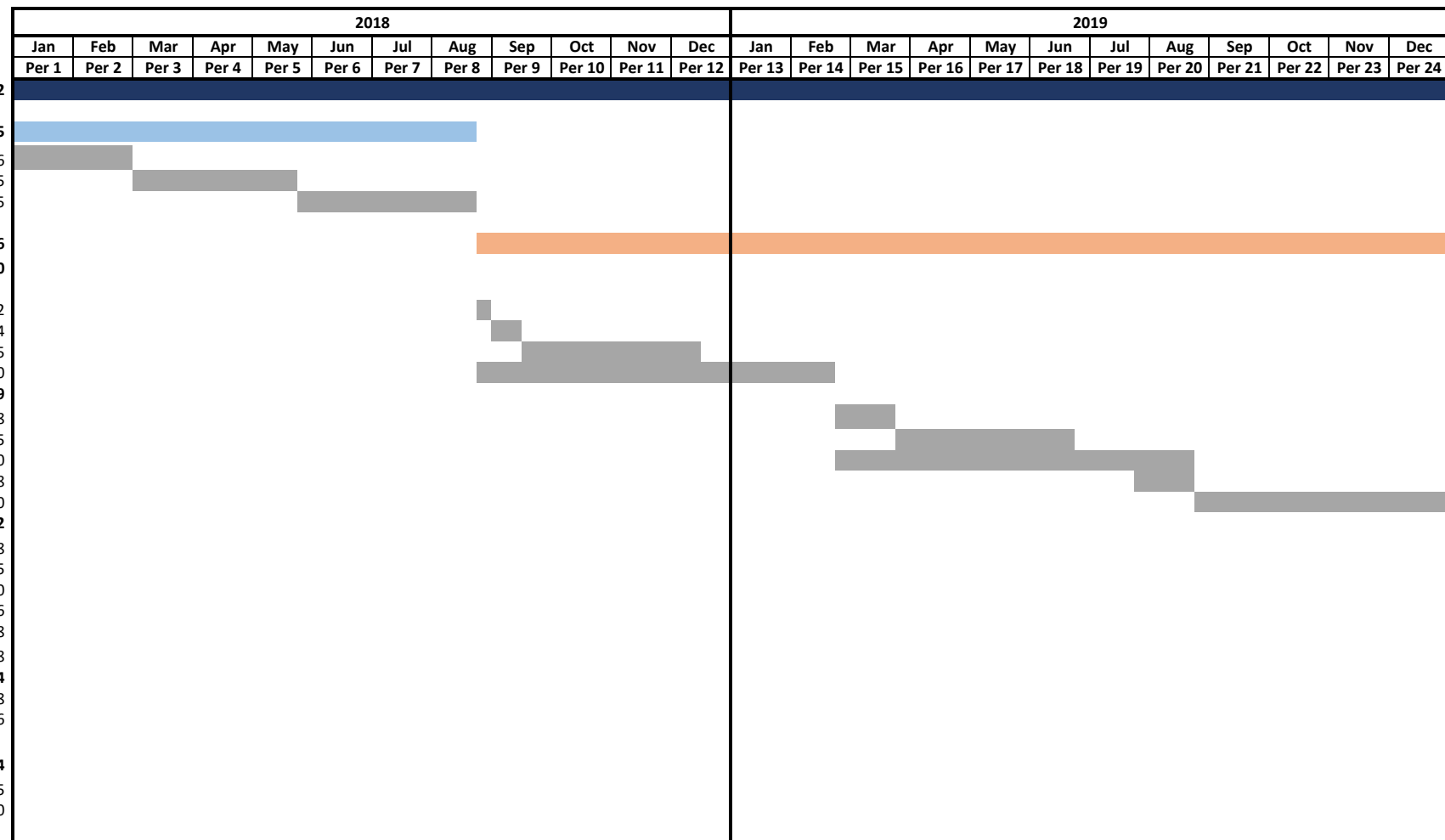
Expansions - with disputes

	Start	End	Calendar Days	Years	2021												2022												2023											
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					Per 37	Per 38	Per 39	Per 40	Per 41	Per 42	Per 43	Per 44	Per 45	Per 46	Per 47	Per 48	Per 49	Per 50	Per 51	Per 52	Per 53	Per 54	Per 55	Per 56	Per 57	Per 58	Per 59	Per 60	Per 61	Per 62	Per 63	Per 64	Per 65	Per 66	Per 67	Per 68	Per 69	Per 70	Per 71	Per 72
Total time (incl. all disputes)	01/01/2018	22/10/2023	2,121	5.81																																				
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* QCA timelines assumed to be 6 months, based on prior experience, which include submissions, board approvals, draft decisions, comments from stakeholders and final decision
¹ Includes consulting with ASs, Expansion Parties and Access Holders. Further includes submission to QCA, QCA publishing on its website and notifying all parties once published
² Assumed the same Independent Expert (IE) as FEL1
³ Assumed QCA's review and acceptance of: scope of works, standards and specifications, 60/60 requirement & TCMP will happen in parallel and that all required information submitted with the Access Application
⁴ CAAs assumed to be executed during FEL3, being the most likely timing. It can however be done earlier
 FEL1 duration includes time allowed for IE appointment & capacity estimation dispute; FEL2 duration includes time allowed for capacity estimation disputes and FEL3 includes time allowed for CAA dispute

Expansions - no disputes

	Start	End	Calendar Days	Years
Total time (if no disputes)	01/01/2018	13/02/2022	1,504	4.12
Funding/ Underwriting Agreement (S5.10)	01/01/2018	28/08/2018	239	0.65
Prepare proposed Standard FA/UA ¹ & submit on QCA's website	01/01/2018	01/03/2018	60	0.16
Allow 3 months for FA/UA disputes & QCA approval (S5.10(q)(5))	02/03/2018	30/05/2018	90	0.25
ASs enter into FA/ UA and provide security (S5.10(f))	31/05/2018	28/08/2018	90	0.25
Feasibility Studies & Expansion Application (S5.10, 5.12 & 12.1)	29/08/2018	13/02/2022	1,264	3.46
FEL1 feasibility study:	29/08/2018	26/02/2019	182	0.50
Capacity assessment:				
Identify Independent Expert (IE) for capacity assessment	29/08/2018	04/09/2018	7	0.02
Identity of IE to all parties (14 days to object) & appoint IE (S12.1(e))	05/09/2018	18/09/2018	14	0.04
IE & DBCTM to determine capacity per S12.1(a))	19/09/2018	17/12/2018	90	0.25
FEL1 - other required study work per Schedule G	29/08/2018	26/02/2019	183	0.50
FEL2 feasibility study:	27/02/2019	25/02/2020	363	0.99
IE ² & DBCTM to re-confirm assumptions per Schedule G	27/02/2019	28/03/2019	30	0.08
Re-estimate capacities, if different from FEL1 (Schedule G)	29/03/2019	26/06/2019	90	0.25
FEL2 - other required study work per Schedule G	27/02/2019	28/08/2019	183	0.50
Prepare for and apply to QCA for price ruling (S5.12(a)(2))	31/07/2019	27/08/2019	28	0.08
QCA to provide price ruling (S5.12(c))	28/08/2019	25/02/2020	183	0.50
FEL3 feasibility study & Expansion Application:	26/02/2020	15/11/2021	628	1.72
IE ² & DBCTM to re-confirm assumptions per Schedule G	26/02/2020	26/03/2020	30	0.08
Re-estimate capacities, if different from FEL1&2 (Schedule G)	27/03/2020	24/06/2020	90	0.25
FEL3 - other study work (per Schedule G), TCMP development & other	26/02/2020	26/08/2021	548	1.50
Obtain 60/60 approval	27/08/2021	16/09/2021	21	0.06
Prepare & submit capacity expansion application (S12.5(a))	17/09/2021	16/10/2021	30	0.08
QCA review of application and acceptance ³ (S12.5(a))	17/10/2021	15/11/2021	30	0.08
Post application approval	16/11/2021	13/02/2022	89	0.24
QCA review of standards, specifications & terms for works per contract	16/11/2021	15/12/2021	30	0.08
Mobilisation period prior to commencing design	16/12/2021	13/02/2022	60	0.16
Conditional Access Agreement (S5.4(j))⁴	26/11/2020	25/08/2021	272	0.74
Expansion notice period to deliver CAA	26/11/2020	23/02/2021	90	0.25
CAA negotiation period (6 month default)	24/02/2021	25/08/2021	183	0.50



* QCA timelines assumed to be 6 months, based on prior experience, which include submissions, board approvals, draft decisions, comments from stakeholders and final decision

¹ Includes consulting with ASs, Expansion Parties and Access Holders. Further includes submission to QCA, QCA publishing on its website and notifying all parties once published

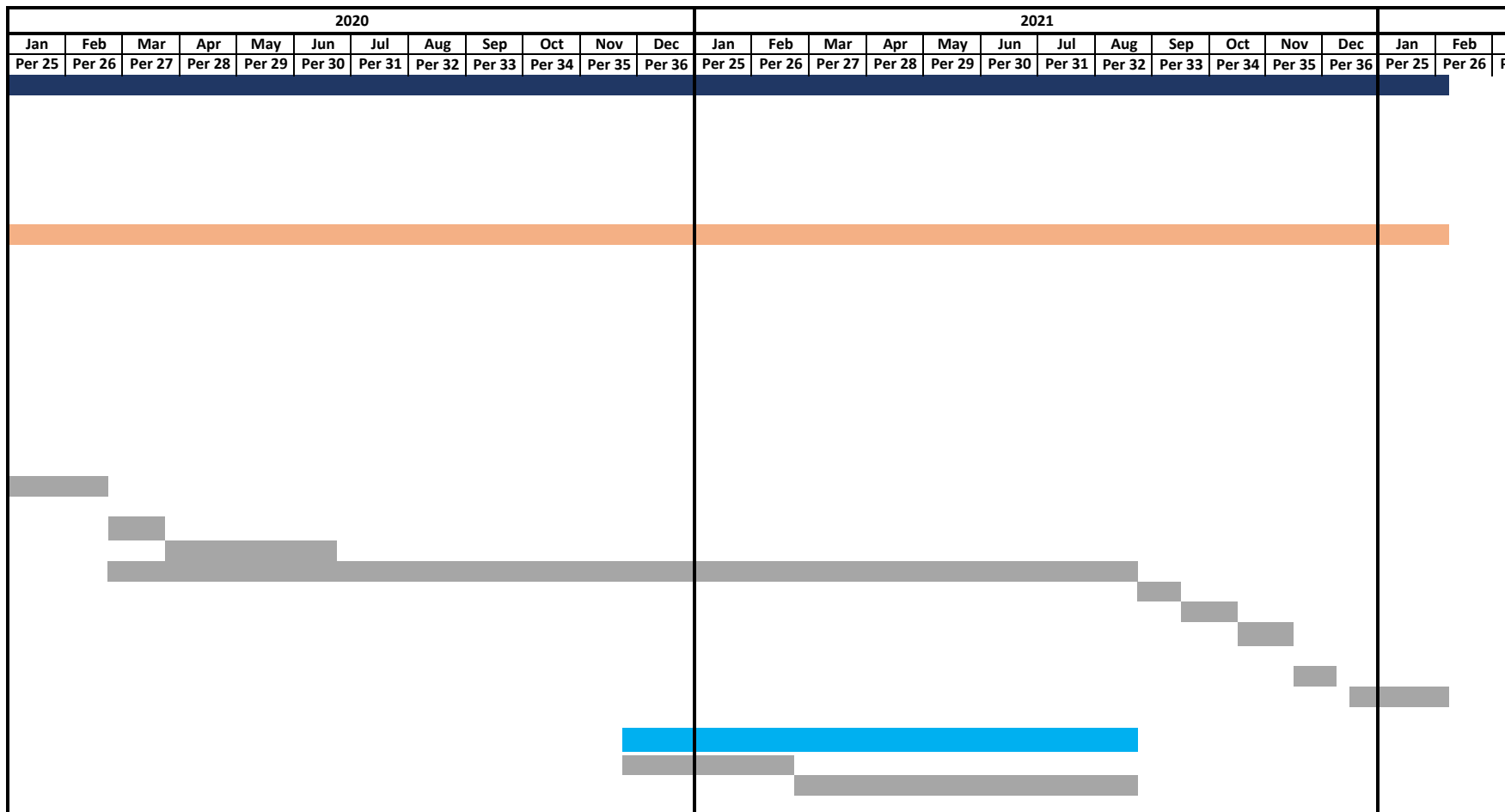
² Assumed the same Independent Expert (IE) as FEL1

³ Assumed QCA's review and acceptance of: scope of works, standards and specifications, 60/60 requirement & TCMP will happen in parallel and that all required information submitted with the Access Application

⁴ CAAs assumed to be executed during FEL3, being the most likely timing. It can however be done earlier.

Expansions - no disputes

	Start	End	Calendar Days	Years
Total time (if no disputes)	01/01/2018	13/02/2022	1,504	4.12
Funding/ Underwriting Agreement (S5.10)	01/01/2018	28/08/2018	239	0.65
Prepare proposed Standard FA/UA ¹ & submit on QCA's website	01/01/2018	01/03/2018	60	0.16
Allow 3 months for FA/UA disputes & QCA approval (S5.10(q)(5))	02/03/2018	30/05/2018	90	0.25
ASs enter into FA/ UA and provide security (S5.10(f))	31/05/2018	28/08/2018	90	0.25
Feasibility Studies & Expansion Application (S5.10, 5.12 & 12.1)	29/08/2018	13/02/2022	1,264	3.46
FEL1 feasibility study:	29/08/2018	26/02/2019	182	0.50
Capacity assessment:				
Identify Independent Expert (IE) for capacity assessment	29/08/2018	04/09/2018	7	0.02
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FEL1 - other required study work per Schedule G	29/08/2018	26/02/2019	183	0.50
FEL2 feasibility study:	27/02/2019	25/02/2020	363	0.99
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CAA negotiation period (6 month default)	24/02/2021	25/08/2021	183	0.50



* QCA timelines assumed to be 6 months, based on prior experience, which include submissions, board approvals, draft decisions, comments from stakeholders and final decisions

¹ Includes consulting with ASs, Expansion Parties and Access Holders. Further includes submission to QCA, QCA publishing on its website and notifying all parties once published

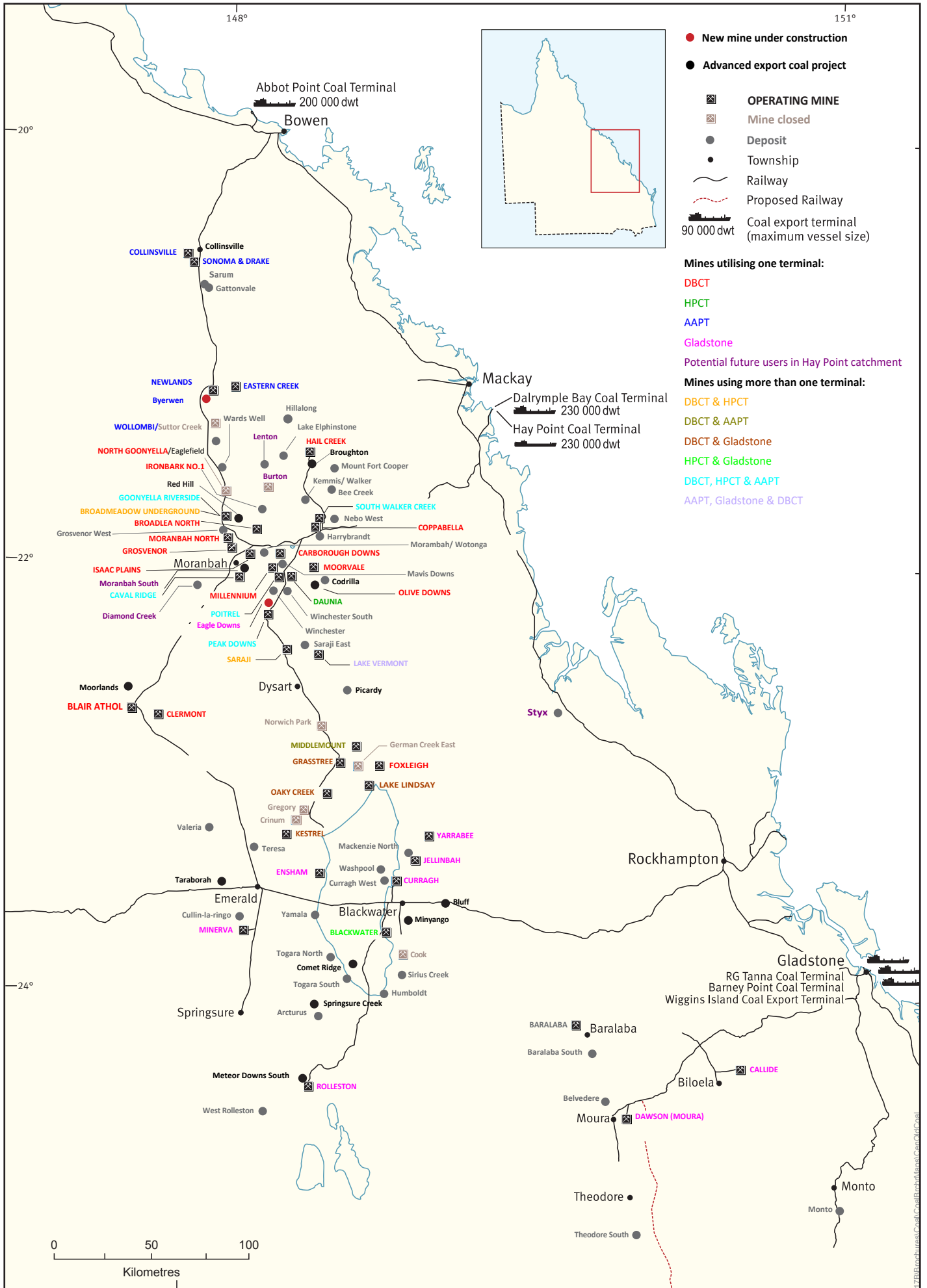
² Assumed the same Independent Expert (IE) as FEL1

³ Assumed QCA's review and acceptance of: scope of works, standards and specifications, 60/60 requirement & TCMP will happen in parallel and that all required information submitted with the Access Application

⁴ CAAs assumed to be executed during FEL3, being the most likely timing. It can however be done earlier

Appendix 16 Mine maps

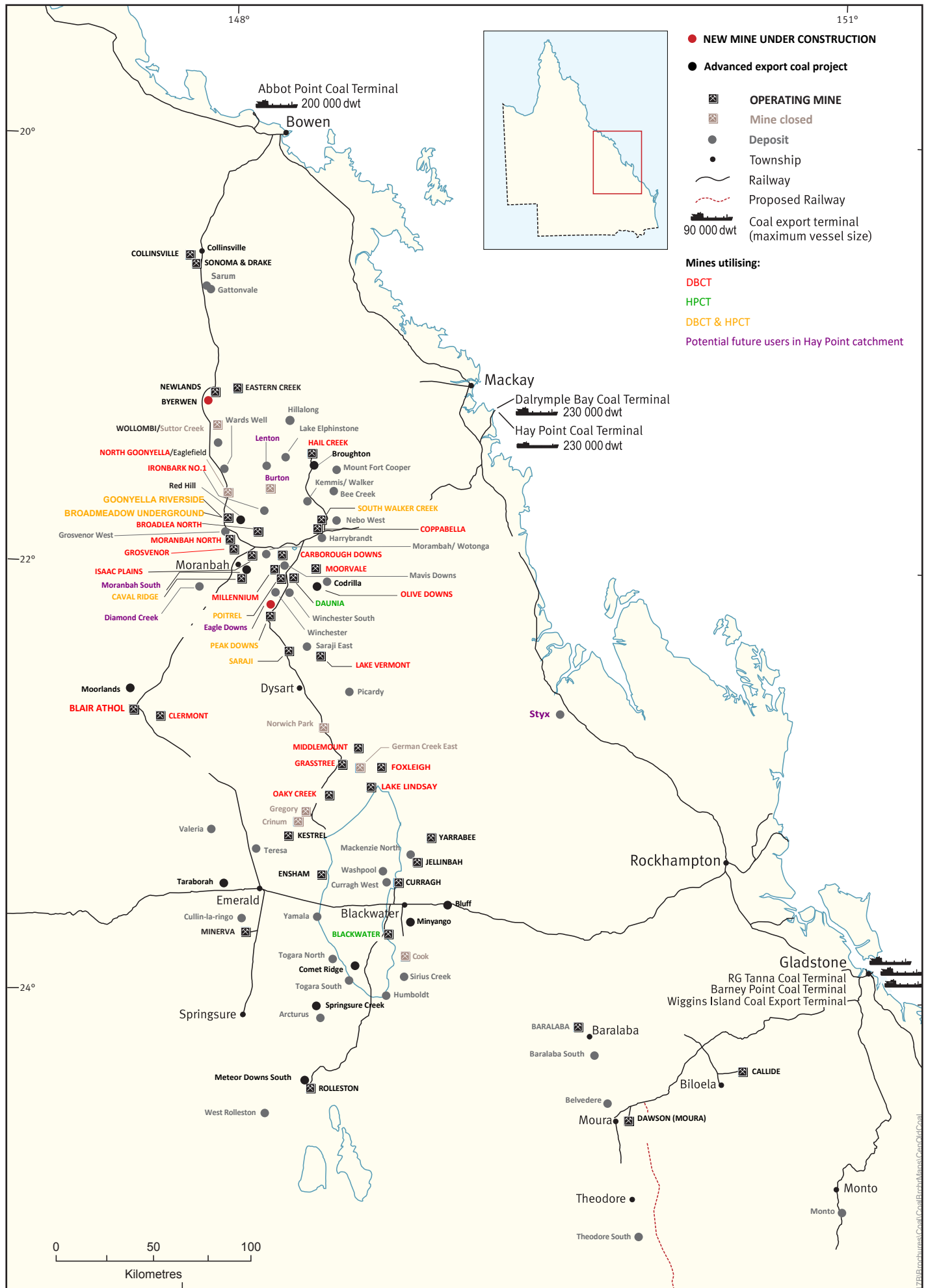
Queensland coal – Terminals that mines currently use, have used in the past or might use in future



Notes:

- Queensland coal – mines and advanced projects (July 2017) - www.dnrm.qld.gov.au
- DBCTM internal
- Eagle Downs is currently under construction and once operational, is expected to ship through Gladstone (contracted at WICET) and DBCT
- Blackwater mine assumed to ship through Gladstone (RGCT) and HPCT

**Queensland coal – Terminals that mines currently use, have used in the past or might use in future
(only showing DBCT and HPCT terminals)**

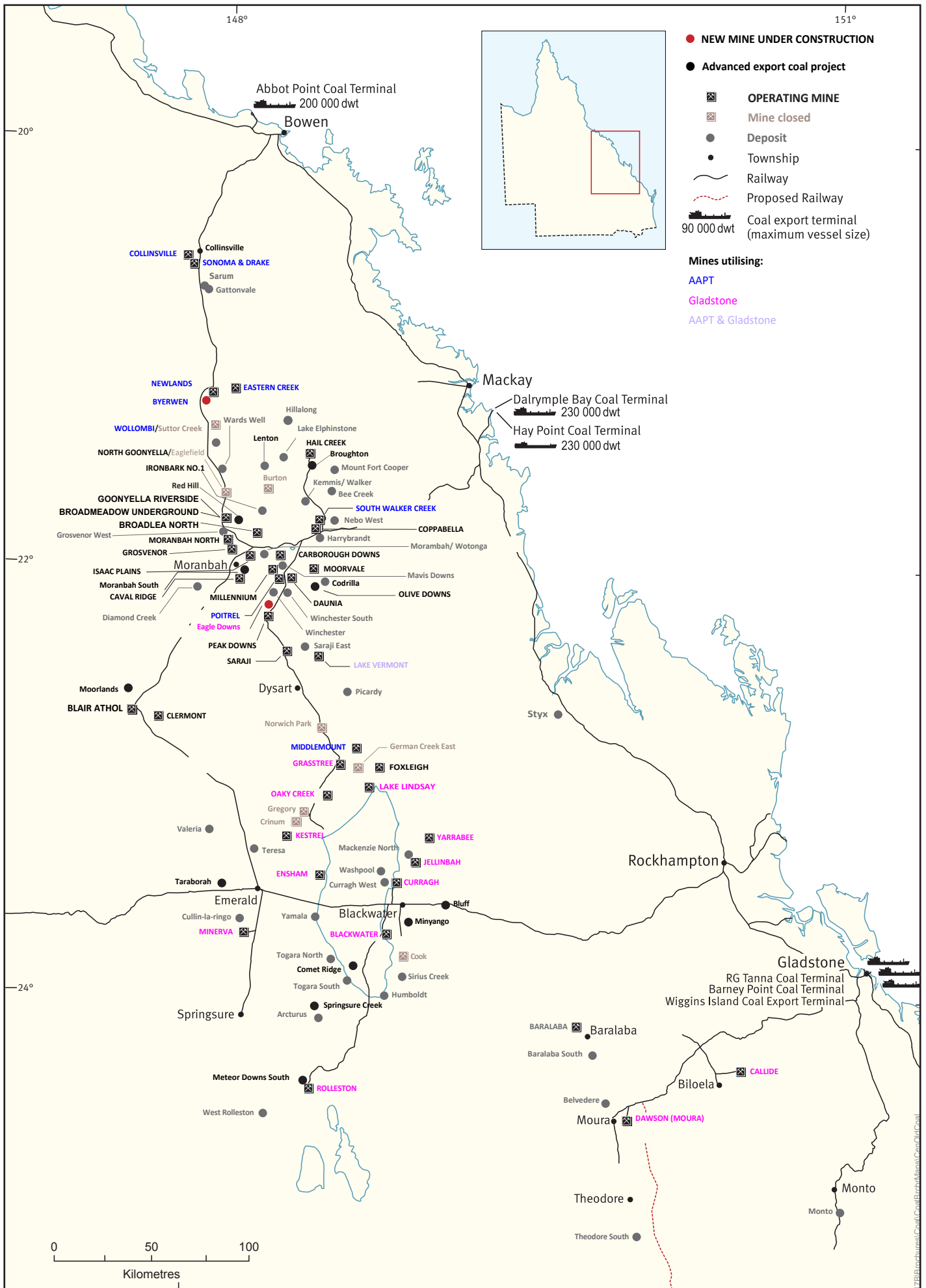


Sources:
 • Queensland coal – mines and advanced projects (July 2017) - www.dnrm.qld.gov.au
 • DBCTM internal

Notes:
 • Blackwater mine assumed to ship through HPCT

© 2017 Queensland Coal Export Terminals Consortium

Queensland coal – Terminals that mines currently use or have used in the past (only showing AAPT & Gladstone)



Sources:
 • Queensland coal – mines and advanced projects (July 2017) - www.dnrm.qld.gov.au
 • DBCTM internal

Notes:
 • Blackwater mine assumed to ship through Gladstone (RGCT)

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Appendix 17 Dredging report



DBCT Management Approval and Permit Pathways for Dredging Final Report

May 2018

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Glossary

Term	Meaning
CPM Act	Coastal Protection and Management Act 1995
DAF	Department of Agriculture and Fisheries
DBCT	Dalrymple Bay Coal Terminal
DBCTM	DBCT Management
DEE	Department of Environment and Energy
DEHP	Department of Environment and Heritage Protection
DEWHA	Department of Environment, Water, Heritage and Arts
DNPSR	Department of National Parks, Sport and Racing
DSD	Department of State Development
EA	Environmental Authority
EHP	Department of Environment and Heritage Protection
EP Act	Environmental Protection Act 1994
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
ERA	Environmentally Relevant Activity
FHA	Fish Habitat Area
GBRMP	Great Barrier Reef Marine Park
GBRMP Act	Great Barrier Reef Marine Park Act 1975
GBRMPA	Great Barrier Reef Marine Part Authority
GBRR	Great Barrier Reef Region
GBRWHA	Great Barrier Reef World Heritage Area
LUP	Land Use Plan
MCU	Material Change of Use
MNES	Matters of National Environmental Significance
P Act	Planning Act 2016
SARA	State Assessment and Referral Agency
SDPWO Act	State Development and Public Works Organisation Act 1971
Sea Dumping Act	Environmental Protection (Sea Dumping) Act 1981

SPD Act	Sustainable Ports Development Act 2015
SPL	Strategic Port Land
WHA	World Heritage Area

Summary of findings

This report examines the statutory approvals that may be triggered for capital and maintenance-dredging projects at a 'priority port' for coal-export terminals in Queensland. 'Priority ports' are identified in Section 5 of the *Sustainable Ports Development Act 2015*. They include the ports of Abbot Point, Gladstone, Townsville, Hay Point and Mackay.

Master Plans

The *Sustainable Ports Development Act 2015* sets out provisions for master plans to be prepared and finalised for each 'priority port'. These master plans are required to be in place before any approval can be given for capital dredging in a 'restricted area' (i.e. an area that is within the Great Barrier Reef World Heritage Area but outside the Commonwealth Marine Park).

Controlled Actions and Coordinated Projects

As identified in the Department of Environment and Energy's Significant Impact Guidelines, a capital-dredging and reclamation project would most likely be determined to be a 'controlled action' under the *Environmental Protection and Biodiversity Conservation Act 1999*. This would trigger the need for an Environmental Impact Statement to be prepared and assessed by the Department of Environment and Energy.

As stated in the Significant Impact Guidelines, subsequent maintenance dredging is unlikely to be deemed a controlled action. This is because any Matters of National Environmental Significance would be significantly impacted by ongoing maintenance-dredging activities that had not already been considered under a capital-dredging approval process. However, if a maintenance-dredging project deviated considerably from activities planned and assessed under the capital works that were approved, or if substantive time had passed since the capital works assessment, or if maintenance dredging had not been assessed previously, it should still be assessed on its own merits. Assessing a project on its own merits would assist in determining whether the dredging activity or disposal of maintenance dredge material, is likely to have a significant impact on the environment.

Given the complex approval requirements for capital-dredging projects and based on previous projects, capital works would likely be determined a 'coordinated project' under the *State Development and Public Works Organisation Act 1971*. This would trigger a process that requires an Environmental Impact Statement to be prepared by the capital-works proponent. To avoid production of two Environmental Impact Statements to address both Commonwealth and Queensland requirements, assessment would likely be undertaken under the bilateral process agreed between these two Governments; the bilateral process enables streamlining of the approval process for capital-dredging proponents.

Marine parks permits

A marine parks permit is undertaken as a joint permit process between the Commonwealth and the Queensland Governments. Such a permit would be required for all works associated with capital-dredging or maintenance-dredging projects undertaken within the boundaries of the Great Barrier Reef Marine Park (GBRMP). By contrast, works undertaken outside the GBRMP boundaries do not require a marine parks permit.

It is noted that most coal-export terminals in Queensland are located in ports adjacent to the Great Barrier Reef Marine Park. The exception is Brisbane, which is not one of the five priority ports for Queensland.

Development permits

Development permits that may be triggered under the *Planning Act 2016* for a capital-dredging project include:

- A Material Change of Use for an Environmental Relevant Activity (ERA 16 Extractive and Screening Activities) triggered under Schedule 10, Part 5, Division 2, Section 8 of the *Planning Regulation 2017*
- Operational works for tidal works (dredging/reclamation) for works within tidal water triggered under Schedule 10, Part 17 of the *Planning Regulation 2017*.
- Operational works completely or partly occurring within a fish habitat area or works for the removal and destruction of marine plants (dredging/reclamation) triggered under Schedule 10, Part 6 of the *Planning Regulation 2017*. The need to seek this approval can be mitigated by avoidance of fish-habitat and marine-plant areas.
- A greenfield onshore disposal area or reclamation area is likely to be undertaken on Strategic Port Land, which is assessed under a ports land use plan by the applicable port authority in its capacity as an assessment manager. Therefore, disposal in such areas would not trigger assessment under a local government planning scheme.
- Development in a priority ports master plan area if the port overlay states the work is assessable development triggered under Schedule 10 Part 13, Division 4 of the *Planning Regulation 2017*. The need for this permit will depend on whether a priority port overlay for a port masterplan area states that a greenfield onshore disposal area or reclamation area is an assessable development. The priority port overlays are currently being prepared by the Department of State Development as part of the priority port master planning process in Queensland:
 - Development on strategic port land is an assessable development if the land use plan for the strategic port land states the work is assessable development or the work is for material change of use that is inconsistent with the land use plan triggered under Schedule 10 Part 13, Division 5 of the *Planning Regulation 2017*. The need for this permit is dependent upon the relevant ports land use plan.
 - Development that is consistent with a port land use plan is exempt from assessment under the *Planning Act 2017*. However, a port application may still apply and would be lodged directly with the relevant port authority.

In most instances, maintenance dredging is undertaken to maintain existing structures at a port, including maintenance for existing channels, berths, approaches, and associated swing basins. These works are usually undertaken under a maintenance dredging permit that leverages approvals and assessments undertaken for capital dredging; permits issued for such are typically required to give consideration to ongoing maintenance requirements as part of assessment of capital works impacts. However, if planned maintenance dredging cannot comply with the conditions of the existing approvals, the above-mentioned development permits for capital dredging may be required prior to works being undertaken.

The statutory approvals identified in this report are indicative only and are not an exhaustive list. They will vary depending on specific legislative parameters and plans applicable at each port that is home to a coal-export terminal. There are also no guarantees that approvals would be granted for a dredging project. Indeed, approval processes can require years of technical study investment pre-submission. Such processes may also be subject to appeals and challenges during or post approval decision notification; these induce cost and time imposts on dredging proponents, in the form of having to provide additional and ongoing information.

1. Introduction

1.1 Purpose of this report

The purpose of this document is to:

- examine the statutory approvals that are required for capital and maintenance dredging works for coal export-terminal projects in 'priority ports' in Queensland (refer to Figure 1-1).
- discuss the likely approval pathways that could apply to dredging-related requirements (referred to as 'dredging projects') for coal-export terminals in Queensland.

Statutory approvals are discussed in Section 2. For the purposes of this report, approvals are described using the following three (3) main phases that represent key steps in seeking approval for a dredging project:

- Commonwealth Approval
- Overarching State Approvals
- Specific Assessable Development Approvals.

A detailed statutory approvals register has also been developed (see Table 3-1). This register provides a list of approvals or permits, assessable development triggers, estimated assessment periods and timeframes, along with a list of supporting documents/studies that may be required by dredging proponents for the securing of dredging permits.

1.2 Background

DBCT Management (DBCTM) is undertaking a study to determine, among other things, the costs and timeframes involved in seeking statutory approvals for capital and maintenance dredging at coal-export terminals in Queensland. The study considers the pathways for proponents of dredging projects to seek the relevant approvals and permits.

1.3 Proposed actions

For the purposes of this report, a general description of the likely actions that may be undertaken as part of capital or maintenance dredging projects in Queensland is provided to inform permit-related requirements (known as 'permitting requirements'). This description is conceptual level only; it does not describe an actual intended action. In particular, the description has been provided to inform what is necessary for the approvals that may be needed for either capital or maintenance dredging projects.

Capital dredging

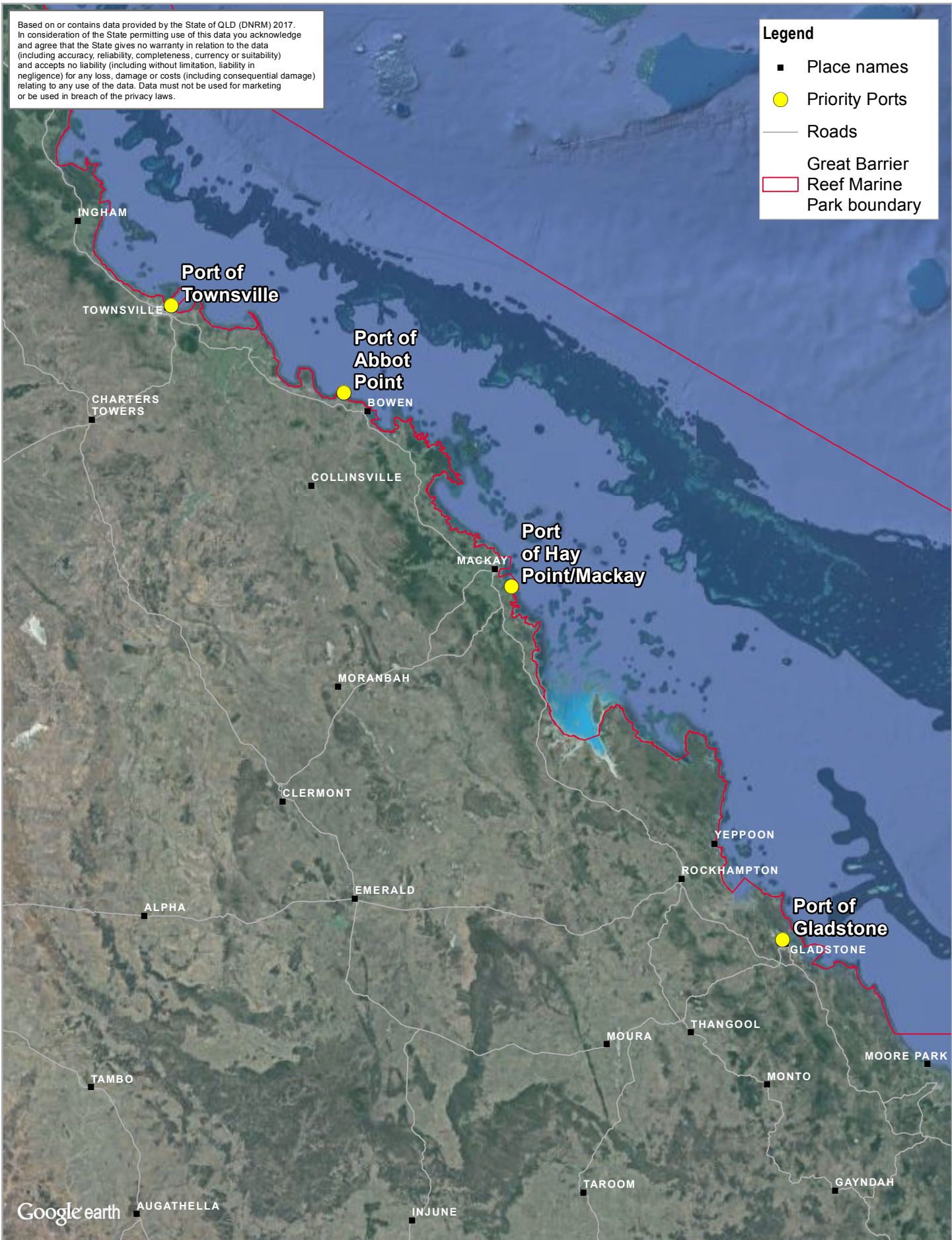
Capital dredging is undertaken to create new channels, swing basins¹ and berths (including the upgrades of channels, swing basins and berths') at a port. Capital dredging involves the dredging of material from the sea floor; that material may be disposed of on land. Dredging works are undertaken to provide for ship swing basins, port berths and departure channels. An example of a capital dredging project being undertaken in the Port of Gladstone is provided in Figure 1-2. The example shown in the figure is of a capital dredging project undertaken for the Western Basin Dredging and Disposal Project.

¹ Swing basin is a wider body of water, located at the end of a port to allow ships to turn and reverse their direction of travel.

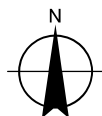
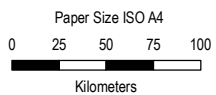
Based on or contains data provided by the State of QLD (DNRM) 2017. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for marketing or be used in breach of the privacy laws.

Legend

- Place names
- Priority Ports
- Roads
- Great Barrier Reef Marine Park boundary



Google earth



DBCT Management

Project No. 91-10295
 Revision No. 0
 Date 08 Nov 2017

Horizontal Datum: GDA 1994
 Grid: GCS GDA 1994

Priority Ports Queensland

FIGURE 1-1

Figure 1-2 Capital dredging example

Western Basin Dredging and Disposal Project – Port of Gladstone



Source: <http://www.dredgingtoday.com/2012/05/08/australia-gpc-reduces-dredging-on-western-basin-project/>

Maintenance dredging

Maintenance dredging involves removing sediments from the ocean bed that have built up in existing channels, berths, approaches, and associated swing basins.

Dredging works for maintenance are undertaken to provide for ship movement aprons, port berths and departure channels; they are an ongoing and regular component of operations in most Queensland ports, and are necessary to maintain safe access for ships arriving at and departing from the ship loaders of the coal-export terminal. An example of maintenance dredging being undertaken at the Port of Bundaberg to maintain safe access to existing infrastructure is provided in Figure 1-3.

Figure 1-3 Maintenance dredging example – Port of Bundaberg



Source: <http://www.neumanncontractors.com.au/projects/dredging/bundaberg-ports>

Offshore disposal area

Offshore disposal of capital dredge material is currently prohibited under the *Sustainable Ports Development Act 2015* (SPD Act). Therefore, current practices relate to disposal of material via reclamation/beneficial reuse or at a designated onshore disposal site.

Historically, the majority of sediment dredged during maintenance campaigns at the ports adjacent the Great Barrier Reef World Heritage Area (GBRWHA) has been placed in offshore material placement sites. Only small quantities considered unsuitable for disposal at sea are placed on land. However, in accordance with National Assessment Guidelines for Dredging (DEWHA² 2009), henceforth referred to as the Guidelines, any offshore disposal of maintenance material would first demonstrate that all potential alternatives to ocean disposal had been evaluated.

Onshore disposal area

Onshore disposal typically involves the placement of dredged material into a dedicated bunded area or storage facility. This would involve dewatering, treatment and transport. It may also require selecting an appropriate site, should an existing spoil disposal area or disposal pond not already exist.

Onshore disposal area (reclamation/beneficial re-use)

Onshore disposal could include using the dredged material as part of reclamation activities. This facilitates what environmental scientists refer to as 'beneficial re-use'. This is the practice of

² Department of the Environmental, Water, Heritage and the Arts

using dredged material to provide social, economic or environmental benefits, instead of merely dumping the material. Re-use typically manifests itself as fill supplement for land creation or construction projects.

Reclamation involves the use of dredged material as fill for port reclamation areas or for adjacent non-port reclamation areas (e.g. used for industry in State Development Areas or creation or enhancement of habitat³). For this report, it is assumed that if dredged material were used for reclamation, any such works would be undertaken within port limits and not within the Great Barrier Reef Marine Park (GBRMP). An example of a reclamation project in the Port of Gladstone is provided in Figure 1-4.

Figure 1-4 Reclamation example - Western Basin Project – Port of Gladstone



Source: Google Earth 18/10/2017

³ Enhancement could include beach nourishment to replace sands lost during severe storm events; creation of habitat could include landscaping of coastal dune or wetland environments on otherwise degraded lands

1.4 Scope and limitations

This report has been prepared based on the following:

- Statutory approvals would be submitted and obtained by DBCTM.
- Native Title and Cultural Heritage matters as required by Commonwealth and State legislation can be appropriately addressed by DBCTM.
- Commonwealth and State legislative frameworks applicable at the time this report was prepared have been used.
- The project is based on a hypothetical dredging project at a priority port, for a coal-export terminal, in Queensland.
- Approvals strategy and register are indicative only for a hypothetical location; these would need to be tailored for application to a specific project and would need to be informed by targeted field work/technical studies and completion of a review of environmental factors for a selected project footprint.⁴

1.5 Review for desktop approach and supporting data/information sources

A desktop review and synthesis of relevant legislation applicable to capital and maintenance dredging and dredged material management was undertaken. No consultation with Commonwealth or State agencies has been undertaken. The desktop review considered the following legislation:

- *Coastal Protection and Management Act 1995*
- *Environmental Protection (Sea Dumping) Act 1981*
- *Environmental Protection Act 1994*
- *Environmental Protection and Biodiversity Conservation Act 1999*
- *Great Barrier Reef Marine Park Act 1975*
- *Historical Shipwrecks Act 1976*
- *Marine Parks Act 2004*
- *Planning Act 2016*
- *State Development and Public Works Organisation Act 1971*
- *Sustainable Ports Development Act 2015*
- *Transport Infrastructure Act 1994.*

⁴ The area covered by a project and its associated infrastructure.

2. Legislation and approval pathways

2.1 Overview

This section provides an overview of the legislation and approval pathways applicable to capital and maintenance dredging and dredged material management for coal-export terminals in Queensland. The following levels of legislation are considered:

- Commonwealth Approvals (Section 2.2)
- State Approvals (Section 2.3).

2.2 Commonwealth Approvals

2.2.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) establishes a Commonwealth process for environmental assessment and approval of proposed actions that are likely to have a significant impact on matters of national environmental significance (MNES) or if actions are planned to be undertaken by a Commonwealth agency or on Commonwealth land. There are nine MNES under the EPBC Act, namely:

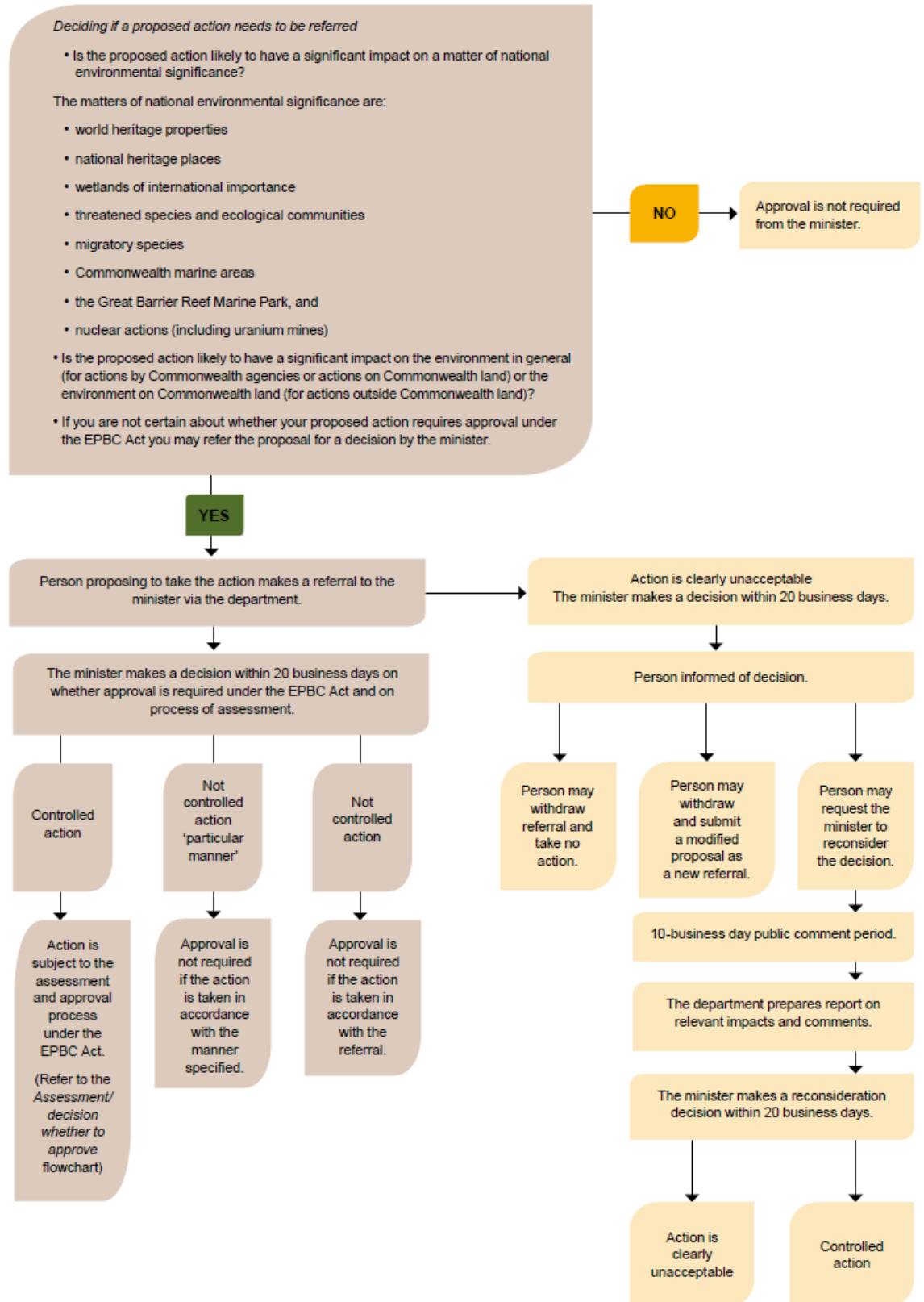
- World heritage properties
- National heritage places
- Wetlands of international importance
- Listed threatened species and communities
- Migratory species
- Nuclear actions
- Commonwealth marine areas
- GBRMP
- A water resource, in relation to coal seam gas development and large coal mining development.

If works related to a dredging project are likely to have a significant impact on any of the above matters, the proposed action would be referred to the Commonwealth environment regulator, known as the Department of Environment and Energy (DEE), for determination on whether the works constitute a 'controlled action'⁵ requiring further assessment (refer to Figure 2-1). In determining if a referral is required consideration will need to be given to the health and resilience of the system that could be affected. Accordingly, each project would need to be assessed on a case by case basis.

⁵ A proposed action that is likely to have a significant impact on: an MNES, the environment of Commonwealth land (even if taken outside of Commonwealth land); or the environment anywhere in the world (if the action is undertaken by the commonwealth).

Figure 2-1 EPBC Act approvals pathway - referral

EPBC Act environment assessment process—referral



Source: <http://www.environment.gov.au/system/files/resources/38fc57cd-c744-4727-8fa0-51ecbd6e879b/files/flow-chart.pdf>

2.2.2 Environment Protection (Sea Dumping) Act 1981

The *Environment Protection (Sea Dumping) Act 1981* (Sea Dumping Act) regulates the deliberate loading and dumping of wastes and other matter at sea. It applies to all vessels, aircraft or platforms in Australian waters and in any part of the sea. The Sea Dumping Act applies in respect of all Australian waters (other than waters within the limits of a State or the Northern Territory inland waters), from the low water mark out to the limits of the Exclusive Economic Zone⁶.

The Guidelines (DEWHA 2009) set out the framework for the environmental impact assessment and permitting of the ocean disposal of dredged material. This framework includes:

- evaluating alternatives to ocean disposal
- assessing loading and disposal sites
- assessing potential impacts on the marine environment and other users
- determining management and monitoring requirements.

The Guidelines seek to provide certainty about the assessment and permitting process, as well as providing guidance on opportunities for long-term strategic planning. These Guidelines should be read in conjunction with the Sea Dumping Act and its Regulations, the EPBC Act, the *Great Barrier Reef Marine Park Act 1975* (GBRMP Act) and Australia's international obligations outlined in the London Protocol⁷.

The Sea Dumping Act is currently administered by the Commonwealth or the Great Barrier Reef Marine Park Authority (GBRMPA) if loading or disposal is to take place within the GBRMP. Offshore disposal of capital dredge material is currently prohibited under the SPD Act. However, existing maintenance dredging programs and maintenance dredging required for existing infrastructure are managed under permits granted under the Sea Dumping Act.

If maintenance dredge material is to be disposed into Australian waters (outside three nautical miles), then a permit is required under the Sea Dumping Act. If the works also require a permit under the GBRMP Act, then GBRMPA will assess the Sea Dumping Permit application.

2.2.3 Great Barrier Reef Marine Park Act 1975

The GBRMP Act provides a framework to allow for the long-term protection and conservation of the environment, biodiversity and heritage values of the Great Barrier Reef Region (GBRR).

To undertake dredging or placement of maintenance dredge material⁸ within the GBRMP, a marine park permit must be applied for. The locations of the GBRMP boundary in relation to the 'priority ports' are shown in Figure 2-2. The maps show that the 'priority ports' include areas that are outside of the GBRMP boundary and will therefore not require a marine parks permit. However, if works are to occur inside the GBRMP, then a marine park permit would be required and will be assessed by GBRMPA.

The marine park permit comprises two sub-permits within one document and grants permission for activities to occur in both state marine parks (under Queensland *Marine Parks Act 2004*) and the GBRMP (under the Commonwealth *Great Barrier Reef Marine Park Act 1975*).

⁶ The Exclusive Economic Zone is an area beyond and adjacent to the territorial sea. The outer limit of the exclusive economic zone cannot exceed 200m from the baseline from which the breadth of the territorial sea is measured.

⁷ The 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.

⁸ If maintenance dredge material is to be disposed of at sea and is located within Australian Waters and with the GBRMP then the Sea Dumping Permit under the Sea Dumping Act is assessed by the GBRMPA at the same time as a Marine Parks Permit under the GBRMP Act.

2.2.4 Great Barrier Reef Marine Park Regulation 1983

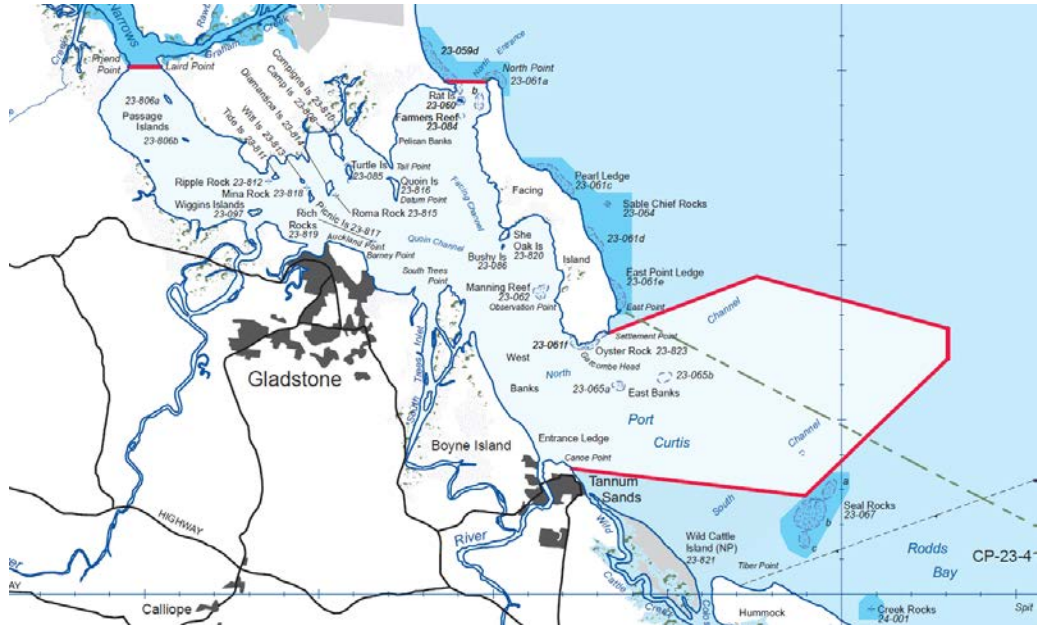
The Australian Government has placed a permanent ban on disposal of material in the GBRMP from Capital dredging projects, under the *Great Barrier Reef Marine Park Regulations 1983*. This legislative ban does not currently apply to maintenance dredge material.

2.2.5 Historical Shipwrecks Act 1976

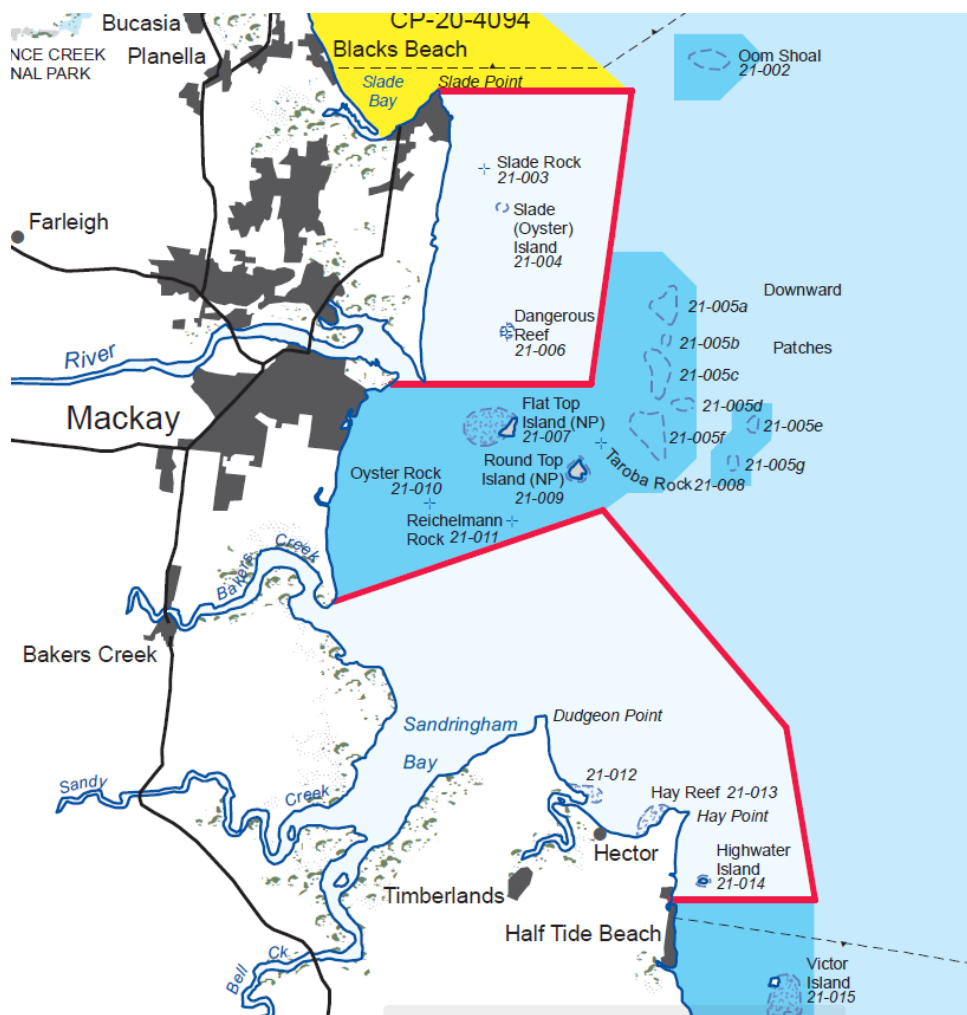
The *Historical Shipwrecks Act 1976* regulates any persons or agency interfering with historical shipwrecks whether it be in relation to recreation, research or commercial activities. Activities that have the potential to damage or interfere with a historical ship require a permit.

Figure 2-2 Great Barrier Reef Marine Park - Boundary.⁹

Port of Gladstone– GBRMP boundary



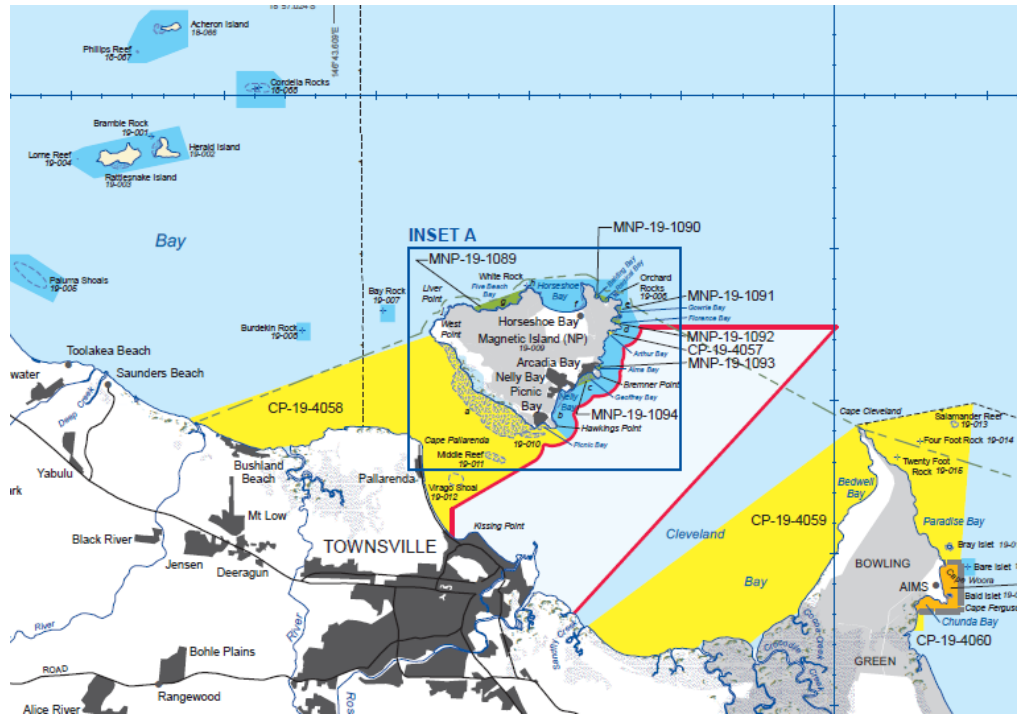
Port of Hay Point/Mackay– GBRMP boundary



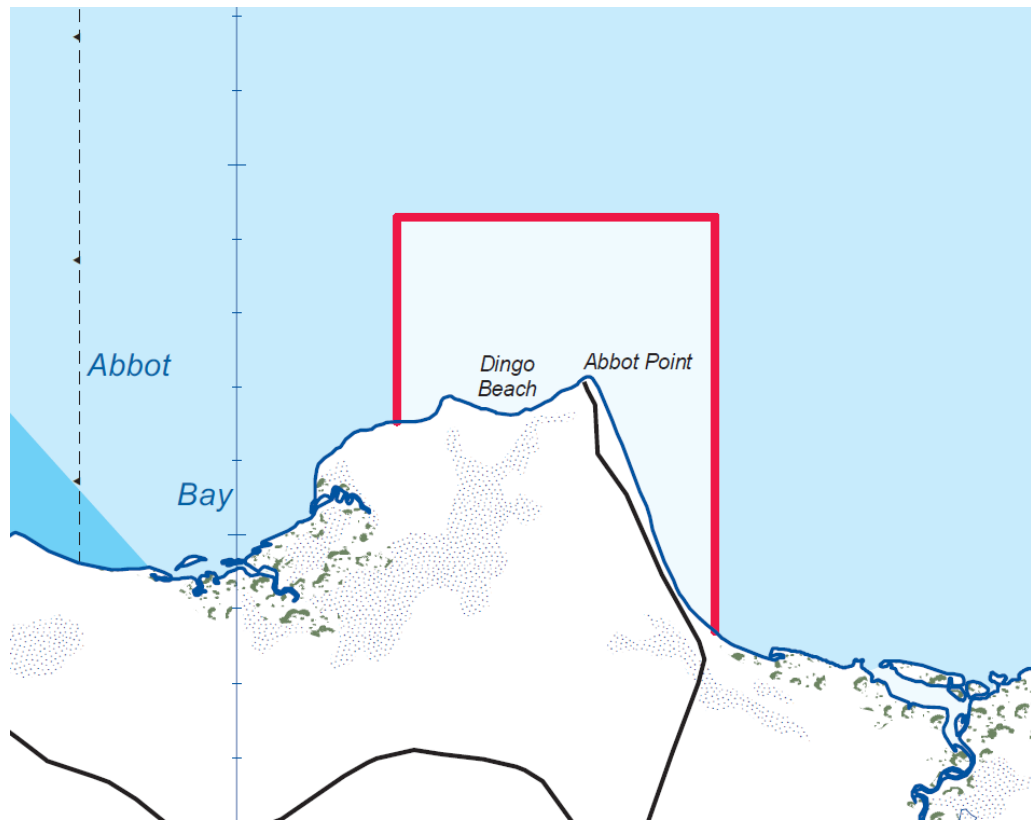
Source: <http://www.gbrmpa.gov.au/zoning-permits-and-plans/zoning/zoning-maps>

Figure 2-2 continued - Great Barrier Reef Marine Park - Boundary

Port of Townsville – GBRMP boundary



Port of Abbot Point – GBRMP boundary



Source: <http://www.gbrmpa.gov.au/zoning-permits-and-plans/zoning/zoning-maps>

⁹ Legend – red line represents the GBRMP boundary designated under the GBRMP Act, it does not represent the boundary of the World Heritage Area

2.3 State Approvals

2.3.1 Sustainable Ports Development Act 2015

The *Sustainable Ports Development Act 2015* (i.e. SPD Act) regulates capital dredging and capital dredged material dumping within the GBRWHA. The SPD Act restricts new capital dredging works for expanding port facilities other than at the 'priority ports'¹⁰ of the Port of Gladstone, Port of Hay Point (and Mackay), Port of Abbot Point and Port of Townsville (refer to Figure 1-1)

The 'priority ports' of Queensland contain the following coal export terminal:

- Port of Gladstone: RG Tanna Coal Terminal and Wiggins Island Coal Export Terminals
- Port of Abbot Point: Adani Abbot Point Terminal
- Port of Hay Point: Dalrymple Bay Coal Terminal and Hay Point Coal Terminal
- Port of Mackay: currently does not contain coal export facilities
- Port of Townsville: currently does not contain coal export facilities. The Environmental Impact Statement (EIS) for the Townsville Port Expansion project identified coal as a potential export out of the port.

The SPD Act prohibits disposal of port-related capital dredged material within the GBRWHA. The SPD Act states that disposal to land is mandatory, provided it is safe to do so. Maintenance dredging for existing infrastructure and disposal of maintenance-dredged material is not included in this requirement of this legislation.

The SPD Act sets out provisions for master plans to be prepared and finalised for each 'priority port'. These master plans are required to be in place before any approval can be given for capital dredging in a 'restricted area'¹¹ (Part 3 Section 35 (2) (a) of the SPD Act).

No direct approvals or permits are required in relation to the SPD Act. However, related permits are triggered under the *Planning Act 2016* (Planning Act) for land use within a 'priority ports' masterplan area which are designated under the SPD Act. These permits are discussed further in Section 3.2.2 and 3.3.2.

2.3.2 Marine Parks Act 2004

The *Marine Parks Act 2004* provides for the conservation of the marine environment. To preserve the marine parks, the Commonwealth and State have agreed that the State is to maintain, as far as practicable, legislation in line with the GBRMP Act. To undertake dredging or placement of maintenance dredge material within a marine park, a marine park permit must be applied for. These requirements are outlined in Section 3.2.2.

2.3.3 State Development and Public Works Organisation Act 1971

The *State Development and Public Works Organisation Act 1971* (SDPWO Act) establishes an environmental assessment process for projects declared to be a 'coordinated project'. To be determined to be a 'coordinated project', the project in question must involve one of the following:

- complex approval requirements, involving local, state and federal governments

¹⁰ The Queensland Government is leading master planning for the priority ports of Gladstone, Abbot Point, Townsville and Hay Point/Mackay. Master planning for priority ports is a port-related action of Reef 2050 Long-Term Sustainability Plan (Reef 2050) and mandated under the Sustainable Ports Development Act 2015 (Ports Act).

¹¹ An area that is within the Great Barrier Reef World Heritage Area but outside the Commonwealth marine park. (section 33 *Sustainable Ports Development Act 2015*)

- significant environmental effects
- strategic significance to the locality, region or state, including for the infrastructure, economic and social benefits, capital investment or employment opportunities it may provide
- significant infrastructure requirements.

There are two types of 'coordinated project' declarations, namely those that require an:

- EIS
- Impact Assessment Report (IAR).

A bilateral agreement between the Commonwealth and the State of Queensland came into effect on 11 August 2009. According to Schedule 1 of the Bilateral Agreement between the Australian Government and Queensland, the agreement applies to development and project proposals that are 'controlled actions' requiring assessment under Part 8 of the EPBC Act and that are undergoing an EIS process under Part 4 of the SDPWO Act.

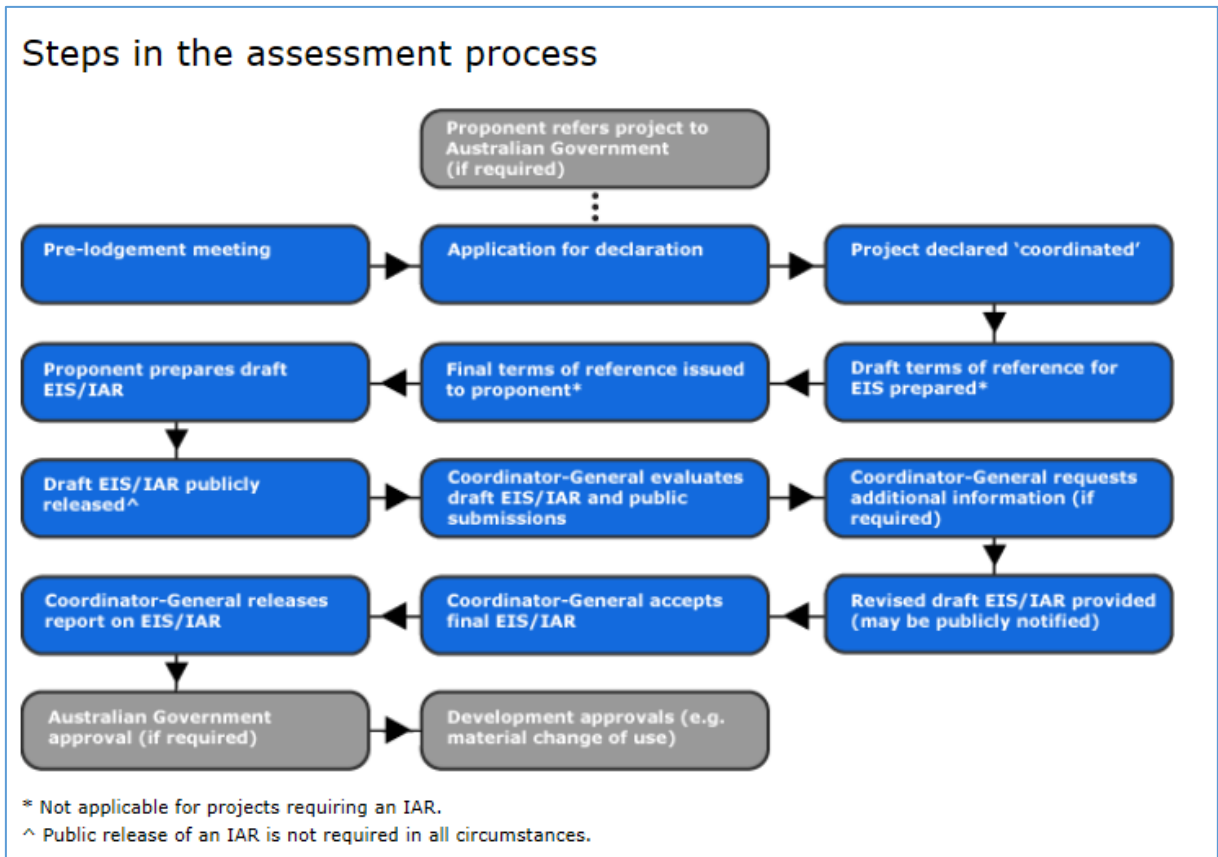
Under the bilateral agreement, the 'coordinated project' EIS process can be accredited as an acceptable form of assessment for the decision-making process under the EPBC Act (section 3.2.1). If a proposed project is assessed to be a 'coordinated project', then it must follow the approval process under the SDPWO Act (refer to Figure 2-3). Any project requiring significant expansion of a port environment, requiring dredging adjacent the GBRWHA, is likely to trigger the 'coordinated project' status, requiring an EIS under the SDPWO Act.

At the completion of the impact assessment process for a 'coordinated project', the Coordinator-General is required to write a report evaluating the EIS or IAR. This report includes the Coordinator-General's evaluation of, and conclusions regarding, the project's environmental impacts and proposed mitigation measures. After considering all relevant information, the Coordinator-General recommends the project either:

- Proceed, subject to conditions and recommendations designed to ensure the project's environmental impacts are properly managed to meet the EPBC Act requirements of not impacting significantly on protected matters; or
- be refused on the grounds its environmental impacts cannot be adequately addressed.

The report is not an approval in itself. The conditions of approval stated in the report only take effect when they are attached to a statutory approval given under other specific legislation, including development approval under the *Planning Act* and Environmental Authorities under the *Environmental Protection Act 1994* (EP Act). The Coordinator-General's conditions of approval do not relieve the coordinated project proponent of its obligation to obtain all other necessary approvals. The bilateral agreement relates only to the assessment EIS process under the SDPWO Act. The decision granted by the Commonwealth is given separately to the Coordinator Generals decision. The Commonwealth retains its separate approval powers under Part 9 of the EPBC Act.

Figure 2-3 SDPWO Act assessment process



Source: <http://www.statedevelopment.qld.gov.au/assessments-and-approvals/the-coordinated-project-process.html>

2.3.4 Planning Act 2016

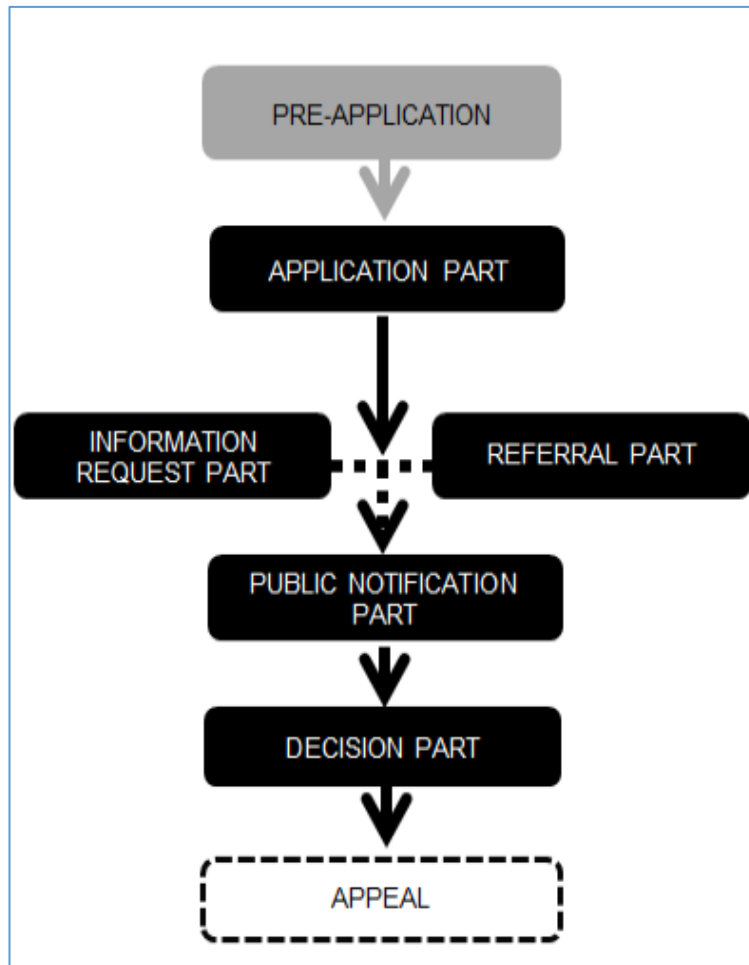
The purpose of the Planning Act is to establish an efficient, effective, transparent, integrated, coordinated, and accountable system of land use planning, development assessment and related matters that facilitates the achievement of ecological sustainability. A number of key approvals are triggered for dredging projects under Schedule 10 of the *Planning Regulation 2017* (Planning Regulation) and include, but are not limited to:

- removal or damage of marine plants
- undertaking works under tidal water
- undertaking an environmentally relevant activity (dredging)
- changing the use of land.

These key development permits are discussed further in Sections 2.3.6, 2.3.7 and 2.3.8

The Developmental Assessment (DA) Rules is the process used to integrate and manage the approvals under the Planning Act. The main stages of the DA Rules process are outlined in Figure 2-4. Where a project is a 'coordinated project' and has undergone an EIS, the SDPWO Act exempts subsequent applications from having to undertake the public notification and referral agency steps in the DA Rules process, thus reducing the timeframe of assessment for certain types of development under the Planning Act.

Figure 2-4 Planning Act – DA Rules assessment process



Source: <http://www.dilgp.qld.gov.au/resources/planning/better-planning/da-process-fact-sheet.pdf>

2.3.5 Transport Infrastructure Act 1994

The *Transport Infrastructure Act 1994* (TI Act) allows for and encourages effective integrated planning and efficient management of a system of transport infrastructure. Section 275 of the TI Act requires ports to establish, manage and operate efficient port facilities and services, requirements for which include the provision of safe navigational channels.

The TI Act establishes the approach for the development and management of land use for ports. The TI Act requires each port to develop a Land Use Plan (LUP). The LUP outlines Strategic Port Land (SPL) and governs the location of new development and operations at the ports. All new development on Strategic Port Land must comply with the requirements of a LUP.

Where works are proposed on SPL and the works are inconsistent with a port's LUP approval under section 286 of the TI Act, the works will trigger the requirement for approval under the Planning Act. This requirement will be assessed by the relevant port authority's assessment manager. An example of works on SPL for a dredging project would include a new onshore disposal area, where not already designated by a LUP.

Where works are proposed on SPL and the works are consistent with a port's LUP it does not require a development approval under the Planning Act but still must be approved by the relevant port authority prior to development commencing. Such a development proposal must be submitted to the relevant port authority as a Port Application. Timeframes and fees for port applications are dependent upon the relevant port authority.

2.3.6 Environmental Protection Act 1994

The EP Act creates a general duty for all people, companies and government bodies to take all reasonable and practicable steps to avoid harm to the environment.

The EP Act also provides for the regulation and approval of Environmentally Relevant Activities (ERAs) that have potential to cause environmental harm and are identified in Schedule 2 of the *Environmental Protection Regulation 2008* (EP Regulation). Dredging is identified as ERA 16 Extracting and Screening Activities in Schedule 2 of the EP Regulation.

An ERA is assessable development under schedule 10 of the Planning Regulation and requires a development approval before the activity (dredging) can commence. An Environmental Authority (EA) that is issued under the EP Act is also required for all ERAs; it is assessed by the Department of Environment and Heritage Protection at the same time as the development application for the ERA under the Planning Act.

2.3.7 Coastal Protection and Management Act 1995

The *Coastal Protection and Management Act 1995* (CPM Act) provides a framework for the development of regional plans that regulate development in coastal areas. An assessment under the Planning Act is triggered in relation to development within tidal waters as defined under the CPM Act.

Under the CPM Act, works including dredging, reclamation and the disposal of maintenance dredge material at sea, constitute 'tidal works'¹², or 'operational works' in the coastal zone. Works that are considered tidal works, and works in a coastal management district, are assessable development under Schedule 10, Part 17 of the Planning Regulation and require a development approval before the works can be undertaken.

2.3.8 Fisheries Act 1994

The *Fisheries Act 1994* (Fisheries Act) provides a framework for the management, use, development and protection of fisheries resources and fish habitats, and the management of aquaculture activities. The purpose of the Fisheries Act is to manage the use, conservation and enhancement of the community's fisheries resources and fish habitats in a way that seeks to apply balance and promote the principles of ecologically sustainable development¹³.

Marine-based works, including dredging or reclamation, in any areas containing marine plants or fish habitat areas (FHAs) may trigger approvals pursuant to Schedule 10, Part 8 of the Planning Regulation before works can be undertaken.

2.3.9 Appeals and challenges

There are options for appeals and challenges to the decisions declared through both the Commonwealth and State approval and assessment processes. The appeal process is dealt with through the judicial process, via the Federal Court of Australia and Queensland Planning and Environment Court and are usually costly and lengthy processes. As such, even if an approval is granted for a project, appeals may add time and cost imposts post declaration of the decision.

¹² *Development undertaken in, on or over tidal land - construction or demolition of structures such as jetties, pontoons, seawalls, navigation channels, marina basins and the like.*

¹³ Australia's *National Strategy for Ecologically Sustainable Development (1992)* defines ecologically sustainable development as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'.

3. Dredging-related approvals and requirements

3.1 Overview

This section outlines the approval pathways for dredging-related works at coal-export terminals located within ports in Queensland. The structure of this section is as follows:

- Capital dredging (Section 3.2)
- Maintenance dredging (Section 3.3)
- Offshore disposal area (Section 3.4)
- New onshore disposal area (reclamation/beneficial reuse), including the consideration of new (greenfield) and existing areas for onshore disposal (Section 3.5).

After identifying the approvals pathways for each of the categories above, a summary of the legislative requirements, approvals and permits for each pathway is provided in Table 3-1.

3.2 Capital dredging

3.2.1 Commonwealth Approval

Environmental Protection and Biodiversity Conservation Act 1999

Capital dredging projects are likely to impact on a number of MNES (see section 2.2.1), including:

- World heritage properties
- National heritage places
- Wetlands of international importance.
- Listed threatened species and communities
- Migratory species
- Commonwealth marine areas
- GBRMP.

Section 1.1 of the DEE's Significant Impact Guidelines state that the dredging of a new shipping channel in areas that overlap with the above MNES is likely to have a significant impact on a MNES. Therefore, capital dredging projects should be referred to DEE. Previous capital dredging projects in Queensland have required assessment under the EPBC Act by means of an EIS. Many of these projects have also been significant projects and assessed under the bilateral pathway

Great Barrier Reef Marine Park Act 1975

To undertake capital dredging within a marine park, a permit must be applied for by the relevant proponent. The marine permit would grant permission for the dredging activity to occur in both State and Commonwealth marine parks. Offshore disposal for capital projects is restricted under the *Great Barrier Reef Marine Park Regulations 1983* and SDP Act.

Historical Shipwrecks Act 1976

A permit will apply under the Historical Shipwrecks Act if capital dredging is to occur on, or within proximity to, a historical shipwreck. Avoidance of areas that would affect these matters would reduce permitting requirements.

3.2.2 Overarching State Approvals

State Development and Public Works Organisation Act 1971

Capital dredging projects in Queensland are likely to be determined as 'coordinated projects' requiring an EIS under Part 4 of the SDPWO Act due to their complex approval requirements, significant environmental effects and state economic significance.

Capital dredging adjacent to the GBRMP and GBRWHA would be expected to trigger the need for an EIS under the SDPWO Act. The assessment of coordinated projects is usually undertaken under the Commonwealth and State of Queensland Bilateral Agreement (refer to Section 2.3). Undertaking an assessment under the bilateral agreement would streamline the approval process by avoiding duplication of state and Commonwealth assessment requirements for a capital dredging project.

Sustainable Ports Development Act 2015

The SPD Act does not restrict capital dredging at the priority ports of Gladstone, Abbot Point, Townsville and Hay Point. However the SPD Act does restrict the disposal of capital dredge material in the GBRWHA. Capital dredge material must be placed on land (where safe to do so) as reclamation or other beneficial re-use. No specific approvals or permits are triggered for capital dredging under the SPD Act.

Marine Parks Act 2004

To undertake capital dredging within a marine park, a permit must be applied for by the relevant proponent. The marine park permit would grant permission for activities to occur in both the State and Commonwealth marine parks. As all Queensland priority ports are adjacent to the GBRMP, separate processes for Queensland state marine parks independent of the Commonwealth marine park permit are not considered required.

3.2.3 Specific Assessable Development Approvals

Environmental Protection Act 1994

Carrying out an ERA defined in Schedule 2 of the EP Regulation requires an EA or development permit for Material Change of Use (MCU) (Schedule 10, Part 5, Division 2, Section 8 Planning Regulation).

Capital dredging is a prescribed ERA (*ERA 16 Extractive and Screening Activities*) and will require an EA. The EA will also cover the dredging of material from the seabed and will be required for the conduct of capital dredging.

Coastal Protection and Management Act 1995

Capital dredging projects occur within tidal waters and therefore triggers the need to obtain a development permit for operational works for tidal works (dredging) (Schedule 10, Part 17 of the Planning Regulation).

Fisheries Act 1994

Capital dredging projects may occur in areas that contain, or have potential to support, marine plants and which may also be designated fish habitat areas (FHA). Therefore these projects

may trigger development permits for operational works completely or partly within a FHA (Schedule 10, Part 6, Division 2 of the Planning Regulation) and/or operational works for the removal and destruction of marine plants (Schedule 10, Part 6, Division 2 of the Planning Regulation). Avoidance of areas that would impact upon these matters would reduce permitting requirements.

3.3 Maintenance dredging

3.3.1 Commonwealth Approval

Environmental Protection and Biodiversity Conservation Act 1999

Assessments under the EPBC Act inclusive of capital dredging works would also need to give regard to how ongoing maintenance dredging requirements may potentially impact upon MNES as part of the assessment of capital works. As such, the EPBC Act is more applicable to capital dredging developments than maintenance dredging works and it is considered less likely that any MNES would be significantly impacted by ongoing maintenance dredging activities. This is confirmed by Section 1.1 of the DEE's Significant Impact Guidelines, which states: *"Dredging to maintain existing navigational channels would not normally be expected to have a significant impact on the environment where the activity is undertaken as part of normal operations and the disposal of spoil does not have a significant impact."* (Commonwealth of Australia 2013).

However, if a maintenance-dredging project deviated considerably from activities planned and assessed under capital works it should still be assessed on its own merits to determine whether the dredging activity or disposal of maintenance dredge material, is likely to have a significant impact on the environment. Further, if significant time has lapsed between capital works approval and planned maintenance dredging, or if maintenance dredging had not been assessed previously, conditions of the environment and concerns of regulators in regards to potential impacts may have changed. Accordingly, maintenance dredging may need to be considered on a case by case assessment. If necessary, a separate EPBC referral would have to be prepared. Determination of need to refer the works can be achieved through the self-assessment outlined in DEE's Significant Impact Guidelines that are provided by the Commonwealth Government.

Environment Protection (Sea Dumping) Act 1981

Offshore disposal of maintenance dredge material for existing programs is managed through issue of permits granted under the Sea Dumping Act. In accordance with the environmental assessment hierarchy described within the (DEWHA 2009), offshore disposal is permitted only where onshore or beneficial re-use is not feasible. If there are no other alternates to offshore disposal of maintenance dredge material a Sea Dumping Permit would be required.

Great Barrier Reef Marine Park Act 1975

To undertake maintenance dredging within a marine park, a permit must be applied for. The marine park permit would grant permission for activities to occur in both the state and Commonwealth marine parks.

If maintenance dredge material is to be disposed of at sea (following exhaustion of all onshore options) and is located within Australian Waters and with the GBRMP then a Sea Dumping Permit under the Sea Dumping Act is assessed by the GBRMPA at the same time as a Marine Parks Permit under the GBRMP Act.

3.3.2 Overarching State Approvals

Marine Parks Act 2004

As noted above, to undertake maintenance dredging within a marine park, a permit must be applied for by the relevant proponent. The marine park permit would grant permission for activities to occur in both the State and Commonwealth marine parks. As all priority ports within Queensland are adjacent the GBRMP separate approvals processes for the State marine parks would not be required.

Sustainable Ports Development Act 2015

Maintenance dredging for existing infrastructure and disposal of maintenance-dredged material is not affected by this legislation. This legislation does not restrict offshore disposal of maintenance dredge material within the GBRWHA. However as outlined in the 'Maintenance Dredging Strategy for the GBRWHA Ports' (Queensland Government 2016) future maintenance dredging programs are to assess all land based and beneficial reuse options prior to any consideration of offshore disposal options. This is consistent with the National Assessment Guidelines for Dredging (DEWHA 2009).

No specific approvals or permits are triggered for maintenance dredging under the SPD Act.

3.3.3 Specific Assessable Development Approvals

Maintenance dredging, if undertaken to maintain structures developed under an approved development permit, is excluded from assessable development triggered under the Planning Act and does not require a development permit. Therefore if maintenance dredging is being undertaken under an existing development approval obtained at an earlier approvals stage to facilitate the creation of port infrastructure (e.g. as part of a capital dredging campaign), a new approval/permit under the Planning Act would not be required to undertake maintenance dredging.

If the maintenance dredging does not comply with the conditions of the existing approvals for dredging at the port, or the maintenance of existing infrastructure, then the following development permits under the Planning Act may be required:

- EA or development permit for an MCU for ERA 16 Extractive and Screening Activities (dredging) triggered under Schedule 10, Part 5, Division 2, Section 8 Planning Regulation and EP Act.
- Development permit for operational works for tidal works (dredging) for works within tidal water triggered under Schedule 10, Part 17 of the Planning Regulation and the CPM Act
- Development permit for operational works completely or partly within a FHA triggered under Schedule 10, Part 6, Division 2 of the Planning Regulation and the Fisheries Act. Avoidance of areas that would impact upon these matters would reduce permitting requirements.
- Development permit for operational works for the removal and destruction of marine plants triggered under Schedule 10, Part 6, Division 2 of the Planning Regulation and the Fisheries Act. Avoidance of areas that would impact upon these matters would reduce permitting requirements.

3.4 Offshore disposal area

For the purposes of this report, it is assumed that the placement of capital dredge material would occur on land, as offshore disposal of capital dredge material is prohibited under the *Great Barrier Reef Marine Park Regulations 1983* and the SPD Act. Therefore, all capital

dredge material is to be disposed of via reclamation/beneficial reuse or at a designated onshore disposal site (refer, respectively, to Sections 3.5 and 3.6 below).

The SPD Act does not restrict the disposal of maintenance dredge material offshore. The approvals relating to the offshore disposal of maintenance dredge material (if required) have been considered in Section 3.3.

However as previously mentioned in Section 3.3 future maintenance dredging programs are to assess all land based and beneficial reuse options prior to consideration of offshore disposal options. This is consistent with the National Assessment Guidelines for Dredging (DEWHA 2009).

3.5 New onshore disposal (reclamation/beneficial re-use)

3.5.1 Commonwealth Approval.

Environmental Protection and Biodiversity Conservation Act 1999

Section 1.1. of the DEE's Significant Impact Guidelines state that: *"works that include land reclamation or spoil placement in a World Heritage property, a National Heritage place, in or adjacent to the Great Barrier Reef Marine Park, a Ramsar wetland or an area containing nationally listed threatened species or ecological communities, or which involves modifying an area of important habitat for a nationally listed migratory species, is likely to have a significant impact on a matter of national environmental significance"*.

The priority ports of Queensland are located adjacent to the GBRMP and GBRWHA. Therefore, the placement of dredge spoil for land reclamation has potential to affect these areas and is to be referred to the DEE. Previous reclamation projects in Queensland have required assessment under the EPBC Act by EIS, and future projects are considered likely to be assessed under the Bilateral Agreement.

Great Barrier Reef Marine Park Act 1975

It is assumed that material, if used for reclamation, would be undertaken within port limits and not within the GBRMP. Therefore, a marine park permit would not be required for the reclamation works.

3.5.2 Overarching State Approvals

State Development and Public Works Organisation Act 1971

Reclamation projects linked to dredging works adjacent the GBRMP and GBRWHA in Queensland are likely to be determined 'coordinated projects' requiring and EIS under Part 4 of the SDPWO Act due to their complex approval requirements, significant environmental effects and state economic significance. Accordingly, such reclamation projects would be expected to trigger need for an EIS under the SDPWO Act. The assessment of coordinated projects are usually undertaken under the Commonwealth and State of Queensland Bilateral Agreement (refer to Section 2.3).

Undertaking assessment under the bilateral agreement would assist in streamlining the approval process; it avoids duplication of State and Commonwealth environmental assessment requirements for a reclamation project.

Sustainable Ports Development Act 2015

The SPD Act prohibits the sea-based disposal of port-related capital dredge material within the GBRWHA and provides a mandate for dredged material to be used for beneficial purposes such as land reclamation, beach nourishment or environmental restoration purposes.

No specific approvals or permits are triggered for reclamation under the SPD Act.

Marine Parks Act 2004

It is assumed that material, if used for reclamation, would be undertaken within port limits and not within the GBRMP. Therefore a marine park permit would not be required for the reclamation works.

3.5.3 Specific Assessable Development Approvals

Planning Act 2016

For the purposes of this report it is assumed that reclamation of land would occur within port limits and within SPL designated under a priority ports master planned area or on SPL designated under a port LUP. Therefore the placement of material in a reclamation area would not trigger an MCU under a local government planning scheme.

As detailed in Section 2.3.4 a development permit may still be triggered under the Planning Act for development, including reclamation on SPL including:

- Under Schedule 10 Part 13, Division 4 of the Planning Regulation a development permit for the reclamation is required for development in a priority ports master planned area if the port overlay states the reclamation is assessable.
- Under Schedule 10 Part 13, Division 5 of the Planning Regulation a development permit is required for development on SPL if the LUP for the SPL states the reclamation is assessable or the reclamation is for an MCU that is inconsistent with the LUP.
- Where works are consistent with a port's LUP it does not require a development approval under the Planning Act but still must be approved by the relevant port authority prior to development commencing.

Coastal Protection and Management Act 1995.

The placement of dredge spoil in a reclamation area would occur within tidal waters and therefore triggers the need to obtain a development permit for operational works for tidal works (reclamation of land under tidal water) under Schedule 10, Part 17 of the Planning Regulation.

The dredging of material in tidal waters for the purposes of reclamation of land or for beneficial re-use requires an allocation of quarry material in accordance with Part 5 of the CPM Act.

Fisheries Act 1994

The placement of dredge spoil for reclamation can occur in areas that contain marine plants and/or that are designated FHA. Therefore these projects may trigger development permits for operational works completely or partly within a FHA (Schedule 10, Part 6, Division 2 of the Planning Regulation) and/or operational works for the removal and destruction of marine plants under Schedule 10, Part 6, Division 2 of the Planning Regulation. Avoidance of areas that would impact upon these matters would reduce permitting requirements.

3.6 Onshore disposal area - Greenfield

For the purposes of this report, it is assumed that if the option was to place the dredge spoil on land that it would occur on a pre-approved onshore disposal area either on SPL or within a LGA.

However if a new onshore disposal area was required then placement of the dredged material into a designated disposal area would require a development application under the Planning Act. These permits may include:

- MCU under a local government planning scheme (if not located on SPL)
- Development permit for the onshore disposal area is required for development in a priority ports master planned area if the port overlay states the reclamation is assessable.
- Development permit is required for development on SPL if the LUP for the SPL states the development is assessable or the development is for an MCU that is inconsistent with the LUP.
- If consistent with a port LUP then a port application may be required

3.7 Statutory approvals register

Table 3-1 provides a summary of the legislative requirements, approvals and permits for each pathway identified in the previous section. The table is structured according to the various categories of dredging-related works that apply to coal-export terminals within priority ports in Queensland. Consideration is also given to approval requirements for any greenfield development, such as the designation of a new onshore disposal facility.

Table 3-1 includes the following information:

- The applicable legislation
- The application trigger
- The responsible authority and/or assessment manager responsible for administering the legislation and deciding the consent, approval or permit
- The estimated decision period or assessment timeframe (minimum)
- The timing applications for obtaining the approvals
- The approval requirements, pre-requisites and mandatory requirements for application lodgement.

The approval pathway requirements have been identified for each scenario described within this section. In addition, the approval pathway for a capital dredging project (reclamation) is provided in Figure 3-1 and for maintenance dredging (onshore/offshore disposal) in Figure 3-2.

It is noted that the approval pathways for either a greenfield project or brownfield project are unlikely to vary and variances in approval pathways are more dependent upon project descriptions and locations. The timeframes and investment in technical studies in support of greenfield projects would, however, be expected to be greater than those required for brownfield developments. This is because the latter would be able to utilise information developed under previous development application/assessment processes.

Table 3-1 Statutory approvals register

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
Capital Dredging								
Commonwealth								
Approval for a controlled action under the EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>	If the capital dredging is likely to have a significant impact on any MNES, then the proposed works must be referred to DEE for determination whether the works constitute a controlled action requiring further assessment.	DEE	<p>Referral of proposal with supporting documentation including studies and reports that assess impacts on MNES and mitigation measures.</p> <p>If assessed as a controlled action, then it must follow the approval process under the EPBC Act. Actions can be assessed using one of the following:</p> <ul style="list-style-type: none"> Accredited assessment (delegated to State Government via bilateral agreement arrangements). Assessment on referral information (assessment undertaken solely on the information provided in the referral form). Assessment on preliminary documentation (referral form and any other relevant material identified by the Minister as being necessary to adequately assess a proposed action). Assessment by Environmental Impact Statement (EIS) or Public Environment Report (PER). Assessment by public inquiry <p>Any studies or reports that assess impacts on MNES and mitigation measures for the area that have been created in the past 5 years.</p>	<p>Referral of proposed action - preparation time minimum of 3 months.</p> <p>EIS preparation timeframe in the order of 1 -2 years.</p>	<p>General fee Coordinated Project EPBC Act/SDPWO Act: \$53,351</p> <p>Amount of fee if under EPBC Act Assessment (controlled provisions): \$25,868.</p>	<p>The Minister has 20 business days to decide if a proposed action triggers the matters protected by the EPBC Act and requires further assessment and approval.</p> <p>As part of the 20 business days, the EPBC Act provides a public comment period of 10 business days (with no extensions). This provides an opportunity for relevant Australian, State and Territory government ministers and members of the public to comment on the proposed action.</p> <p>At the end of the 20 business days, the Department will advise the outcome of the referral, including whether formal assessment and approval under the EPBC Act are required.</p> <p>There is no definitive assessment period for an EIS.</p>	<p>Capital dredging projects usually require an EIS to be undertaken. The EIS is usually undertaken as part of a bilateral process with the Queensland Government EIS process under the SDPWO Act.</p>
Marine Park Permit	<i>Great Barrier Reef Marine Park Act 1975</i>	Dredging of material within the GBRMP boundary.	GBRMPA	A marine park permit is required and usually consists of two permits within one document. This grants permission in both state marine parks (Under <i>QLD Marine Parks Act 2004</i>) and the Great Barrier Reef Marine Park under the Commonwealth <i>Great Barrier Reef Marine Park Act 1975</i>).	Approximately 1 month.	<p>Initial fee for an activity that requires an EIS: \$116,440</p> <p>Yearly continuation fee: \$5,380</p>	Minimum of 16 weeks.	<p>Capital dredging projects will require a marine parks permit if undertaken within the GBRMP boundary.</p> <p>Disposal of capital dredge material is banned within the GBRMP under the</p>

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
						Permits may last for 6 to 15 years depending on activities.		under the <i>Great Barrier Reef Marine Park Regulations 1983</i> . This legislative ban does not currently apply to maintenance dredge material.
Historical Shipwreck permit	Historic Shipwrecks Act 1976	To enter an area with a historical shipwreck or to remove from a historical shipwreck.	DEE	<p>Permit Application for Entry into a Protected Zone or Disturbance of a Historic Shipwreck or Relic Under Section 15 of the Commonwealth <i>Historic Shipwrecks Act 1976</i>.</p> <p>If the works include disturbance to a shipwreck then a detailed proposal of the activities must be included.</p> <p>If the works have been referred under the EPBC Act then the referral number will need to be included in the submission.</p>	No definitive timeframe.	To be confirmed by DEE prior to lodgement.	Dependant on the agency.	Avoidance of areas that would affect these matters would reduce permitting requirements.
State								
Approval for a significant project	<i>State Development and Public Works Organisation Act 1971</i>	The Coordinator General may declare the project as a 'coordinated project' for which an EIS is required. Developments not requiring an EIS may only be declared a 'coordinated project' if they satisfy appropriate environmental assessments to be carried out under another Act (Part 4, Division 2, Subdivision 1, Section 26).	DSD	<p>The following reports are required to be prepared:</p> <ul style="list-style-type: none"> • Terms of Reference • Draft/Final EIS • Supplementary EIS (if required) <p>Reports listed above require supporting information, including studies and reports addressing state significant environmental matters as well as some details regarding the statutory approvals triggered by the project.</p> <p>Common technical assessments include:</p> <ul style="list-style-type: none"> • Social Impact Assessment • Dredging Strategy • Noise Modelling and Noise and Vibration Impact Assessment • Transport Impact Assessment • Water Quality Impact Assessment • Hydrodynamic Modelling report 	<p>Preparation of Initial Advice Statement preparation: 1 – 2 months.</p> <p>Drafting and finalisation of TOR: 4 months.</p> <p>Preparation of EIS: 9-15 months.</p> <p>Supplementary EIS (if required): 2-4 months.</p>	<p>EIS fees include:</p> <p>Submitting draft TOR for an EIS: \$38,202.00</p> <p>Submitting an EIS: \$188,347.00.</p>	<p>No definitive timeframe -</p> <p>Coordinated project declaration: 1 month</p> <p>Public and agency review of EIS: 1-2 months</p> <p>Coordinators Generals Report: 2-3 months</p> <p>Australian Government approval: 2-3 months</p>	Capital dredging projects are usually declared coordinated projects requiring an EIS to be undertaken. Bilateral process with the Commonwealth may apply where impacting on MNES.

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
				<ul style="list-style-type: none"> Sediment Sampling and Analysis Report Air Quality Report Aquatic Ecology Impact Assessment Cultural Heritage Management Plan Report on MNES 				
Development Permit Material Change of Use for an ERA/EA	<i>Planning Act 2016/ Environmental Protection Act 1994</i>	<p>Carrying out an ERA defined in Schedule 2 of the <i>Environmental Protection Regulation 2008 (ERA 16 Extractive and Screening Activities)</i> requires an EA or development permit for MCU (<i>Schedule 10, Part 5, Division 2, Section 8 Planning Regulation</i>).</p> <p>ERA 16 includes the dredging of material from the seabed and will be required for the conduct of capital dredging.</p> <p>Capital dredging is a prescribed ERA. It will require an EA.</p>	SARA/EHP/Port Authority (if SPL)	<p>Development Application (operational works)</p> <ul style="list-style-type: none"> Development Application Form 1: Application Details Resource allocation authority Quarry material allocation notice Supporting Planning Report addressing the requirements of the State Code 22: Environmental Relevant Activity: <ul style="list-style-type: none"> Description of proposal/methods of works Site plans/location of works Supporting reports such as noise/vibration, air, water quality etc Sediment Sampling and Analysis Plan (SAP) Environmental management plan/dredge management plan 	Approximately 1 month	<p>EA fees include:</p> <p>Standard application: \$630</p> <p>OR</p> <p>Site specific application: \$630 plus 30% of the annual fee for the authority that is the subject of the application.</p> <p>Dredging material annual fees for 1-Jul-17 to 30-Jun-18:</p> <ul style="list-style-type: none"> 1,000 – 10,000t/yr: \$2,882 >10,000 - 100,000t/yr: \$6,550 >100,000 – 1 mil. t/yr: \$11,528 >1 mil t/yr: \$17,292 	As per DA Rules Approximately 3 -4 months assessment timeframe	<p>An ERA/EA will be required for a capital dredging project for ERA 16 Extractive and Screen Activities.</p> <p>Supporting information can be obtained from previous reports prepared for an EIS.</p>
Development Permit for operational works for tidal works	<i>Planning Act 2016/ Coastal Protection and Management Act 1995</i>	Development permit for operational works for tidal works (dredging) for works within tidal water (Schedule 10, Part 17 of the Planning Regulation) under the Planning Act/CP Act	Port Authority (if SPL)/SARA	<p>Prepare Development Application under the <i>Planning Act 2016</i> comprising the following forms :</p> <ul style="list-style-type: none"> DA Form 1 (Development application details) State Code 8: Coastal development and tidal works will apply 	Approximately 1 month.	Port authority development assessment fee would apply (varies between port authority).	As per DA Rules Approximately 3 -4 months assessment timeframe.	<p>Capital dredging projects occur within tidal waters and therefore trigger the need to obtain a development permit for operational works for tidal works.</p> <p>Supporting information can be obtained from</p>

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
				<p>Develop plans certified by an RPEQ showing the location and dimensions of the proposed works in relation to:</p> <ul style="list-style-type: none"> • Real property boundaries • Mean High Water Spring (MHWS) Tide • Highest Astronomical Tide (HAT) • Coastal management district • The erosion prone area and/or coastal hazard areas • Any areas containing matters of State environmental significance (MSES) • the slope angles of the bed and banks of the tidal area and the finished levels of the proposed works <p>Include temporary works plans and part of the CEMP that would apply to these works.</p>				previous reports prepared for an EIS.
Development permit for operational works removal or destruction of marine plants	<i>Planning Act 2016/ Fisheries Act 1994</i>	Operational work that is the removal, destruction or damage of marine plant (<i>Schedule 10 Part 6, Division 3, Section 11 Planning Regulation</i>) The removal or damage of marine plants within the dredge area will require a development permit.	SARA/DAF	<p>Development Application (operational works)</p> <ul style="list-style-type: none"> • DA Form <p>Supporting Planning Report addressing the requirements of the State Code 11 - Removal, destruction or damage to marine plants:</p> <ul style="list-style-type: none"> • State Code 11 Code Response Template • Proposal/methods of works • Site plans/location of works • Description of marine plants to be removed, destroyed or damaged and the equipment that will be used • Description of past uses and/or disturbances of the development area • Statement addressing the relevant parts of the State 	1 - 2 months	\$12,518	As per DA Rules Approximately 3 -4 months assessment timeframe.	Avoidance of areas that would impact upon these matters would reduce permitting requirements. Supporting information can be obtained from previous reports prepared for an EIS.

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
				<p>development Assessment Provisions</p> <ul style="list-style-type: none"> Detailed description of alternatives considered to reduce impacts on marine plants as applicable Description of off-site actions proposed to offset residual impacts from any permanent loss of or damage to marine plants Extent of future maintenance works (e.g. trimming of regrowth of marine plants, maintenance dredging) 				
Development permit for operational works in FHA	<i>Planning Act 2016/ Fisheries Act 1994</i>	<p>Operational work in a declared fish habitat area (<i>Schedule 10 Part 6, Division 2, Section 10 Planning Regulation</i>).</p> <p>If the dredging works occur within a declared FHA, a development permit will be required.</p>	SARA/DAF	<p>Development Application (operational works)</p> <ul style="list-style-type: none"> DA Form 1 <p>Supporting Planning Report addressing the requirements of the State Code 12 – development in a declared fish habitat area:</p> <ul style="list-style-type: none"> Proposal/methods of works Site plans/location of works Description of habitats within the declared fish habitat area proposed to be impacted Description of past uses and/or disturbances of the development area Statement addressing the relevant parts of the State development Assessment Provisions Detailed description of alternatives considered to reduce impacts on the declared fish habitat area as applicable Details of on-site mitigation actions proposed to prevent proposed work contributing to degradation of the declared fish habitat area 	1 month	\$12,518	As per DA Rules Approximately 3 -4 months assessment timeframe.	<p>Avoidance of areas that would impact upon these matters would reduce permitting requirements.</p> <p>Supporting information can be obtained from previous reports prepared for an EIS.</p>

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
				<ul style="list-style-type: none"> Description of off-site actions proposed to offset residual impacts from any permanent loss of or damage to marine plants Extent of future maintenance works (e.g. maintenance dredging) 				
Allocation notice	<i>Coastal Protection and Management Act 1995</i>	<p>Dredging and removal of quarry material in tidal water under s.73 of the CPM Act.</p> <p>An application for the dredging and removal of quarry material including capital dredging associated with some form of tidal works (e.g. excavation of a marina basin or dredging of a new navigation channel).</p> <p>In addition to an allocation notice, a development permit may also be required to remove quarry material under tidal water (refer to ERA 16 above).</p> <p>If the development is an ERA, then an EA is also required under the EP Act.</p>	EHP	<p>EHP assesses applications for the allocation of quarry material in tidal waters against the criteria listed in s.75 of CPM Act.</p> <p>Information detailing:</p> <ul style="list-style-type: none"> EHP application form Plan and description of works Characteristics of material to be removed Methods of removal and results of sampling Intended use of material 	Within ERA application timeframe approximately 1 month.	<p>Application for allocation notice to take no more than 10,000 cubic metres of quarry material: \$245.80.</p> <p>Application for allocation notice to take more than 10,000 cubic metres of quarry material: \$729.00.</p>	30 business days	Existing quarry material allocation, if this is the case then only an approval renewal may be required.
Marine Park Permit	<i>Marine Parks Act 2004</i>	<p>Dredging of material within the Great Barrier Reef Marine Park</p> <p>Refer to requirements for Marine Park Permit under the GBRMP Act.</p>	GBRMPA	Refer to requirements for Marine Park Permit under the GBRMP Act.	Refer to requirements for Marine Park Permit under the GBRMP Act.	Refer to requirements for Marine Park Permit under the GBRMP Act.	Refer to requirements for Marine Park Permit under the GBRMP Act.	Refer to requirements for Marine Park Permit under the GBRMP Act.
Offset Delivery Plan	<i>Environmental Offsets Act 2014</i>	<p>Offset requirements</p> <p>Offsets may be required for impacts relating to any new approvals in accordance with the Queensland Environmental Offsets Policy.</p> <p>The <i>Environmental Offsets Regulation 2014</i> schedule 2 outlines the prescribed environmental matters – matters of State environmental significance. Those potentially</p>	DEHP	<p>Further documentation is required depending on the type of offset that is decided upon (financial or proponent driven offset).</p> <p>An offset delivery plan would be required.</p> <p>The following supporting reports will be required for the offset delivery plan:</p> <ul style="list-style-type: none"> Habitat quality monitoring report Baseline monitoring reports (e.g. species, water quality, soil etc.) 	Approximately 1-2 month	Permit application for financial settlement offset is calculated using the financial settlement offset calculator.	N/A	<p>If a pre-approved Direct Benefit Management Plan is in place, then this can be included within the offset delivery stage.</p> <p>https://www.qld.gov.au/environment/pollution/management/offsets/tools-dbmp</p> <p>If an existing registered advanced offset is registered with DEHP (where concerning an MSES) or the relevant</p>

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
		relevant to capital dredging include marine plants.		<ul style="list-style-type: none"> Visual monitoring and record keeping Water quality testing Photo monitoring Flora quadrants and flora/fauna monitoring Other monitoring that is requested and/or approved by the administering agency.				government (where concerning an MLES) this can be attached with the offset delivery plan.
Maintenance dredging								
Commonwealth								
Referral EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>	If works related to a dredging project are likely to have a significant impact on any of the above matters, the proposed action would be referred to the Commonwealth environment regulator, the Department of Environment and Energy (DEE), for determination on whether the works constitute a controlled action requiring further assessment.	DEE	Self-assessment against DEE significant impact guidelines recommended where project differs from any previous capital works referral. Referral unlikely to be required.	None applicable – proponent driven	None applicable- no lodgement required	None applicable- no lodgement required	As stated in the DEE Significant impact guidelines a maintenance dredging program is unlikely to cause a significant impact on a MLES. An assessment of the works against the DEE Significant impact guidelines to determine whether referral to DEE is required. This would be appropriate if the project deviated considerably from activities planned and assessed under capital works, or if substantive time had passed since capital works assessment, or if maintenance dredging had not been assessed previously, it should still be assessed on its own merits.
Marine Park Permit	<i>Great Barrier Reef Marine Park Act 1975</i>	Dredging of material within the Great Barrier Reef Marine Park.	GBRMPA	Maintenance dredging would operate under an approved marine park permit submitted for capital dredging. However it will need to comply with the conditions set out under the permit. If maintenance dredging cannot be undertaken within the existing permit then a new permit will need to be applied for.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Operate under existing permit granted for capital dredging.

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
				The marine permit would grant permission for activities to occur in both the state and commonwealth marine parks.				
Sea Dumping Permit	<i>Environment Protection (Sea Dumping) Act 1981</i>	Dumping of maintenance dredge material in offshore disposal area for maintenance dredging	DEE/GBRMP A	Sea Dumping Permit as well as a Dredge Management Plan that includes Long Term Monitoring and Management (for disposal of maintenance dredge material) Current sea dumping permits and/or those previously granted And/or EPBC Act Approvals, if any And/or Any other Commonwealth approvals(EPBC Act) And/or Details of any recent contamination management audit(s) undertaken	Approximately 1-2 month depending on information available.	Fees are prescribed pursuant to clause 5(2) of the Sea Dumping Regulations as follows: Dredged or excavated material <100,000m ³ /yr. \$10,000 Dredged or excavated material >100,000m ³ /yr. \$23,500 This must be paid no later than 30 days after the application is submitted.	Assessed at the same time as the Marine Parks Permit under the GBRMPA.	Offshore disposal of maintenance dredge material should only be considered after exhaustion of all other onshore and beneficial re-use options have been assessed.
State								
Marine Park Permit	<i>Marine Parks Act 2004</i>	Dredging of material within the Great Barrier Reef Marine Park Refer to requirements for Marine Park Permit under the GBRMP Act.	GBRMPA	Refer to comments for Marine Park Permit under the GBRMP Act above.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	As above - operate under existing permit granted for capital dredging.
Development Permit MCU for an ERA	<i>Planning Act 2016/ Environmental Protection Act 1994 (EP Act)</i>	Carrying out an ERA defined in Schedule 2 of the <i>Environmental Protection Regulation 2008 (ERA 16 Extractive and Screening Activities)</i> requires an EA or development permit for MCU (<i>Schedule 10, Part 5, Division 2, Section 8 Planning Regulation</i>). ERA 16 includes the dredging of material from the seabed and will be required for the maintenance dredging. Maintenance dredging is a prescribed ERA and will require an Environmental Authority (EA).	SARA/EHP/ Port Authority (if SPL)	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	If maintenance dredging cannot be undertaken under an existing permit then a new permit will need to be applied for.

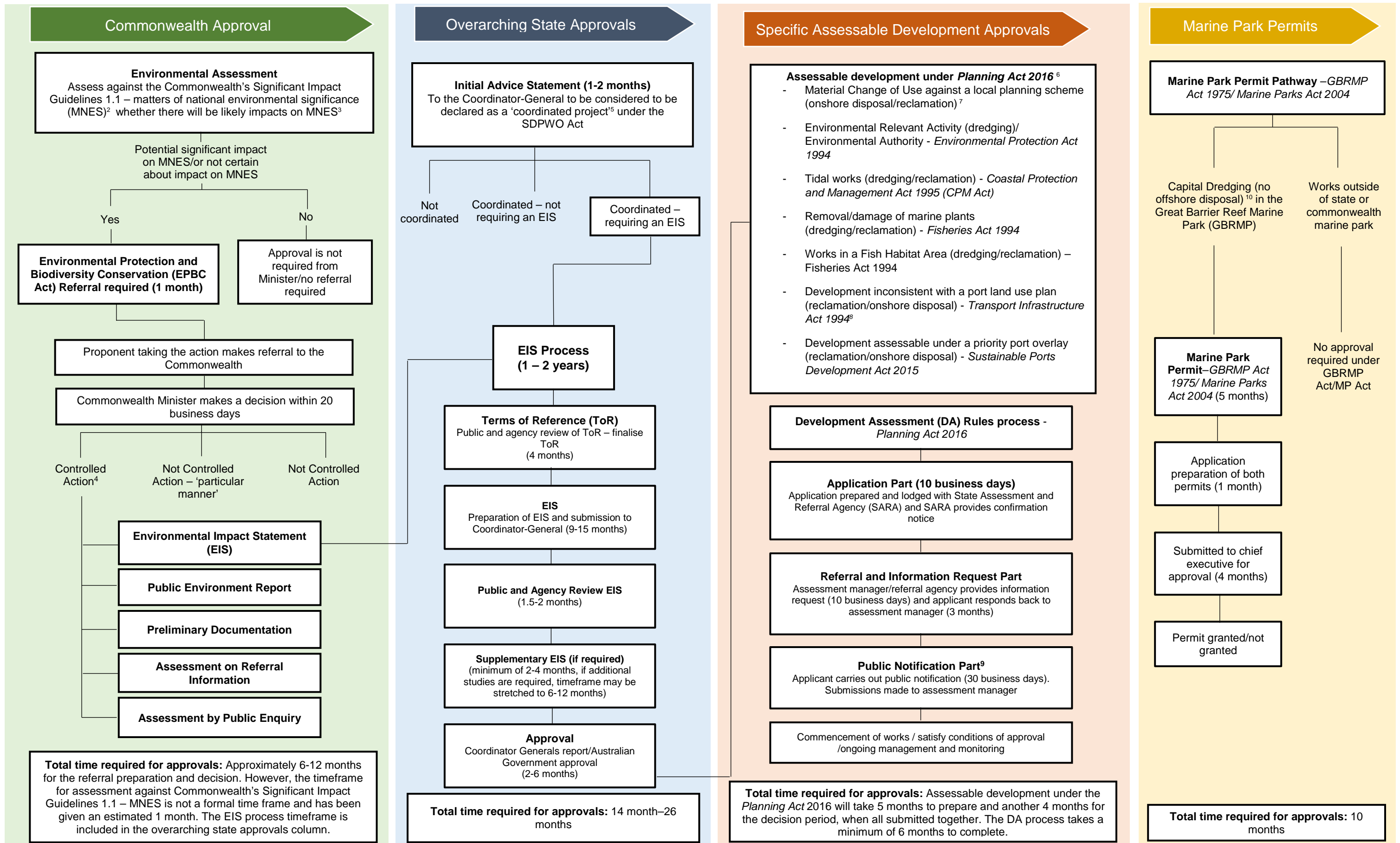
Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
Operational Works (Tidal works)	Planning Act/CPM Act	Development permit for operational works for tidal works (maintenance dredging) for works within tidal water (Schedule 10, Part 17 of the Planning Regulation) under the Planning Act/CP Act:	Port Authority (if SPL)	Refer to capital dredging requirements.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	If maintenance dredging cannot be undertaken within the existing permit then a new permit will need to be applied for.
Operational works completely or partly within a FHA	<i>Planning Act/Fisheries Act</i>	Development permit for operational works completely or partly within a FHA (Schedule 10, Part 6, Div 2 of the Planning Regulation) under the Planning Act/Fisheries Act.	SARA/Fisheries	Refer to capital dredging requirements.	Refer to capital dredging requirements.	Refer to capital dredging requirements.	Refer to capital dredging requirements.	If maintenance dredging cannot be undertaken under an existing permit then a new permit will need to be applied for.
Operational works for the removal and destruction of marine plants	<i>Planning Act/Fisheries Act</i>	Development permit for operational works for the removal and destruction of marine plants (Schedule 10, Part 6, Div 2 of the Planning Regulation) under the Planning Act/Fisheries Act	SARA	Refer to capital dredging requirements.	Refer to capital dredging requirements.	Refer to capital dredging requirements.	Refer to capital dredging requirements.	If maintenance dredging cannot be undertaken under an existing permit then a new permit will need to be applied for.
Allocation notice	CPM Act	Dredging and removal of quarry material in tidal water.	EHP	Refer to capital dredging requirements.	Refer to capital dredging requirements.	Refer to capital dredging requirements.	Refer to capital dredging requirements.	Existing quarry material allocation, if this is the case then only an approval renewal may be required. Allocation notice remains in effect for up to 6 years.
Onshore Disposal (reclamation)								
Commonwealth								
Approval for a controlled action under the EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>	If the reclamation is likely to have a significant impact on any MNES, then the proposed works must be referred to DEE for determination whether the works constitute a controlled action requiring further assessment.	DEE	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Reclamation projects adjacent the GBRMP and GBRWHA usually require an EIS to be undertaken. Bilateral Agreement would likely apply.
State								

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
Approval for a coordinated project	<i>State Development and Public Works Organisation Act 1971</i>	The Coordinator General may declare the project as a 'coordinated project' for which an EIS is required. Developments not requiring an EIS may only be declared a 'coordinated project' if they satisfy appropriate environmental assessments to be carried out under another Act (Part 4, Division 2, Subdivision 1, Section 26).	DSD	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Reclamation projects adjacent the GBRMP and GBRWHA usually require an EIS to be undertaken. Bilateral Agreement would likely apply.
Operational works for tidal works	<i>Planning Act 2016</i>	Disposing of dredge spoil or other solid waste material in tidal water, carried out completely or partially within a coastal management district. AND Reclaiming land under tidal works (reclamation of land under tidal water) (Schedule 10, Part 17 of the Planning Regulation): The dredging of material in tidal waters for the purposes of reclamation of land or for beneficial re-use requires an allocation of quarry material in accordance with Part 5 of the CPM Act.	Port Authority (If SPL)	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Reclamation projects require the placement of fill (dredge spoil) in tidal water and therefore a development permit for operational works would apply.
Development permit for operational works for removal or destruction of marine plants	<i>Planning Act 2016/ Fisheries Act 1994</i>	Operational work that is the removal, destruction or damage of marine plant (<i>Schedule 10 Part 6, Division 3, Section 11 Planning Regulation</i>) The removal or damage of marine plants within a reclamation area	SARA/DAF	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	The removal or damage of marine plants within a reclamation area will require a development permit. Avoidance of areas that would impact upon these matters would reduce permitting requirements.
Development permit for operational works in FHA	<i>Planning Act 2016/ Fisheries Act 1994</i>	Operational work in a declared fish habitat area (<i>Schedule 10 Part 6, Division 2, Section 10 Planning Regulation</i>) If the reclamation works occur within a declared FHA a development permit will be required.	SARA/DAF	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	Refer to requirements under capital dredging.	If works for reclamation are undertaken in a FHA then a development permit is required. Avoidance of areas that would impact upon these

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
								matters would reduce permitting requirements.
Development Permit in a priority port master plan area	<i>Planning Act/SPD Act</i>	Under Schedule 10 Part 13, Division 4 of the Planning Regulation a development permit for the reclamation is required for development in a priority ports master planned area if the port overlay states the reclamation is assessable.	SARA/Port Authority	DA Form 1 Supporting Planning Report addressing the requirements of the priority port overlay.	Approximately 1 month.	To be confirmed prior to lodgement.	As per DA Rules Approximately 3 -4 months assessment timeframe.	Not all priority ports masterplans are complete. It is likely that reclamation would trigger a development permit in a ports master plan area.
Development Application (development on SPL inconsistent with a port LUP).	<i>Planning Act/TI Act</i>	Under Schedule 10 Part 13, Division 5 of the Planning Regulation a development permit is required for development on SPL if the LUP for the SPL states the reclamation is assessable or the reclamation is for an MCU that is inconsistent with the LUP.	Port authority	DA Form 1 Supporting Planning Report addressing the requirements of the port LUP.	Approximately 1 month.	Dependant on the port authority.	As per DA Rules Approximately 3 -4 months assessment timeframe.	Some priority ports already include a future reclamation area within the ports. Therefore, where already included in a LUP reclamation is unlikely to require an application for an MCU under the Planning Act. If a use is consistent with a ports LUP then it is exempt from requiring a permit under the Planning Act. However it may still trigger a port application to be lodged directly with the relevant port authority.
Onshore disposal (greenfield)								
State								
Material Change of Use	<i>Planning Act</i>	Material Change of Use under a local government planning scheme	Local Government	DA Form 1 Planning report addressing requirement of the local government planning scheme Supporting plans and report.	1 – 2 months.	Dependant on the local government's planning scheme.	As per DA Rules Approximately 3 -4 months assessment timeframe.	It is assumed that an onshore disposal area would be located on SPL and therefore is exempt from assessment against a local government planning scheme. Therefore a development permit for an MCU under a local government planning scheme is unlikely to be required.

Approval	Legislation	Trigger	Assessment Manager/ Authority	Required Reports and Supporting information	Application preparation time	Permit Application Fees	Decision period assessment timeframe	Qualifications
Development Permit in a priority port master plan area	<i>Planning Act/SPD Act</i>	Development permit for an onshore disposal area is required for development in a priority ports master planned area if the port overlay states the works are assessable	SARA/Port Authority	Refer to requirements for new onshore disposal (reclamation/beneficial re-use).	Refer to requirements for new onshore disposal (reclamation/beneficial re-use).	Refer to requirements for new onshore disposal (reclamation/beneficial re-use).	Refer to requirements for new onshore disposal (reclamation/beneficial re-use).	Not all priority ports masterplans are complete. It is likely that a new onshore disposal area would trigger a development permit in a ports master plan area.
Development Application (development on SPL inconsistent with a port LUP).	<i>Planning Act/TI Act</i>	Development permit is required for development on SPL if the LUP for the SPL states the development is assessable or the development is for an MCU that is inconsistent with the LUP	Port authority	Refer to requirements for new onshore disposal (reclamation/beneficial re-use).	Refer to requirements for new onshore disposal (reclamation/beneficial re-use).	Refer to requirements for new onshore disposal (reclamation/beneficial re-use).	Refer to requirements for new onshore disposal (reclamation/beneficial re-use).	If a new onshore disposal area is required on SPL a development permit would be triggered if the new use is inconsistent with the ports land use plan. If a use is consistent with a ports LUP then it is exempt from requiring a permit under the Planning Act. However it may still trigger a port application to be lodged directly with the relevant port authority.

Figure 3-1 Capital Dredging Approval Pathway – onshore disposal/reclamation¹ (Minimum timeframes have been provided)



1. The *Sustainable Ports Development Act 2015* restricts new capital dredge works for expanding port facilities to the 'priority ports' in Queensland and prohibits disposal of port related capital dredge material within the GBRWHA, disposal on land is mandatory where safe to do so.

2. MNES include: world heritage properties, national heritage places, wetlands of international importance, listed threatened species and ecological communities, migratory species protected under international agreements, commonwealth marine areas, the Great Barrier Reef Marine Park or protection of the environment from nuclear actions (including uranium mines).

3. Section 1.1 of the DEE's Significant Impact Guidelines state that the dredging of a new shipping channel is likely to have a significant impact on a MNES. Therefore, capital-dredging projects have to be referred to DEE.

4. The minister decides that significant impacts are likely from the activity and require approval under the EPBC act. This action is known as a 'controlled action'. Previous capital dredging projects in Queensland have been determined 'controlled actions' requiring assessment under the EPBC Act by EIS and have been assessed under the bilateral pathway between state of Queensland and the Commonwealth Bilateral Agreement.

5. A 'coordinated project' is when the project has one or more of the following characteristics: complex approval requirements involving local, state and federal governments, significant environmental effects, strategic significance to the locality/region/state for the infrastructure, economic and social benefits, capital investment or employment opportunities or significant infrastructure requirements. Previous capital dredging projects in Queensland have been determined as 'coordinated projects'.

6. Combined application process as per the Development Assessment Rules is likely.

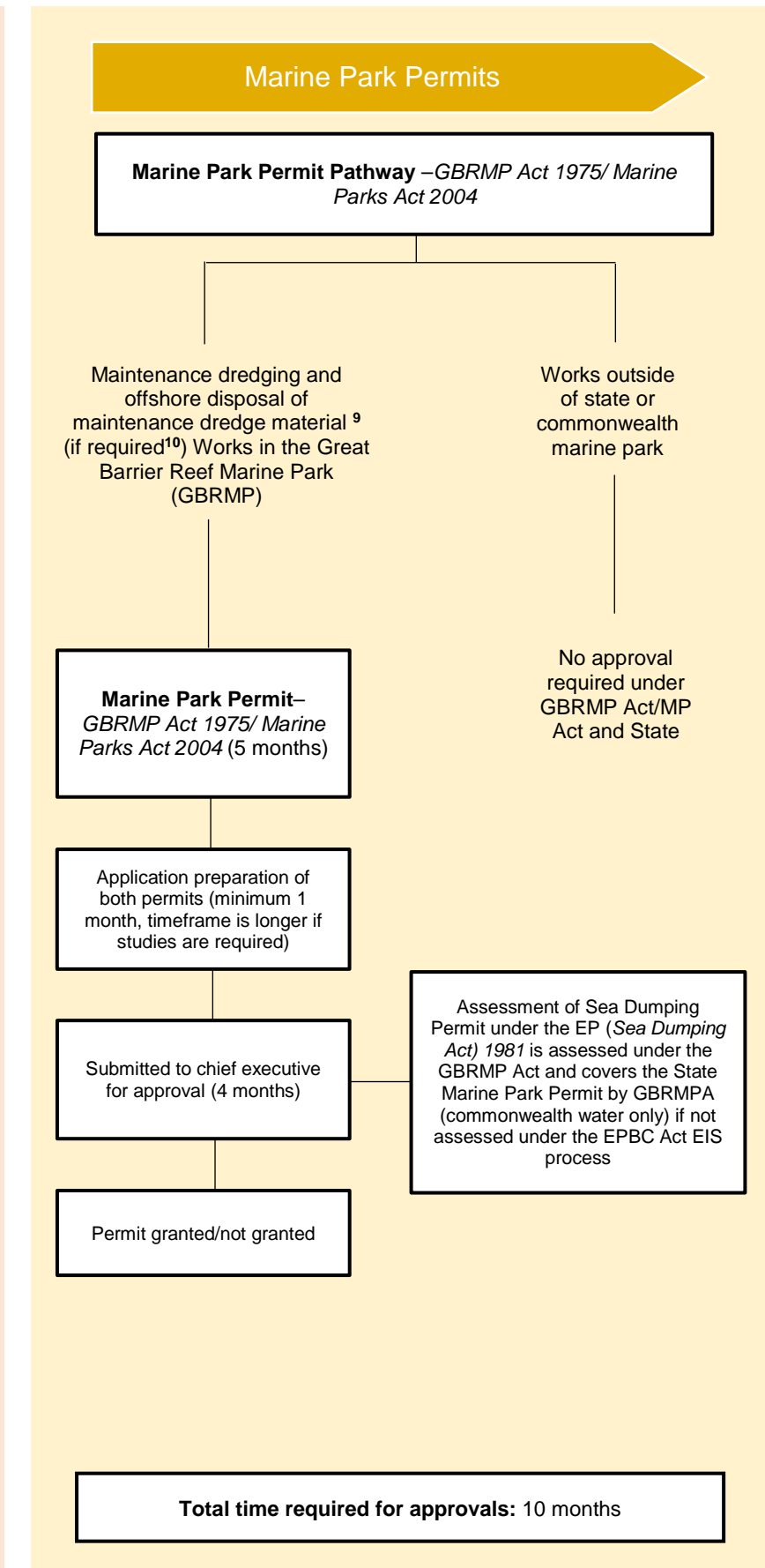
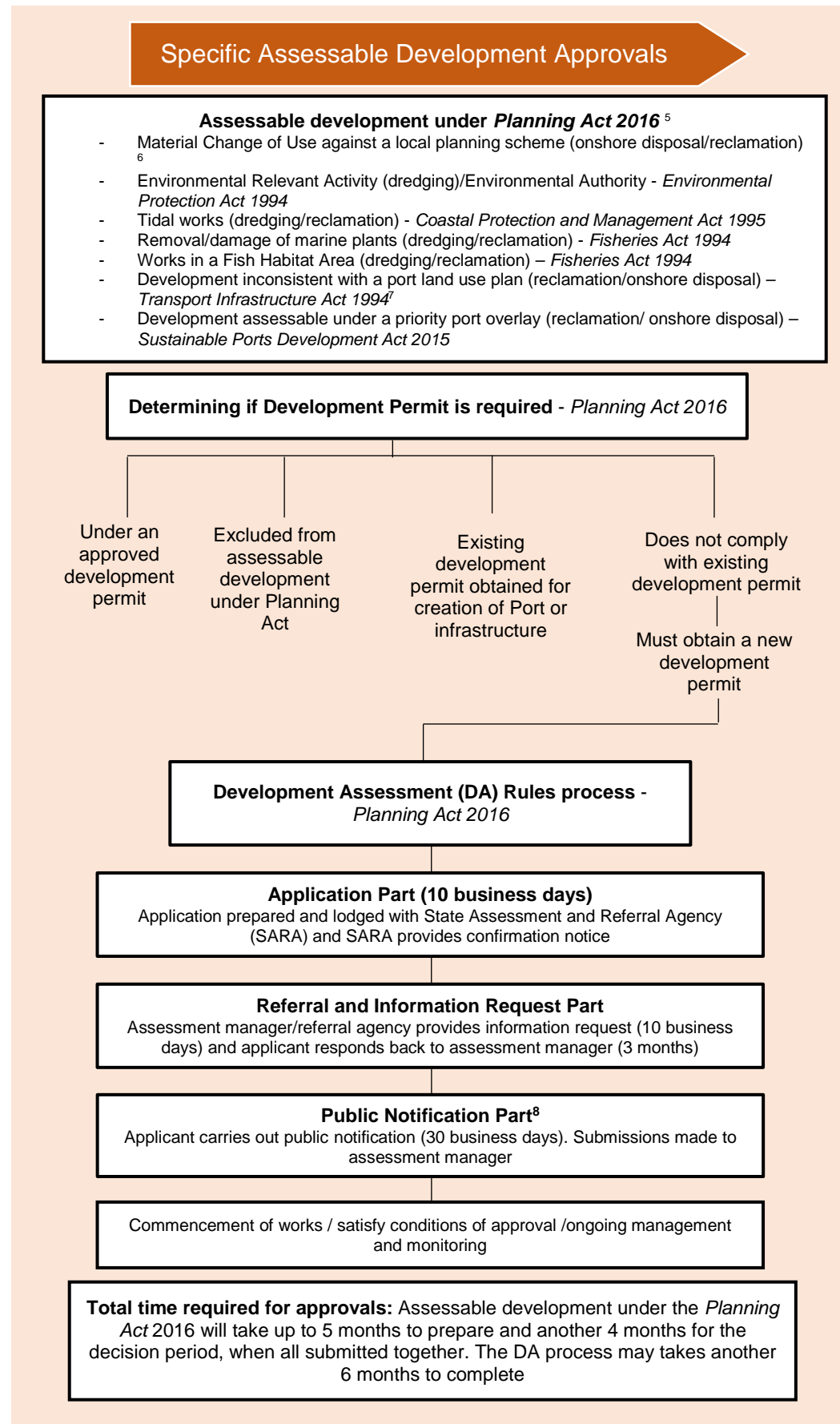
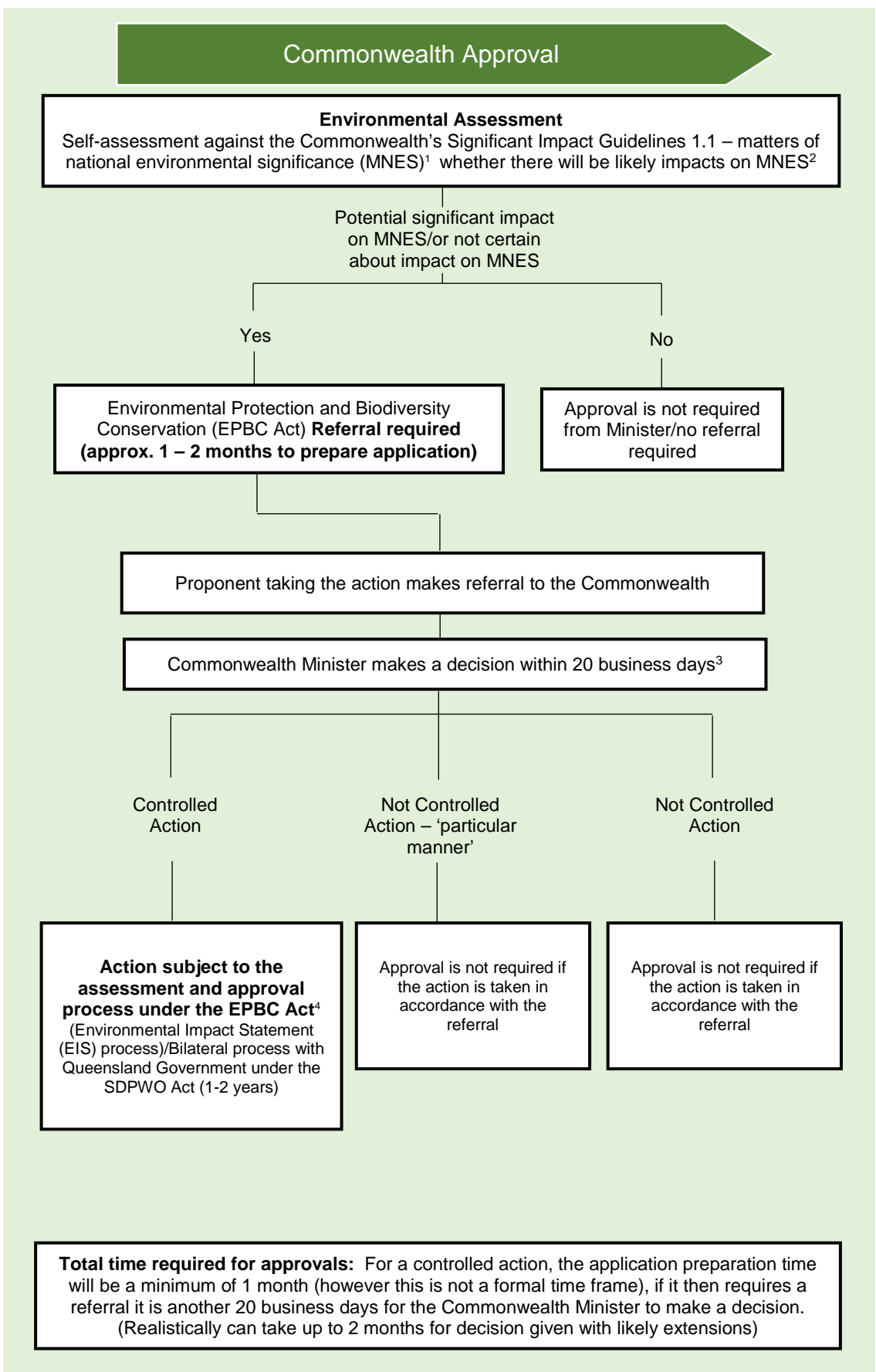
7. Port-related projects are usually located on Strategic Port Land and are exempt for development under a local planning scheme. These applications are to be assessed by the appropriate port authority against the Port Land Use Plan.

8. Where works are proposed on SPL and the works are consistent with a port's LUP it does not require a development approval under the Planning Act but still must be approved by the relevant port authority prior to development commencing.

9. Notification stage is not required if already undertaken as part of the EIS process under the SDPWO Act.

10. Permit is only relevant to capital dredge activity and not the disposal of dredge material. Disposal of capital dredge material within GBRWHA is prohibited under the SPD Act and under the *GBRMP Regulation 1983*.

Figure 3-2 Approval Flowchart - Maintenance Dredging for existing infrastructure (Minimum timeframes have been provided)



- MNES include: world heritage properties, national heritage places, wetlands of international importance, listed threatened species and ecological communities, migratory species protected under international agreements, commonwealth marine areas, the Great Barrier Reef Marine Park or protection of the environment from nuclear actions (including uranium mines).
- Section 1.1 of the DEE's Significant Impact Guidelines state that the Dredging to maintain existing navigational channels would not normally be expected to have a significant impact on the environment where the activity is undertaken as part of normal operations and the disposal of spoil does not have a significant impact.
- The minister decides if significant impacts are likely from the activity and requires approval under the EPBC act. This action is known as a controlled action or not a controlled action. As detailed in point 2 above maintenance dredging projects would not normally be expected to pose significant impacts on MNES and therefore unlikely to be determined 'controlled actions' requiring further assessment.
- Assessment includes Sea Dumping Permit under the EP (*Sea Dumping Act 1981*) if maintenance dredging requires offshore disposal within Commonwealth waters.
- Combined application process as per the Development Assessment Rules is likely.
- Port-related projects are usually located on Strategic Port Land (SPL) and are exempt for development under a local planning scheme. These applications are to be assessed by the appropriate port authority against the Port Land Use Plan.
- Where works are proposed on SPL and the works are consistent with a port's LUP it does not require a development approval under the Planning Act but still must be approved by the relevant port authority prior to development commencing.
- Notification stage is not required if already undertaken as part of the EIS process under another Act.
- Under the GBRMP Regulation 1983, maintenance dredging includes maintaining an existing channel, basin, port, berth or other area for its intended use and does not restrict offshore disposal of maintenance dredge material.
- Offshore disposal of maintenance dredge material should only be considered after all onshore and beneficial reuse options have been assessed and exhausted – as outlined in the Queensland Governments Maintenance Dredging Strategy for the GBRWHA Ports.

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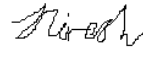

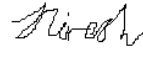
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Appendix 18 Impediments to 9X

The staged expansion pathway for DBCT identified in the Master Plan 2018 is shown in Table 1. Only the first Stage, the Zone 4 expansion to 89Mtpa, is well understood because a feasibility study has been completed. For both 8X (to 102Mtpa) and 9X the level of engineering definition is only at concept level (FEL1) and has not proceeded to pre-feasibility (FEL2) or feasibility study (FEL3) level.⁴²² Accordingly, there is uncertainty in relation to 8X and 9X. However, the level of uncertainty as to the ability to obtain all necessary approvals, permits and land in relation to 9X mean that there is no basis to conclude that this expansion is reasonably possible.

Table 1: Expansion Pathway

Stage		Description	Capacity (Mtpa)
Zone 4		Completion of Row 8, additional elevated stacker bund and additional Stacker (Bund 7/ST5), replacement of existing Reclaimer RL2 with new Reclaimer RL4 with extended reach into Row 8.	89
8X	Phase 1	Stockyard Augmentation Project (including vertical concrete walls on existing bunds 1 and 3), Stackers ST1 & ST2 upgrades, Conveyors R1 & R2 upgrades	94
	Phase 2	Rail Reveal Pit 4, Inloading Buffer Storage, upgrades to Inloading 2 and Outloading 2	102
9X (Implemented over 3 phases)		Additional stockyard at Louisa Creek, upgrades to Inloading System 1, additional Outloading System 4 and up to 2 berths to the north, including significant land reclamation to accommodate dredge spoil	Up to 136

8X Expansion

The exact scope of the 8X project is uncertain and no attempt has been made to-date to model the DBCT system capacity for a post 8X environment. The stated capacity of 102Mtpa for 8X is considered the maximum reasonable capacity that the terminal could produce with three outloading systems, three rail loops and a stockpile storage ratio that is limited by the existing footprint.

The exact scope of the 8X expansion has not been determined. Instead, a suite of possible expansion elements that will improve inloading and outloading rates have been studied at concept level. The ultimate mix of expansion elements will be determined during FEL2. Achieving 102Mtpa depends on DBCT consistently achieving higher outloading rates than have been traditionally been achieved at DBCT to date and achieving that with a smaller stockpile storage ratio than ever before. The assumptions that underpin the assertion that an 8X expansion may ultimately reach the limit of 102Mtpa are reasonable at a stretch but there is no possibility that it could exceed 102Mtpa. Expanding beyond 102Mtpa would require an additional stockyard outside DBCT's existing footprint, on land to which DBCTM has no legal rights.

9X Expansion

The 9X expansion is significantly less understood and more difficult than 8X. There are several major impediments and risks to 9X which threaten its viability and/or feasibility. There is no reasonable certainty that 9X can be implemented.

Dredging approvals

Hay Point is located adjacent to the Great Barrier Reef Marine Park. The *Sustainable Ports Development Act (2015) (Qld)* provides for the protection of the Great Barrier Reef World Heritage Area by managing port-related development in and adjacent to the area.

⁴²² The industry practice of using Front End Loading (FEL) engineering to assess the various levels of feasibility has been employed in the engineering studies undertaken with respect to the expansions.

Hay Point is nominated as one of Queensland's Priority Ports in the Sustainable Ports Development Act (2015). Despite this, the prospect of a significant capital dredging project of the size required to support 9X gaining the necessary approvals is becoming increasingly less likely.

The 9X expansion would entail two new offshore berths which will necessitate capital dredging for the berth pockets and extensions to the departure path and aprons, in addition to land reclamation within the Great Barrier Reef World Heritage Area.

Dredging and disposal of dredge material has come under increasing scrutiny from environmental groups and regulators over the past few years. Dredging and disposal in Queensland has been of particular interest, with instances of already-granted permits being challenged or appealed. Regulators now require a level of assessment and due diligence that can withstand judicial scrutiny. This results in a much higher level of impact assessment prior to submitting permit application, and also results in extended assessment periods, far beyond timeframes previously considered to be the norm. The Port of Townsville and Port of Cairns expansion projects which necessarily included capital dredging are clear examples of protracted application and assessment processes. These protracted timeframes have the potential prevent a DBCT 9X expansion, or potentially jeopardise the already protracted timeframes for delivering the expansion.

The Sustainable Ports Development Act (2015) expressly prohibits offshore disposal of dredge spoil from capital dredging campaigns. Instead, material must be brought onshore or used for beneficial re-use by reclamation of land within the port. Onshore disposal for 9X requires identification of a suitable site that has the capacity to handle 1.9 million cubic metres of spoil. A bunded area of 360,000m² and approximately 12m high would need to be acquired to contain the material used for reclamation as shown in the 2018 Master Plan. Obtaining environmental approvals for this will be extremely difficult.

For context, in May 2014 North Queensland Bulk Ports (**NQBP**) obtained approval for the purpose of maintenance dredging to dredge and dispose of 378,400m³ of material offshore. Offshore disposal of this quantity of material involves substantially less environmental risk than onshore disposal of the 9X material but progressing with this campaign has been found to be problematic. In August 2014 the permits were challenged under a "merits review" process in the Administrative Appeals Tribunal (**AAT**). This challenge was initiated by the Australian Marine Conservation Society (**AMCS**), represented by the Environmental Defenders Office (**EDO**). The dredging and disposal permits were due to expire in May 2017, while the AAT challenge may have taken until the end of 2017 to be decided. Successful defence of the maintenance dredging permits would not have allowed dredging to occur within the permitted dredging and disposal timeframes. In June 2015, the decision was made to withdraw the permits. Since then, NQBP, with the support of DBCT and HPCT has been working on the preparation of a new application. Four years on, there has been no maintenance dredging of Hay Point.

Given the uncertainty around the timing and ultimate ability to obtain dredging permits, it is doubtful that future users would be willing to continue to support funding during this time, particularly when their associated mine developments would need to remain paused while those permits are sought.

Environment approvals risks

In addition to the dredging approval risks, obtaining the necessary environmental approvals for a 9X expansion will also be subject to significant delays, if they are possible. The 9X proposal would be a Controlled Action under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and will therefore trigger a full Environmental Impact Statement (EIS) process through State and Commonwealth processes.

Table 10 of Master Plan 2018 (shown below) outlines the areas where approvals for the various expansion stages are likely to be subject to significant delays or design changes. The table shows the relative difficulty 9X will encounter. Given the close proximity of DBCT to the neighbouring communities, navigating through these issues will mean that, at best, the timeline is in no way predictable. At worst, 9X will not gain the necessary approvals.

Issue/Impact	Zone 4 (85–89 Mtpa)	8X Expansion (89–102 Mtpa)	9X Expansion (102–134 Mtpa)
Air Quality	L	M	H
Noise & Vibration	L	M	H
Visual Amenity	L	L	M
Cultural Heritage	L	M	M
Local Maritime Operations	L	L	M
Community & Social Impacts	L	L	H
Coastal Processes	L	L	H
Marine Ecology	L	L	M
Terrestrial Ecology	L	M	M
Soil & Geology	L	L	H
Surface Water Quality & Hydrology	L	L	H
Transport & Access	L	L	H
Waste Management	L	L	L
Land Tenure & Other Stakeholder Interests	L	L	M
L	Low: Limited (if any) delays are likely to be experienced during the approval process as a result of the issues identified.		
M	Moderate: Delays are likely to be experienced during the approvals process as a result of the issues identified, however issues are expected to be managed / addressed sufficiently to obtain approval without significant design changes.		
H	High: Significant delays are likely to be experienced during the approvals process due to the issues raised. Resolution of these issues is likely to involve design changes.		

Land Acquisition

The land required for the 9X stockyard is located at Louisa Creek. Louisa Creek is a residential area. The land required for the 9X stockyard is privately owned and it is not guaranteed that the land can be acquired for DBCT expansion. Obtaining access to that land will depend on whether it can be compulsory acquired by the State of Queensland for DBCT expansion. It is understood that the Department of State Development has compulsory acquisition powers if 9X becomes a “Coordinated Project” under the State Development and Public Works Organisation Act (1971). DBCTM does not know if this will occur. In any event, this process will take significant time and introduces further uncertainty around 9X.

Potential for larger Buffer Zones to be introduced for coal terminals which would impact on 9X

The Queensland Government has supported recommendation 4 of the Coal Workers’ Pneumoconiosis Select Committee Report No. 4, 55th Parliament Inquiry into Occupational Respirable Dust Issues, which states:⁴²³

“The committee recommends that the Minister for Local Government conduct a review of the use of buffer zones in local government planning schemes to protect Queensland communities from large point-source dust emissions.”

⁴²³ Coal Workers’ Pneumoconiosis Select Committee Report No. 4, 55th Parliament Inquiry into Occupational Respirable Dust Issues, Queensland Government Response, page 3; Coal Workers’ Pneumoconiosis Select Committee Report No. 4, 55th Parliament Inquiry into Occupational Respirable Dust Issues, September 2017, pages 101 to 106.

The Queensland Government's response to that recommendation states:⁴²⁴

"The planning framework, within the responsibility of the Minister for State Development, Manufacturing, Infrastructure and Planning, currently utilises a range of policies and mechanisms for managing the interaction between sensitive land uses and activities producing large point-source dust emissions.

A review of these policies and mechanisms will be carried out, to identify whether there are barriers within the state's planning system to local governments integrating appropriate planning strategies to manage large point-source dust emissions through their planning schemes to protect their communities.

Work on the review will commence in early-2018, and is anticipated to take approximately six months."

Coal terminals are considered to produce large point-source dust emissions. Given the long lead times associated with 9X it is likely that this issue will lead to an increase in the size of buffers required for future developments. For DBCT, this will mean that 9X becomes less likely to occur because it will require an expansion of DBCT's footprint and the use of land at Louisa Creek for the 9X stockyard. As such, DBCT's operations will be close to significant communities. Competing terminals at the ports of Abbot Point and Gladstone are less likely to be negatively impacted by this because a larger natural buffer already exists for these terminals.

Rail

A 9X expansion will also require construction of a fourth rail loop as well as significant expansion to rail track infrastructure in Goonyella System to accommodate the additional capacity. The rail infrastructure at the port does not form part of the asset owned and managed by DBCTM. The rail network is owned and operated by Aurizon.

Development timeline in highly variable market

The planning, approvals and development timeframes for a project of the nature of 9X are highly unpredictable and are likely to span over a decade. Access seekers would need to fund the FEL2 (pre-feasibility) study and FEL3 (feasibility) study plus the EIS and dredging approvals (expected to cost between \$50m-\$60m) over what could turn out to be 5-10 years before the project had any certainty of proceeding. After the project gains the necessary approvals, the design and construction would take another 4-5 years.

The coal industry is highly cyclic and the global coal market has swung dramatically between boom and bust. In recent years, swings in the seaborne coal market have become less predictable and more dependent on Chinese Government policy given the relative size of the global seaborne market compared to Chinese domestic production and consumption.

Given the uncertainty of timing around planning hurdles and the volatile nature of the market it is difficult to see 9X ever being viable.

⁴²⁴ Coal Workers' Pneumoconiosis Select Committee Report No. 4, 55th Parliament Inquiry into Occupational Respirable Dust Issues, Queensland Government Response, pages 3 to 4:

Appendix 19 2018 DBCT Master Plan



DBCT Management - Master Plan 2018
Expansion Opportunities at the Dalrymple Bay Coal Terminal





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1 Executive Summary

The Bowen Basin experienced strong production and demand growth for coal in the first decade of the 2000s. In order to accommodate this demand, DBCT Management Pty Limited (“DBCTM”) responded by undertaking numerous capacity expansions. The DBCT 7X project was the most recent expansion and lifted terminal capacity to 85 million tonnes per annum (Mtpa), underwritten by long term take or pay contracts with the world’s biggest mining companies.

Since commissioning the new capacity in 2009, throughput has slowly increased in line with global demand. During and after delivery of DBCT’s 7X expansion, global coal markets experienced a period of rapid expansion, followed by oversupply and ultimately rationalisation of surplus production capacity. Due to a combination of high global steel production and consistent global metallurgical supply disruptions, the price of hard coking coal (HCC) has been close to US\$200mt FOB since late 2016. Demand for DBCT’s capacity has again returned to the market, and DBCT Management is signing new Access Agreements to service both greenfield and brownfield metallurgical coal mine developments.

DBCT Management is obliged by the Port Services Agreement (PSA) and the Access Undertaking (AU) to accommodate the actual and reasonably anticipated future demand for the use of DBCT’s Users and access seekers. Accordingly, DBCTM has continued to plan post 85 Mtpa expansions to take DBCT’s nameplate capacity up to a maximum of 136 Mtpa.

While metallurgical coal demand growth is occurring and widely anticipated to continue, the timing of demand for expansions has historically proven difficult to forecast. The next wave of mine development is expected to be approached in a more measured way than during the previous “mining boom”. This measured approach will increasingly lead to a demand for incremental expansion capacity. This and the previous Master Plan both outline an incremental expansion pathway for DBCT while recognising the regulatory hurdles that need to be cleared prior to commencing any development works.

This Master Plan takes into account recent regulatory changes which now set a higher bar for planning and executing expansion. The Master Plan reviews the preferred expansion pathway to meet the requirements of future capacity demand, without trying to predict when those individual expansion options might be activated.

1.1 DBCT Background (Chapter 2)

Chapter 2 reviews DBCTM’s involvement in the terminal and describes the asset relevant to land use and geographical location, including a brief history of the terminal and the progression to DBCT’s current configuration. Various elements of DBCT’s operations are discussed, including a description of the major plant, machinery and infrastructure that allow the terminal to deliver 85 Mtpa of capacity. The region encompassing the terminal, in addition to the land leases that make up the terminal footprint are outlined for ease of reference.

The chapter also deals with the Master Planning process and DBCT Management’s alignment with the Whole of System Master Planning function of the Integrated Logistics Company (ILC). The regulatory framework is outlined in detail in this chapter, as is the current contractual position of the terminal.

Further, Chapter 2 briefly summarises the Access Regime in place for DBCT and highlights recent changes to the Access Undertaking which has introduced some additional hurdles to further development at DBCT.

1.2 Current Operations (Chapter 3)

This chapter provides an overview of the current operations of DBCT, including; cargo assembly and hybrid stockpiling, an overview of the remnant zone, and a summary of the independent capacity modelling results.

Additional topics addressed in this chapter include the impact of service provision, including non-common blending ratios, breakdowns, maintenance and smaller vessels that can all erode terminal and supply chain capacity.

1.3 Future Supply/Demand (Chapter 4)

This chapter assesses global demand and supply prospects in the context of triggering further expansions at DBCT. Previous forecasts, based on leading industry analysis have been unreliable, due to a range of factors including the global financial crisis and more recently, changes in Chinese government policy and the volatility of global coal markets.

DBCT Management expects stability in growth from the usual supply regions including Japan and South Korea, continued swing purchasing from China, while India and South-East Asia drive further growth for coal handled by DBCT.

Competing suppliers do pose a threat to DBCT's demand, particularly Mozambican and Indian domestic coal production, however these regions are not expected to materially impact the long-term growth of the Bowen Basin. Continuing demand out of the Bowen Basin is expected to drive demand for expansion capacity at DBCT and other coal terminals. While there is no way to reliably predict the timing of expansions, DBCT Management has developed this Master Plan with the intent of having a clearly outlined development pathway that can be triggered when demand exceeds available capacity.

1.4 DBCT Expansion Options (Chapter 5)

This chapter outlines the proposed expansion pathway for DBCT. The expansion pathway has not been modified since the previous Master Plan. It is still DBCTM's view that to satisfy the likely and foreseeable demand, 3 projects would be required. These projects are referred to as Zone 4, 8X and 9X. The Zone 4 project, coupled with the Hybrid Operating mode, alleviates current system operating constraints limiting the system to a capacity below 85 Mtpa and then delivers an additional 4 Mtpa beyond 85 Mtpa to take the System Capacity to 89 Mtpa. The 8X Project would be implemented in 2 phases and would ultimately take the system capacity to 102 Mtpa. 8X expands the current stockyard to its full potential, meaning any capacity requirement beyond 102 Mtpa would necessitate the development of a new stockyard, supported by a 4th inloading system and a 4th outloading system. Development beyond 8X is referred to as 9X. The relative viability of the expansion steps is explored in this chapter and the additional hurdles introduced by the 2017 Access Undertaking have been explored.

1.5 Environment (Chapter 6)

This chapter outlines the pertinent environmental issues relevant to the expansion projects identified, including dust and noise forecasts associated with the Zone 4 and 8X expansions.

It aligns with leading practice guidelines and policy settings by the Commonwealth & State Governments by ensuring early consideration of environmental values for development along the coast adjacent to the Great Barrier Reef.

It demonstrates that the preferred expansion options outlined in Chapter 5 do not significantly compromise the anticipated environmental outcomes for terminal operations including existing Environmental Authorities, however advanced engineering work and re-modelling is recommended. Further, the enhancement of port environmental buffers will be a critical 'port-protection' issue for consideration during formal State Master Planning work (currently underway).

1.6 Stakeholder Consultation (Chapter 7)

Chapter 7 details how DBCTM has and will interface with stakeholders in terms of current operations and future expansion of the terminal.

2 Introduction and Background

2.1 Background to DBCT

DBCT was established in 1983 by the Queensland Government as a common user coal export facility. In 2001, the Queensland Government, represented by Ports Corporation of Queensland (“PCQ”) and DBCT Holdings P/L, awarded a long-term lease over DBCT (a 50-year term with a 49-year renewal option) to a consortium collectively known as Coal Logistics–North Queensland (CL-NQ). Following a change of ownership in 2009 to Brookfield Infrastructure Partners (BIP), DBCT Management (DBCTM) has held management responsibility for the DBCT assets as the Secondary Lessee. For the purposes of this document, DBCTM collectively stands for the leaseholder and related entities responsible for fulfilling the duties related to the DBCT lease, the obligations contained in the Port Services Agreement (PSA) and any of the head leasing agreements.

The Port of Hay Point is approximately 38 kms south of Mackay and consists of two coal terminals - DBCT and Hay Point Services (‘HPS’) (Figure 1).

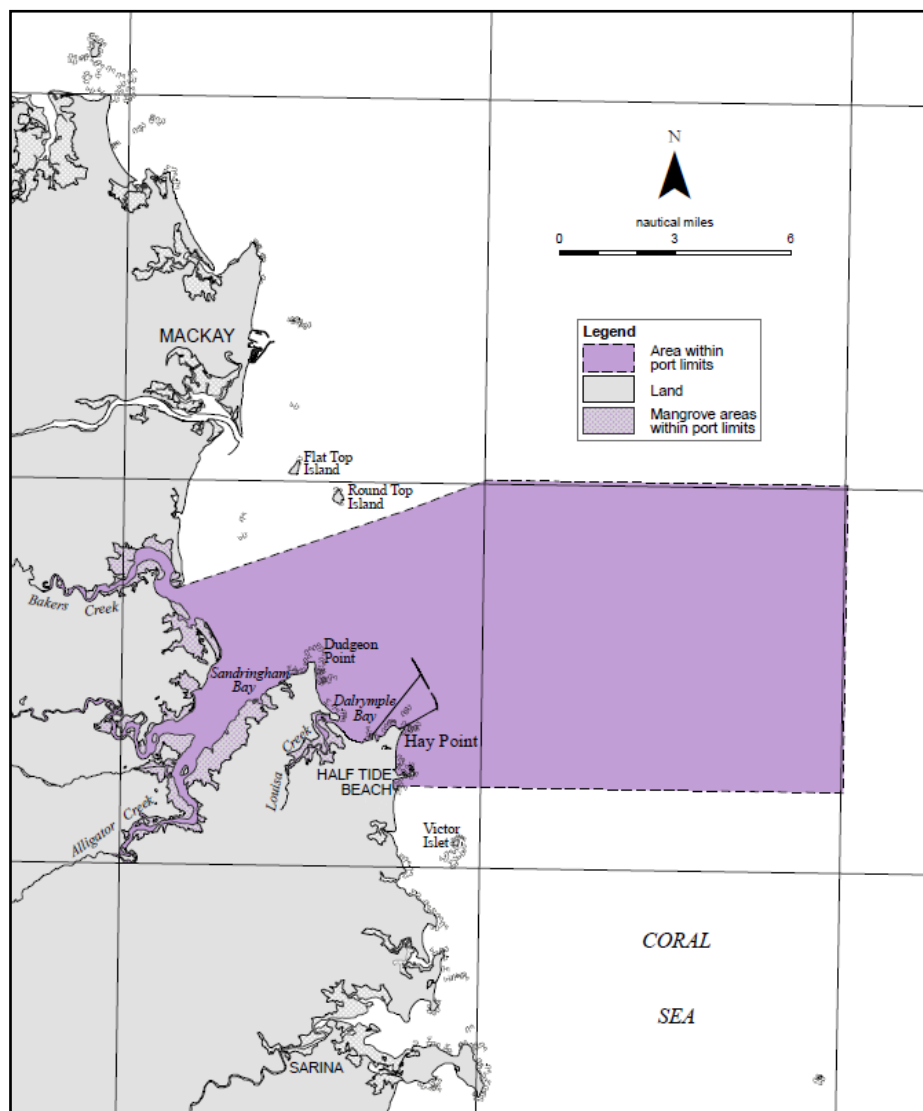


Figure 1: Port of Hay Point Port Limits – (Department Transport and Main Roads, 2013)

DBCT Management Master Plan 2018
Introduction and Background

The port is administered by North Queensland Bulk Ports (NQBP) as the statutory Port Authority and strategic port land owner. The terminals are linked to the Bowen Basin coalfields (Figure 2) by the electrified Goonyella rail system operated by Aurizon Network. Figure 3 shows DBCT in the foreground.



Figure 2: Bowen Basin coalfields – (DNRME, 2016)



Figure 3: Port of Hay Point

DBCT is a bulk export coal terminal which is owned by the State of Queensland. The daily terminal operations and maintenance activities are undertaken by Dalrymple Bay Coal Terminal Pty Ltd (“DBCT P/L”), a 3rd party service provider owned by 5 of DBCT’s Access Holders. Terminal operations and maintenance activities are undertaken by DBCT Pty Ltd under an Operations & Maintenance Contract (“OMC”).

Additional information is available from these websites <http://www.dbctm.com.au> and <http://www.dbct.com.au>

The land use surrounding the port is a mix of agricultural, rural/residential and urban. The residential communities neighbouring DBCT (Figure 4) are the communities of Louisa Creek, Half Tide, Timberlands, the Droughtmaster Drive area and Salonika Beach. Responsible and ongoing interaction with these communities is an important element of DBCT Management’s master planning and development process.



Figure 4: Position of DBCT relative to the local area

2.2 Current Asset Description

2.2.1 Basic Configuration

DBCT's basic configuration can be described as: 3 rail receiving stations; a stockyard; and 4 off-shore wharves; all connected by a series of conveyor systems. DBCT is situated on approximately 214 hectares of strategic port land and 160 hectares of off-shore sea-bed lease, primarily described by the following lots:

- Lot 126 on SP123776
- Lot 130 on SP105841
- Lot 131 on SP136318
- Lot 133 on SP136320
- Lot 134 on SP185573
- Lot 135 on SP185580

- Lot 41/42 on SP136319
- Lot 43 on SP185559

Lot Part of 132 on SP136318 (Lease C on SP185554 and Lease D on SP185555)

The site stretches for more than 2.38 kms from the rail inloading stations to the land side end of the jetty, with the wharves a further 3.8 kms off-shore. The total rated terminal capacity is 85 Mtpa, making it Queensland's largest standalone coal export terminal. Including the capacity of HPS (55 Mtpa) the Port of Hay Point is one of the largest bulk export coal ports in the world.

DBCT is a common-user facility, handling a wide variety of coal types from eight coal producers. DBCT processes 3 commercial coal categories, including: coking coal, Pulverised Coal Injection (PCI) coal, and thermal coal. Coals can be further blended from the terminal's stockpiles to create many different "blended" products. The majority of DBCT's exports are shipped on a Free on Board (FOB) basis. The customers of DBCT's Producers (i.e. the coal buyers) are responsible for organising and paying for sea transport. Coupled with the available stockyard capacity, the high number of products drives a cargo assembly and hybrid operating mode in the terminal.

DBCT makes use of the following plant and equipment to achieve an 85 Mtpa nameplate capacity:

- 3 rail receival stations - 2 x 5,500 tph (IL1 & 2); 1 x 8,100 tph (IL3)
- 4 stackers - 1 x 5,500 tph; 1 x 6,000 tph; 2 x 8,100 tph
- 3 reclaimers – 1 x 4,250 tph; 2 x 5,300 tph
- 5 stacker-reclaimers - various stack rates from 4,250 - 5,500 tph and various reclaim rates from 3,700 tph – 5,300 tph
- 8 stockpile rows, each approximately 1,100 m in length (note that row 8 is a half row). Maximum designed volumetric yard capacity (static – meaning if every pile was full) is approximately 2.3 million tonnes of coal
- 3 outloading systems (OL1, OL2 and OL3) and 3 shiploaders – 1 x 7,200 tph (SL1); 1 x 7,600 tph (SL2); and 1 x 8,650 tph (SL3)
- 4 berths capable of receiving cape size vessels
- SL1 can serve berths 1 and 2; SL2 can serve berths 1 and 2 and SL3 serves berths 3 and 4

OL1 serves SL1 and SL3; OL2 can serve SL2 and SL3; and OL3 can serve SL1, SL2 and SL3 Inloading

DBCT has three inloading stations, feeding three inloading conveyor systems which deliver coal to the DBCT stockyard. The inloading stations can accept a number of different train configurations and wagon types from any one of three above rail haulage operators (Pacific National, Aurizon National and BMA Rail). The coal wagons are bottom dump type, with the coal falling out of the wagons and into the rail receival pits for transfer via inloading conveyor to the stockyard. Any of the inloading stations can feed coal to the stackers or stacker reclaimers in any part of the DBCT stockyard. This configuration gives DBCT's operator ultimate flexibility when planning the location of stockpiles in the DBCT stockyard.

2.2.2 Stockyard

The stockyard (Figure 5) consists of eight machinery bunds which support twelve yard machines and seven and a half stockpile rows. These rows are each divided into three “cells” containing stockpiles (separated by drainage pits). The twelve yard machines include four stackers, three reclaimers and five stacker/reclaimers laid out as per the following diagram:

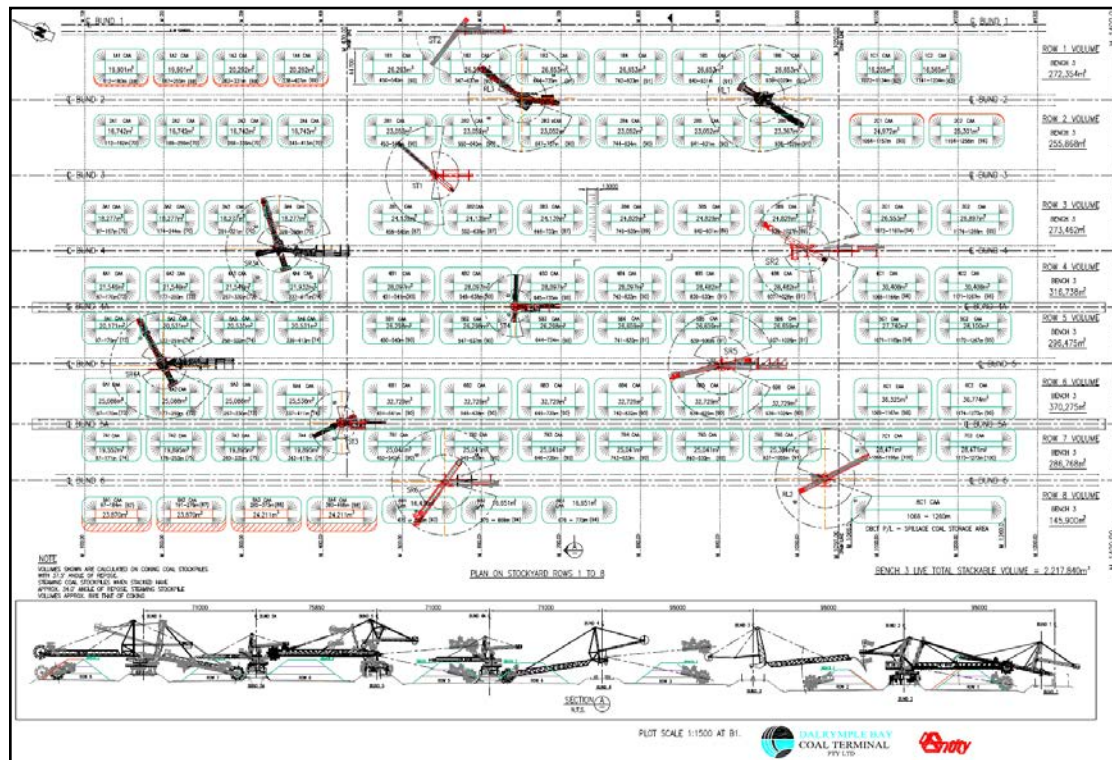


Figure 5: Stockyard layout of DBCT delivering 85 Mtpa – (DBCT Pty Ltd 2016)

The volumetric capacity of each of the stockyard rows is shown in table 1 below. The actual working capacity of the rows at any time will be determined by the number of stockpiles in each row and their sizes:

DBCT Stockyard Capacity									
Stockpile Row	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	Row 7	Row 8	Total
Capacity (m ³)	272,354	255,868	273,462	316,738	296,475	370,275	286,768	145,900	2,217,840

Table 1: DBCT yard row volumes – (DBCT Pty Ltd, 2016)

The stockyard has delinked inloading and outloading systems, meaning each arriving train can usually be stacked without interrupting or impeding vessel loading activities. The yard configuration and operating strategy maximises outloading performance by making two reclaiming machines available to each outloading system. Under normal operating circumstances, two reclaiming machines dig from two stockpiles simultaneously to complete one loading activity into the vessel. If the product is not a blend, both stockpiles will contain the same product.

Individual yard machine rates are as follows:

	ST1	ST2	ST3	ST4	RL1	RL2	RL3	SR2	SR3A	SR4A	SR5	SR6
Average stack Rate	5,500	6,000	8,100	8,100				4,250	5,500	5,500	5,500	5,500
Average reclaim rate					5,300	5,300	4,250	3,700	5,300	5,300	4,500	4,300
average throughput rate						5,500	4,250	4,250	5,500	5,500	5,500	5,500

Table 2: DBCT yard machine rates – (DBCT Pty Ltd, 2016)

Operationally, the DBCT stockyard is divided into four independent zones, which are usually paired with a single outloading system and generally operate under the following configuration:

- Zone one includes the southern end of stockyard rows three, four, five and six, and normally feeds the first outloading system. Zone one is shown in brown in Figure 6.
- Zone two includes stockyard rows one and two, and normally feeds the second outloading system. Zone two is shown in green in Figure 6.
- Zone three includes the northern end of stockyard rows three, four, five and six, and normally feeds the high rate third outloading system. Zone three is shown in blue in Figure 6.
- Zone four includes row seven and the half row eight (shown in yellow in Figure 6). This zone contains only remnant stockpiles and can feed any of the outloading systems. The remnant zone and strategy is explained in further detail later in this Master Plan (Chapter 3).



Figure 6: DBCT zonal configuration Zones.

Zones one to three are referred to as the dynamic zone, while zone four is referred to as the static zone.

2.2.3 Outloading

Each of the outloading conveyor systems is predominantly paired with a rate-matched shiploader. In this configuration, the pair of reclaiming machines, the outloading conveyor system and the shiploader have matched speeds to maximise individual machine utilisation.

From time to time (usually during maintenance outages), the outloading systems can be reconfigured to feed different shiploaders. Generally, the following outloading systems feed the corresponding shiploaders:

- Outloading system one feeds coal to shiploader one.
- Outloading system two feeds coal to shiploader two.
- The high rate outloading system three feeds coal to the high rate shiploader three.

Shiploader one and two are normally dedicated to berths one and two respectively with shiploader three loading coal into vessels on both berths three and four.

2.2.4 Water Management Infrastructure

The water management infrastructure on the site is shown in Figure 7 and includes the following:

- An Industrial Dam (ID) with a capacity of 421 ML, which receives all run-off from the stockyard catchment area. The ID contains a series of concrete pits and containment cells designed to detain and remove coal fines that settle out from the stormwater inflows. Coal fines are periodically recovered and shipped from the terminal. A dedicated system of High Flow Transfer Pumps is also located at the ID to transfer incoming stormwater inflows to the Quarry Dam (QD) via an 800 mm pipeline through the stockyard. As a management objective, the ID is kept as close to empty as possible to maximise the available buffer storage, and minimise the likelihood of an uncontrolled stormwater discharge to the local Sandfly Creek area.
- A Quarry Dam (QD) with a capacity of 837 ML, which receives the majority of its stored water as pumped flow from the ID, with only minor site run-off from the small catchment area local to the QD. The QD serves as the primary operational water storage dam at the terminal, and has a floating pontoon pump system to transfer operational water to the site as required.
- A Rail Loop Dam (RLD) within the rail loop area that has a capacity 847 ML. It receives no run-off with the majority of its inflow via a gravity fed 800 mm pipeline from the QD during times when excess water is harvested from the ID during sustained heavy rainfall. Transfer pumps can also return water from the RLD through the same pipeline back to the QD in the dry season for operational reuse.
- A Rail Receival Dam (RRD) with a capacity of 22 ML, which stores and recycles the operational return water from the train unloading facilities and the local catchment.
- An additional dam known as Spindler's Dam, with a capacity of 59 ML, which receives runoff from the local catchment between the train unloading facilities and the stockyard that includes the three inloading conveyors. Water can be returned to the stockyard for reuse via a small diesel pump and pipeline system.
- A dedicated 2 ML industrial water storage tank and pump system located at the southern end of the stockyard provides a source of industrial and fire water to the entire site.
- A dedicated 1 ML industrial water storage tank and pump system located at the train unloading facilities to provide a source of moisture addition and dust suppression water to three unloading sheds.
- A Flocculent plant located near the ID to treat stormwater inflows entering the ID to further improve the coal fines sedimentation and recovery process.



Figure 7: Water Management Infrastructure

2.3 Contractual Framework

2.3.1 Requirement for a Master Plan

The Port Services Agreement (PSA) requires DBCT Management (DBCTM) to submit a Master Plan to DBCT Holdings addressing any changes in circumstances, demand, technology or other relevant matters, no later than 31 March each year. Due to the

uncertain timing of demand to trigger terminal expansion, there can be long periods where no expansion activity is required. DBCTM has therefore requested an amendment to the PSA to allow it to only submit a master plan, where DBCTM determines that (acting reasonably):

- i. substantive changes are required to be made to the Master Plan; or
- ii. the current Master Plan has been developed to its ultimate extent.

The Master Plan has been drafted to:

- i. ensure that DBCT is developed in accordance with Access Seeker applications for terminal capacity, infrastructure planning best practice, principles of environmental sustainability, applicable laws and the balanced interests of its stakeholders;
- ii. ensure the PSA requirement for any expansion to be both economic and reasonable is satisfied, noting also the need to have regard to environment laws and the principles of environmental sustainability;
- iii. ensure a responsible alignment of supply chain partner infrastructure based on a supply chain “cargo assembly/hybrid” methodology;
- iv. ensure compliance with contractual commitments and statutory obligations for master planning which meet the requirements of the PSA;
- v. ensure a continued ‘leading practice’ approach to port/terminal planning within the coastal zone, particularly within the GBRWHA.

This Master Plan presents three incremental terminal expansions to accommodate uncertain future demand. These 3 expansions are designed to be developed sequentially. The industry practice of using Front End Loading (FEL) engineering to assess the various levels of feasibility has been employed in the engineering studies that underpin this plan. Only the first expansion step outlined in this Master Plan (Zone 4) has been studied to a level of certainty that is commonly referred to as FEL3 or a Feasibility Study level. It is anticipated that the Zone 4 expansion would provide a further 4.1 Mtpa of terminal capacity above the existing 85 Mtpa terminal capacity.

FEL1 studies (concept only) have also been undertaken for the other 2 incremental expansions 8X and 9X. Pre-feasibility and Feasibility work will ultimately be required to better understand these expansions.

The second stage in the expansion pathway (8X) involves terminal inloading upgrades, yard machine upgrades, stockyard enhancements and outloading upgrades. This expansion is expected to add between 12 and 13 Mtpa above that of Zone 4, taking terminal capacity from 89.1 to around 102 Mtpa. 9X is the third stage of the expansion pathway. The 9X expansion would introduce a 2nd stockyard to supplement the existing DBCT stockyard. The new stockyard would likely be located on the western side of the existing terminal, subject to land availability.

2.3.2 Whole of System Master Planning

The Integrated Logistics Company (ILC) produces integrated, 10 year Master Plans (MP) for the Goonyella Coal Chain encompassing; All Mines in the Goonyella and Newlands System:

- The Below rail infrastructure and operating methods and principles.

- Dalrymple Bay Coal Terminal infrastructure and operating methods.
- Hay Point Coal Services Terminal infrastructure and operating methods.
- Adani Abbot Point Terminal and operating methods.
- Port Channel and vessel movement practices.

To prevent misalignment of infrastructure development, the ILC Master Plans (MP) seeks to align future supply chain infrastructure expansions across all asset owners and operators by:

- i. the development of a common set of inputs and assumptions for the determination of system capacity
- ii. the development and maintenance of an integrated full system simulation model, which is used as a tool to assess system capacity and evaluate future capacity requirements, and
- iii. aligning and assessing alternative infrastructure expansion options in the Dalrymple Bay Coal Chain

The development and implementation of the ILC's MP was part of a longer term solution to the address the historical underperformance of the Goonyella supply chain.

To ensure planning alignment within the Goonyella Coal Chain, DBCTM uses the ILC System Capacity Model for its capacity planning purposes. DBCTM has engaged the ILC Master Planning group to model the existing system in addition to various expansion scenarios to quantify capacity benefits and production losses during implementation. The modelling results have guided the development of this Master Plan.

The ILC's modelling establishes the pre-expansion system capacity as 83.8 Mtpa with the current terminal capacity at 85 Mtpa.

2.3.3 Contractual Position

Access to DBCT is contracted in accordance with the provisions of the Access Undertaking. The Standard Access Agreement (SAA) forms a part of the AU and underpins negotiations for contracting capacity at DBCT. In order to secure evergreen five year extension options, the Access Seeker is required to enter into a minimum 10 year Access Agreement. Within 12 months of the end of the initial term, the Access Holder has an option to nominate up to a five year extension for all or part of the contract tonnage. Because of this mechanism, the contract expiry profile can at times appear to be imminent and substantial. Historically the majority of expiring contracts have been extended prior to expiry of the extension option. Recently miners have shown a propensity towards reducing take or pay obligations, leading to some contracts not being extended and additional capacity being made available to Access Seekers.

The contractual volumes, as at February 2016 and March 2018, are shown in Figure 8 and Figure 9 respectively.

2.3.4 Contractual Position February 2016

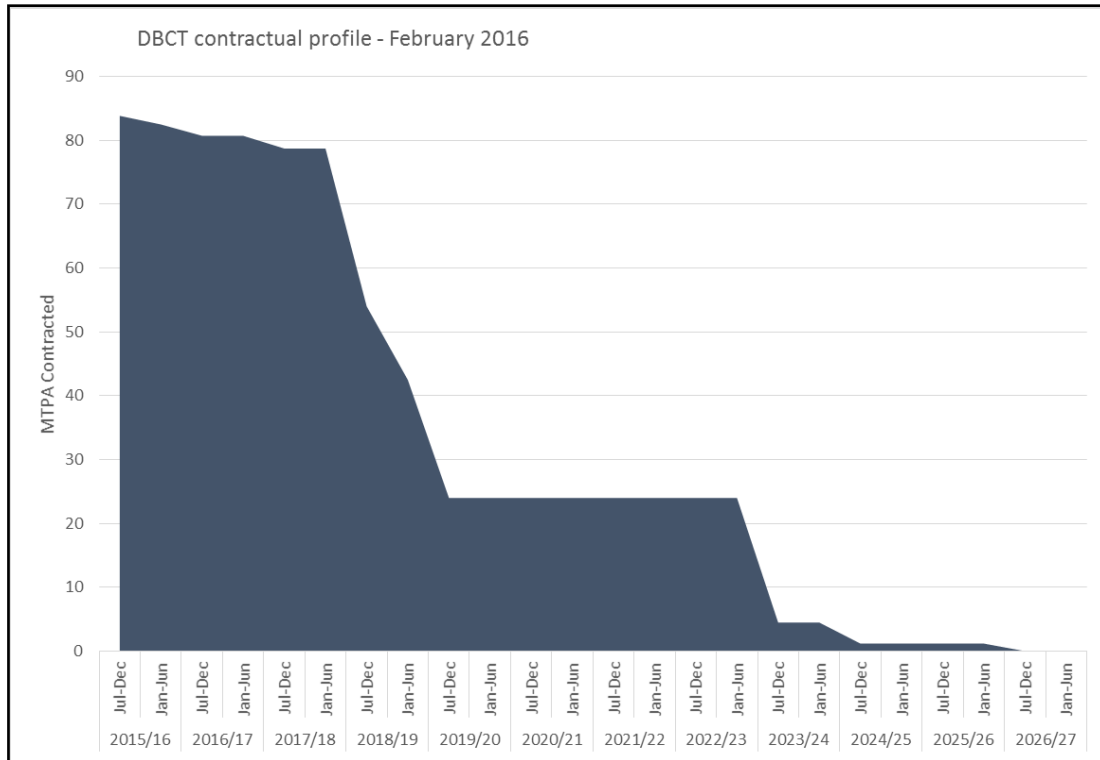


Figure 8: Contractual Position February 2016

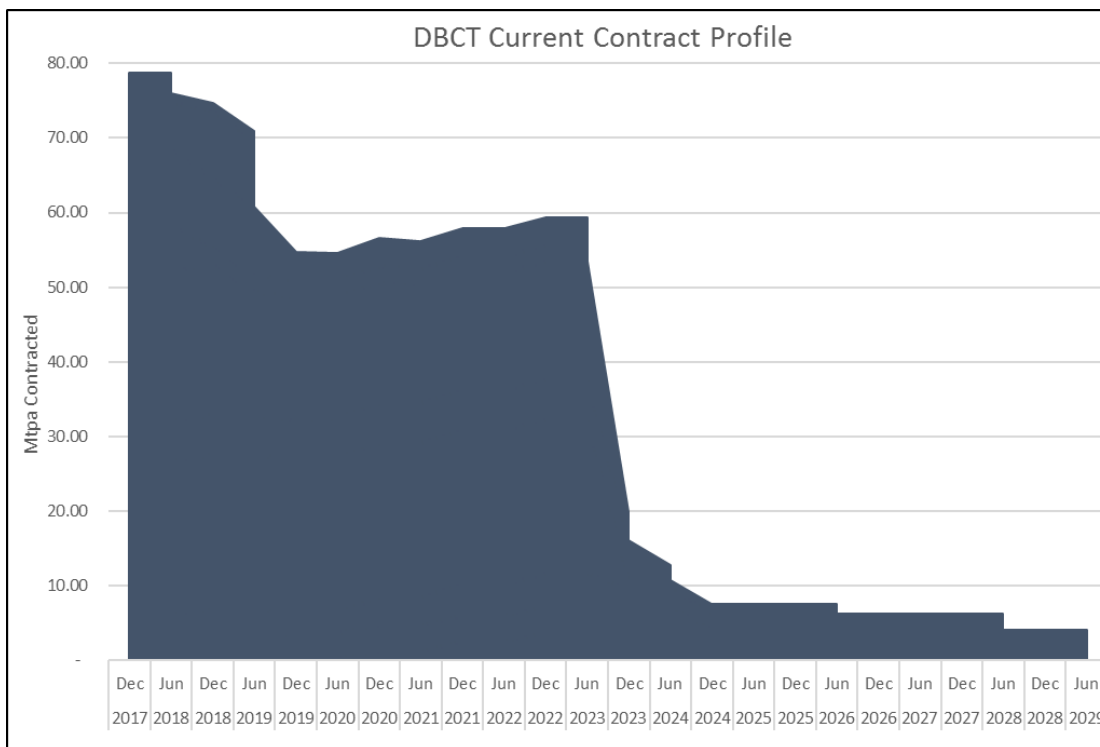


Figure 9: Contractual Position March 2018

2.4 Government Legislation

2.4.1 Government Legislation

In July 2011, the UNESCO World Heritage Committee requested the Australian Government undertake a comprehensive strategic assessment of the Great Barrier Reef World Heritage Area (GBRWHA) and develop a long-term plan for sustainable development that will protect the region's outstanding universal values. The assessment was completed by the Federal and Queensland Government and resulted in the development of the *Reef 2050 Long Term Sustainability Plan* ('*Reef 2050*').

The Queensland Government has responsibility for protection of the State waters and is therefore committed to a number of *Reef 2050* initiatives relating to port development. In 2015 the Queensland Government introduced new legislation, the *Sustainable Ports Development Act (2015)* which sets out the blueprint for port planning and management for certain ports in Queensland. The act aligns with the Commonwealth and State Government commitments under *Reef 2050* developed in response to recommendations of the UNESCO World Heritage Committee.

This legislation outlines a number of initiatives including:

- identification of the Port of Abbot Point, Port of Gladstone, Ports of Hay Point & Mackay and the Port of Townsville as 'priority ports' which require formal 'Port Master Plans' to regulate development consistent with principles of 'ecologically sustainable development'
- introduction of statutory 'Port Overlays' to implement the master planning objectives
- protection of greenfield landside and marine areas through the prohibition of certain future development
- prohibition of certain capital dredging along the Queensland coastline, and
- prohibition of sea-based disposal of capital dredge material within the GBRWHA

Formal 'Port Master Plans' will be prepared by the State in consultation with port entities, relevant local governments and other state entities such as State Development and the Department of Environment & Heritage Protection.

DBCTM views this Terminal Master Plan as a critical input into the Long Term Development Plan being prepared by NQBP and subsequently into the formal State Port Master Planning process, as shown in Figure 10 .



Figure 10: Queensland Planning Process

2.4.2 Proposals for Land Use and Site Development

Under the *Transport Infrastructure Act 1994* (TIA), a Port Authority is required to develop and review a Land Use Plan to ensure the appropriate and sustainable development of strategic port land. As the Port Authority for the Port of Hay Point, NQBP has the responsibility of preparing and revising the Land Use Plan and administering all ‘Assessment Manager’ functions pursuant to the *Sustainable Planning Act, 2009* (SPA) for all assessable development on areas classified as ‘Strategic Port Land’ at the port.

The current Port of Hay Point Land Use Plan was approved in July 2010 and provides an overall framework for the appropriate regulation and management of the development of strategic port land. The Land Use Plan was prepared in accordance with the statutory provisions of the (TIA). It sets out NQBP’s planning and development intents for its strategic port land at the Port of Hay Point, while giving careful consideration to core matters relevant to the local and regional area including environmental, economic and social sustainability.

As a point of reference, Figure 11 shows the current off-shore and on-shore areas defined as Strategic Port Land at the Port of Hay Point. Figure 12 shows DBCT more specifically.

It is anticipated that the existing LUP will be amended following (or concurrently with) the preparation of the formal State Port Master Plan under the *Sustainable Ports Development Act, 2015*.

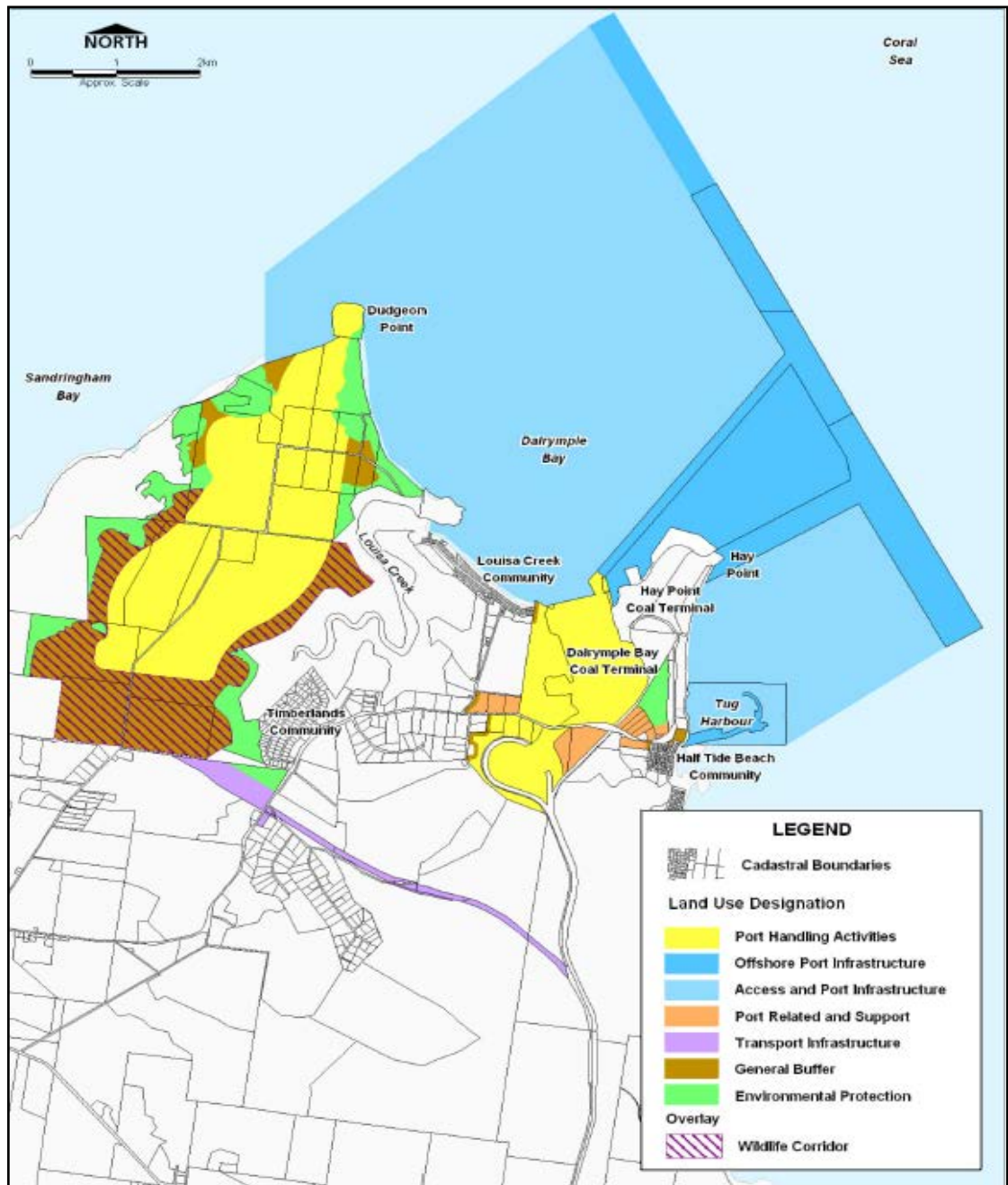


Figure 11: NQBP Strategic Port Land and Offshore Port Infrastructure Hay Point

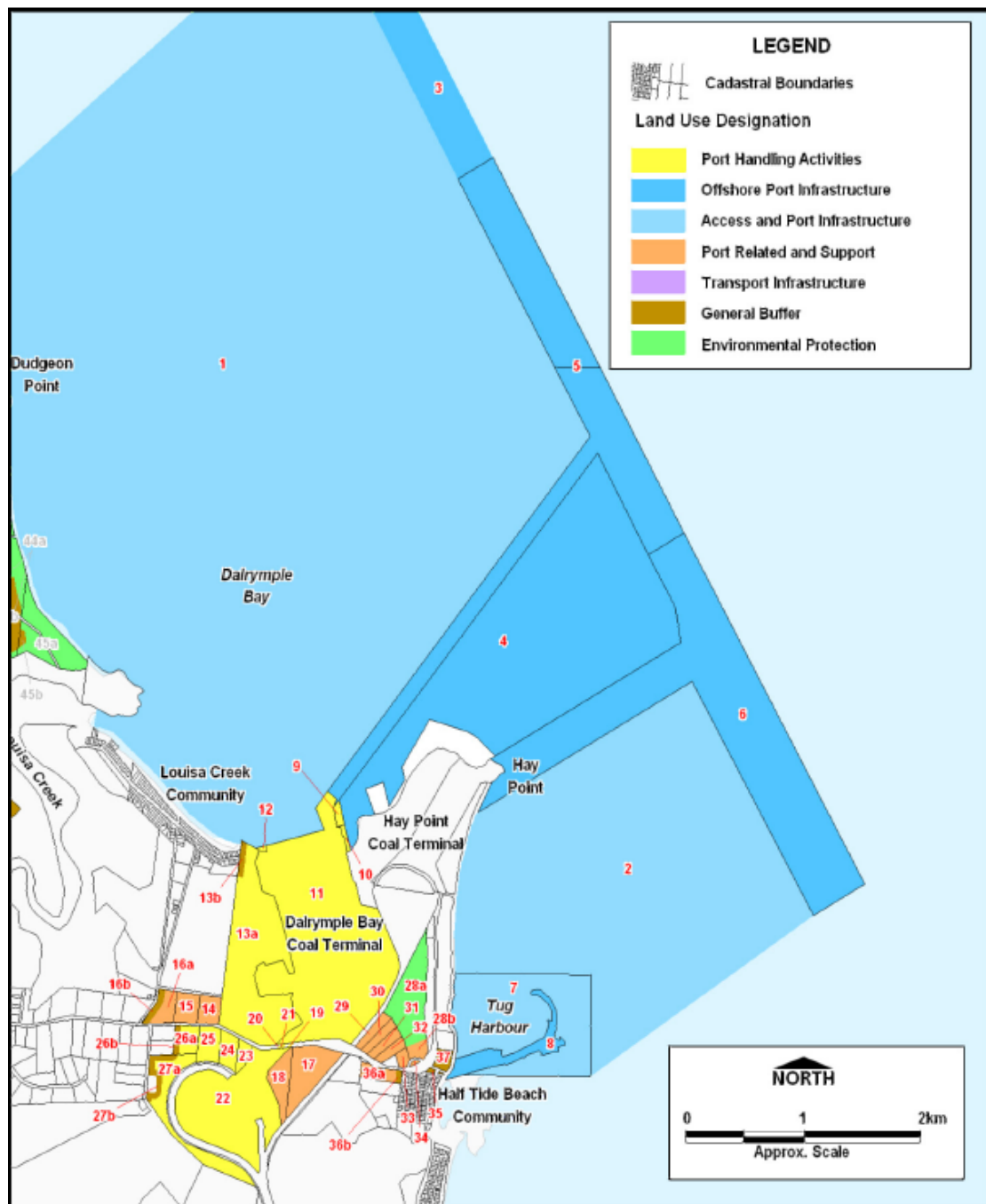


Figure 12: DBCT development on Strategic Port Land

Any future expansions of DBCT will need to be developed to meet the land use provisions of the 'Port of Hay Point Land Use Plan – Port Handling Activities Area and/or Offshore Port Infrastructure'. The land will be used for the purpose of loading, unloading and transport of commodities (bulk coal) to support the Central Queensland Coal Industry. Aspects of the preferred site development are contained in Chapters 5 and 6 of this Master Plan.

2.5 Access Regime

DBCT is declared for third party access under the Queensland Competition Authority Act 1997 (Qld) (QCA Act). An Access Undertaking (AU) details the terms and conditions (including the tariff that can be charged) under which third parties can access DBCT's services.

After the approval of the first AU (2006 AU), the existing Terminal User Agreements were replaced with a Standard Access Agreement (SAA). The SAA forms part of and is based on, the terms and conditions set out in the AU. The revenue cap approach and the risk profile proposed in the QCA's final decision, are reflected in subsequent approved AU's and SAA's as follows:

- The 2006 AU (including a new SAA) was approved on 15 June 2006 and backdated to 1 July 2004.
- The 2006 AU expired on 31 December 2010, and was replaced with the 2010 AU agreed with stakeholders and approved by the QCA in 2010.
- The 2010 AU expired on 30 June 2016, and was replaced with the 2017 AU which was approved by the QCA in February 2017 and backdated to 1 July 2016.

As required for the first time by the 2010 AU, DBCTM has moved away from the concept of contracting standalone terminal capacity, in favour of contracting only available system capacity¹. In support of this principle, the terminal Master Plan is integrated with the System Master Plan, which is the framework for expansion of the System in the most logical and efficient way, determined collaboratively by all system participants.

2.5.1 Access Applications

Access Applications are a mechanism that provide the Access Seeker with an option to access DBCT capacity which may become available in the future. When capacity does become available, either due to expansion, an expiring contract, or a terminated contract, DBCTM must offer the capacity to the DBCT Access Queue (access queue). The access queue is formed when available capacity is not sufficient to satisfy the capacity requirements of one or more Access Seekers.

Capacity is offered and contracted in accordance with Section 5.4 of the DBCT Access Undertaking. The 2017 AU was the first to introduce a mechanism to remove an Access Seeker from the access queue where an offer of available capacity is declined by that Access Seeker. After receiving an Indicative Access Proposal and declining the offer of capacity, the Access Seeker's Access Application will be deemed to have lapsed and the Access Seeker will be removed from the queue. The intent of this mechanism is to ensure that an access queue doesn't exist at times when there is system capacity available for contracting.

If an access seeker does intend to contract the available capacity, the access seeker is required to sign an Access Agreement (AA). If an access seeker does execute an AA

¹ System Capacity is the maximum reasonably achievable capacity of the system, being the components of the Goonyella Coal Chain infrastructure relating to transport of coal from mines whose coal is handled by DBCT

to contract for access to DBCT, the access seeker's Access Application will be reduced by the tonnage specified in the schedule of the AA. The Access Seeker will retain its position in the access queue, assuming the remaining tonnage under the access application is greater than zero and there is not sufficient available capacity to service this remaining tonnage.

2.5.2 Expansion pricing under the 2017 Access Undertaking

The Port Services Agreement requires the principle of average pricing to prevail for expansions of DBCT. It requires DBCTM to seek to have future Access Undertakings maintain Common User Charges (socialised pricing). In 2013, the QCA released a paper on Capacity Expansion and Access Pricing for Rail and Ports. In that paper, the QCA identified "key propositions based on economic efficiency, fairness and governance principles which constituted an averaging down/incremental up approach to expansion pricing".² The QCA required DBCTM to incorporate these principles in the 2017 AU.

With respect to expansion pricing, the 2017 AU includes the following³:

- Where Socialisation of a Terminal Capacity Expansion would decrease the Reference Tariff for users of the Existing Terminal, the Terminal Capacity Expansion should be treated as forming part of the Existing Terminal, such that a single Reference Tariff and Annual Revenue Requirement shall apply to the Existing Terminal (including the Terminal Capacity Expansion) (a Socialised Expansion).
- Where Socialisation of a Terminal Capacity Expansion would increase the Reference Tariff for users of the Existing Terminal (a Cost Sensitive Expansion), subject to Section 11.13(c), the Terminal Capacity Expansion should be treated as a separate Terminal Component, with its own Regulated Asset Base, Reference Tariff and Annual Revenue Requirement (a Differentiated Expansion Component).
- A Cost Sensitive Expansion may be treated as forming part of the Existing Terminal (and therefore, not treated as a Differentiated Expansion Component) where circumstances exist that justify Socialisation. In determining whether there are circumstances that warrant Socialisation, consideration shall be given to:
 1. the materiality of the increase in the Existing Terminal's Reference Tariff that would be affected by socialising the Cost Sensitive Expansion
 2. the extent to which assets or infrastructure the subject of the Cost Sensitive Expansion will operate wholly or partly, in an integrated way with the Existing Terminal or as a stand-alone development
 3. the extent to which the Cost Sensitive Expansion is likely to benefit users of the Existing Terminal (for example, such as through higher efficiency, reliability or flexibility of the Existing Terminal)

² QCA, Capacity Expansion and Access Pricing for Rail and Ports April 2013 p. iv

³ Dalrymple Bay Coal Terminal Access Undertaking

4. any differences in the risks of providing Access to users of the Existing Terminal in respect of additional Terminal Capacity created by the Cost Sensitive Expansion, and
5. any other factor that the QCA considers relevant

The introduction of differential pricing will potentially have an impact on the viability of further expansions of DBCT. This issue is addressed in greater detail in Chapter 5.

2.5.3 Expansion timing under the 2017 Access Undertaking

The 2017 Access Undertaking introduced for the first time a detailed definition of Front End Loaded engineering (FEL) studies. This definition is more onerous than what is widely accepted within the industry thus requiring a greater level of detail than would normally be undertaken. The Access Undertaking also introduced constraints around the funding of feasibility studies. Coupled with the delays associated with determination of expansion pricing, the net effect is that the current Access Undertaking introduces material delay to future expansions which did not exist in prior Undertakings. This actual impact is addressed in more detail in Chapter 5.

3 Current Operations

3.1 Mode of Operation

Bulk supply chains can be operated in a variety of configurations, however Australian coal terminals generally operate under one of three methodologies:

- cargo assembly
- dedicated stockpiling
- hybrid (a combination of dedicated stockpiling and cargo assembly)

The decision to choose one operating mode over the other will likely result from the number of discrete products which need to be accommodated and the available space for stockpiling the various coal products.

A dedicated stockpile port allows terminal users to stockpile large amounts of product at the port without:

- a vessel necessarily being waiting at the terminal load that product
- a vessel being in transit to the loading terminal

In a dedicated stockpiling export terminal, the miner will typically produce the coal and then rail that coal to the export terminal for loading when the next train is available. This in turn should lead to a predictable railing schedule and greater visibility as to when train services will be required. Track infrastructure in a dedicated stockpile operation is designed to suit the regular and consistent mix of trains required to meet contractual obligations. The receiving vessel arrives at the port to load the coal from a dedicated stockpile, as do subsequent vessels chartered to load the same coal product. The railing system replenishes the stockyard by railing product evenly from the mine to the export terminal.

Because of the irregular demand pattern for an individual product and DBCT's available storage space in the stockyard, it is impossible to maintain dedicated stockpiles for all products handled by DBCT. DBCT has evolved to operate under a cargo assembly logistics methodology. Unlike a dedicated stockpiling operation, a cargo assembly operation requires railings of products to meet the arrival of the vessel. In the DBCT cargo assembly operation, a vessel typically arrives and once all parcels to be loaded on the vessel are produced and available for railing, the above rail operators bring the coal to the terminal where it is assembled in a space allocated to the parcel in the DBCT stockyard. Railings to complete the vessel are subject to the availability of the mine load-out, DBCT stockyard space, above rail assets and below rail pathing

Under cargo assembly, the stockpile for each individual vessel and each parcel on that vessel needs to be separated from the other cargoes in the stockyard. This separation avoids product contamination between distinct parcels and cargoes. The space between individual products is unable to be utilised. To reduce stockpile separation and the resulting unutilised space in the stockyard, particularly when the same product is required for multiple vessels, limited dedicated stockpiling (hybrid) was introduced for high volume products. The hybrid operating methodology is covered later in this chapter.

3.1.1 DBCT Dedicated Stockpiling Option

Dedicated stockpiling in the existing DBCT footprint is not a viable option for the following reasons:

- The additional land required to support dedicated stockpiling would consume all current expansion options for DBCT, yet still provide less than 85 Mtpa of terminal capacity.
- The capital cost of such additional stockyard space would need to include new bunds and additional yard machines.
- Current Access Holders would have to bear the full cost of the current operation and the terminal expansion required to create dedicated stockpiles to service less than 85 Mtpa.

3.1.2 Hybrid

Recognising the improved stockyard space utilisation of a dedicated stockpiling operation and the storage efficiency of a pure cargo assembly model, the supply chain identified an opportunity to implement a combination of both operating modes to best utilise supply chain assets.

The hybrid operating mode was designed with two objectives in mind:

1. Pre-railing for selected parcel builds where efficiencies can be gained across the various assets of the supply chain.
2. Multiple parcel builds using the same stockpile space to improve the efficiency of the terminal stockyard.

By better utilising the space required to build cargoes for high volume products with the same coal characteristics, the supply chain can make better use of the available DBCT stockyard space. Pre-railing allows for a more even drawdown of cargo across the supply chain, therefore allowing a more efficient and effective use of all supply chain assets. In recognition of these potential benefits, involved stakeholders implemented a hybrid operating mode for the DBCT supply chain.

Under the hybrid operating mode, the supply chain planners look at upcoming demand and identify opportunities where the same product is required for multiple near-spaced vessels. Under cargo assembly, the stockyard planners would ordinarily plan to stack the cargoes for two vessels into distinct separated stockpiles. Under the hybrid system, the stockyard planners have the ability to plan for the same product (required for two or more vessels) to be stacked into a single stockpile. This removes:

- the need for the stockpile separation between similar products for multiple vessels
- the amount of time the stockpile footprint is allocated but unutilised while the terminal waits for train deliveries to fill that allocated space
- the need for a remnant space for that product. If demand continues for long enough to justify the reallocation of the remnant space to the dynamic zone, a remnant may not be required for the hybrid product. The remnant stockpile would only be replaced by a hybrid stockpile for as long as the hybrid stockpile is justified by continuous shipping demand.

The hybrid operating mode attempts to address the shortcomings of a pure cargo assembly operation and is intended to be used for at least two vessels, or a long succession of vessels. The supply chain only needs to consider the arrival of vessels requiring the same product soon after one another prior to building the hybrid stockpile. The duration of the existence of the hybrid stockpile is then only limited by the continuing, near-spaced shipping demand for that particular coal type.

Under both cargo assembly and the hybrid operating mode, the terminal operator needs a variety of vessels at its disposal in order to maximise berth utilisation. This may include vessels already waiting at the DBCT anchorage, or vessels which are on their way and soon to arrive. Should a mine be unable to produce coal for the next ship in the queue and where other vessels are available for loading, the terminal operator can promote another vessel. Utilising vessels further down the queue is preferential to foregoing the use of outloading capacity by allowing an unoccupied berth or an idle outloading system.

3.1.3 Remnant Management

To assist in vessel loading requirements, and without impacting the utilisation of the DBCT stockyard, the DBCT stockyard has been segregated into two distinct zones. Row seven and the half row eight are used for the exclusive purpose of managing remnant coal, this area is known as the 'static zone'. Each Access Holder is allocated a portion of the total volume of the static zone in accordance with its share of Aggregate Annual Contract Tonnage. The remaining six rows of the stockyard operate in full cargo assembly or hybrid mode, otherwise known as the 'dynamic zone'.

This vessel assembly strategy sees two cargo assembly or hybrid stockpiles allocated to each parcel in the dynamic stockyard zones (shown in Figure 6: DBCT zonal configuration Zones). The dynamic zone will ideally comprise one less than the total number of trains required to complete the parcel or cargo. Any remaining coal from the final train not required to complete the parcel or cargo will be stacked into the Access Holder's remnant stockpile.

If the Access Holder has suitable coal in its allocated remnant area, the amount of coal railed should ideally be less than the required parcel or cargo. The balance of the parcel is 'topped' up from the Access Holder's remnant stockpile. If there is insufficient coal in the remnant area to complete the vessel, the remainder of the coal in the last train used to complete the parcel will be stacked into the Access Holder's remnant area.

Each Access Holder is responsible for managing the quantity and quality of remnant coal in its dedicated area, including separation requirements for different products.

3.2 Operations

3.2.1 Service Provision

Terminal capacity is calculated considering historical service provision and shipping mix (the capacity model accounts for the impact of differing service requirements). However, if future service requirements evolve beyond the current demands, the rated terminal capacity could be adversely impacted. Any detrimental impact of terminal service demands can also impact the upstream coal chain, causing individual supply chain assets to operate below their rated capacity, in turn compromising the overall system capacity.

Because of product diversification catering for specific end-user preferences, DBCT is required to meet varying service requirements as is the case with all terminals servicing the Bowen Basin. Different coal types present different handling characteristics, requiring a variety of handling strategies to ensure the product can be handled by the terminal without compromising the coal quality. Reduction of normal equipment rates to cater for these individual products can impose a performance impact on terminal capacity.

Producers pay a common tariff per tonne of coal shipped, however different handling requirements will impact the terminal’s performance (e.g. sticky coal, blending, dusty coal, wet coal). Some of these coal types and product blends consume more terminal capacity than others. The handling characteristics of individual coal types may also impact performance of the assets upstream of DBCT.

3.2.2 Vessel Trends

DBCT can load coal onto vessels ranging from 40,000 Dwt tonnes in size, up to approximately 220,000 Dwt. DBCT is primarily exposed to four classes of vessels: Large Cape Size (140,000-220,000 Dwt), Capes (100,000-140,000 Dwt), Panamax and Japmax (65,000-100,000 dwt) and Handimax (40,000-65,000 Dwt). Due to limited deballasting capability in small vessels, loading times are not proportionate to the size of the vessel as demonstrated in table 3, which outlines the comparative load rates by vessels loaded at DBCT in the 2016 and 2017 calendar years. The load rates show a clear bias towards fast loading performance into the larger vessels.

Vessel Type	Avg load rate (tph)	Avg load time	% of total vessels	# of vessels
VLC	4813	30.72	38%	502
Cape	4818	22.29	5%	67
Japmax	4831	16.78	37%	491
Panamax	4218	16.25	14%	179
Handimax	3359	13.85	6%	75

Table 3: DBCT ship arrivals 1 Jan 2016 – 31 December 2017

DBCT’s outloading capability has been enhanced in the current decade by the industry trend towards larger vessels. Larger, newer vessels offer economies of scale and efficiency advantages to the charterer, while generally offering better deballasting performance for the loading terminal.

DBCT’s average vessel size surpassed 100,000 Dwt in 2010 and has remained stable in subsequent years. Despite this consistent trend towards larger vessels, the arriving vessel mix can change from month to month in response to freight rate volatility. DBCTM must continually assess its terminal capacity assumptions using the latest vessel arrival size distribution data. Despite the month to month variations in freight rates for the various vessel classes, DBCT has consistently loaded vessels for days and weeks at rates well above the 85 Mtpa nameplate capacity.

3.2.3 Mine Load Points and Recharge Capability

The performance of individual train loading infrastructure at the various mines also contributes to overall system capacity. The capability of mine load-out infrastructure must be able to support the hybrid and cargo assembly requirements of the



downstream supply chain assets. If the individual train load out capabilities do not allow for a hybrid/cargo assembly build rate of 85 Mtpa, the total system capacity is likely to be compromised. This occurs because delays in an under-performing mine load-out impact cargo build rates at the terminal.

Mine loadout performance in the DBCT coal chain is variable, with a combination of high performance and legacy mine loadouts in operation. Downstream supply chain infrastructure assets and operating strategies have necessarily been built to accommodate this wide variance in train load-out performance. Nevertheless, Access Seekers must demonstrate that proposed mine load out facilities and haulage arrangements will not degrade system capacity before contracting for access to DBCT. This assessment is undertaken in consultation with the ILC using the system capacity model.

4 Supply/Demand Expectations

The Port Services Agreement requires DBCTM to:

- assess the current and future needs of Producers for services and facilities, and
- provide projections for the demand for services at DBCT

4.1 Throughput Growth

DBCT’s highest throughput in a financial year was 71.5 Million tonnes in 2014/15. While a gap still exists between DBCT’s best ‘year’ of throughput, current throughput (approx. 70 Mtpa) and terminal capacity (85 Mtpa), this has generally resulted from sub-85 Mtpa levels of demand (refer Figure 13). While it is difficult to assess current mine capability, it is assumed that the take or pay nature of the DBCT Access Agreements have incentivised DBCT Users to contract port capacity sufficient to meet mine production, traditionally with some extra capacity contracted to provide logistical flexibility.

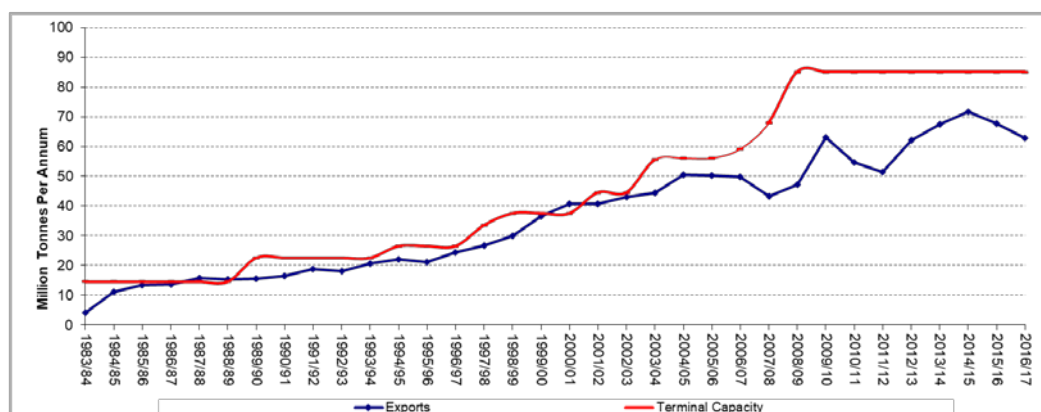


Figure 13: DBCT throughput and capacity growth history (DBCT Management, 2016)

In the depressed coal markets prior to late 2016, and with costs clearly under focus, miners undertook to relinquish any unnecessary take or pay obligations, particularly terminal capacity. There has been interest in some of this relinquished capacity from a combination of smaller brownfield and greenfield mine developers.

Unlike the previous “mining boom”, DBCTM expects the next wave of coal mine development to occur in a much more measured and controlled fashion. It is also likely that spare capacity at other ports will be more attractive than expansion capacity at DBCT. This will occur because existing spare capacity will likely be available sooner than expansion capacity at DBCT and carries no approval, timing, or execution risks.

4.2 Metallurgical Coal History

DBCT’s predominant export product is metallurgical coal (PCI and coking), accounting for approximately 84% of total throughput. DBCTM’s master planning is primarily focused on the metallurgical coal demand and development, as this is the dominant resource within DBCT’s catchment area.

Metallurgical coal is primarily used for steelmaking, with integrated steel mills requiring between 0.7 and 0.9 tonnes of metallurgical coal to produce one tonne of steel. Metallurgical coal prices trended down over most of the 1990’s, but began to

rise in 2001 before spiking in 2007 and 2008. Prices spiked again in 2011 as flooding reduced Queensland export volumes by approximately 13%. The price then began a gradual fall following the flooding event, culminating in a low contract price of US\$81/mt FOB in the January 2016 quarter. Following government mandated rationalisation of Chinese coal production in 2016, coinciding with mine specific issues in Queensland and New South Wales, the spot HCC price again surpassed US\$200/t FOB.⁴

More recently, tropical cyclone Debbie (TC Debbie) halted exports from the Central Queensland Coal Network (CQCN) for three weeks after crossing land in March 2017. In addition to a three-week interruption to railings to Hay Point and multi-week delays to railings in the Blackwater and Newlands coal networks, TC Debbie had long-lasting impacts on the DBCT supply chain for much of 2017. Spot prices spiked above US\$300/mt following TC Debbie but have since returned to near \$US200/t. The spot price has sustained at well above US\$200/t for the first three months of 2018. This pricing history is shown in Figure 14 below.

A key change occurred in seaborne hard coking coal (HCC) markets immediately following TC Debbie, reportedly in response to the price volatility that resulted. After decades of resistance to index-linked pricing, Japanese coal end-users finally accepted a move away from negotiated contract pricing. A new mechanism was agreed between buyer and seller which was linked to key daily spot pricing indices. The new index linked quarterly pricing mechanism utilises the daily average prime HCC spot price from three major coal indices (Argus, Platts and TSI). The daily average HCC price from the three indices for the preceding three months are then used to calculate the current quarter’s contract price. DBCTM is uncertain what impact this change might have on long term volatility in pricing and demand patterns.⁵

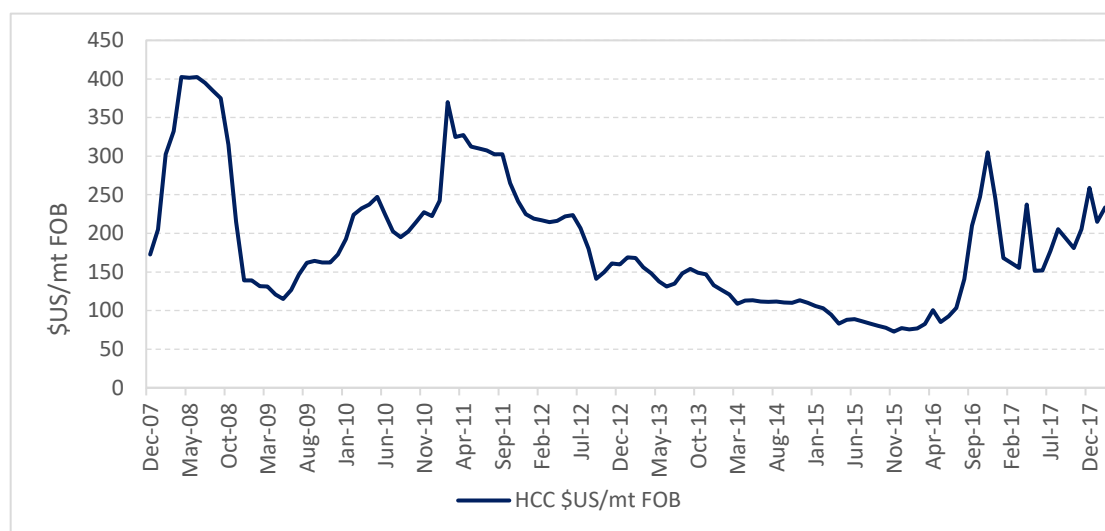


Figure 14: Spot FOB Newcastle Thermal and QLD met coal price history (Platts CTI & IHS, 2007-2018)

⁴ Platts CTI and IHS Inside Coal

⁵ Argus website (<http://www.argusmedia.com/news/article/?id=1477863>)



China is the world's largest consumer and producer of metallurgical coal. Australia and the US are the world's other major producers, while Japan, India and Russia are the world's other major coal consumers. Global metallurgical coal production is estimated at about 1,045 million tonnes per annum. Seaborne metallurgical coal trade was approximately 314 Mt in 2016 with the remainder of metallurgical coal supply coming from domestic production and imports over land.⁹

Australia is the dominant metallurgical coal exporter, holding 60% of the market, followed by the US which exported approximately 11% of global seaborne coal in 2016. Approximately 80% of Australia's exports go to Asian markets, although Australian producers also ship significant volumes to Europe. Imports are much less concentrated than exports, however the Far East (combined) takes just less than half of global volumes, with China alone accounting for about 19% of the metallurgical coal exported in the seaborne market

China's investment-led growth strategy saw its economy boom during the 2000s, driving up consumption of many raw commodities, particularly metallurgical coal and iron ore. From 2000 to 2013, the urban population in China grew by an average 20 million people per annum. This urbanisation process required massive volumes of steel to meet demand from infrastructure and building projects. Over the same period, Chinese steel production grew by an average of 50 Million tonnes annually, increasing from 129 Mt to 823 Mt, (representing 7 times the steelmaking capacity of the U.S). The boom in Chinese steel production coincided with a substantial expansion in Chinese domestic metallurgical coal production. Ultimately China needed to supplement domestic supply with imports, taking 126 Mt of coal in 2009.

Much of this growth in demand was met by North American and Australian production. Incentivised by the growth in the seaborne price, miners worked hard to rapidly expand production. This campaign to meet growing seaborne metallurgical coal demand resulted in substantial increases in the cash cost of coal production as miners sought to export the tonnes at any cost. The miners accepted this cash cost growth, expecting that the cost of production was likely to be lower than the sale price of coal. Many coal mining projects were commissioned and brought online around the world, lured by the expectation of continuing growth in Chinese demand.

Slowing Chinese economic growth after 2011, a corresponding drop in steel production and new coal mining capacity being brought online led to an oversupply of coal globally. Coal prices subsequently fell across the board between 2012 and 2016. Much of the supply in the US and Canadian markets was no longer profitable and was removed from the market, or was subject to some form of ownership restructuring. This oversupply situation culminated in US\$81/t sale prices in the Jan-Mar quarter of 2016 (Figure 14).



By September 2016, the Chinese government imposed 276 working day limits on all domestic coal mines to improve the profitability of China's coal mining industry. These working day limitations at coal mines occurred in the midst of the Chinese government executing its ambitious targets to rationalise Chinese coal and steelmaking production capacity. This rationalisation program was achieved through a variety of measures, including mine closures justified on the basis of safety concerns, consolidation of China's major mining companies and mandated shutdowns of small or illegal mining operations.

So far, this Chinese consolidation initiative has resulted in 473 Mtpa of coal mines (both thermal and metallurgical) leaving the market in 2016 and 2017, with a further 150 Mtpa of coal production to be closed in 2018. This has been a major contributor to the recent rebalancing of supply and demand in the global market. Due to the recently tightened supply situation, supply disruptions occurring in any metallurgical coal mining region have quickly resulted in seaborne coal price increases.

4.3 Supply

The supply of metallurgical coal into the seaborne market is currently dominated by four countries. In 2016, Australia held a 60% share of global exports, US based producers hold 11%, Canada holds 8% and Russia holds 7%. Queensland and Australian coal producers have a natural geographical advantage over many other metallurgical coal producers, which are generally located further away from DBCT's typical Asian buying regions.⁹

During the mid to late 2000s, in response to expected continuing high Chinese demand, global metallurgical coal production reached historically high levels through the introduction of new coal mines and capacity expansions at already operating mines. Since 2009, Australia has increased its exports by approximately 50 Mt.⁹

In response to subsequent falling coal prices between 2012 and 2016, many coal producers took the approach of reducing the unit cost of producing coal by maximising coal production rates. Increased production added extra coal supply to an already oversupplied market and depressed prices further. In the same period, focus shifted to achieving cost savings at coal mining operations to improve profitability and in some cases, survival. Cost savings were achieved in a number of ways, but the main focus areas were reducing the cost of labour and the exploration spend. DBCTM expects Australian producers to continue to benefit from cost reductions achieved in the downturn between 2012 and 2016.

During the recent downturn, many of the top tier coal producers in the US were forced to idle coal mines, or seek bankruptcy protection under Chapter 11 provisions. In response to a rebounding coal market, a number of these operations have since resumed production and re-joined the export market. US metallurgical coal exports increased 31% year on year in 2017, with almost half of all US metallurgical coal exports going to European ports. DBCTM expects that US coal suppliers will continue to provide swing capacity to the global seaborne markets.⁹

Mozambican coal production has also faced delays and extra costs to repair, upgrade and build coal transport infrastructure. The most advanced and significant coal mine (Moatize) and accompanying infrastructure project (Nacala) in Mozambique is majority owned by Vale. The Moatize mine exported 11.3 Mt of coal in 2017, 6.95 Mt

of this was metallurgical coal.⁶ The Moatize mine project will export up to 18 Mtpa from Nacala Port at full capacity, utilising the Nacala Rail corridor for coal transportation. The Nacala rail corridor upgrade project secured financing in late 2017. This upgrade project will ultimately increase the Nacala rail corridor's coal export capacity to 22 Mtpa.⁷ Given its proximity to India and Europe, Mozambique's coal production has the potential to displace some demand for Australian metallurgical coals.

Although Mongolian miners have recently faced issues with cash flow and profitability, Mongolian coal developments have the potential to displace demand for Australian coal, particularly demand from Chinese importers. Mongolian miners exported approximately 18 Mt of coal in 2017, most of this was exported across the border to China. Infrastructure and border bottlenecks have recently constrained exports as Mongolian miners' ramped-up production in response to improved market conditions. Mongolian miners are still limited in their access to export markets other than China, meaning the sale price of Mongolian coal is usually well below the seaborne price.

After falling to US\$81/t FOB in Q1 2016, HCC prices have been sustained above US\$100/mt FOB since August/September 2016, and have been above US\$200/t for the first quarter of 2018. These improved market conditions are likely the result of the recent rebalancing of supply and demand and seemingly consistent disruptions to supply around the world.⁸

Coinciding with sustained improving market conditions, DBCTM has observed an increase in interest for port capacity from a combination of greenfield and brownfield coal mine developers. This increased interest indicates that confidence in the market is returning and miners may be more willing to invest in coal mine developments in the Bowen Basin. Following years of cost cutting initiatives, combined with well-developed infrastructure and a natural proximity advantage to Asian import destinations, Australian miners are expected to maintain a substantial advantage over their global competitors.

Recent demand trends from DBCT's major coal import regions are shown in Figure 16.

4.3.1 Domestic Indian production growth

While India has abundant coal reserves and some of the lowest mining cash costs in the world, the coal reserves generally aren't in areas where the coal is consumed. Indian metallurgical coal also tends to be of lower quality and with higher impurities than Australian coals.

⁶ Vale Production & sales Q4 2017 (http://www.vale.com/EN/investors/information-market/Press-Releases/ReleaseDocuments/2017%204Q%20Production%20Report_i.pdf)

⁷ African Development Bank – Nacala corridor resettlement (https://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Mozambique_-_NACALA_RAIL___PORT_PROJECT_-_Summary_RAP_%E2%80%93_10_2015.pdf)

⁸ Platts Coal Trader International – Premium low vol. hard coking coal price (2007-2015). IHS Inside Coal – Australian prime hard coking coal (2015-2018)

India's seaborne demand will largely depend on the performance of its domestic coal industry. New coal mine developments have historically been subject to delays while waiting for land acquisition and the award of the mining lease. With only Bharat Coking Coal Limited current producing substantial quantities of metallurgical coal in India, combined with concerns about quality, Indian domestic metallurgical coal supplies are expected to increasingly struggle to keep pace with India's ambitious steel production expansion plans. Accordingly, DBCTM expects that India is likely to need to supplement its domestic metallurgical coal production with greater seaborne metallurgical coal or raw steel imports.

4.3.2 Chinese Domestic production

Chinese domestic producers accounted for 578 million tonnes of metallurgical coal supply in 2016.⁹ Much of China's coal production prior to 2018 was reportedly running at a loss. These coal mines were supplying metallurgical coal to steel mills which were also struggling with profitability and low levels of utilisation. To combat this lack of profitability in domestic coal supply, the Chinese government imposed policies designed to protect Chinese coal producers from competition from imported coals in 2015.

The first of the key policies involved quality checks for trace elements, the second was a blanket tariff applied to imported coals which was subsequently removed. Both of these policies appear to have had little effect on longer term Australian coal exports to China. This is particularly true for coal exports from DBCT to China which were the highest on record in 2017 (15 Mt) (Figure 19).

The Chinese government subsequently mandated ambitious targets for rationalising unviable and unsafe domestic coal production. China's ambitious targets for coal and steel production rationalisation have largely been met or outperformed with 473 Mtpa of coal production being removed from the market in 2016 and 2017, with a further 150 Mtpa expected to be removed in 2018. Due to mandated reduction targets, development and investment in new Chinese coking coal mines has been limited and will be unable to offset the lost production capacity. This will likely lead to China increasingly entering the seaborne market to satisfy its coking coal needs.¹⁰

4.4 Drivers of demand

Global crude steel production grew from 1,343 million tonnes in 2008 to 1,691 million tonnes in 2017.¹¹ DBCTM expects that India's infrastructure build program will continue to drive strong demand for DBCT's coal.

⁹ Dept. of Industry, Innovation and Science (<https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyDecember2017/documents/Resources-and-Energy-Quarterly-December-2017.pdf>)

¹⁰ SXCoal website (<http://www.sxcoal.com/news/4569671/info/en>)

¹¹ World Steel Association Website (<https://www.worldsteel.org/media-centre/press-releases/2018/World-crude-steel-output-increases-by-5.3--in-2017.htm>)

China’s expected growing dependence on seaborne coal will continue to drive healthy demand for coal exports from Queensland. Japan and South Korea’s steel production is expected to remain stable, and not materially alter demand levels for Australian coal.

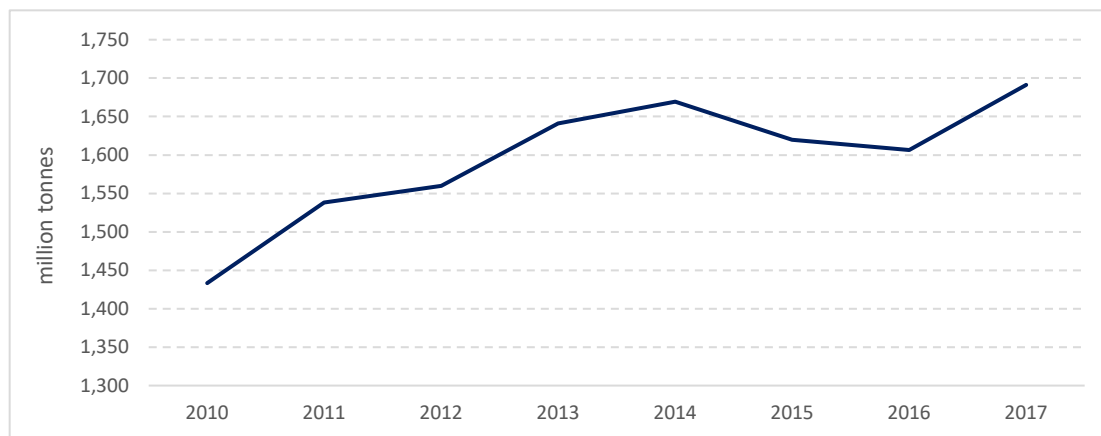


Figure 15: World crude steel production – World Steel Association, 2017

The comparatively mature economies of Japan, South Korea and Europe have well-developed steelmaking capacity, but are not endowed with substantial domestic metallurgical coal reserves. These economies experienced growth in their steelmaking industries well before the recent rise of China and India as steelmaking giants. South Korea and Japan experienced similar rapid growth in the early development phases of their economies, but have stabilised at approximately 70 Mtpa and 105 Mtpa of crude steel production respectively. Chinese and Indian steel production and coal demand has grown rapidly and is expected to eventually mature and stabilise like the Japanese and South Korean economies before them. It is uncertain when this stabilisation will occur and at what level of annual production this is likely to occur.¹²

Other factors such as increased usage of recycled steel, or technologies that replace traditional metallurgical coal and iron ore production processes, such as POSCO’s FINEX technology may pose a risk to long term metallurgical coal demand.

¹² World Steel Association website (<https://www.worldsteel.org/media-centre/press-releases/2018/World-crude-steel-output-increases-by-5.3--in-2017.html>)

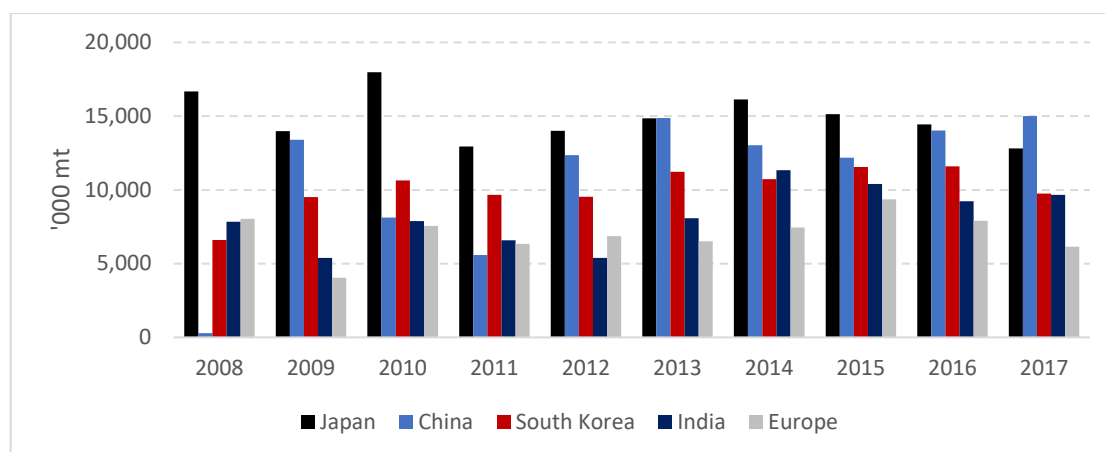


Figure 16: DBCT historical exports to key importing regions (DBCT Management, 2018)

4.4.1 India

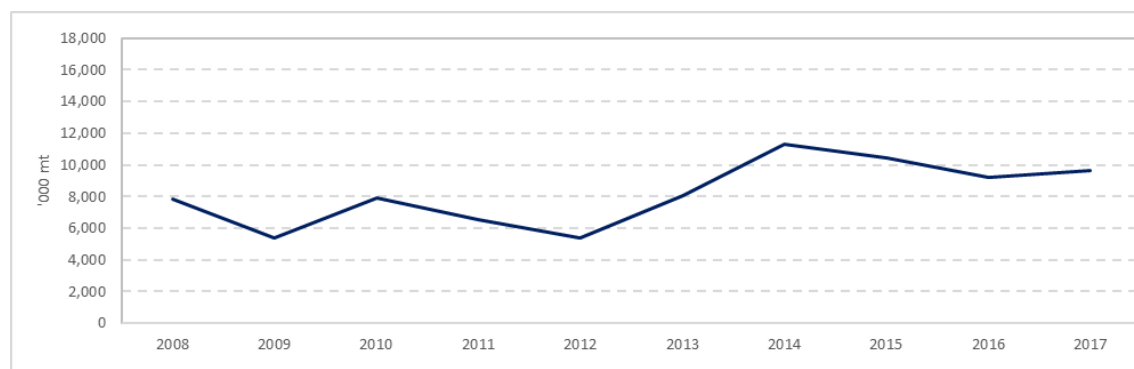


Figure 17: Indian imports from DBCT (DBCT Management, 2018)

Facing difficulties in obtaining supplies of high quality domestic coal production, India's steel ministry wrote to the Indian government in early 2018 to request that tariffs on coking coal imports into India be removed. Despite the tariffs, Indian imports of metallurgical coal were 12% higher in 2017 (43.5 Mt) than 2016 (38.83 Mt), indicating that Indian demand for metallurgical coal is growing and that domestic metallurgical coal production cannot keep pace.¹³

India's ambitions to increase domestic crude steel production from 100 Mtpa in 2017 to 300 Mtpa in 2025 is the most likely driver of seaborne met coal demand growth in the coming decade. India increased steel production by 6% in 2017, and for the first time surpassed 100 Million tonnes of crude steel production in a year.¹⁴ A number of Indian steelmaking facilities are currently subject to expansion projects, however to reach the 300 Mtpa crude steel target by 2025, India will need to further streamline the approvals process for steel mill development.

¹³ Dept. of Industry, Innovation and Science (<https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyDecember2017/documents/Resources-and-Energy-Quarterly-December-2017.pdf>)

¹⁴ World Steel Association website (<https://www.worldsteel.org/media-centre/press-releases/2018/World-crude-steel-output-increases-by-5.3--in-2017.html>)

With supply channels to India already well established between Queensland coal producers and various Indian customers, DBCT’s exporters are well positioned to satisfy some of this Indian coal demand growth. DBCT has already seen significant growth to India as an export destination in the past decade, (Figure 17).

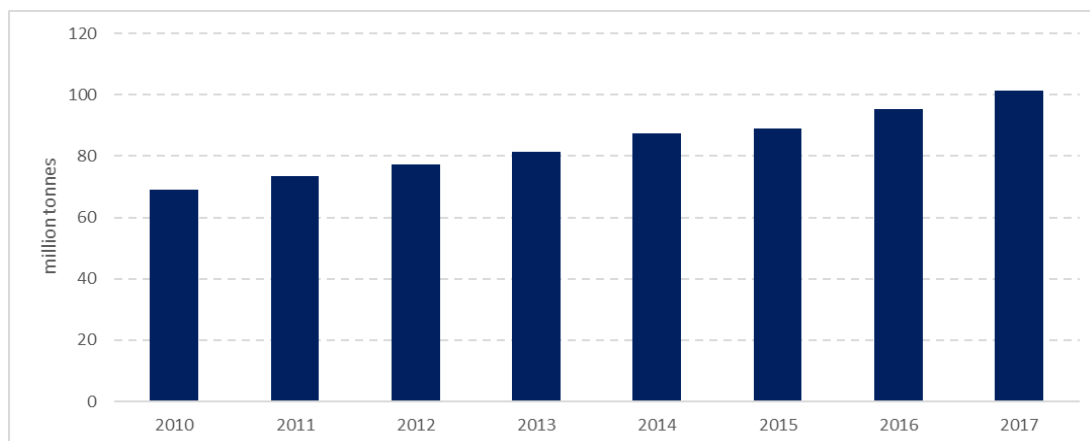


Figure 18: Indian crude steel production (World Steel Association, 2018)

4.4.2 China

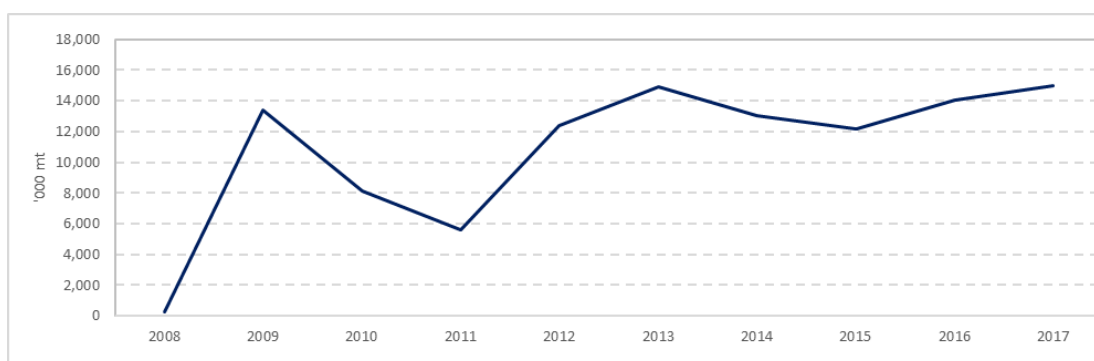


Figure 19: Chinese imports from DBCT (DBCT Management, 2018)

After entering the seaborne market as an importer in 2009, China’s demand for metallurgical coal has grown and shrunk with the performance of its economy, steel producers and domestic metallurgical coal production. China’s steelmakers are estimated to have imported 71 million tonnes of metallurgical coal in 2017.¹⁵ Chinese steel producers recorded a decade or more of extraordinary crude steel production growth until 2014 (822 Mt), followed by a period of lower domestic consumption and growing crude steel exports in 2015 and 2016. Despite widespread capacity rationalisation in 2016 and 2017, Chinese crude steel production was the highest on record in 2017 (832 Mt).

¹⁵ Dept. of Industry, Innovation and Science (<https://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/ResourcesandEnergyQuarterlyDecember2017/documents/Resources-and-Energy-Quarterly-December-2017.pdf>)

In addition to the reported removal of approximately 120 Mtpa of steel production capacity in 2016 and 2017, the Chinese government is targeting the reduction of another 30 Mtpa of steel production in 2018, bringing the three year total to approximately 150 Mtpa. The original mandate was for 100-150 Mtpa of steelmaking capacity to be removed between 2016 and 2020, meaning production cuts have been occurring in line with the targets set out in the 13th five year plan (2016). DBCTM expects this reduction in Chinese capacity to have a positive benefit on the global steel market and to improve steelmaking profitability in DBCT’s other key export regions.¹⁶

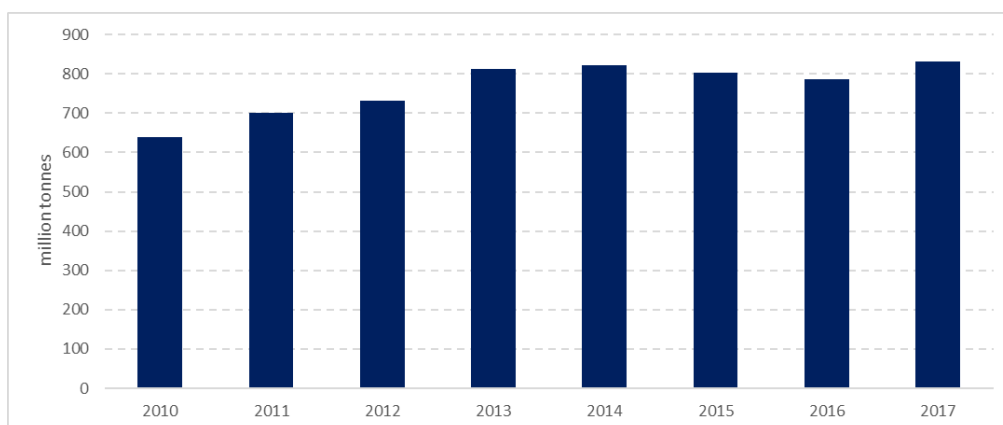


Figure 20: Chinese crude steel production (World Steel Association, 2018)

Despite Chinese steel exports reducing by approximately 31 percent between 2016 and 2017, anti-dumping measures have increasingly been applied in other steel-producing regions. These policies are designed to protect local industry against cheap Chinese steel imports. The US Government is attempting to implement trade tariffs on steel imports from a number of countries, including China. The EU had instituted similar tariffs on cheap Chinese steel imports in 2011 and these tariffs were extended for another five years in March 2018. These protectionist policies may become more prevalent in other regions with steelmaking industries in coming years, potentially reducing demand for Chinese steel exports.¹⁷

As can be seen in Figure 19, DBCT’s exposure to Chinese imports has grown significantly over the past decade. Chinese buyers have typically only turned to imported coal when the price was lower than domestically delivered coal, meaning China’s demand has been volatile and difficult to forecast. Chinese demand is uncertain, volatile and subject to a number of domestic policies, combined with the general outlook for the Chinese economy.

¹⁶ SXCoal website (<http://www.sxcoal.com/news/4569671/info/en>)

¹⁷ United States Trade Administration website (<https://www.trade.gov/steel/countries/exports/china.asp>)

4.4.3 South Korea and Japan

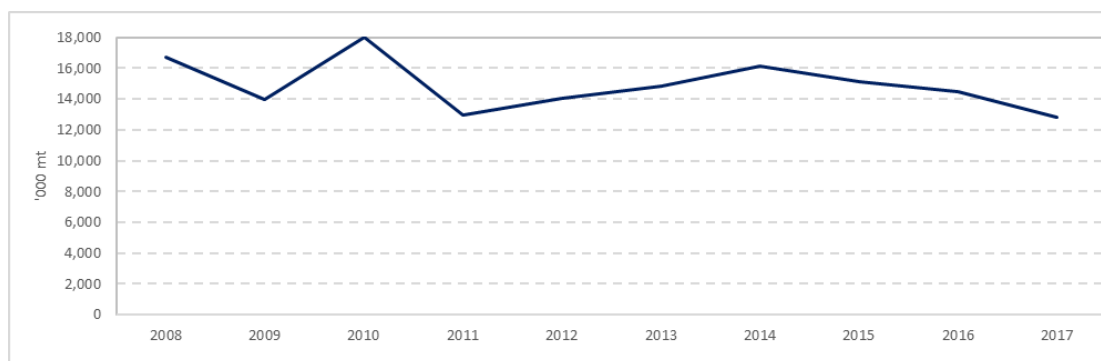


Figure 21: Japanese imports from DBCT (DBCT Management, 2018)

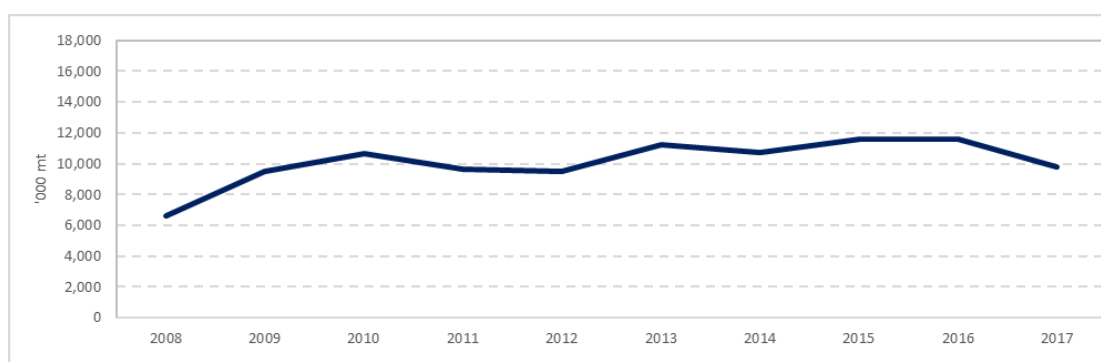


Figure 22: South Korean imports from DBCT (DBCT Management, 2018)

DBCTM views South Korea and Japan as stable destinations for DBCT’s metallurgical coal exports. While these nations are not expected to provide material growth in metallurgical coal demand, these two regions are expected to continue taking a substantial percentage of DBCT’s coal, as has been the case for at least the past ten years. Many of the mines that export through DBCT have varying levels of Japanese joint venture ownership, which is expected to continue the long-term sourcing of coal by Japanese buyers from these mines.

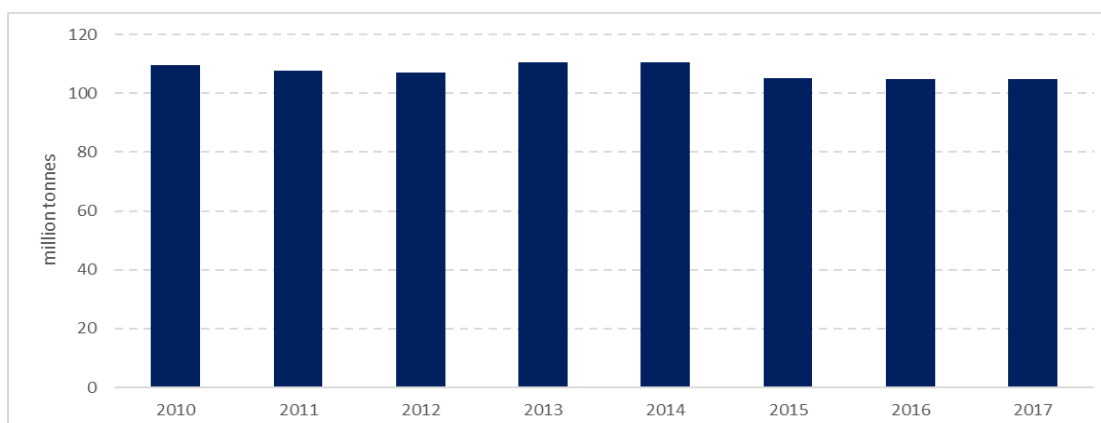


Figure 23: Japanese crude steel production (World Steel Association, 2018)

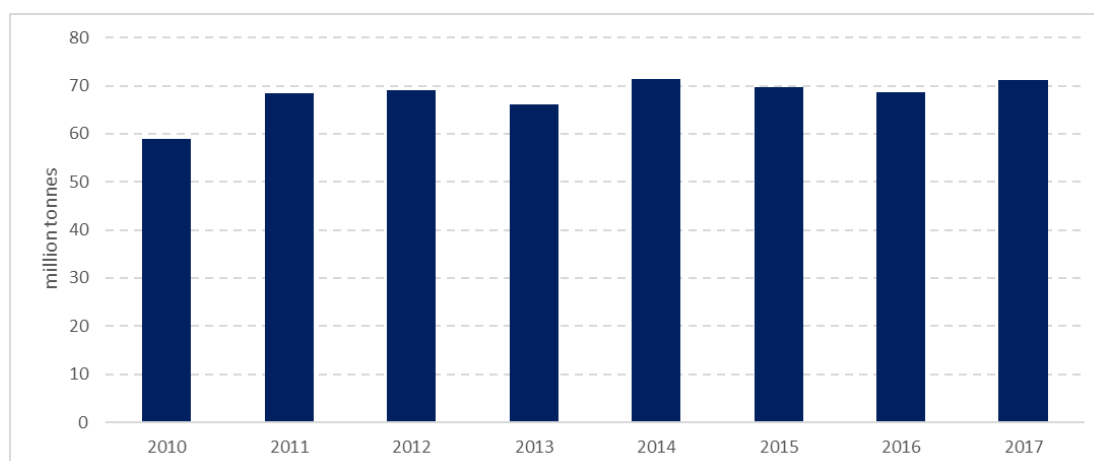


Figure 24: South Korean crude steel production (World Steel Association, 2018)

4.4.4 Europe

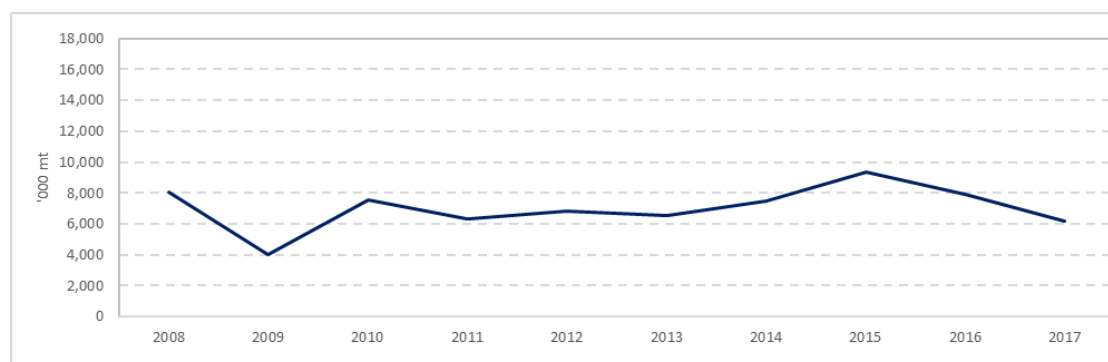


Figure 25: European imports from DBCT (DBCT Management, 2018)

There have been steelmaking facility closures in the past three to five years in some of DBCT’s usual European export destinations, however these closures represent a small percentage of Europe’s overall steelmaking capacity. Despite a reduction in crude steel output from 2012 to 2016, crude steel production from the EU has recovered to 168.7 Mt of output in 2017 (Figure 26).¹⁸

Historically low freight rates have likely been a factor in the increasing volumes of exports from DBCT to Europe over the past decade. Europe’s appetite for DBCT coal will continue to be responsive to freight rate volatility and the exchange rates of various currencies against the US dollar. Both factors have the potential to impact the ability of DBCT exporters to maintain their recently established foothold in the European markets. Australian producers were able to displace US coal production into Europe as the coal markets deteriorated between 2012 and 2016. DBCTM is unsure if European buyers would increase imports from the US if the US dollar weakened, or freight rates rose.

¹⁸ World Steel Association website (<https://www.worldsteel.org/media-centre/press-releases/2018/World-crude-steel-output-increases-by-5.3--in-2017.html>)

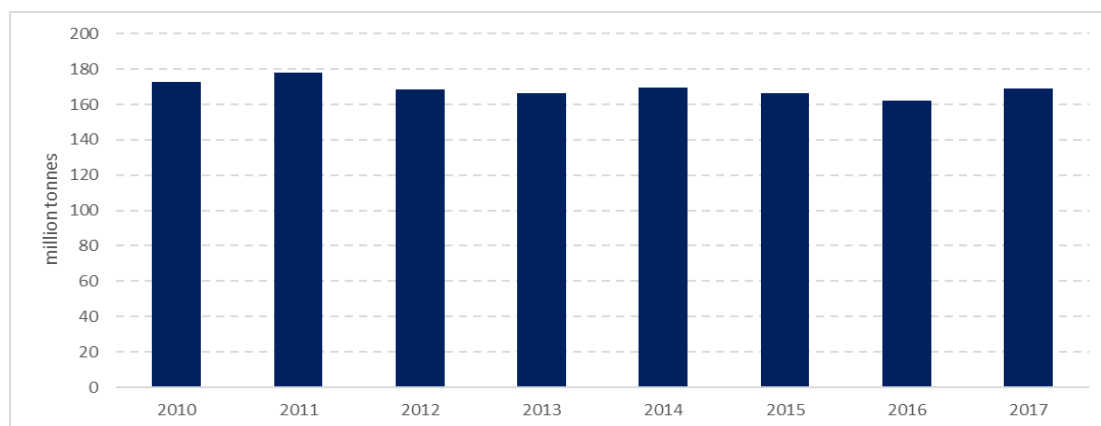


Figure 26: Eu-28 crude steel production (World Steel Association, 2018)

4.4.5 Thermal coal

While DBCT’s thermal coal throughput comprises approximately 16% of total throughput in any single year, it is necessary to consider thermal coal as an integral element of DBCT’s contracted capacity and a potential contributor to DBCT’s capacity growth. Accordingly, DBCT Management expects demand for thermal coal exports out of Queensland to grow in the medium to long term. Demand for DBCT’s thermal coal exports are expected to continue from traditional customers of the DBCT-exporting thermal mines. The growth in thermal coal demand from Queensland and DBCT is expected to increase with continuing economic development in India and the South East Asian regions. In the case of both regions, imports of thermal coal are expected to supplement domestic production.

Demand for new expansion capacity could conceivably come from thermal coal developments in the traditional Bowen Basin catchment area. Over time, DBCTM has received high numbers of Access Applications that related to thermal coal developments in the central Bowen Basin.

4.5 Mine Development Expansion Triggers

In the first quarter of 2016, coking coal prices were lower than they had been since prior to the mining boom of the late 2000’s, coinciding with the publication of the 2016 DBCT Master Plan. At that time there was no demand for expansion capacity at DBCT and capacity was being relinquished for the first time in DBCT’s history. By late 2016, metallurgical coal prices had surpassed US\$100/mt and have remained well above that level ever since. In the previous master plan, DBCTM anticipated that there would be no further coal mine developments until coal prices were sustained above the incentive price. While DBCTM did not attempt to determine this incentive price, Deutsche Bank (September 2015) suggested this price globally was approximately US\$127/mt.

DBCTM has seen an increase in Access Seeker activity during the second half of 2017 and into early 2018. DBCTM expects this indicated demand to be underpinned by mine development which will result in re-contracting of any relinquished capacity. DBCT Management does not believe the timing for terminal development can be forecast with any reliability and has avoided doing so in this or the previous master plan. DBCT Management instead approaches its master planning obligations by outlining an incremental development pathway that can be activated when real demand is presented and can be underwritten by access agreements.

5 DBCT Mtpa Expansion Options

5.1 Development Objectives for DBCT

DBCTM's development objectives for DBCT are as follows:

- Develop Master Plans that define strategies to ensure efficient and secure long-term operation of the DBCT facility to meet the needs of the existing terminal Users and Access Seekers.
- Develop an expansion pathway that is consistent with the Sustainable Ports Development Act and Reef 2050 Long Term Sustainability Plan by promoting the incremental development of the existing facility to satisfy the growth needs of the coal industry.
- Continue to build an alliance with all coal chain stakeholders in order to achieve mutually beneficial enhancements for the operation of the coal chain, including an equitable sharing of the costs and benefits of system improvements.
- Conduct the core business functions (treasury, financing, customer relations, regulatory relations, contracts management, etc.), while outsourcing technical and operating functions, to ensure that the DBCT facility continues to be managed, operated and maintained at a standard consistent with the obligations set out in the PSA.
- Realize additional system throughput through improved process efficiency at the terminal and within the Goonyella coal chain.
- Support community involvement and engage in ongoing meaningful stakeholder consultation.
- Ensure a continued 'leading practice' approach to port/terminal planning within the coastal zone, particularly within the GBRWHA.

DBCTM uses the following key drivers to guide the ongoing planning for expansions at DBCT:

- system capacity yield
- lowest whole of life costs (maintainability, operational flexibility etc.)
- minimising operational loss of capacity during construction
- minimisation of environmental impacts
- integration with existing infrastructure
- providing an incremental expansion pathway to maximise the potential of existing infrastructure and match the anticipated incremental growth of the coal chain
- realisation of terminal capacity against User contracted requirements, and
- future upgrade/optimisation potential.

Any terminal expansion is integrally linked to other supply chain infrastructure which has been illustrated in previous DBCTM Master Plans. DBCTM has been working closely with the ILC to match infrastructure expansions with the other system components to provide for the efficient use of infrastructure and ensure capacity expectations are met and delivered across the system.

DBCTM has a PSA obligation to accommodate the actual and reasonably anticipated future growth of demand for the use of DBCT by Access Holders and Access Seekers, as well as a regulatory obligation to address and accommodate Access Applications, subject to a reasonableness test. DBCTM has developed expansion options that address these obligations.

5.2 Expansion Studies

5.2.1 Recap of Master Plan 2016

Master Plan 2016 outlined an incremental expansion pathway that could take the terminal to an ultimate capacity of up to 136 Mtpa. The proposed expansion pathway is summarised in Table 4 below;

Stage		Description	Capacity (Mtpa)
Zone 4		Completion of Row 8, additional elevated stacker bund and additional Stacker (Bund 7/ST5), replacement of existing Reclaimer RL2 with new Reclaimer RL4 with extended reach into Row 8.	89
8X	Phase 1	Stockyard Augmentation Project (including vertical concrete walls on existing bunds 1 and 3), Stacker ST2 upgrade, Stacker ST1 upgrade and an upgrade of Conveyors R1 & R2	94
	Phase 2	Rail Receiving Pit 4, Inloading Buffer Storage, Upgrade to Inloading 2 and Outloading 2	102
9X (Implemented over 3 phases)		Additional Stockyard at Louisa Ck, Upgrades to Inloading 1, additional Outloading System 4 and up to 2 berths to the north, including significant land reclamation to accommodate dredge spoil	Up to 136

Table 4: Proposed expansion pathway

This Master Plan is consistent with the previous Master Plan insofar as the incremental development pathway remains essentially unchanged. The only change with respect to the expansion pathway is the viability of the 3rd step (9X). The likelihood of conditions being favourable to underpin a 9X expansion project in the future has been diminished by 2 significant contributing factors.

1. The introduction of Differential Pricing in the 2017 AU, which raises doubts about whether such an expansion is capable of achieving the objectives of being economic or reasonable.
2. The perceived difficulty of securing permits to complete the dredging required for the berths required for 9X.

These issues are discussed further in Section 5.4.3

5.3 System Capacity Modelling

During 2015, DBCTM engaged the ILC to model various expansion scenarios before finalising the pre-feasibility study for the Zone 4 project. The ILC first established the pre-expansion capacity of the Goonyella System and then modelled the final configuration of the Zone 4 project.

The Pre-Zone 4 capacity was modelled at 83.8 Mtpa (Pre-Z4UP) and the modelled

system capacity post Zone 4 was determined as 89.2 Mtpa as shown in Figure 27

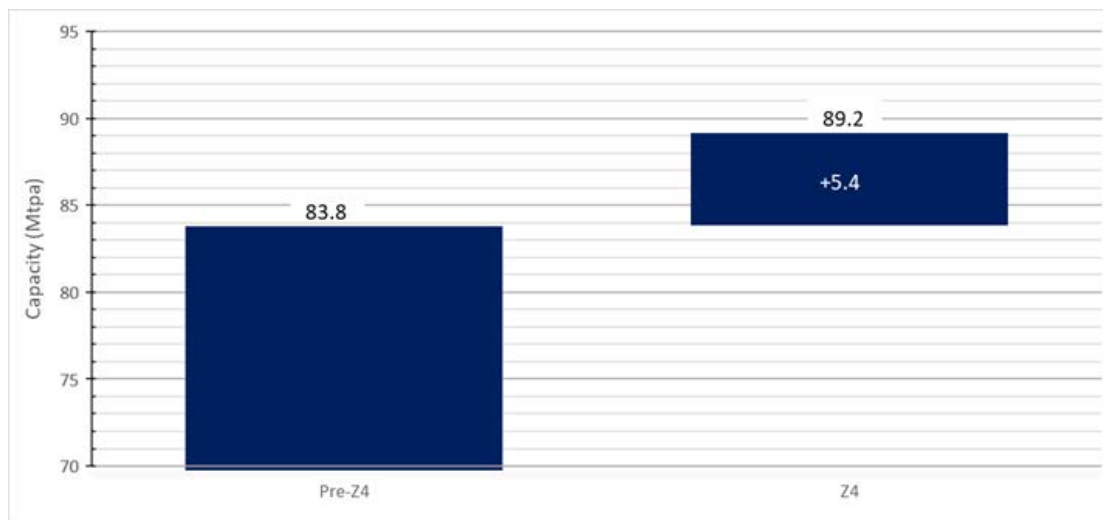


Figure 27: Zone 4 capacity modelling

The source of expansion tonnes within the Goonyella network are unknown, meaning the “model” was only able to be used to test the sensitivity of the result to various source mine locations within the network. Five separate ‘assumed’ mine locations were tested from various areas within the Goonyella network. In each case, it was assumed that the additional 4 Mtpa (from 85 to 89 Mtpa) would be sourced from a location on each of the following branch lines:

- North Goonyella branch
- Blair Athol branch
- Dysart branch (northern end)
- Dysart branch (southern end)
- Hail Creek branch

The worst modelled capacity result achieved for any of the scenarios was 89.2 Mtpa with some mine locations producing slightly better results.

The ILC intends to update the System Master Plan in the second half of 2018. Once that work has been completed, the Zone 4 modelling results will be revalidated. DBCTM does not currently expect the results to be materially different to previous modelling results.

During 2015, DBCTM engaged Ausenco, in parallel to the work being undertaken by the ILC on the Zone 4 project, to undertake system capacity modelling to assist with scenario testing for 8X and 9X concept development. Ausenco has had a long association with DBCT and modelling DBCT capacity, both on a standalone basis and within the context of the entire coal chain. Ausenco first modelled the existing system, followed by the Zone 4 expansion. After Ausenco’s model was producing modelling results broadly consistent with the ILC’s modelling, Ausenco’s work was extended to include various 8X and 9X scenarios.

The capacity assessments for the 8X and 9X concepts included in this Master Plan were independently estimated by Aurecon Hatch. Aurecon Hatch initially estimated capacities using static modelling.

DBCTM and Aurecon then tested capacities using Ausenco’s dynamic capacity modelling, which were ultimately considered sufficiently robust for concept level studies. Prior to progressing further with 8X studies, DBCTM would engage the ILC to verify the results using its latest dynamic system capacity model.

5.4 Expansion Pathway

5.4.1 Zone 4

The proposed Zone 4 Project involves expansion of the existing stockyard row 8 to enable both rows 7 and 8 to operate together as a 4th operating zone. The 4th zone would be utilised for storage of remnants and selected high-throughput coal types in dedicated stockpiles.

The project includes the following key components:

- Extension of Row 8 and the provision of a vertical walled bund (Bund 7) on the western side of the stockyard.
- Relocation of hybrid stockpiling (currently in use throughout the yard) with storage of selected high-volume products in dedicated piles in Zone 4 and another in a dedicated pile in Zone 2.
- Provision of an independent stacking path to Row 8 via the new Bund 7 and a new Stacker ST5 to improve the availability of the Zone 4 reclaim machines to attend to reclaim tasks.
- The replacement of the existing Reclaimer RL2 with a new Reclaimer with different geometry and a longer boom to ensure that it can reach all coal stored in Row 8 after the expansion.
- The relocation of the existing Western Site Access Gate and the Western Access Road.

The above aspects of the Zone 4 Project are illustrated in Figure 28 below.



Figure 28: Extent of Works for Zone 4

The Zone 4 project delivers an increase in stockyard storage capacity and some minor improvements in stacking and reclaiming efficiency. Prior to Zone 4, simulation

modelling undertaken by the ILC indicates that the existing Goonyella system capacity is constrained to approximately 83.8 Mtpa, despite the standalone nameplate capacity of DBCT of 85 Mtpa.

The Zone 4 expansion is not focused on provision of more coal handling equipment but instead focuses on increasing the storage volume available for Cargo Assembly and Hybrid Operations. This additional volume delivers an efficiency gain in the existing coal chain by allowing parcels to be sourced from more mine load outs and accommodated in the stockyard at any one time. This improved efficiency, in turn, provides additional system capacity by reducing the peaking congestion at points in the network. The infrastructure provided in Zone 4 will operate in a wholly integrated way with the existing facility, meaning that existing Users will necessarily have the same access to the facilities built as part of this expansion as expanding Access Seekers. The Zone 4 Project effectively closes the gap between Goonyella system capacity and nameplate DBCT capacity, while at the same time increasing overall system capacity to 89 Mtpa.

The proposed increase in the DBCT stockyard storage volume is to be achieved by an increase in width and length of row 8. The upgraded row 8 will feature a high retaining wall on the western side to allow greater storage efficiency than has been achieved in any other existing walled row.

The increased stockyard volume also facilitates an important change to the efficiency of the hybrid stockyard mode. In the context of the Zone 4 expansion project, the increased volume in Row 8 allows two of these dedicated product stockpiles to be moved out of the cargo assembly zones and into rows 7 and 8, coexisting with the remnant stockpiles. This allows rows 7 and 8 to be treated as a 4th stockyard Zone that will handle the two dedicated high-throughput coal brands as well as all remnants. The products in the Zone 4 dedicated piles are then not required to be handled via any of the other three cargo assembly zones or outloading systems. Coal from Zone 4 can then be proportioned across the 3 outloading systems in a way that allows Zone 4 to act as an extension, at various times, of each of the other three zones.

The effective storage ratio for the cargo assembly portion of throughput is increased and the increase in storage ratio is distributed more evenly across the stockyard zones than can be achieved prior to implementation of the Zone 4 project.

Minor improvements in overall stacking and reclaiming performance are also achieved in the Zone 4 project via:

- replacement of the existing RL2 reclaimer with a longer boom RL4 reclaimer. RL4 will achieve higher average reclaim rates due to its ability to reclaim from wider stockpiles
- addition of a new high capacity stacker ST5 to facilitate independent stacking into row 8 without disrupting reclaim operations

These equipment improvements contribute to the overall throughput capacity gain that will be achieved as a result of the Zone 4 project.

The modelling results indicate that the Goonyella system capacity increases from 83.8 Mtpa to 89 Mtpa as a result of the Zone 4 project. The Zone 4 project releases system capacity between the currently modelled system capacity of 83.8 Mtpa and the currently contracted 85 Mtpa. Unlocking 1.2 Mtpa of system capacity will benefit the existing terminal users, while also provide Access Seekers with 4 Mtpa of additional capacity beyond 85 Mtpa.

The stockpile areas are proposed to be utilised as shown below (Figure 29).

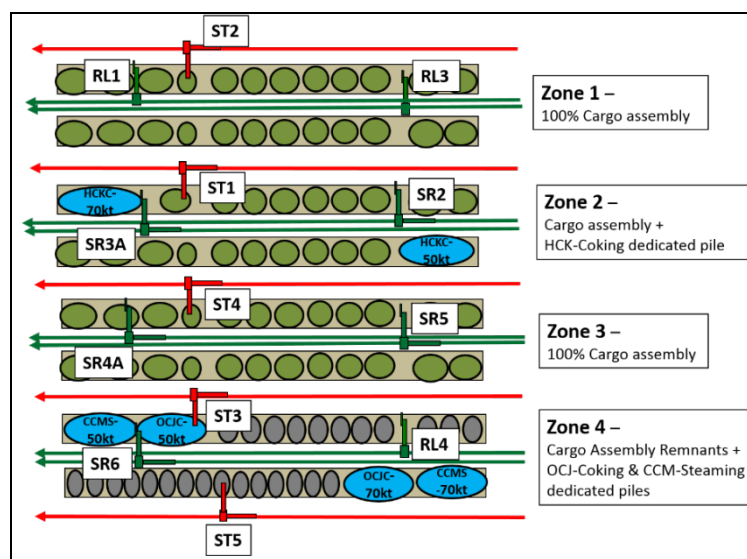


Figure 29: DBCT Stockyard following Zone 4 expansion

Use of the Zones can be described as follows:

- Zone 1 – This zone remains a cargo assembly zone.
- Zone 2 – This zone remains largely as a cargo assembly zone, but will also accommodate two dedicated stockpiles with total 120 kilotonne (kt) capacity for a high throughput coking coal (shown in blue). This is expected to handle the majority of the total throughput of this coal type.
- Zone 3 – This Zone remains a cargo assembly zone.
- Zone 4 – This zone, including Rows 7 and 8, was previously used only as a storage area for dedicated remnant stockpiles to support the cargo assembly operation. Following the extension of Row 8, this zone will now also accommodate 2 new dedicated stockpiles for each of two high throughput coal types.

The use of dedicated stockpiles allows cargoes destined for several vessels to be stacked together without separation between piles, meaning that these cargoes would consume much less stockyard area over time per tonne of throughput. This approach leaves more space for storage of other lower throughput coals that remain in separate cargo assembly stockpiles.

The Row 8 development within the Zone 4 project achieves a higher storage volume potential in Row 8 in comparison to other existing walled rows on the site. This occurs because of the increased height of the wall on the western side of Row 8 in comparison to the wall height on other rows at DBCT. This benefit is able to be utilised by the new large dedicated storage piles where significant length savings are achieved. Savings in stockpile length for the smaller remnant stockpiles are also possible, however the benefit is not as great as it would be for the larger, dedicated stockpiles. Further volume benefits are also achieved in Row 8, because being the western most stockyard row, there is no requirement for cross drains in Row 8 and no consequent loss of stockpile space.

5.4.1.1 Indicative cost of the Zone 4 project

A capital cost estimate was compiled for Zone 4 during the 2015 feasibility study in . Direct and indirect costs were generally compiled in detail with Material Take-offs (MTOs) produced through engineering and applied to detailed unit rates. The estimate was prepared using CCS Candy software - an analytical, resource-based estimating system.

During the study, budget pricing was sought for approximately 75% of the direct costs which was included as the basis for the stacker, reclaimer, civil construction, structural steel supply and fabrication and mechanical supply estimates. Contingency was included in the capital estimate following a Quantitative Risk Analysis (QRA) at P90 confidence. Estimate accuracy has been evaluated at approximately -15% to +20% at 90% confidence intervals.

Description	AU \$M
Direct Costs:	
Inloading	15.3
Stockyard	101.4
Yard machines	66.1
Site wide facilities	27.8
Indirect Costs	63.3
Contingency P90	82.2
Total AU\$M	356.1

Table 5: Cost breakdown for Zone 4 Expansion

Contingency was established in the QRA process which ranged components of the estimate at a summarised level. The resulting estimate at a P50 confidence level is \$308.8M with a contingency of AU\$34.9M. The range around this is between AU\$268.7 (P10) and AU\$356.1M (P90).

The estimate base date is June 2015 with no allowance for forward escalation.

5.4.1.2 Regulatory approvals for Zone 4

Relevant State approvals have been gained for this expansion, namely:

- DBCT P/L as the terminal operator, holding an existing Environmental Authority ('EA') (Permit EPPR00504513), granted on 19 October 2015 and authorising the undertaking of ERA 50 (Bulk Material Handling up to 89 Mtp. This EA includes the proposed Zone 4 expansion and ERA 63 (Sewage Treatment (more than 100 but less than 1500 Equivalent Persons design capacity)); and
- DBCTM as terminal owner, holds an existing EA, granted on 27 April 2015, which authorises the undertaking of ERA 16 – Extractive Activities (extracting and screening, other than dredging of more than 100,000t but not more than 1,000,000t in a year) across the DBCT terminal site (Permit EPPR02825115). The EA authorises the undertaking of blasting as part of the extractive activities.

These Environmental Authorities have been issued by the Queensland Department of Environment & Heritage Protection ('DEHP') and cover the full extent of Zone 4 up to the terminal capacity of 89 Mtpa.

A formal referral was also made for the Zone 4 project under the *Environment*

Protection & Biodiversity Conservation Act, 1999 ('EPBC Act') (Ref: 2015/7541). On 12 September 2015, the Commonwealth advised that the Zone 4 project was deemed to be a 'Non-Controlled Action' and no approval under the *EPBC Act* would be required.

On 15 December 2015, NQBP issued a conditional Port Development Approval under the Port of Hay Point Land Use Plan (approved under the *TI Act*), relating to the full extent of Zone 4 works.

5.4.2 8X Project

As previously mentioned, the expansion pathway beyond Zone 4 remains at early concept level only. The 8X and 9X project scopes outlined herein are subject to change as engineering progresses to pre-feasibility and then to feasibility level.

FEL1 studies (concept only) have also been undertaken for the other 2 incremental 8X and 9X expansions. Pre-feasibility and Feasibility work will ultimately be required to better understand these expansions, however, in accordance with the AU, this work will only be undertaken on the basis that an Access Seeker or Access Seekers are prepared to underwrite or fund the costs of the study.

The proposed 8X project is made up of a series of minor upgrades to the existing machines, systems and infrastructure, and the effective replacement of one of the existing inloading systems with a higher capacity system. Because of the building block nature of the project it can easily be implemented in phases. Two main phases have been identified as per Table 6.

8X – Phase 1								
Expansion element	Capex	Estimated Inloading capacity		Estimated Outloading capacity		Adjusted Outloading capacity for storage ratio @ 2.2%	Resultant capacity	
		(tpa)	Cap increment	(tpa)	Cap increment		(tpa)	Cap increment
Zone 4 (baseline)	N/A	89.8	N/A	90.7	N/A	90.8	89.8	N/A
ST1 and ST2 upgrades	50.62	93.0	3.2	90.7	0	90.8	90.7	0.9
Stockpile Augmentation Project (SAP) + R2/RL3 Zone Swap - Zone 1 to OL3, Zone 3 to OL2	135.8	93.0	N/A	93.0	2.3	93.0	93.0	2.3
TOTAL Phase 1	185.6	93	3.2	93	2.3	93	93	3.2

Table 6: 8X Project Phase 1 Summary

8X - Phase 2								
Add IL4 to stackers, Upgrade IL2 and Shut down IL1	253.6	100.6	7.6	93.0	0	93.0	93.0	0
OL2 Upgrade	9.6	100.6	0	93.9	0.9	93.9	93.9	0.9
Inload buffer storage	201.3	101.4	0.8	101.3	7.4	99.9	99.9	6.0
TOTAL Phase 2	473	101.4	8.4	101.3	8.3	99.9	99.9	6.9
TOTAL 8X	650.9	101.4	11.6	101.3	10.6	99.9	99.9	10.1

Table 7: 8x – Phase 2

8X – Alternative Phase 2 (if allow storage ratio to fall to 2.15%)								
Add IL4 to stackers, Upgrade IL2 and Shut down IL1	253.6	100.6	7.6	93.0	0	93.0	93.0	0
OL2 Upgrade	9.6	100.6	0	93.9	0.9	93.9	93.9	0.9
Inload buffer storage	201.3	101.4	0.8	101.3	7.4	101.3	101.3	7.4
TOTAL Phase 2	473	101.4	8.4	101.3	8.3	101.3	101.3	8.3
TOTAL 8X	650.9	101.4	11.6	101.3	10.6	101.3	101.3	11.5

Table 8: 8X Project Phase 2 Summary

5.4.2.1 Stackers ST1 and ST2 Upgrade

Inloading system No. 3 has a rate of 8,100 tph but is limited to lower rates of 6,000 tph and 5,500 tph when used to stack via ST2 and ST1 respectively. The upgrade of these stackers and the associated yard conveyors is proposed as a potential 8X project as indicated in Figure 30.

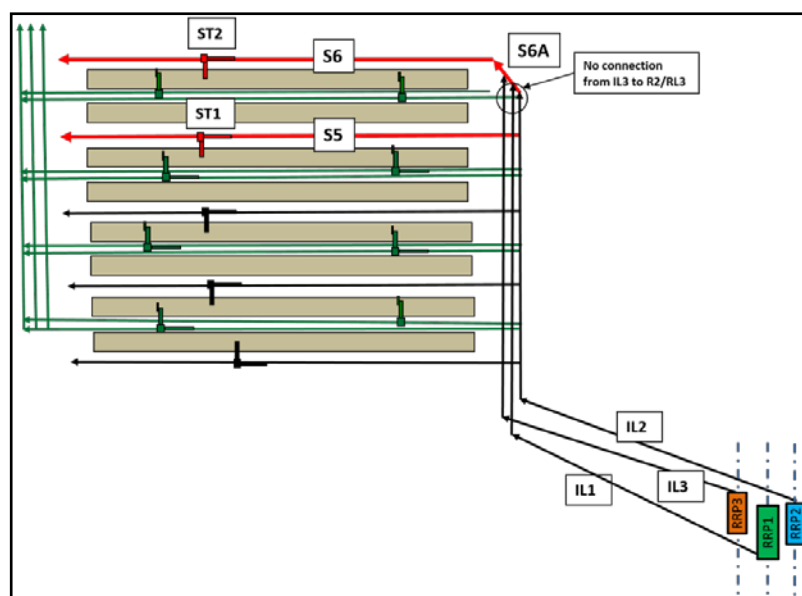


Figure 30- ST1 and ST2 Upgrade – Conveyors S6, S6A and S5 also require upgrade

In the case of ST2, a rate of 8,100 tph capacity can be achieved with only conveyor speed increases for conveyor S6A, S6 and the ST2 boom conveyor. The ST2 upgrade has been separately studied within an earlier 8X study completed by Aurecon Hatch in 2009.

In the case of ST1, a replacement of this machine with new ST1A stacker is possible prior to the commitment of 8X due to the age and condition of the existing ST1 machine. The ST1 replacement options have also been studied separately by Aurecon Hatch as reported in the document H348252-500000-100-066-0004, “Stacker ST1 Replacement Study, Feasibility Report”, March 2015. If the machine is not replaced before 8X then ST1 would need to be replaced at that point because the geometry of the existing machine cannot accommodate the vertical walls. If ST1 is replaced before 8X, then the new machine geometry will be suitable, however the new machine will still require an upgrade to accommodate a rate increase as part of 8X.

The associated S5 yard conveyor can be upgraded to 8,100 tph by fitting an 1,800 mm belt to the existing stringers and operating it at 6.6 m/s. Alternatively, a slightly lower capacity of 7,500 tph could be adopted if the current maximum conveyor speed of 6.2 m/s for the site was observed. A parallel 2,000 mm wide yard conveyor could also be constructed to achieve the target 8,100 tph with slower belt speeds.

5.4.2.2 Stockpile Augmentation Project (SAP)

The Stockyard Augmentation Project (SAP) is the only component of the 8X project that will deliver an increase in stockyard storage volume. It is important to maintain a storage ratio sufficient to accommodate a larger number of stockpiles. Additional stockpiles allow cargos to be simultaneously drawn from a larger number of mines at any given time. This balances the load across the rail network, avoiding potential congestion.

The key elements of the SAP project are highlighted in Figure 31 and are summarised as:

- Addition of concrete walls to Bund 1 and Bund 3 to improve storage volume in Rows 1, 2 and 3. The constructed walls allow wider stockpiles to be stacked against the walls, similar to those developed for Bunds 4A and 5A during the 7X Expansion. Vertical walls will also improve the average reclaim rates on machines RL1, RL3, SR2 and SR3A. Volume improvements are approximately 20 to 30% compared to existing earthen bund walls, depending upon the mix of parcel sizes utilising this space. Larger parcel sizes lead to a larger percentage change.
- Upgrade of R2 conveyor to allow RL3 to be reset at its full reclaim rate potential (from 4200 tph to 5300 tph).
- A potential 'Zone swap' involving an alternative allocation of stockyard zones to outloading systems to better align the high volume, highest reclaim rate Zone 1 with the highest performing outloading system OL3.

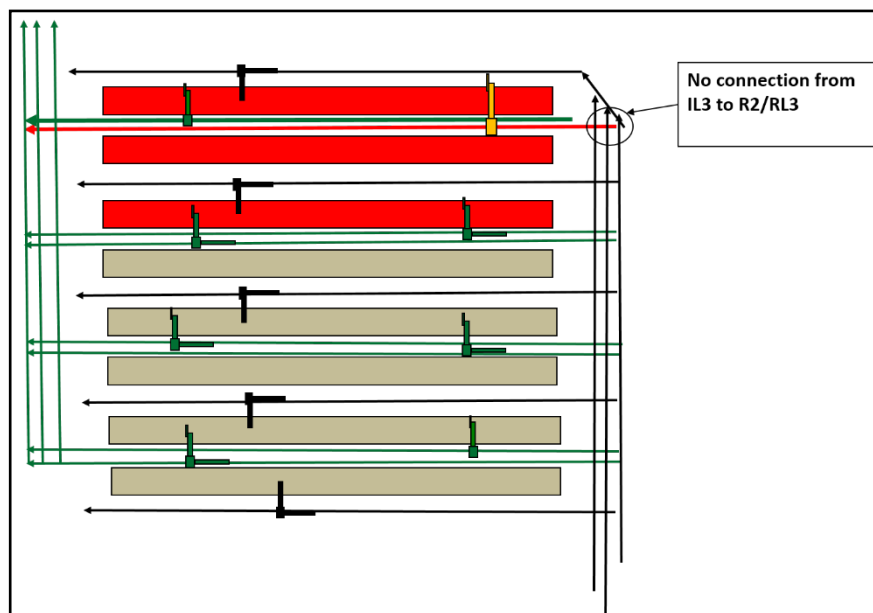


Figure 31: Schematic indicating scope of SAP project including upgrade of the RL3 yard machine and conveyor R2.

The proposed allocation of stockyard zones to outloading systems following the SAP project are shown in Figure 32.

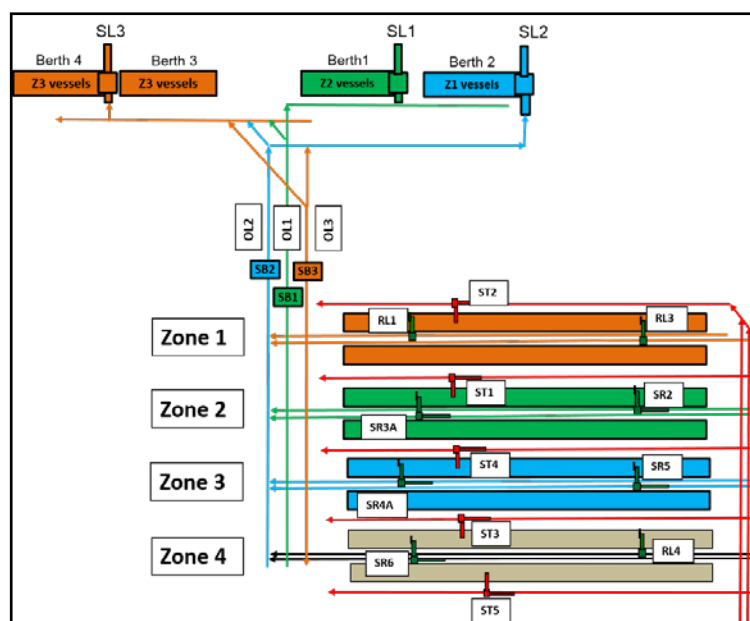


Figure 32: Proposed re-allocation of stockyard zones to OL systems following the SAP project

The SAP project will tend to draw increased capacity towards rows 2 and 3 and considering ST1 is already heavily utilised, it is likely that the ST1 upgrade would have a larger impact following completion of the SAP project.

5.4.2.3 New IL4 and IL2 upgrade

The upgrade of the existing IL1 and IL2 systems from 5,500 tph to 8,100 tph would be expected to achieve a significant boost to inloading capacity. Such an upgrade would require substantial modifications to the two rail receival pits RRP1 and RRP2 and the associated conveyors. These upgrades have been previously investigated by Aurecon Hatch. The findings are documented in the report: H79920CMP03-01, “Dalrymple Bay Coal Terminal, MP03 Concept Study, Upgrade of Inloading Systems 1 and 2”, June 2005. The upgrade of the RRP1 pit was separately investigated by DBCTM around the same time.

It is technically feasible to upgrade these systems, however the shutdown durations to complete the works is prohibitive. RRP2 would need to be shut down for approximately 6 months and RRP1 would likely need to be shut down for considerably longer. The RRP1 pit would require extensive modifications to the receival hoppers and feeder system, as well as the conveyor systems. Completing both upgrades before building a 4th system would reduce the terminal capacity to around 60 Mtpa for more than a year.

A new high capacity 4th inloading system (similar to inloading 3 developed in 7X) could be built to replace one of the existing inloading systems to provide a capacity improvement. This option would allow for the existing systems to be upgraded without capacity loss because the capacity is replaced before the losses are incurred. The upgrade of RRP2 is feasible by replacing the existing 1600 mm belts with wider 1,800 mm belts, operating at a maximum speed of approximately 6.4 m/s to minimise dust lift-off. The IL2 upgrade would only be carried out once the new IL4 was commissioned.

It is envisaged that the IL1 system would not be upgraded in 8X and would be decommissioned after IL2 is returned to service. If required, IL1 would be upgraded and returned to service as a part of the 9X project.

DBCT will only have three inloading systems in operation at the completion of the 8X project, removing the requirement to develop a 4th rail loop as part of 8X.

Considering the approaches described above, a potential sequence for upgrade of inloading systems during the 8X expansion and progressing to the potential future 9X development is described in Figure 33 and Figure 34.

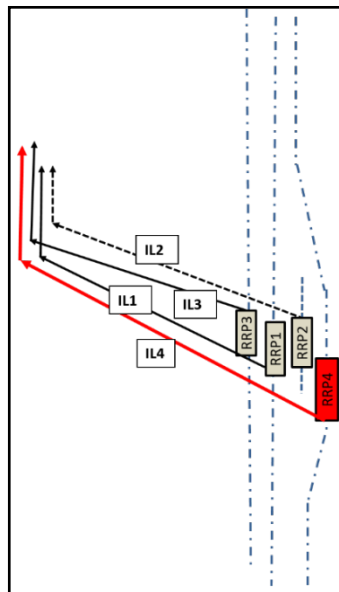


Figure 33: IL system upgrade – Step 1 - Establish new IL4 and RRP4, relocate existing RRP2 loop to service the new RRP4 and shutdown RRP2 and IL2 for refurbishment.

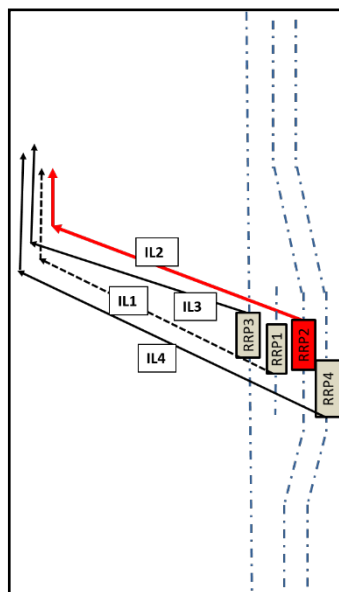


Figure 34: IL system upgrade – Step 2 - Re-commission upgraded RRP2 and IL2, relocate RRP1 loop track to service RRP2, shutdown RRP1 and IL1. IL1 would likely remain shut-down until the future 9X expansion phase.

With an objective to avoid the use of stacker reclaimers for stacking and to include upgrade options that achieve this outcome, it is proposed to connect the new IL4 system only to the stacking lines in the yard and not to the reclaim conveyors. It is acknowledged that this strategy will prevent throughloading from the IL4 system.

5.4.2.4 **OL2 Upgrade**

The rate limitations of the outloading conveyor systems and surge bin capacities contribute to “full bin” events during shiploading. “Full bin” events impose delays on yard machines that would normally be avoided by matching outloading rates to surge bin capacities and reclaim rates.

The potential throughput gains that might be obtained from improved conveying rates downstream of the surge bin were examined in previous studies completed by Aurecon Hatch:

- H79923CM/MP03-06 – “MP03 Concept Study, Upgrade of Outloading Systems 1 and 2” June 2005
- 319999-8043-M-RE-00001(Rev 3) – Additional Investigations into Upgrade of OL1 and OL2 – Stockyard to Surge Bin

These studies resulted in the upgrade of the conveyors between the stockyard and surge bin as a part of the 7X project completed in 2009. The studies also concluded that further capacity gains were available through upgrades to the OL1 and OL2 conveying systems downstream of the surge bins.

Approximately 1.0 Mtpa was estimated to be available from OL2 and only 0.5 Mtpa available from OL1 due to the limitations of the smaller surge bin. That conclusion was based on an outloading rate change from 7,200 tph to 8,650 tph for both systems, whereas the outloading rate for OL2 has already been increased to 7,600 tph. The further gains are expected to be approximately 0.8 Mtpa for OL2.

The cost and operational impact to upgrade OL1 is significantly greater than that of OL2. Upgrading OL1 is not considered viable based on the current level of study and is therefore not included in the 8X Scope.

5.4.2.5 **Inloading Buffer Storage**

This expansion element involves the addition of a short-term buffer storage facility within the inloading system. The concept allows trains to unload to the buffer store when there is no stacker machine available. The buffered coal would then be discharged to the stockyard once the required stacker becomes available. This is shown schematically in Figure 35.

The proposal requires a conveying path to be provided between the buffer storage and the stockyard that is independent of the inloading systems. Considering the proposals and sequence for upgrading the inloading systems as described above, an opportunity exists to reuse a significant portion of the existing IL1 system that would otherwise be decommissioned. This dictates the sequence for this expansion element because it can only be commissioned after IL4 is built and after IL2 is upgraded.

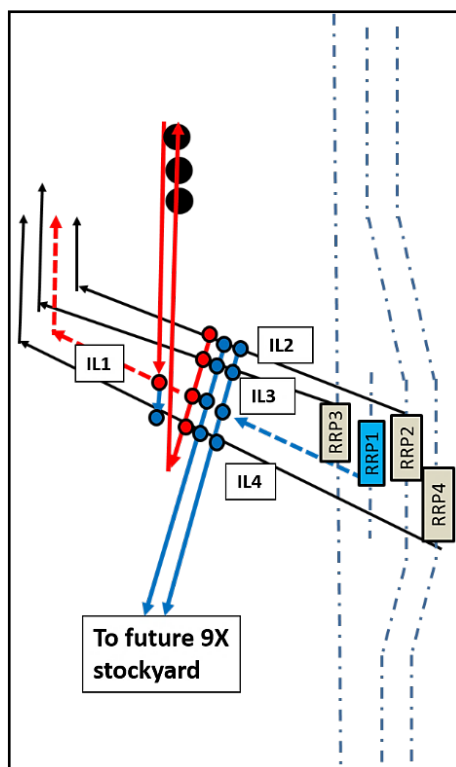


Figure 35: Schematic of inloading buffer system concept. Works required for the buffer storage are shown in red and would follow the RRP2/IL2 upgrade step for the inloading systems upgrade shown in Figure 34. Related works that would be required at the transition to the 9X upgrade when a new stockyard might be established are shown in blue.

Further details of the proposed buffer storage concept are described below:

- The schematic shown in Figure 35 suggests use of silos to provide storage. Silos would likely deliver the highest Capex/lowest Opex solution but other storage options could be employed. (e.g. stockyard in shed, bunker etc.).
- Further modelling is required to determine the ideal size and number of the storage modules. The use of 3 X 10,000 t modules to match 10,000 t train size lots has been estimated, but a larger number of 5,000 t modules may ultimately be the preferred option.
- The buffer storage should be able to be fed from IL2, IL3 and IL4 through a tripper/diverter chute arrangement.
- The IL1 system between the buffer storage and the yard is proposed to be upgraded to 7,500 tph capability when brought back into operation. It is expected that the ability to discharge a train sized lot back to the yard within the normal train unloading cycle time would be beneficial. Consideration could also be given to retaining the existing IL1 capacity of 5,500 tph.
- Coal brands of different types will be segregated in the buffer storage modules.
- A train would be diverted to the buffer storage whenever there is a conflict for access to stackers that would otherwise have resulted in the use of a Stacker Reclaimer for stacking. The Stacker Reclaimers should not be used to stack from the rail dump station or the buffer storage except as a last priority, if no other options exist or if the Stacker Reclaimers are not involved in a reclaim task.
- The buffer storage should be emptied back to the yard using stackers only,

immediately after the required stacker becomes available and is not being demanded by another train.

- Trains always take priority over the buffer storage for gaining access to stackers. This should be the case even if the buffer storage is part way through a discharge to stackers. An arriving train should interrupt and take the stacker.
- If a train is loading to buffer storage and the stacker becomes available during that time, the remainder of the train should be sent to the stacker. It is recognised that this will drive part use of a given storage cell.

The buffer storage will provide outloading capacity rather than inloading capacity. This capacity is achieved by virtually eliminating the need for the S/R's to prioritise the stacking function over the reclaim function, which at completion of Zone 4 would limit the capacity of the outloading systems.

5.4.2.6 Indicative cost of the 8X Project

An indicative capital cost estimate has been prepared for the 8X Project. In summary, the cost estimate for the 2 phases of the project are as follows.

Phase	Capacity (Mtpa)	AU\$M
1. ST1 and ST2 Upgrade, SAP and R2/RL3 Upgrade	4.5	200
2. IL4, OL2 Upgrade, Inloading and Buffer Storage	8.5	500
Total AU\$M	13 Mtpa	700

Table 9: 8X indicative cost

This estimate is concept level only and is based on the following:

- Target accuracy in the range -25% to + 35% at 80% confidence intervals.
- The estimate is presented in Australian Dollars with a base date of Jun 2015 with no allowance for forward escalation.

The 8X project can be undertaken in 2 separate phases which may be triggered separately depending on the quantum of demand. The 8X expansion is also wholly integrated into the existing facility and is no way separable in operation.

DBCTM is of the understanding that both the Zone 4 and 8X expansions fall into the category of Cost Sensitive Expansions as defined by the current Access Undertaking (AU) in Section 11.13 (b). These expansions are fully integrated, will have the effect of lowering Handling Charges per tonne, and potentially improve overall efficiency and risk to existing Users.

5.4.3 9X Project

The existing footprint at DBCT is limited to the 8X Capacity of 102 Mtpa. Any expansion materially beyond that capacity would require an additional stockyard for which DBCTM does not currently have access to the land. Additionally, any expansion beyond 8X will require additional berths to the north, which will necessitate capital dredging for both the berth pockets as well extensions to the departure path and aprons. Gaining the required approvals from GBRMPA for capital dredging has become materially more difficult in recent years, thereby jeopardising DBCTM's ability

to deliver the 9X Project.

The 9X development will incorporate the following key elements:

- Reactivation and upgrade of RRP1 dump station that would have been placed into “care and maintenance” mode during the earlier 8X expansions works. The tail section of S1 conveyor will need to be upgraded to operate at 8100 tph capacity in order to deliver the additional required train unloading capacity.
- A new fourth (4th) rail loop that would service RRP4 with the existing RRP4 loop re-aligned to RRP2, and RRP2 loop re-aligned to RRP1, as discussed in the 8X development report.
- Provision of link conveyors from the 4 X Rail Receival Pits to feed the new 9X stockyard.
- A stockyard with sufficient storage capacity to match the proposed 34-35 Mtpa capacity expansion. Consideration needs to be given to the variety of potential operating modes, while also ensuring that the storage ratio is the same or greater than that proposed for the 8X development.
- A new fourth outloading system OL4 including; conveyors, surge bin, sample plant and shiploader SL4 with the same operating capacity as the OL3 system. Suitable link conveyors are also required for connectivity between the new stockyard and the outloading systems.
- Berths 5 and 6 to the north of the existing Berth 4, serviced by the new shiploader SL4

It is not currently possible to predict how the new stockyard might be utilised within the expanded terminal operation. There are 2 main options for stockyard strategy which require different configurations.

The stockyard could be either:

- Operated as an integrated part of the existing facility to allow an extension of existing cargo assembly operations. This would suit incremental growth in throughput of the existing coal types combined with the addition of new coal types. All products could be loaded onto vessels in any combination.
- Operated as a stand-alone terminal that would be dedicated to handling a select group of coal types. Following this approach, coal stored in the 9X stockyard would not be able to be loaded onto vessels being loaded from the existing stockyard. This application would tend to be more favourable to higher throughput coals stored in dedicated storage stockpiles.

Considering these two potential operating approaches, a number of configuration options were developed. The options that were found to be viable are summarised on the following page:

5.4.3.1 Configurations for an integrated operation

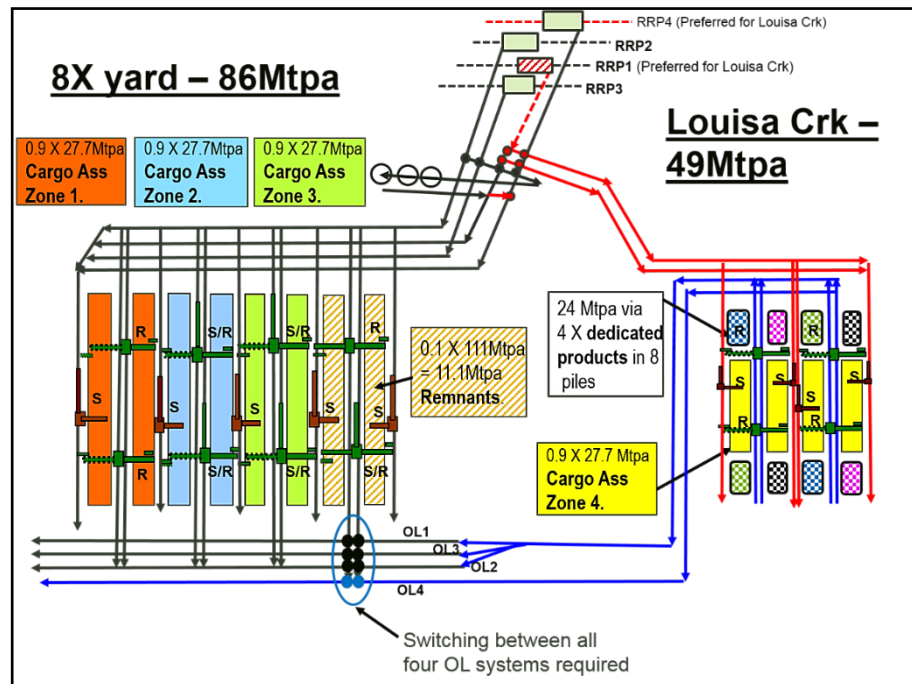


Figure 36: Option 1B – Dedicated product stockpiles moved to Louisa Creek, together with a new cargo assembly zone. Removal of dedicated piles from the existing stockyard results in a capacity loss from the existing yard. Capacity of the Louisa Creek yard is increased to compensate and exports via the OL1, OL2 and OL3 systems as well as OL4

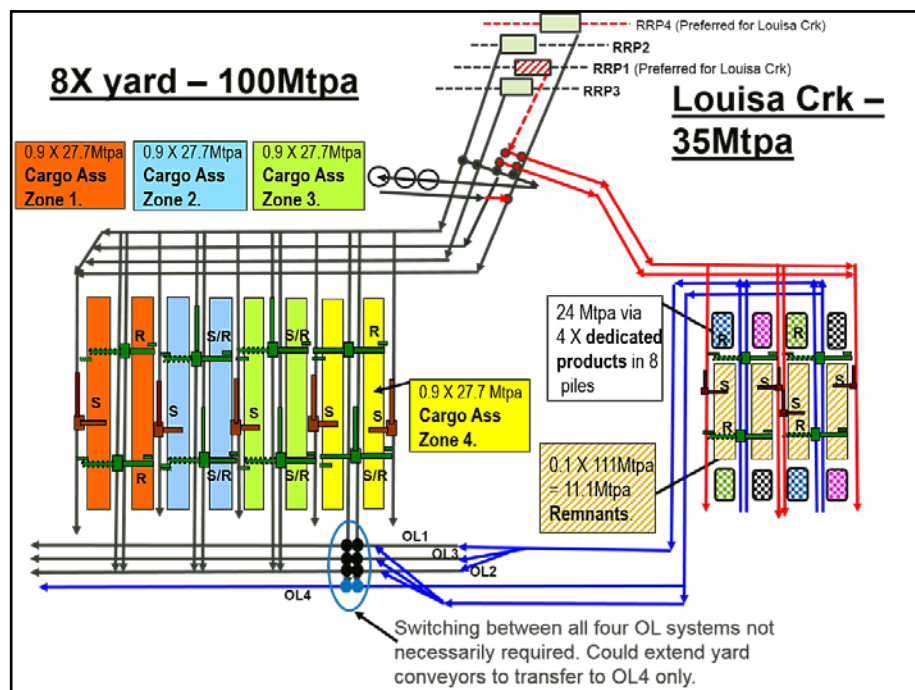


Figure 37: Option 1C – Integrated terminal with dedicated stockpiles and remnants relocated to Louisa Creek. New 4th cargo assembly zone established in Rows 7 and 8.

5.4.3.2 Configuration for stand-alone operation

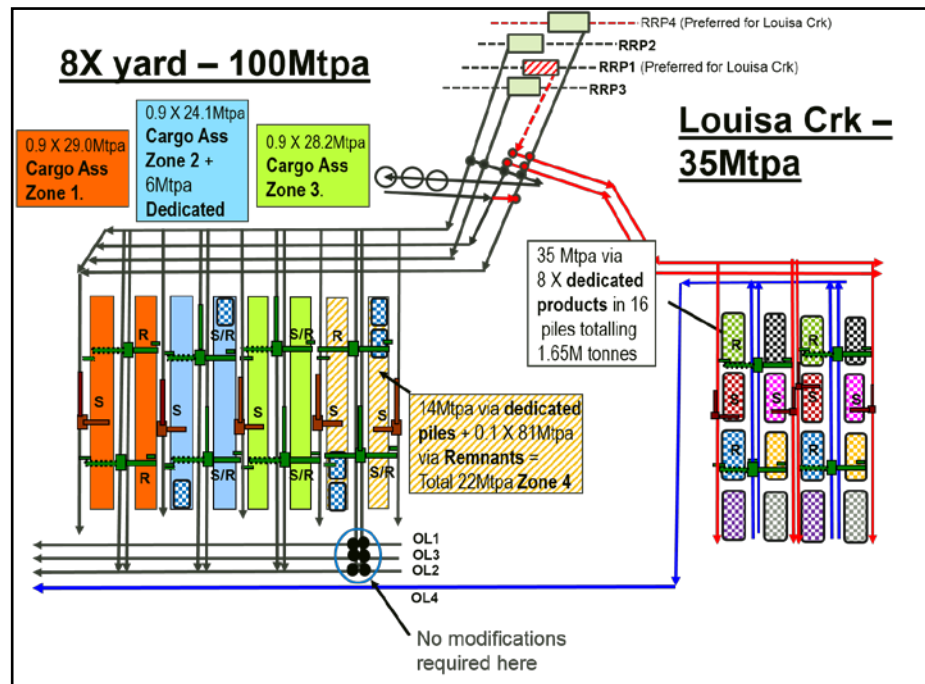


Figure 38: Option 2 – Virtual stand-alone terminal at Louisa Creek for dedicated product stockpiles. Some dedicated stockpiles must be maintained within the 8X yard to retain throughput capacity. Products at Louisa Creek cannot be loaded to vessels with products in the existing yard.

5.4.3.3 Configuration for partially integrated operation

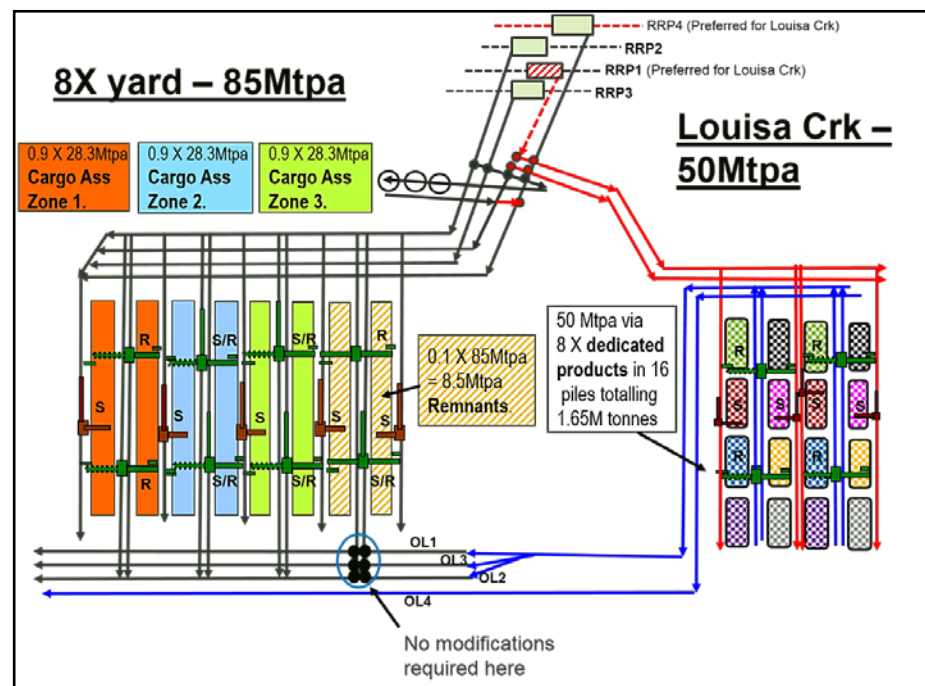


Figure 39: Option 3 – Partially integrated dedicated stockyard at Louisa Creek. This allows dedicated product stockpiles in the 8X yard to be relocated to Louisa Creek and for products stored at Louisa Creek to be loaded to vessels with cargo assembly products stored within the 8X yard (to a limited extent dictated by available capacity in OL1, OL2 & OL3).

5.4.3.4 Offshore configuration

Only one feasible option is envisaged for the 9X expansion of the offshore works. This option can be developed in two stages.

It is proposed that the new OL4 outloading string would load to vessels via a new shiploader SL4 that would operate on new Berths 5 and 6. Berths 5 and 6 are proposed to be constructed to the north of the existing berths, as shown schematically in the Figure 40 below:

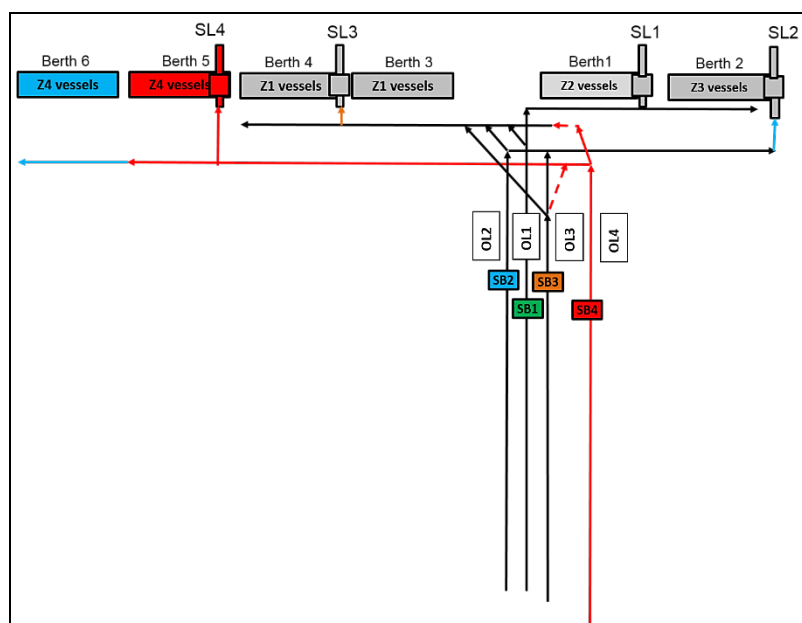


Figure 40: Proposed development of offshore facilities for the 9X project. Berths 5 and 6 and Shiploader 4 are added. The 4th shiploader and outloading system may be dedicated to the new Louisa Creek stockyard or alternatively might be associated with the added 4th cargo assembly zone depending upon the chosen operating mode and chosen stockyard configuration as discussed in the sections above.

5.4.3.5 Physical arrangements for stockyards and conveyors

Stockyard layouts have been prepared to demonstrate how the configuration options could be accommodated within the Louisa Creek site. Two potential site arrangements have been prepared including a ‘short’ and ‘long’ stockyard option.

In general, configuration options 1B and 1C (integrated DBCT and Louisa Creek operation) would suit the ‘short’ stockyard arrangement, based on current assumptions regarding throughput associated with dedicated product stockpiles. Options 2 and 3 (standalone terminal operation at Louisa Creek) would suit the ‘long’ stockyard arrangement.

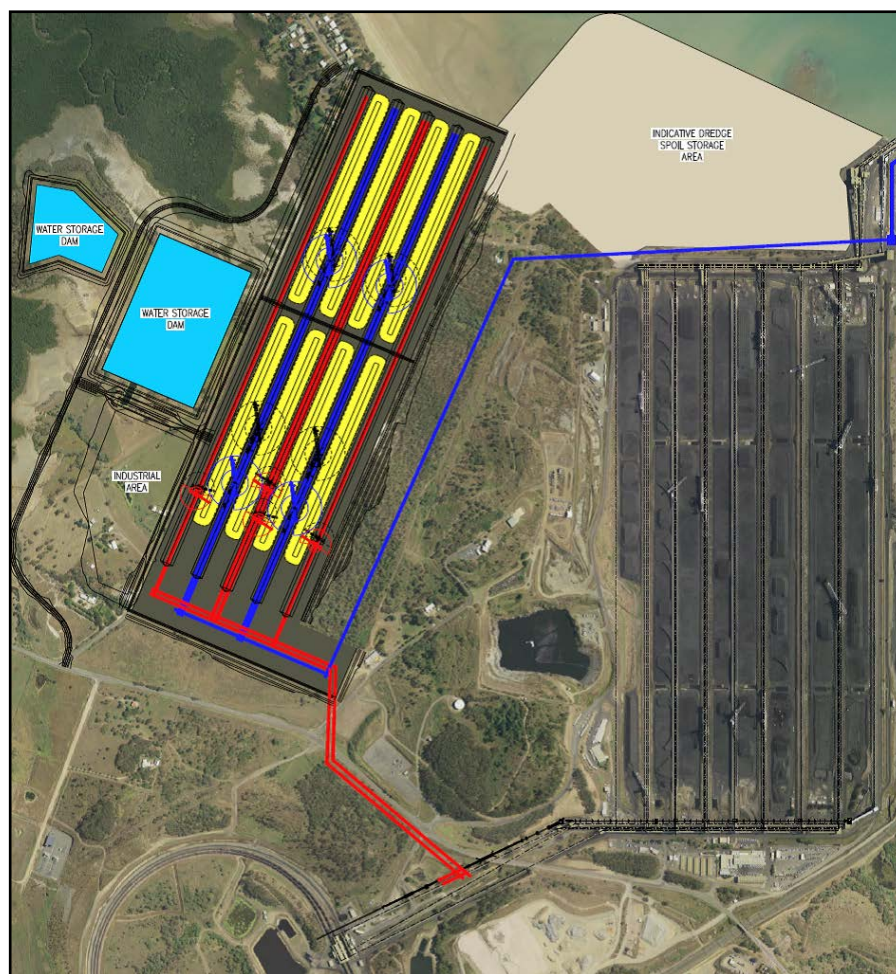


Figure 41: 'Long' stockyard arrangement suited to configuration options 2 and 3.

The arrangements are such that the short stockyard arrangement could be extended in the future to match the long stockyard (Figure 41) arrangement if deemed necessary.

The outloading conveyor arrangements need to be varied according to the required level of integration between the Louisa Creek stockyard and the existing DBCT stockyard, and the way in which the Louisa Creek stockyard will be utilised.

The single outloading conveyor string shown for the 'long' stockyard in particular is suitable only for Option 2. This suits the case of Louisa Creek being developed as a virtual stand-alone terminal, assuming that 8X operations continue unchanged within the existing stockyard. Any other case will require the construction of some additional outloading conveyors.

The short stockyard arrangement allows the stockyard to be constructed without encroaching upon the Louisa Creek beach and with less impact upon the existing township. If a dredge spoil reclamation area is developed in the location shown above, for storage of dredged material associated with the development of Berth 5 or both Berths 5 and 6 together, then the benefits of avoiding encroachment of the beach may be limited.

5.5 Rail Infrastructure

The rail track infrastructure in the vicinity of the terminal does not form part of the asset owned and managed by DBCTM. The current rail track arrangements are understood to contribute to delays in the process of directing full trains to dump stations. Delays have also been observed in clearing empty trains from the loop after unloading to allow uninterrupted unloading of subsequent trains. Some relatively minor rail track improvements would likely address these issues and provide a throughput gain.

Potential modifications that would be expected to avoid train delays and improve utilisation of the dump stations are depicted schematically in red in Figure 42 below. It is proposed that these improvements would be carried out at the time of establishing the 4th dump station during the 8X phase i.e. when RRP4 is fed from a diverted loop 2 and prior to establishment of the 4th rail loop.

The green lines in Figure 42 indicate the proposed establishment of the fourth rail loop. It would likely not be established until much later, coinciding with a later 9X expansion phase as described in Section 5.10.2.

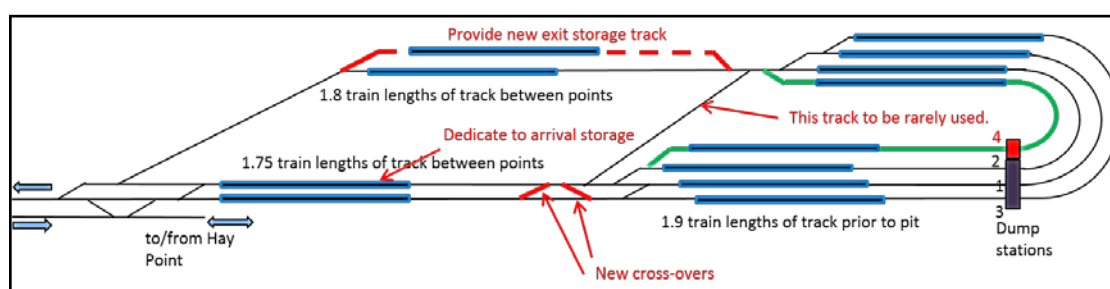


Figure 42: Proposed 8X rail loop modifications shown in red as proposed to be constructed with the IL4 dump station. The fourth rail loop in green would be constructed only at the later 9X stage.

5.6 Effect of Expansion Pricing on the Likelihood of Expansion.

The 2017 AU introduced the concept of differential pricing for future expansions. Under previous undertakings, and prior to privatisation of the terminal, all expansions of DBCT were priced on a socialised basis. An expansion that is socialised has a lower risk profile to DBCTM than an expansion that is priced differentially. This is because the existing Users of the terminal must step in to cover the access charges for an Access Seeker who defaults on their obligations. The underwriting of access charges by existing Users makes the risk profile of an expansion acceptable to both the owner of the facility and potential project financiers. All previous expansions of DBCT were financed on this basis and all current Users benefitted to some degree from this arrangement.

Differential pricing, by comparison, necessarily requires both the owner and project financiers of any expansion to underwrite their investment purely on the basis of the capacity of the Access Seeker to meet their commitment to the post-expansion access charges. In an environment where future developments are likely to be incremental in nature, there is a strong likelihood that these charges will be supported by only one, or perhaps two, Access Seekers. Where these Access Seekers are major international mining houses, the project may still be bankable. If however, the expansion capacity is to be contracted to junior mining companies with greenfield mine projects, it is highly unlikely that either the owner or potential financiers will be able to gain sufficient comfort around the risk of the project to justify proceeding to construction.

These issues will need to be considered by DBCTM before deciding whether to proceed past FEL2.

5.7 Impacts of the 2017 Access Undertaking on Expansion timing

The 2017 Access Undertaking defines the process to be followed to continue with Feasibility works and ultimately progress to an Expansion. The process steps are outlined below in Figure 43.

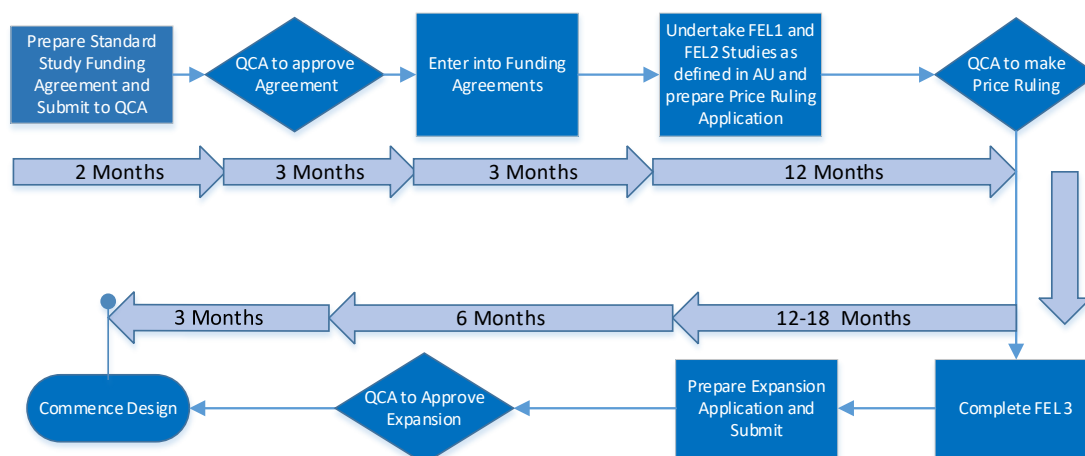


Figure 43: Expansion Approval process and indicative timeframes

In 2015 pre-feasibility (FEL2) and feasibility (FEL3) study works for Zone 4 were undertaken to a standard consistent with normal industry practice. The 2017 Access Undertaking requires greater certainty around the estimated capital cost than normally would be achieved from a FEL2 study completed to a standard consistent with normal industry practice. In 2015, sufficient work was undertaken to achieve this level of capital cost certainty in the FEL3 study. Because the level of certainty around capital costs, as defined by the AU for FEL 2 has already been achieved in DBCTM’s previously completed FEL 3 studies, the time required to reach a Price Ruling for Zone 4 will be significantly quicker than for subsequent expansions, which have only been progressed to FEL 1.

The timeframes in Figure 43 are based on the assumption that no objections are received at any point on the timeline. Delays to the timeline above will certainly occur if the QCA receives objections at any of the decision points.

6 Environment

6.1 Overview/Background

The Queensland Government has responsibility for protection of the State waters and is therefore committed to a number of Reef 2050 initiatives relating to port development. The *Sustainable Ports Development Act (2015)* sets out the blueprint for port planning and management for certain ports in Queensland. The act aligns with the Commonwealth and State Government commitments under *Reef 2050*.

The increased focus on environmental management at Queensland ports, particularly those designated as 'priority ports' reinforces the need for careful and direct attention of those operating at these critical trading nodes.

DBCTM has always taken and discharged its environmental responsibilities carefully and recognises that operating in the GBRWHA requires robust environmental systems.

This attention will continue in forward years under this Master Plan.

Environmental management within the coastal environment, and particularly within the GBRWHA requires two fundamental considerations:

1. Robust consideration of existing environmental values as part of terminal and/or expansion planning – ensuring that environmental values are examined and managed using the well understood mitigation hierarchy of: avoidance, mitigation and offsets; and
2. Ensuring robust Environmental Management Frameworks are in place for the ongoing management of operations consistent with the requirements of Environmental Authorities for terminal operations and/or construction activities.

DBCTM supports the position of the Queensland Government in requiring robust Port Master Plans including greater transparency of Environmental Management Frameworks at Queensland's 'Priority Ports' and a stronger focus on port protection measures including appropriate environmental buffers.

This section of the Master Plan outlines the particular environmental issues and the corresponding management responses at play. It also addresses emissions and impacts likely from the expansion referred to as the Zone 4 expansion and that contemplated under the 8X project.

Leading up to Master Plan 2016 DBCTM did not attempt to undertake emissions modelling for the 9X expansion project because of the preliminary nature of the concept and the lack of certainty regarding various project aspects. The 9X project is of such a scale, that more mature engineering assessments are required before any modelling of any real accuracy could be undertaken. Further, the 9X proposal would most likely trigger full Environmental Impact Statements (EIS) through State and Commonwealth processes in forward years.

6.1.1 Existing Environmental Authorities/Regulatory Processes

It should be noted that existing Environmental Authorities relevant to the terminal site and/or operations include:

- DBCTPL as the terminal operator, hold an existing Environmental Authority ('EA') (Permit EPPR00504513), granted on 19 October, 2015, which authorises the undertaking of ERA 50 (Bulk Material Handling up to 89 Mtpa which includes the proposed expansion included in the Zone 4 project) and ERA 63 (Sewage Treatment (more than 100 but less than 1500 Equivalent Persons design capacity)); and
- Additionally, DBCTM as terminal owner, holds an existing EA, granted on 27 April 2015, which authorises the undertaking of ERA 16 – Extractive Activities (extracting and screening, other than dredging of more than 100,000t but not more than 1,000,000t in a year) across the DBCT terminal site (Permit EPPR02825115). The EA authorises the undertaking of blasting as part of the extractive activities.

These Environmental Authorities have been issued by the Queensland Department of Environment & Heritage Protection ('DEHP') and cover the full extent of the Zone 4 Expansion up to the terminal capacity of 89 Mtpa.

It should also be noted that a formal referral was made for the Zone 4 project under the Environment Protection & Biodiversity Conservation Act, 1999 ('EPBC Act') (Ref: 2015/7541). On 12 September 2015, the Commonwealth advised that the Zone 4 project was deemed to be a 'Non-Controlled Action' and as such, no approval under the EPBC Act would be required.

On 15 December 2015, NQBP issued a conditional *Port Development Approval* under the Port of Hay Point Land Use Plan (approved under the TI Act), relating to the full extent of Zone 4 works.

The balance of this chapter addresses the various environmental/social values relevant to the terminal and its immediate environs and the results of predictive emission modelling relating to the proposed expansion projects Zone 4 and 8X.

6.2 Preliminary Environmental Impact Assessment

The expansion pathway outlined in this Master Plan is staged and incremental – in line with the direction under the new Commonwealth and State regulatory framework regarding coastal development within the GBRWHA.

Options have not simply been examined from an engineering and operational perspective. Because of DBCT's geographical location within the GBRWHA, it has also been important to assess ecological and social values of each of the preferred projects.

The expansion pathway has been examined against various criteria and suitability including:

- Air Quality
- Noise & Vibration
- Visual Amenity
- Cultural Heritage
- Local Maritime Operations
- Community & Social Impacts
- Coastal Processes
- Marine Ecology
- Terrestrial Ecology
- Soil & Geology
- Surface Water Quality & Hydrology
- Transport & Access
- Waste Management
- Land Tenure & Other Stakeholder Interests

Each of the above are described in the following sub-sections.

6.2.1 Air Quality

All potential air quality impacts have been examined and considered for the Zone 4 expansion project.

The increased volume of coal to be stored at an expanded terminal may increase the likelihood of dust emissions affecting neighbouring rural residential/community areas. As such, ongoing compliance with relevant Environmental Authorities will be critical in the forward management of operations as will ensuring participation in the broader 'port-wide' air quality monitoring programs managed by NQBP as the port authority.

As part of this Master Plan, predictive modelling work has been completed – see Section 6.4 for more detail.

DBCTM is continuously monitoring air emissions at and around the terminal in accordance with normal operational environmental management practices.

Work will continue and in conjunction with the port entity, NQBP, the operator will proactively adjust and adapt management practices as appropriate.

Ensuring appropriate port buffers is also a fundamental and strategic requirement for the Port of Hay Point over the longer term. This will be a critical issue for formal State Port Master Planning now underway for the port. DBCTM will work with the State and NQBP in the preparation of this planning document.

6.2.2 Noise and Vibration

All potential noise and vibration impacts have been examined and considered for the Zone 4 expansion project.

At present, DBCT P/L undertakes noise monitoring at four (4) locations around the Port of Hay Point (internally and externally to the terminal) in accordance with the existing EA under the *Environmental Protection Act, 1994* (EP Act).

Noise assessment monitoring is undertaken continuously.

A number of noise control and management measures are incorporated across the DBCT site, and for the 2014-2015 period, noise levels were compliant with the limits under the existing EA.

It is anticipated that there will not be a significant increase in noise and vibration impacts as a result of either the Zone 4 or 8X expansion works (see Section 6.5 for more detail). Intensification of existing terminal operations, largely within existing terminal footprint areas will ensure the minimisation of noise emissions from the site. Further, upgrading operational equipment over time as development continues will also assist in noise and vibration management.

It is considered that the approach to noise/acoustic assessments employed at the terminal is industry best practice – and along the whole terminal process from inloading through to shipment of cargoes.

6.2.3 Visual Amenity

All potential visual amenity impacts have been examined and considered for the Zone 4 expansion project.

DBCT is an existing, long established land use, which forms part of the Port of Hay Point. Since operations first began at the port in October 1971, the Port of Hay Point has become Queensland's largest export port with exports in the 2016/2017 financial year reaching approximately 106 Mtpa across both DBCT and the adjoining Hay Point Coal Terminal.¹⁹ The designation of the Port of Hay Point as one of Queensland's 'Priority Ports' (thereby being a 'relevant port' under the *National Ports Strategy, 2012*) acknowledges that the visual amenity of the node is recognised and part of the landscape of this part of the Queensland coastal zone.

The Port of Hay Point is also recognised in local, regional and state-wide planning instruments as a major infrastructure node along the Queensland coast.

Expansion of the terminal as proposed under this Master Plan is consistent with the well accepted visual amenity of the local environs.

6.2.4 Cultural Heritage

A search of the Cultural Heritage Database maintained by the Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP) was undertaken as part of Zone 4 regulatory applications that did not identify any recorded indigenous cultural heritage sites within the area of the proposed works.

¹⁹ NQBP website (<https://nqbp.com.au/trade/throughputs>)

Any future expansion would be required to proceed in line with relevant State and Commonwealth legislation regarding Cultural Heritage matters to ensure compliance with the Cultural Heritage Duty of Care under the *Aboriginal Cultural Heritage Act 2003*.

6.2.5 Local Maritime Operations

Both Zone 4 and 8X expansions do not entail any alteration to local maritime operations. Indeed, no marine development is proposed for either Zone 4 or 8X.

The 9X expansion would entail two new offshore berths and reclamation within the World Heritage Area. Development of this kind would need to be closely examined in terms of interactions with local maritime operations such as recreational and commercial fishing activities.

6.2.6 Community and Social Impacts

All potential community and social impacts have been examined and considered for the Zone 4 expansion.

Both Zone 4 and 8X expansions entail development within the existing terminal footprint. As such, it is not expected that any social or community impacts are likely as a result of terminal operations under these scenarios. Management of construction impacts will be required particularly with regard to traffic impacts and general movements around the terminal environs.

6.2.7 Coastal Processes

There are no anticipated coastal process impacts as a result of either the Zone 4 or 8X expansions, as marine works are not included in these phases.

Only the 9X proposal entails development within the coastal zone. Potential impacts associated with this expansion would be fully examined once more detailed engineering assessments have occurred in the course of normal project feasibility work.

Due to recently introduced legislation at both Commonwealth and State government levels, 'at-sea' relocation of capital dredge material is prohibited. The 9X concept therefore includes a proposal to reclaim land (as detailed in Section 5.10.2) using material from necessary berth dredging consistent with the principles of 'beneficial re-use'.

While the reclaimed area may not immediately be used for port purposes, the area will present the opportunity to help screen coastal industrial operations from the World Heritage Area, thereby reducing potential visual amenity impacts.

Given the preliminary nature of the 9X design, the extent of material for this area and size of area is unable to be confirmed. This Master Plan commits to design principles being based on a *Working with Nature* ('WwN') philosophy - as advocated by the World Association for Transport Infrastructure known as 'PIANC'.

As PIANC states:

'Working with Nature requires that a fully integrated approach be taken as soon as the project objectives are known – i.e. before the initial design is developed. It encourages consideration of how the project objectives can be achieved given the particular, site-specific characteristics of the ecosystem.'

Working with Nature is about more than avoiding or mitigating the environmental impacts of a pre-defined design. Rather, it sets out to identify ways of achieving the project objectives by working with natural processes to deliver environmental protection, restoration or enhancement outcomes’.

6.2.8 Marine Ecology

There are no anticipated marine ecology impacts as a result of either the Zone 4 or 8X expansions.

Only the 9X proposal entails changes to development within the coastal zone. Potential impacts associated with this expansion will be fully examined once more detailed engineering assessments have occurred in the course of normal project feasibility work.

Increased shipping movements would also need close examination although the increased size of average export parcels per vessel is equating to lower overall vessel movements per export tonne. Using the most recent data from a full financial year (2016/2017) DBCT managed the export of 63,202,057 tonnes of coal via 630 vessels. This equates to an average payload size of 100,320 tonnes per vessel.

6.2.9 Terrestrial Ecology

All potential terrestrial impacts have been examined and considered for the Zone 4 expansion.

Potential impacts associated with the 8X and 9X expansion options will be fully examined once more detailed engineering assessments have occurred in the course of normal project feasibility work. It is clear though that existing terminal environs are highly disturbed in nature.

6.2.10 Soil and Geology

Potential impacts upon soil and geology are to be assessed in greater detail prior to development proceeding. Existing groundwater bores (subject to existing state government licence conditions) will continue to be monitored/reported as part of the terminal Environmental Management System.

It is unlikely that soil and/or geological issues will restrict the expansion pathway.

6.2.11 Surface Water Quality and Hydrology

Works undertaken in 2015 as part of the Water Quality Improvement Project (WQIP), (including the construction of the new Rail Loop Dam) have significantly improved water quality management on site through increased water storage capacity across terminal lands.

The future expansion pathway outlined in this Master Plan is likely to benefit from such water quality management improvements.

6.2.12 Transportation and Access

Transportation and access issues are unlikely to change under either Zone 4 or 8X expansions. The 9X expansion would however, trigger changes to terminal access and significant changes to rail and road infrastructure.

6.2.13 Waste Management

Waste management under all future expansions would be captured in relevant construction and operational environmental management plans as per usual operations.

6.2.14 Land Tenure and Other Stakeholder Interests

Both Zone 4 and 8X expansions use existing DBCTM held lands as they largely involve augmentation of existing terminal areas.

The 9X expansion would require further land acquisitions in the immediate port environments for both terminal area and associated infrastructure corridors (road/rail etc.).

6.3 Comparison of Expansion Projects

Table 10 outlines the qualitative risk assessment of environmental and planning issues for the proposed expansion pathway.

It should be noted that all regulatory approvals are in place for the Zone 4 expansion, hence its significantly lower risk rating.

Issue/Impact	Zone 4 Expansion (85 Mtpa-89 Mtpa)	8X Expansion (89 tpa-102 Mtpa)	9X Expansion (102 Mtpa-134 Mtpa)
Air Quality	L	M	H
Noise & Vibration	L	M	H
Visual Amenity	L	L	M
Cultural Heritage	L	M	M
Local Maritime Operations	L	L	M
Community & Social Impacts	L	L	H
Coastal Processes	L	L	H
Marine Ecology	L	L	M
Terrestrial Ecology	L	M	M
Soil & Geology	L	L	H
Surface Water Quality & Hydrology	L	L	H
Transport & Access	L	L	H
Waste Management	L	L	L
Land Tenure & Other Stakeholder Interests	L	L	M
L	Low: Limited (if any) delays are likely to be experienced during the approval process as a result of the issues identified		
M	Moderate: Delays are likely to be experienced during the approvals process as a result of the issues identified, however issues are expected to be managed / addressed sufficiently to obtain approval without significant design changes.		
H	High: Significant delays are likely to be experienced during the approvals process due to the issues raised. Resolution of these issues is likely to involve design changes.		

Table 10: Qualitative comparison of environmental and planning risks for the proposed expansion pathway

Robust management of the construction phase will be required in accordance with the regulatory approvals already gained by both DBCTM and DBCT P/L including:

- being deemed a ‘non-controlled action’ under the Environment Protection and Biodiversity Conservation Act, 1999 (Commonwealth), and
- securing all necessary environmental planning approvals under State legislation including Environmental Licenses under the Environmental Protection Act, 1994 and port development approvals under the Sustainable Planning Act, 2009.

The location of the terminal within and adjacent to the GBRWHA, necessitates an absolute focus on: impact avoidance of environmental values as part of planning and design processes, and ensuring robust environmental management systems are in place for ongoing operations. This is especially true for 8X and 9X because of the larger scale of the developments.

For 8X and 9X the following is a list of key issues requiring further investigation in order to provide a more accurate assessment closer to the time of development:

- Cultural Heritage assessments of potential sites outside the existing DBCT footprint
- Likelihood of impact on marine water quality, including impact on local beaches
- Potential impacts to coastal processes as a result of reclamation works and any new marine infrastructure (9X)
- Obtaining the necessary land for 9X
- Reclamation and construction impacts upon local turtle nesting sites
- Potential impacts upon seagrasses and other marine plants
- Impacts to existing mangrove communities and the need for setbacks
- Impact to tidal flow regime of Louisa Creek during 9X expansion works
- Traffic assessment study to determine impacts upon Hay Point Road and the local road network
- Any relevant amendments to Reef 2050 including implementation policies
- Any relevant amendments to the Sustainable Port Development Act, 2015
- Quantitative noise and dust assessments based on enhanced engineering design parameters closer to the time of development
- Enhanced examination of port buffers around the Hay Point ‘priority port’ precinct

In order to better understand potential noise and dust emissions, DBCTM commissioned preliminary studies of dust and noise modelling to ensure critical issues are factored into preliminary design and feasibility studies. The results are detailed in the following sections.

6.4 Air Quality Environment - Post Expansion

Due to their past experience with DBCT, Katestone Environmental (“Katestone”) was commissioned to undertake predictive modelling for expansion the Zone 4 project and 8X project detailed within this Master Plan.

Particulate matter is the main air pollutant associated with operation of coal terminals. Emissions of other air pollutants will be low and therefore will have a negligible potential for impact compared to particulate matter. Particulate matter was the Primary focus of the Katestone air quality assessment and other air pollutants have not been considered further.

The air quality assessment assumes that the terminal has implemented the 8X Project (i.e. terminal capacity has reached 102 Mtpa). It also assumes that the neighbouring coal terminal is operating at its approved capacity (55 Mtpa). The air quality assessment has been based on the following items:

- Development of a three-dimensional (3D) meteorological dataset representative of prevailing conditions of the surrounding area.
- Estimation of emissions of particulate matter associated with coal terminal operations based on information used in previous air quality assessments, National Pollutant Inventory (NPI) reporting, other data provided by DBCTM and standard assumptions where information is not available.
- Dispersion modelling incorporating emission characteristics and particulate matter emission rates associated with the operation of the coal terminals. The model also includes site-specific 3D meteorology, terrain, land-use and geographical location of sensitive receptors.
- Prediction of levels of particulate matter due to the operation of the coal terminals at identified sensitive receptor locations and the surrounding environment. Predicted ground-level concentrations of the key metrics including: Total Suspended Particulate matter (TSP), PM10 and PM2.5. PM 10 and PM 2.5 are defined as Fraction of Particulate Matter with diameter smaller than 10 and 2.5 micrometres respectively.
- and dust deposition rates have been assessed against the relevant air quality objectives detailed in the:
 - Environmental Authority Permit Number: EPPR00504513 (Date of Issue 19 October, 2015)
 - Environmental Protection (Air) Policy 2008 (Air EPP)
 - National Environment Protection (Ambient Air Quality) Measure (Air NEPM) (Commonwealth Department of the Environment, February, 2016)
 - Department of Environment and Heritage Protection's (EHP) Guideline, Mining: Model mining conditions (EHP, 2013)
 - Application requirements for activities with impacts to air (EHP, 2015)

The general approach to this assessment is consistent with the methodologies applied in earlier air quality assessments conducted for regulatory approvals. In the late 1990s and early 2000s, Katestone developed a dust modelling system representing the Hay Point area that included DBCT and HPCT for the Stage 6 and 7 expansions of DBCT (Hay Point DispMod v1.0). That modelling system used the USEPA's ISC3 Gaussian dispersion model.

The ISC3 model is no longer supported by the USEPA.

More recently, the modelling system was redeveloped using the CALMET/CALPUFF models and this new modelling system was used for more recent expansion projects, most recently for the EIS for the Dudgeon Point Coal Terminal (Hay Point DispMod

v2.0).

The current modelling system (Hay Point DispMod v2.0) incorporates the more sophisticated CALMET meteorological model and the CALPUFF dispersion model, which are accepted for use by regulatory authorities in Australia. Hay Point DispMod v2.0 also incorporates an emissions model that is configured to represent the spatial and temporal emissions from DBCT at 85 Mtpa and HPCT at its current approved capacity of 55 Mtpa.

6.4.1 Emissions

Activities associated with the most significant emissions of particulate matter from coal terminals are conveyors, stockpiles, transfers and other activities such as bulldozing and excavators.

Dust emission rates from DBCT and HPCT were estimated in earlier studies from limited near source monitoring of TSP concentrations (GHD/Oceanics, 1975). Updated estimates were included in subsequent studies (Dames & Moore, 1996, Katestone Scientific 2000, Katestone Environmental 2005 and WBM 2004). For this air quality assessment, these estimates have been revised based on more recent emission factors reported in literature (e.g. National Pollutant Inventory Handbooks or the USEPA’s AP-42 compilation of emission factors) and site-specific data obtained through the NPI reporting period 2014/2015.

For the majority of activities, the emission rate of particulate matter is dependent on the wind speed with little or no emissions occurring for some activities (e.g. stockpiles) below a wind speed threshold. For some activities (such as coal conveyors), wind speed and frequency of utilisation are important determinants of the emission rate. Other factors are also important such as coal type, coal moisture content, coal particle size distribution, rainfall and the mitigation measures that may be employed. A summary of emission rates for DBCT (8X Project) operating at 102 Mtpa is provided in Table 11:

Activity	(TSP) (g/s)	PM ₁₀ (g/s)	PM _{2.5} (g/s)
Rail receipt	0.17	0.08	0.01
Stacking	0.29	0.14	0.02
Reclaiming	0.57	0.27	0.04
Surge bin	0.17	0.08	0.01
Stockpiles - wind erosion	0.58	0.29	0.04
transfers - inloading	0.45	0.21	0.03
transfers - outloading	1.59	0.75	0.11
Ship loading	0.14	0.07	0.01
Conveyors	0.83	0.30	0.02
Other - bulldozing	1.53	0.50	0.03
Other - excavator	1.47	0.23	0.03
Total	7.8	2.9	0.4

Table note:
TSP: Total Suspended Particulate Matter
PM10 and PM2.5: Fraction of Particulate Matter with diameter smaller than 10 and 2.5 micrometres respectively

Table 11: Summary of Emissions for DBCT (8X project) at 102 Mtpa

6.4.2 Results

Predicted concentrations are compared with limits specified in Condition B2 of DBCT’s EA (Date of Issue, 19 October 2015), objectives specified in the *Air EPP* and EHP guideline documentation (EHP, 2013 and EHP, 2015). Also included is a comparison with the recently updated *Air NEPM* to assess potential impacts should the State based Air EPP objectives be revised to reflect the Air NEPM standards.

The modelling results, based on preliminary engineering, can be summarised as follows:

- Predicted maximum monthly dust deposition rates comply with Condition B2 of DBCT’s EA at all receptors.
- Predicted maximum 24-hour average and annual average concentrations of PM2.5 comply with the relevant Air EPP and Air NEPM objectives and standards at all receptors.
- Predicted 6th high 24-hour average and annual concentrations of PM10 comply with the relevant Air EPP and Air NEPM standards at all receptors.
- Predicted 24-hour average concentrations of TSP comply with Condition B2 of DBCT’s EA at all receptors except at Louisa Creek East (P2).
- Predicted maximum concentrations of PM10 comply with the Air NEPM standard of 50 µg/m³ (no allowable exceedances) at all receptors except at Louisa Creek East (P2).

The following tables reflect the modelling results:

Receptors	TSP 24-hour average (µg/m ³)			TSP Annual average (µg/m ³)	
	DBCT (8X Project) in isolation	DBCT (8X Project) and HPCT	DBCT (8X Project), HPCT and ambient background	DBCT (8X Project) in isolation	DBCT (8X Project), HPCT and ambient background
Louisa Creek West (P1)	19.2	40.7	101	3.3	52.6
Louisa Creek East (P2)	40.5	56.5	116	14.2	64.1
Half Tide (P3)	14.9	18.6	78.5	1.1	50.6
Salonika (P4)	11.4	12.4	72.3	0.7	49.6
Louisa Creek Central	26.4	36.4	96.3	7.8	57.4
Timberlands	6.0	8.1	68	0.3	48.9
Objective / EA Limit	50 µg/m³ (increase above background) (EA)		110 µg/m³ (background + 50 µg/m³)^a	90 µg/m³ (Air EPP)	

Table note:
^a limit of 110 µg/m³ was calculated based on background + 50 µg/m³ as per Condition B2 of DBCT’s EA. A background of 60 µg/m³ was determined from 75th percentile, 24-hour average for P4 from 2001 to 2011.

Table 12: Predicted ground-level concentrations of TSP

Receptors	PM ₁₀ Maximum 24-hour average (µg/m ³)		PM ₁₀ 6 th high 24-hour average (µg/m ³)		PM ₁₀ annual average (µg/m ³)	
	DBCT (8X Project) in isolation	DBCT (8X Project), HPCT and ambient background	DBCT (8X Project) in isolation	DBCT (8X Project), HPCT and ambient background	DBCT (8X Project) in isolation	DBCT (8X Project), HPCT and ambient background
Louisa Creek West (P1)	9.7	38.5	7.4	26.0	1.7	15.3
Louisa Creek East (P2)	20.9	55.3	16.7	37.8	6.4	20.4
Half Tide (P3)	6.4	26.0	4.9	23.7	0.5	14.1
Salonika (P4)	5.2	22.5	3.2	21.5	0.3	13.6
Louisa Creek Central	12.4	41.2	10.6	31.9	3.8	17.6
Timberlands	4.6	23.1	2.9	20.3	0.2	13.3
Objective	50 µg/m³ (Air NEPM)		50 µg/m³ (Air EPP)		25 µg/m³ (Air NEPM)	

Table 13: Predicted ground-level concentrations of PM₁₀

Receptors	PM _{2.5} Maximum 24-hour average (µg/m ³)		PM _{2.5} annual average (µg/m ³)	
	DBCT (8X Project) in isolation	DBCT (8X Project), HPCT and ambient background	DBCT (8X Project) in isolation	DBCT (8X Project), HPCT and ambient background
Louisa Creek West (P1)	1.3	6.5	0.25	2.79
Louisa Creek East (P2)	3.2	7.8	0.84	3.41
Half Tide (P3)	0.9	4.1	0.07	2.61
Salonika (P4)	0.7	3.9	0.05	2.57
Louisa Creek Central	2.0	6.2	0.52	3.07
Timberlands	0.7	4.1	0.04	2.55
Objective	25 µg/m³ / 20 µg/m³ (Air EPP) / (Air NEPM goal for 2025)		8 µg/m³ / 7 µg/m³ (Air EPP) / (Air NEPM goal for 2025)	

Table 14: Predicted ground-level concentrations of PM_{2.5}

Receptors	Dust deposition monthly average (mg/m ² /day)		
	DBCT (8X Project) in isolation	DBCT (8X Project) and HPCT	DBCT (8X Project), HPCT and ambient background
Louisa Creek West (P1)	19.6	23.9	38.6
Louisa Creek East (P2)	46.5	47.4	62.0
Half Tide (P3)	5.7	10.0	24.7
Salonika (P4)	4.7	6.3	21.0
Louisa Creek Central	28.4	29.0	43.7
Timberlands	1.0	1.3	16.0
Limit / Guideline	60 mg/m ² /day (increase above background) (EA)		74.7 mg/m ² /day (background + 60 mg/m ² /day) ^a / 120 mg/m ² /day (EHP model mining conditions)

Table note:
^a A limit of 74.7 mg/m²/day was calculated based on background + 60 µg/m³ as per Condition B2 of DBCT's EA. A background of 14.7 µg/m³ was determined from monitoring data from 2001 to 2011.

Table 15: Predicted dust deposition rates

Detailed engineering work as part of further developing the 8X concept will need to explore additional ways to mitigate emissions from the proposed development. As preliminary engineering design was used for the purpose of this current modelling, it is believed reductions in emissions may be possible at various terminal elements during advanced engineering.

Additionally, and in line with best practice long-term planning at and around this 'priority port' node, it is recommended that the form and extent of environmental buffers, particularly along the western boundary of the terminal, be examined further in conjunction with NQBP as the port authority.

It is recommended that the examination of enhanced port buffer options be highlighted as a priority issue in the formal State Port Master Planning endeavours (to be managed by the State of Queensland) scheduled to occur in 2017-2018. This is considered critical to ensure the protection of the port node and neighbouring areas into the future and consistent with the planning approach outlined in the Sustainable Port Development Act, 2015.

6.5 Noise Environment - Post Expansion

Predictive noise modelling has also been used to ensure future expansions are within reasonable limits and statutory guidelines as currently known. Due to their past experience with DBCT, Huson & Associates ("Huson") were again commissioned to model noise levels to determine the change in noise level in the environment surrounding the terminal up to and including the proposed 8X project.

The base case operations (permitted by the current environmental authority EPPR00504513 at a throughput of 89 Mtpa) considered in the noise model included Zone 4 works. This case is predicted to meet the target noise levels described in the EA.

6.5.1 License Conditions

The current noise conditions differ from earlier licenses in that D1 now refers to 'environmental nuisance' compared with earlier licenses that referred to 'unlawful environmental nuisance'.

In addition, noise sensitive places are expanded in the current license to include commercial and retail activity places.

The noise sensitive places from the *Environmental Protection (Noise) Policy 2008* are:

- dwelling (indoors and outdoors)
- library and educational institution (including a school, college and university) (for indoors)
- childcare centre or kindergarten (for indoors)
- school or playground (for outdoors)
- hospital, surgery or other medical institution (for indoors)
- commercial and retail activity (for indoors)
- protected area, or an area identified under a conservation plan under the Nature Conservation Act 1992 as a critical habitat or an area of major interest marine park under the Marine Parks Act 2004
- park or garden that is open to the public (whether or not on payment of an amount) for use other than for sport or organised entertainment

The licence changes in the latest environmental authority (EPPR00504513) now imply that the nearest sensitive place to DBCT to the south east of the terminal is the retail activity (shops) near to the new location of the P3 noise monitoring station, instead of the nearest dwelling.

Huson assumed that the commercial activities of NQBP (Ports control centre and public viewing area) and the adjoining Hay Point Coal Terminal were not considered to be Noise Sensitive Places.

6.5.2 Assessment of 8X Pathway (including Zone 4)

6.5.2.1 Noise Impact of 8X - Phase 1

The noise contribution from ST1, ST2, RL3 and the R2 conveyor are each more than 10 dB below the total DBCT site noise emissions measured at any of the nearest noise sensitive places.

No significant noise increases will be ensured through engineering associated with the stacker and reclaimer upgrades. A minor increase in noise emission from the R2 conveyor speed increase (approximately 1dB) is predicted but this will have no material effect on the noise levels observed in the surrounding community. No change in overall noise levels for any noise sensitive location surrounding DBCT are predicted at the conclusion of Phase 1 (8X). Importantly, Huson predicts that compliance with the current license conditions will be maintained.

6.5.2.2 Noise Impact of 8X - Phase 2

The opportunity exists to provide additional noise amelioration to the new RRP4 shed compared to that currently available from the existing RRP1 shed. Although a

reduction in noise emissions from the new RRP4 shed can be gained, Huson (2016) conservatively assumed that no net noise reduction has been achieved and that RRP4 simply replaces RRP1 with the same noise emissions.

An upgrade of one of the outloading conveyors may produce a minor noise increase (approximately 1 dB), however, the change to the overall DBCT noise emissions observed at the nearest noise sensitive places will be insignificant.

The most significant increase in noise emissions from the Phase 2 (8X) expansion will be from the new IL4 and buffer storage which will produce a minor noise increase to the south east of the DBCT.

The net change in noise level at P3 (representative of the nearest noise sensitive place to the south east) is from 49.6 dB(A) to 50.3 dB(A), an increase of less than 1 dB and remaining below the 53 dB(A) night time noise limit in the EA.

6.5.3 Conclusions

After completion of the two phases of the 8X expansion Huson (2016) predicted no change in sound levels at noise sensitive places in the region around Louisa Creek to the west of DBCT. A minor noise increase of less than 1 dB(A) was predicted in the noise sensitive places near to the new P3 noise monitoring station in Hay Point to the east and south east of the DBCT. However, the increase in noise level would remain compliant with noise level limits in the current environmental authority.

A minor noise increase of less than 1 dB(A) was also predicted for some of the noise sensitive places around Horsburgh Road that is to the west of the DBCT rail loop.

Importantly though, increased noise level would also comply with noise level limits in the current environmental authority.

7 Stakeholder Consultation

7.1 Public Consultation Process

The Port of Hay Point Community Reference Group (CRG), which is facilitated by North Queensland Bulk Ports (NQBPP) has been a critical link between DBCT and the community. Membership of the CRG currently includes representatives of DBCTM, DBCT P/L, NQBPP, Mackay Regional Council and the local communities of Louisa Creek, Mirani, Sarina, Half Tide and the Droughtmaster Drive area. The general public is invited to attend meetings as observers, with questions taken from the floor. The CRG publishes minutes of meetings, as well as an official newsletter that is made available to communities. At the last meeting of the CRG in May 2017, it was agreed by all parties that the group would only reconvene when there was a compelling reason to meet. In early 2018, DBCTM initiated the reconvening of this group in the first half of 2018 on the basis of expected increases of coal throughput over coming years.

The Port of Hay Point CRG discusses a wide range of local concerns and is kept abreast of general developments at DBCT. This provides an ongoing general public forum to ensure the community is well informed about DBCT issues that affect the whole of port stakeholders. In turn, DBCTM and DBCT P/L are able to consider and gauge general community concerns as part of the ongoing DBCT planning process.

Because the more specific issues associated with the operations of DBCT were sometimes confused with the whole of port group, the DBCT P/L undertook to commence its own Community Working Group (CWG). This group is represented by community members, local government, DBCT P/L, the local State member of parliament and DBCTM. The primary goal of the group is to facilitate open two-way communications that enhance understanding of issues specifically associated with the terminal and to build trust between the members.

Environmental performance remains a source of concern for the community, and this double strategy will ensure community relations are maintained, especially as production increases and environmental risks increase.

DBCTM also recognises that expansion projects may create additional community pressures that are not related to the terminal's operations. Accordingly, DBCTM takes an active role with the community by promoting stakeholder knowledge of future expansions.

CRG meetings have been traditionally held every three months and CWG meetings are held every two months. Since mid-2014, DBCTM has regularly updated these forums on current and future projects. Current and future projects may include those undertaken as Non-Expansionary Capital Works, projects contemplated by the Master Plan, and feasibility studies. These forums are aware of the projects in the Master Plan. A detailed presentation on the updated draft Master Plan was also given to the CWG in February 2018. Considering that there is no change to the expansion pathway, and the motivation for developing Master Plan 2018 was largely to address the commercial difficulties of executing an expansion under the current 2017 Access Undertaking (see section 5.7 of this document), it was determined that no update to the community CRG was required prior to the Master Plan's release. The CWG will be informed of progress when it is reconvened later in 2018.

7.2 Community Engagement Strategy

The primary objective of a community engagement strategy is to assist in the provision of a stable social operating environment for the business and to allow DBCT to expand to meet industry demand. DBCTM's community engagement strategy is based on the following:

- Informing and educating the community regarding the terminal's operating philosophy and activities including values, history, commitment to sustainability, security, among other things.
- Working to continually improve relations with the immediate community through successful community engagement and relationship building.
- Proactively strengthening key stakeholder relationships outside the immediate community.
- Effectively and efficiently managing complaints and issues.
- Promoting greater integration/interdependence between the community and the terminal over the long term.

A multi-faceted approach to Community liaison has been adopted, as no single plan, including attendance at the Port of Hay Point Community Relations Group (CRG), can satisfy all of the expectations of various community groups and individuals.

Typical responsibilities of this liaison role include the following:

- Meet and greet activities, including working with local schools and TAFE colleges, managing site tours, visits and handouts. This forms an integral part of the community information and education campaign.
- Interaction with the CWG local advisory group.
- Production of written material on how the terminal operates, its values, history, environmental initiatives, etc.
- Development of local employment, primarily through the non-expansionary capital works program and DBCT expansion projects, as well as ongoing terminal operations.
- Speaking engagements at local clubs, council, and industry groups.
- Response to community input or issues.
- Maintaining a website to better inform interested parties of terminal related matters.

7.3 Key Stakeholder Relations Program

While the focus of this strategy is community engagement, external stakeholders also need to be included in terminal information releases. These external stakeholders include:

- approval agencies, e.g. Environmental Protection Agency and the Queensland Department of Environment and Science
- elected representatives (State, Federal and local Government)

- Ministers relevant to the operation or expansion of the terminal
- media
- environmental groups, and
- local government officers from such agencies as Department of Natural Resources & Mines and Queensland Health

As such, community engagement programs have been extended to include communication with key stakeholders in order to ensure proactive relationships with these parties.

DBCT is only one component of the Goonyella coal supply chain and relies on the performance and alignment of the upstream and downstream stakeholders to operate at maximum efficiency. As a result, DBCTM continues to place a strong emphasis on maintaining a cooperative relationship with its stakeholders.

Given the expansion pathway presented in this Master Plan is identical to the previous Master Plan (2016) the level of consultation needed in the development of this Master Plan has not been as significant as it has been in previous Master Plans. Nevertheless, this Master Plan (2018) has been prepared by DBCTM in consultation with current stakeholders, identified as follows:

- Local neighbouring communities – via CRG and CWG meetings since mid-2014 with a detailed presentation given to the CWG in February 2018.
- North Queensland Bulk Ports – February 2018.
- Queensland Department of Transport & Main Roads (TMR) including the Ports and Transport Governance Unit and the Sustainable Ports Planning Team - March 2018.
- DBCT Access Holders - February and March 2018.
- DBCT Access Seekers - February and March 2018.
- The DBCT terminal Operator (DBCT Pty Ltd) – Ongoing and specifically in February 2018.
- Aurizon Network (rail network provider) – March 2018.
- Aurizon National - March 2018.
- Pacific National – March 2018.
- Integrated Logistics Company – January 2018.

7.4 Management of Complaints and Issues

It is important for any organisation undertaking community engagement to field and manage community input and complaints in an efficient and effective manner. Dedicated channels of communication and protocols have been established to facilitate management of community suggestions and issues which include both the terminal Operator and any major works contractors.