Queensland Competition Authority

Final recommendation

Part C: DBCT declaration review

March 2020



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1 INTRODUCTION

1.1 The existing declaration

The service of 'the handling of coal at Dalrymple Bay Coal Terminal by the terminal operator' is taken to be declared under Part 5, division 2 of the QCA Act (see Box 1).

The regulatory framework for the existing declaration is currently governed by the QCA Act, and the 2017 access undertaking, which was approved by the QCA and took effect on 16 February 2017. The 2017 access undertaking sets out the terms and conditions under which DBCT Management provides access to the service. It also addresses the process required for an access seeker to negotiate access to the service, and the way in which any disputes in relation to access are to be resolved.

Box 1: The declared service

Section 250(1)(c) provides that the 'handling of coal at Dalrymple Bay Coal Terminal by the terminal operator' is taken to be a service declared under Part 5, division 2 of the QCA Act.

Section 250(5) provides that:

'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.

handling of coal includes unloading, storing, reclaiming and loading.

•••

terminal operator means—

- (a) the owner or lessee of Dalrymple Bay Coal Terminal; or
- (b) a person operating Dalrymple Bay Coal Terminal for the owner or lessee.'

1.2 Dalrymple Bay Coal Terminal

Dalrymple Bay Coal Terminal (DBCT or 'the terminal'), at the Port of Hay Point, located 40 kilometres south of Mackay, is Queensland's largest common-user coal export terminal (Figure 1). Since its commissioning in 1983, DBCT has provided coal handling services to the coal industry in central Queensland.¹

¹ See also QCA, *DBCT Management's 2015 draft access undertaking*, final decision, November 2016, chapter 1, https://www.qca.org.au/wp-content/uploads/2019/05/31145_DBCT2015DAUFINALDECISION-1.pdf.

The terminal is owned by the Queensland Government through a wholly government controlled entity, DBCT Holdings Pty Ltd (DBCT Holdings). In 2001, DBCT Holdings leased the terminal to DBCT Management Pty Ltd and the DBCT Trustee (collectively referred to as DBCT Management in this final recommendation). DBCT Management has the option to extend the lease, which expires in 2051, for a further 49-year period.²

Figure 1 DBCT at the Port of Hay Point



Source: DBCT Management, Master Plan 2016, p. 11.

DBCT Management is 100 per cent legally owned by its Australian parent, BPIH Pty Ltd (formerly Brookfield PIH Pty Limited). BPIH Pty Ltd is in turn wholly owned (through a number of interposed entities) by Brookfield Infrastructure Partners (BIP), with 29 per cent of BIP held by Brookfield Asset Management (BAM) and 71 per cent publicly listed on the New York and Toronto stock exchanges. BAM is 100 per cent publicly listed on the New York and Toronto stock exchanges.³

DBCT Management's operation, use of, and investment in the terminal are subject to legislative and contractual arrangements put in place by the Queensland Government prior to the lease of the terminal in 2001.⁴ In particular, the Port Services Agreement (PSA) between DBCT Management and DBCT Holdings establishes the rights and responsibilities of DBCT Management with respect to the operation, management, and expansion of the terminal.⁵

Coal producers contract directly with rail operators and DBCT Management for relevant rail and terminal service access rights. Below-rail rights may be contracted directly with coal producers, or may be held (usually on the customer's behalf) by rail operators.⁶

² QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016, p. 2.

³ QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016, pp. 2–3.

⁴ QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016, p. 4.

⁵ QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016, p. 17

⁶ QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016, p. 2.

A range of coal producers hold user agreements at the terminal—they refer to themselves as 'users'. The terminal's user agreements provide users with the ability to ship coal through the terminal, assign some or all of their access rights to a third party and/or permit another user or third party to ship coal through the terminal using their access rights. Importantly, the QCA understands that the agreements give users an 'evergreen' right to renew their contracts.⁷

1.3 The changing landscape

The coal handling service at DBCT was declared for third party access in 2001 in the context of the long-term lease of the terminal by the Queensland Government to DBCT Management. At the time, the government said:

The government has a range of objectives that it requires the lessee to meet and that will be embedded in specific lease arrangements in order to attain the best outcome for the central Queensland coal industry and the Queensland community. In particular, the government will ensure that the efficiency of the total coal supply chain is enhanced and that the competitiveness of the central Queensland coal industry is sustained.⁸

The Queensland Government subsequently outlined its (then) view of the DBCT access regime when it sought the National Competition Council's (NCC) recommendation for certification of the regime in 2010.

The DBCT access regime has facilitated competition in the market for Queensland coal tenements and in the market for the shipping and export of coal. It means terminal users are not charged access prices higher than those that would apply in a competitive market, while ensuring sufficient returns for the operator to facilitate significant expansions of the terminal. Upon commencement of regulation, access charges fell by around 17 per cent and the price approved by the QCA was around 40 per cent lower than that proposed by DBCT's new owner. Ongoing oversight of DBCT by the QCA also ensures that only the prudent costs of infrastructure expansion are passed through to customers.⁹

Since then, a number of developments have taken place in the Queensland coal handling environment, fuelled in part by the resources boom. Key developments include the following:

- In 2011, a long-term lease of Adani Abbot Point Terminal (AAPT) was granted to Mundra Port Pty Ltd, a subsidiary of the Adani group of companies.¹⁰
- In 2011, the Goonyella to AAPT expansion (GAPE) was completed, connecting the existing Goonyella and Newlands rail systems.¹¹
- In 2015, the private Wiggins Island Coal Export Terminal (WICET) was commissioned at Gladstone, with a capacity of 27 million tonnes per annum (mtpa).¹²

⁷ QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016, p. 2.

⁸ Queensland Parliament, *Parliamentary Debates*, Legislative Assembly, 22 June 2001, p. 1838, http://www.parliament.qld.gov.au/documents/Hansard/2001/010622ha.pdf#search=dbct.

⁹ Queensland Government, Application to the National Competition Council for a recommendation on the effectiveness of an access regime, 2010, p. 7, http://ncc.gov.au/images/uploads/CECTQIAp-002.pdf.

Moneylife, 'Adani bags lease for Australia's Abbot Point Coal Terminal', 3 May 2011, https://www.moneylife.in/article/adani-bags-lease-for-australiarsquos-abbot-point-coal-terminal/16066.html; A Bligh & R Nolan, Premium price for Abbot Point Coal Terminal boosts disaster recovery, media release, Queensland Government, 3 May 2011, http://statements.qld.gov.au/Statement/ld/74576.

¹¹ QCA, Goonyella to Abbot Point Expansion Reference Tariff - draft amending access undertaking, draft decision, July 2013, p. iv, https://www.qca.org.au/wp-content/uploads/2019/05/9358_R-QCA-DraftDec-GAPE-June13-0713-1.pdf.

 In 2015, BHP Mitsubishi Alliance (BMA) completed an 11 mtpa expansion of its Hay Point Coal Terminal (HPCT), which is adjacent to DBCT.¹³

During the resources boom, further industry developments were planned, some of which have been progressed. For instance, the AAPT Expansion Stage 3 (which doubled the port of Abbot Point's capacity from 25 mtpa to 50 mtpa) was commissioned.

Other projects appear to be at the conceptual stage. These include further potential developments at Abbot Point:

- GVK Limited's proposed 60 mtpa T3 coal terminal to potentially service up to three mines in the southern area of the Galilee Basin¹⁴
- Adani Mining's proposed 20 mtpa T0 expansion of the existing T1 terminal.

Other projects have been cancelled or deferred. Most notably, the Dudgeon Point Coal Terminal project's status as a 'coordinated project' was cancelled by the Coordinator-General in 2014.¹⁶

More broadly, absent changes to existing legislation, any future port development will have to occur within the framework of the *Sustainable Ports Development Act 2015* (Qld). This Act places restrictions on port development and focuses on developments related to the 'priority ports' of Gladstone, Abbot Point, Townsville and Hay Point/Mackay.¹⁷

1.4 Summary of key positions and final recommendation

The QCA has formed the view that it should not recommend declaration of the DBCT service.

A summary of the QCA's key positions is presented in Table 1 below. Further information is available in the following chapters.

Table 1 Summary of key positions and final recommendation

QCA Act, s. 76	Final recommendation and overview of position in relation to each criterion
	The QCA is not satisfied that all criteria are met and therefore does not recommend declaration of the DBCT service
Criterion (b)	Criterion (b) is satisfied The relevant market for criterion (b) is the market for DBCT's coal handling service in the Goonyella system In this market, there are no close substitutes for the DBCT service

Department of Transport and Main Roads (DTMR), Coal transport infrastructure development, Queensland Government, viewed 31 October 2019, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Coal-transport-infrastructure-development#brisbane.

¹³ A Palaszczuk, *New BMA Hay Point coal terminal berth boosts state coal exports*, media release, Queensland Government, 16 December 2015, http://statements.qld.gov.au/Statement/2015/12/16/new-bma-hay-point-coal-terminal-berth-boosts-state-coal-exports.

¹⁴ DTMR, Coal transport infrastructure development, Queensland Government, viewed 31 October 2019, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Coal-transport-infrastructure-development.

¹⁵ DTMR, Coal transport infrastructure development, Queensland Government, viewed 31 October 2019, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Coal-transport-infrastructure-development.

¹⁶ The proposed Dudgeon Point Coal Terminal was to be located at the Port of Hay Point. See also Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP), Dudgeon Point Coal Terminals Project, Queensland Government website, https://www.statedevelopment.qld.gov.au/assessments-and-approvals/dudgeon-point-coal-terminals-project.html.

¹⁷ DTMR, Sustainable port development and operation, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Ports/Sustainable-port-development-and-operation.

QCA Act, s. 76	Final recommendation and overview of position in relation to each criterion
	DBCT could meet total foreseeable demand in the market over the period for which the service would be declared and at the least cost compared to any two or more facilities
Criterion (a)	Criterion (a) is not satisfied
	Access (or increased access) to the DBCT service, on reasonable terms and conditions, as a result of declaration of the service would not promote a material increase in competition in at least one market, other than the market for the service
Criterion (c)	Criterion (c) is satisfied
	DBCT is significant having regard to its size and its importance to the Queensland economy
Criterion (d)	Criterion (d) is not satisfied
	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 the public interest
	The QCA has balanced the costs and benefits of declaration and considers, among other things:
	Declaration is unlikely to have a positive effect on investment in facilities and dependent markets
	The administrative and compliance costs incurred by DBCT Management under declaration would not be materially different to the costs that it would incur under its access framework in the absence of declaration
	There is no evidence of any other relevant matters that would have a material impact (either positive or negative) on the promotion of the public interest

2 CRITERION (B)—MEET TOTAL FORESEEABLE DEMAND AT LEAST COST

2.1 Introduction

Section 76(2)(b) of the QCA Act is expressed as follows:

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)

Sections 76(3) and (4) of the QCA Act further state:

- (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.

The key matters in respect of s. 76(2)(b) for the coal handling service provided by DBCT are summarised below in Table 2.

Table 2 Summary of key positions—s. 76(2)(b) of the QCA Act

Criterion (b)						
Issue	DBCT Management	Other stakeholders	QCA final recommendation			
The service	As per s. 250(1)(c)	As per s. 250(1)(c)	As per s. 250(1)(c) See section 2.2			
The facility	As per s. 250(5)	As per s. 250(5)	As per s. 250(5) See section 2.3			
The market	The market for coal handling services for mines that are proximate to the Port of Hay Point	The market for supply of DBCT's coal handling services in the Goonyella system	The relevant market is the market for DBCT's coal handling service in the Goonyella system See section 2.4			
Period for assessing total foreseeable demand	10 years	10 years as a starting point, but if criterion (b) is not satisfied at 10 years, it should be tested over a shorter period	10 years See section 2.5			
Total foreseeable demand	Varied estimates 151 mtpa to 187 mtpa (throughput)	Varied estimates 72 mtpa to 84 mtpa (throughput)	80 mtpa to 96 mtpa (throughput) 89 mtpa to 107 mtpa (contract entitlements) See section 2.6			

Criterion (b)					
Meeting total processee able demand processee able demand processee able demand in the market		DBCT can meet total foreseeable demand in the market	DBCT can meet total foreseeable demand in the market following 'reasonably possible' expansions See section 2.7		
At the least cost	DBCT cannot satisfy total foreseeable demand at least cost	DBCT can satisfy total foreseeable demand at least cost	DBCT can satisfy total foreseeable demand at least cost compared to any 2 or more facilities See section 2.8		

2.2 The service

The service is 'the handling of coal at Dalrymple Bay Coal Terminal by the terminal operator' as described in s. 250(1)(c) of the QCA Act. The handling of coal includes unloading, storing, reclaiming and loading as defined in s. 250(5) of the QCA Act.

2.2.1 QCA analysis

All stakeholders agreed that the relevant service is defined in s. 250(1)(c) of the QCA Act.

The coal handling service is an integrated service that essentially comprises the following key elements—unloading, stockpiling, coal blending, cargo assembly and out-loading services to mines using the terminal. DBCT Management also has a coordination role, helping to ensure that the delivery of coal by rail meets the demands of customers in terms of scheduled ship arrivals.¹⁸

Blending of the different types of coal is undertaken at the terminal. While blending can be done at the mine site, blending at the terminal allows coal from different mines to be combined into a single product. DBCT processes three commercial coal categories—metallurgical coal, PCI¹⁹ coal and thermal coal—which can be blended into a possible 58 registered products.²⁰

2.3 The facility

The facility (DBCT) that provides the declared service is defined in s. 250(5) of the QCA Act as follows:

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;

¹⁸ QCA, *Dalrymple Bay Coal Terminal Draft Access Undertaking*, draft decision, October 2004, p. 5, https://www.qca.org.au/wp-content/uploads/2019/05/12204_DBCTDAU_DraftDecision_Oct04-1.pdf.

¹⁹ Pulverised coal injection.

²⁰ DBCT Management, submission to the QCA, *DBCT Management*—*2019 DAU*, 1 July 2019, p. 46, para. 219, https://www.qca.org.au/wp-content/uploads/2019/05/2019-dau-submission.pdf.

(e) ship loaders.

2.3.1 QCA analysis

Stakeholders agreed with the description of the facility in s. 250(5).

DBCT Management's 2019 Master Plan indicates that the facility makes use of the following facilities, plant and equipment to achieve an 85 mtpa nameplate capacity:

- 3 rail receival stations
- 4 stackers
- 3 reclaimers
- 5 stacker-reclaimers
- 7.5 stockpile rows, each approximately 1,100 m in length
- 3 outloading systems and 3 shiploaders
- 4 berths capable of receiving cape size vessels.²¹

In October 2018, the Integrated Logistics Company (ILC) prepared a report on DBCT's capacity. The ILC considered that the terminal's capacity was 95.4 mtpa (+/- 1) in FY21, falling to 94.7 mtpa (+/- 1) from FY22 onwards. System capacity in the same years was 84.4 mtpa (+/- 1), falling to 84.2 mtpa (+/- 1). 22

2.4 The market

2.4.1 Background

The demand for coal handling services is spread across Queensland, with mines transporting coal to four ports—Abbot Point, Hay Point, Gladstone and Brisbane (Figure 2).

There are coal terminals located at each of the four ports, with the majority of the operating coal terminals being common-user facilities (Table 3).

²¹ DBCT Management, *Master Plan 2019*, p. 10.

²² ILC, *DBCT Capacity Estimates*, prepared for DBCT Management, 19 October 2018, p. 1, https://www.qca.org.au/wp-content/uploads/2019/05/34266_ILC-DBCT-Capacity-Estimates-1.pdf.

Port of Abbot Point Newlands System Port of Hay Point Mackay to Abbot Point Expansion Project HAY POINT SERVICES COAL TERMINAL BHP Billiton Mitsubishi Alliance (BMA) Goonyella System Blackwater Rockh System Port of Gladstone Moura System Gladstone R.G. TANNA COAL TERMINAL Gladstone Ports Corporation (GPC) Proposed Moura Link - Aldoga Rail project BARNEY POINT COAL TERMINAL Gladstone Ports Corporation (GPC) Proposed Surat Basin Railway Western System Port of Brisbane I Ipswich Basin

Figure 2 Coal systems in Queensland

Source: Department of State Development, Manufacturing, Infrastructure and Planning, https://www.statedevelopment.qld.gov.au/resources/map/cg/coal-transport-system-map.pdf.

Table 3 Coal terminals in Queensland

Terminal	Location	Nominal capacity (mtpa)	Contracted capacity status	Access status
DBCT	Hay Point	85	Fully contracted ^a	Common-user Open access
НРСТ	Hay Point	55	Contract status unknown, although BHP reports that HPCT is fully efficiently utilised ^b	Not common- user Vertically integrated Closed access ^c
AAPT	Abbot Point	50	Fully contracted ^d	Common-user
WICET	Gladstone	27	Partially contracted. Spare capacity of 11.5 mtpa	Common-user Open access under an access policy
RG Tanna	Gladstone	75	Contract status unknown, but no evidence received of spare capacity	Common-user
Barney Point	Gladstone	-	_	Terminal has closed
Brisbane	Brisbane	10	Contract status unknown, but no evidence received of spare capacity	Common-user

a DBCT Management, sub. 36, pp. 1–2.

Sources: ACCC, Application by the RG Tanna Coal Export Terminal Producers in respect of collective negotiations with Gladstone Ports Corporation Limited, determination, 16 April 2014, p. 2; BHP, sub. 18, p. 4; DBCT Management sub. 13, p. 50; DBCT Management DBCT Review Event—Change in Reference Tonnage, letter to the QCA, 11 July 2018; DTMR, Master plan: Priority Port of Gladstone, 2018; DTMR website, Coal transport infrastructure development; FIIG, Adani Abbot Point Terminal Pty Ltd., 2015; New Hope Group website, Port Management; Sourcewatch website, RG Tanna Coal Terminal; WICET website, Access.

In determining the extent to which a coal terminal may service a particular mine, relevant considerations include:

- The proximity of the terminal in relation to the mine—noting the cost and infrastructure requirements of railing to a particular terminal. The QCA notes that no mine located in the central Queensland coal network (CQCN) exports coal through the Port of Brisbane.
- The access status of the coal terminal—noting that HPCT is not a common-user facility (see Appendix B for further discussion).
- The available rail and terminal capacity—noting that long-term contractual arrangements are a typical feature in accessing rail systems and common-user terminals in Queensland.

b BHP, sub. 27, p. 2, para. 3.1.

c BMA provides BHP Mitsui Coal (BMC) (a related party) with limited access to HPCT, pursuant to an agreement between the parties. BMC does not have committed capacity at HPCT available to it (BHP, sub. 18, p. 4).

d The QCA understands that even though AAPT may be fully contracted, the terminal is not operating at full capacity, with take or pay penalties comprising a large proportion of its revenues. See IEEFA, Australia: Adani's Abbot Point Coal Terminal Faces Escalating Financial Risk, 2017, p. 9.

In considering the terminal capacity available at potential alternative common-user coal terminals that are accessed by mines on the CQCN, the QCA has assessed that:

- there is spare capacity of 11.5 mtpa at WICET²³
- there is no evidence of spare capacity at RG Tanna Coal Terminal (RG Tanna)
- no spare capacity is expected to be available for common-user access at AAPT.

Available capacity at RG Tanna

The Gladstone Ports Corporation (GPC) has previously reported RG Tanna's terminal capacity as 75 mtpa.²⁴ However, the DBCT User Group submitted that recent reports²⁵ suggest the nameplate capacity of RG Tanna is actually only 72 mtpa.²⁶ While the QCA considers the evidence suggests available capacity at RG Tanna is no higher than 75 mtpa, the precise capacity of RG Tanna is uncertain.

In any case, the QCA considers there is no evidence of spare capacity at RG Tanna.

Relevantly, the QCA notes that a key rationale for developing WICET at the Port of Gladstone was due to capacity constraints at RG Tanna and Barney Point, with GPC seeking 'to increase the throughput capacity of the Port in order to meet increasing demand for Queensland's export coal'.27 At the time of investing in WICET, the QCA considers that potential customers would have first utilised any capacity available at RG Tanna—given the significant costs associated with developing WICET.

Following the development of WICET, GPC ceased coal operations at Barney Point Terminal and transferred customers who used Barney Point to export coal to either RG Tanna or WICET²⁸ adding to the already 'high utilisation' of RG Tanna.²⁹

The DBCT User Group submitted that it understands that RG Tanna is fully contracted.³⁰ The QCA's consultant, Balance Advisory, also reported that RG Tanna is fully contracted. 31

In contrast, DBCT Management submitted that publicly available information demonstrates that there is spare capacity at RG Tanna. DBCT Management, drawing on the analysis of its consultant GHD, said:

On average, over the last three financial years RGTCT has shipped 59.9Mtpa of throughput. Using the QCA's assumption that throughput is on average 90% of contracted entitlements, a

²⁷ GPC, WICET and WICET Holdings, Submission to the Australian Competition and Consumer Commission in support of application for authorisation pursuant to s88 of the Trade Practices Act, public version, 24 December 2009, p. 21, para. 7.24, https://www.accc.gov.au/system/files/public-registers/documents/D10%2B59173.pdf.

²³ WICET reports it has spare capacity of 11.5 mtpa. See WICET, Access, viewed 14 November 2019, http://www.wicet.com.au/irm/content/access1.aspx?RID=379&RedirectCount=1.

²⁴ Gladstone Ports Corporation (GPC), 50 Year Strategic Plan, updated, July 2012, p. 7.

²⁵ PwC & Ranbury, Technology and Supply Chains for Critical Industries—Resources sector, working paper 1 of 3, prepared for the Australian Government Department of Infrastructure and Regional Development, October 2017, p. 10.

²⁶ DBCT User Group, sub. 46, p. 22.

²⁸ GPC, WICET and WICET Holdings, Submission to the Australian Competition and Consumer Commission in support of application for authorisation pursuant to s88 of the Trade Practices Act, public version, 24 December 2009, p. 21. para. 12.43.

²⁹ GPC, Port Talk, September 2015, p. 3, http://gpcl.com.au/SiteAssets/Port%20Talk/GPC-Port-Talk-September-2015.pdf.

³⁰ DBCT User Group, sub. 30, p. 23; sub. 46, pp. 17, 22.

³¹ Balance Advisory, DBCT Management Declaration Review, report for the QCA, August 2018, p. 8, https://www.qca.org.au/wp-content/uploads/2019/05/34434_Balance-Advisory-report-DBCT-criterion-a-2.pdf.

reasonable estimate of contracted throughput at RGTCT is 66.6Mtpa. As the QCA estimates that capacity at RGTCT is 75Mtpa, spare capacity at RGTCT would be approximately 8.4Mtpa.³²

The QCA does not consider that the assumption that throughput is on average 90 per cent of contracted entitlements, initially put forward by DBCT Management's consultant³³, can be relied on to produce an accurate assessment of current contracted capacity at RG Tanna in the short term—noting that HoustonKemp's assumption was categorised as an average to be applied over the long-term.³⁴

The QCA also considers that obtaining an average of demand for coal throughput over a recent three-year period is arbitrary, as an average over a longer period will yield a different result. Relevantly, this short-term period also included throughput disruptions caused by Cyclone Debbie in 2017.³⁵

To the extent that such a short timeframe provides an adequate assessment of contracted capacity at RG Tanna, the QCA notes that DBCT Management previously stated:

[D]espite 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.³⁶

Given this, the QCA remains of the view that there is no evidence of spare capacity at RG Tanna.

Available capacity at AAPT

The QCA considers that based on the evidence available, no spare capacity is expected to be available for common-user access at AAPT over the declaration period under consideration.

To the extent that take or pay contracts will be expiring over the coming years, the view of the North Queensland Bulk Ports Corporation (NQBP) was that:

Existing unused capacity at Adani Abbot Point Terminal 1 is expected to be utilised in the initial stages of the Carmichael Mine and Rail Project. 37,38

In the draft recommendation, the QCA noted the considerable uncertainties regarding the construction of the Carmichael coal mine and rail project, including whether it would be built.

On 13 June 2019, Adani's Groundwater Dependent Ecosystems Management Plan for the Carmichael mine was finalised and approved by the Queensland Government. Adani has stated that the construction phase of the Carmichael mine and rail project has now commenced.³⁹ Acknowledging that there is still some uncertainty associated with the timing of construction and exact production volumes, the QCA considers that, in line with NQBP's previous statements,

³³ DBCT Management, sub. 1, appendix 10, p. 37.

³² DBCT Management, sub. 26, p. 24.

³⁴ See section 2.6.3 for QCA's discussion of the appropriateness of adopting this assumption in relation to total foreseeable demand.

³⁵ GHD considered that information provided by Resource Management International (RMI) also demonstrated that RG Tanna is not fully contracted. The QCA notes that RMI was commenting on throughput capacity (not contracted capacity) and only considered demand for coal throughput over the short-term in forming its conclusion.

³⁶ DBCT Management, sub. 1, p. 44, para. 208.2.

³⁷ DBCT User Group, sub. 3, p. 36.

³⁸ DBCT User Group, sub. 3, schedule 3, p. 18 (quote 44); North Queensland Bulk Ports Corporation, *Annual Report* 2016–17, p. 11, https://nqbp.com.au/__data/assets/pdf_file/0016/2842/NQBP-2201-Annual-Report-2017 PRINT low-res-2.pdf.

³⁹ Adani Australia, *Adani announces new Rockhampton office for recruitment*, media release, 28 August 2019, p. 1, https://www.adaniaustralia.com/-/media/190828%20-%20Adani%20announces%20Rockhampton%20office%20FINAL.

any existing available capacity at AAPT is unlikely to be contracted to new users given that it is likely to be required to service the Carmichael coal mine.

Based on the evidence before it, the QCA is of the view that any planned expansions of AAPT over the declaration period under consideration are unlikely to be available for common-user access.

Stakeholders provided submissions on the relevant market. The QCA's analysis was undertaken in the context of the above.

2.4.2 Stakeholder submissions

Stakeholders focused on the geographic region that defined the relevant market for the purposes of criterion (b).

DBCT Management said the relevant market represents the geographic region in which it is physically feasible and financially preferable for a mine to use coal handling services at the Port of Hay Point⁴⁰ and concluded that the relevant market is the market for coal handling services for mines that are proximate to the Port of Hay Point.⁴¹ In contrast, both Peabody and the DBCT User Group said the relevant market is the market for supply of DBCT's coal handling services in the Goonyella system.^{42,43}

2.4.3 QCA analysis

The QCA considers the relevant market for criterion (b) is the market for DBCT's coal handling service in the Goonyella system. The QCA considers that there are no close substitutes to DBCT's coal handling service for mines within this market.

In reaching this position, the QCA has considered the market served by DBCT's coal handling service and the extent to which other coal handling services are substitutable or otherwise competitive with DBCT's coal handling service in this market.

The QCA's analysis considers the following key aspects:

- the approach to defining the relevant market
- the extent to which mines in the Goonyella system would consider coal handling services at other terminals as close substitutes to DBCT
- the extent to which the relevant mines utilising alternative rail systems on the CQCN (i.e. other than the Goonyella system) would consider switching to DBCT in its existing or expanded form.

Approach to defining the relevant market

As outlined in Overview—Chapter 2, a market is an area of close competition or rivalry where purchasers can substitute between different products, given a sufficient price or non-price

⁴² DBCT User Group, sub. 46, p. 10; Peabody, sub. 25, p. 1.

⁴⁰ DBCT Management, sub. 1, p. 27, para. 120, which refers to its HoustonKemp supporting report.

⁴¹ DBCT Management, sub. 26, p. 11, para. 26.

⁴³ Both DBCT User Group and Peabody, in their initial submissions, defined the relevant market as the Hay Point common-user coal handling services market. Following the QCA's draft recommendation, DBCT User Group and Peabody updated their market definition to reflect the QCA's draft recommendation. See DBCT User Group, sub. 3, p. 56; Peabody, sub. 2, p. 2, para. 4.

incentive such as quality. The QCA defines the market for the declared service by reference to the market served by the DBCT coal handling service and any substitutes in this market.⁴⁴

In doing so, the QCA sought to establish whether other coal terminals provide a closely substitutable service to the coal handling service at DBCT, in either its existing or expanded form. To the extent that they do, the market would include those other coal terminals.

The QCA is of the view that market definition is purposive.⁴⁵ Thus, the QCA has focused on what is actually happening in the market as part of determining whether other terminals provide a competitive constraint on DBCT Management, by virtue of providing a substitutable service to the coal handling service at DBCT. The QCA has employed a SSNIP⁴⁶-style analysis in considering potential substitutes and the boundaries of the market—this approach is foreshadowed or endorsed in numerous contexts.⁴⁷

With reference to potential substitutes, the QCA's approach for undertaking its analysis involves considering, amongst other things, the product and geographic dimensions of the market—starting the analysis with the narrowest scope of the market, with a view to broadening the market to include all closely substitutable services to the coal handling service at DBCT. The QCA considers that this approach is consistent with the Australian Competition and Consumer Commission's (ACCC's) merger guidelines, which state:

[I]dentifying relevant substitutes is key to defining a market...Market definition begins by selecting a product supplied by one or both of the merger parties in a particular geographic area and incrementally broadening the market to include the next closest substitute until all close substitutes for the initial product are included.⁴⁸

For the purposes of providing greater clarity to the analysis, the QCA has considered the relevant market by reference to mines that access, or are reasonably likely to access, a particular terminal using a rail system. That is, the QCA has considered:

- the demand for coal handling services in the Goonyella system and the extent to which the
 relevant mines (situated within that system) would consider coal handling services at other
 terminals as close substitutes for DBCT (for instance, under a SSNIP test)
- the demand for coal handling services outside the Goonyella system and the extent to which
 the relevant mines (situated outside of the Goonyella system) utilising alternative rail
 systems on the CQCN would consider switching to DBCT in existing or expanded form.

Based on the information available, the QCA is of the view that considering the substitutability of particular user groups, based on rail systems in the CQCN, is appropriate. While the QCA has presented its analysis primarily with reference to mines that are located within, or outside of, the Goonyella system, it has also considered the extent to which individual mines within these regions would consider the alternative coal handling services as close substitutes.

⁴⁴ As the declared service is not provided by means of rail or a pipeline network across a broad geographic area, the QCA does not consider it relevant to consider the start and end points of the service.

⁴⁵ DBCT Management, sub. 1, pp. 23–25, paras 100, 106; DBCT User Group, sub. 3, p. 14.

⁴⁶ Small but significant non-transitory increase in price.

⁴⁷ For example, Productivity Commission, *National Access Regime*, inquiry report no. 66, October 2013, p. 163, http://www.pc.gov.au/inquiries/completed/access-regime/report/access-regime.pdf; ACCC, *Merger Guidelines*, pp. 15–16, paras 4.19–4.22; *ACCC v Metcash Trading Limited* [2011] FCAFC 151 at [247] describing the hypothetical monopolist test.

⁴⁸ ACCC, *Merger Guidelines*, November 2008, amended November 2017, p. 14, https://www.accc.gov.au/system/files/Merger%20guidelines%20-%20Final.PDF.

DBCT Management and the DBCT User Group had differing views on the appropriate approach to assessing substitution possibilities:

- DBCT Management, in essence, defined the market in terms of mines that would prefer to
 use the coal handling service at DBCT on the basis of cost. DBCT Management did not
 consider existing barriers to use the coal handling service at DBCT relevant, such as rail
 infrastructure and contractual constraints. DBCT Management also did not consider non-cost
 factors relevant or material to this issue.
- The DBCT User Group defined the market by reference to the close substitutes of the
 declared service. In doing so, the DBCT User Group focused on demand for the DBCT service
 without considering other mines that, although in close proximity to mines that use DBCT,
 are currently accessing coal handling services at terminals other than DBCT. The DBCT User
 Group considered that both cost and non-cost factors are relevant and material to defining
 the market.

A proper assessment of whether coal handling services at other terminals are close substitutes for the DBCT service involves assessing whether there would be substitution between the terminals in response to a small, but significant and non-transitory change in the DBCT terminal infrastructure charge (TIC). This requires consideration of a range of relevant and material cost and non-cost factors. These cost factors may include:

- the relative costs associated with accessing the DBCT coal handling services compared to potential substitutes
- additional costs incurred in switching to a potential competitor.

The QCA is of the view that certain non-cost factors such as product characteristics may also differentiate the coal handling services at DBCT from those services provided by potential competitors. Product differentiation may affect the extent to which substitution between the terminals in response to a small but significant and non-transitory change in the DBCT TIC would occur. As outlined by the ACCC in its merger guidelines:

Product differentiation often limits substitution at the margins because certain customers do not view differentiated products as comparable.⁴⁹

In assessing these factors, the QCA has considered evidence of miners using alternative terminals and the extent to which this constitutes evidence of close substitutability between DBCT and other terminals.

- Where there are benefits from utilising multiple terminals, the QCA considers that use of
 multiple facilities will be evidence of substitution if the extent to which a party uses these
 facilities would vary in response to a small but significant and non-transitory change in the
 DBCT TIC.
- Similarly, where a customer is considering whether to use one terminal over another (i.e. is not deriving a benefit from using multiple terminals) as a result of relevant cost or non-cost factors, use of an alternative terminal may constitute evidence of substitution between the terminals.
- However, the use of an alternative terminal of itself does not necessarily constitute evidence
 of switching from DBCT to an alternative terminal. It may be the case that commercial or
 strategic benefits are derived from accessing more than one terminal.

⁴⁹ ACCC, *Merger Guidelines*, November 2008, amended November 2017, p. 18.

In relation to the geographic dimension of the market, it can be difficult to define a market precisely in geographic terms, as there can be some overlaps, particularly at the edge of the market, with other markets.⁵⁰ While stakeholders have different means of defining the market from a geographic perspective, they focused on a subset of the Bowen Basin coal fields; that is, on the location of mines with reference to the Hay Point region.

DBCT Management's consultant, HoustonKemp, submitted:

Our approach to defining the market is to use the hypothetical monopolist test, starting with a candidate market defined by the area over which the relevant service is currently being or will be supplied. 51

The QCA considers that defining the market with reference to the potential customers in the market will, in this instance, result in identification of the entire geographic area in which the DBCT service may be supplied—rather than the narrowest market for the relevant service. Market definition also requires consideration of whether other terminals provide a closely substitutable service to the coal handling service at DBCT.

The QCA notes that DBCT Management had a number of concerns with the QCA's approach to determining the relevant market (see Box 2).

⁵⁰ DBCT User Group, sub 15, p. 6, where DBCT User Group mentioned the usual 'fuzziness' at the edge of the geographic dimension of a market.

⁵¹ DBCT Management, sub. 26, appendix 1, p. 4.

Box 2: DBCT Management's concerns with the QCA's approach to defining the market

DBCT Management disagreed with the QCA's approach to determining the relevant market. Specifically, DBCT Management said that the QCA:

- takes a supply-side focus when defining the market
- conflates the distinct concepts of 'demand for' and 'use of' a service and assumes 'demand in the market' is equal to 'demand for the DBCT service'.

Supply-side focus

DBCT Management said that the QCA had 'failed to give proper regard to the purpose of defining the market' and by focusing on the extent of competition between terminals, had focused on the supply side of the market. It said that market definition is directed to assessing whether DBCT can meet total foreseeable demand in the market at least cost and that given this purpose, market definition needs a demand-side focus, which requires facilitating the identification of customers in the market.⁵²

The QCA accepts that defining the market requires consideration of demand, which necessarily involves consideration of alternative sources of supply to satisfy the demand. The QCA determined the relevant market by reference to demand for coal handling services by mines that access, or are reasonably likely to access, a particular terminal; and the extent to which these mines would view other terminals as close substitutes. As such, the QCA's approach cannot be characterised as having a supply-side focus.

The QCA considers that failing to properly consider the extent to which potential customers within the relevant geographical area view coal handling services at other terminals as close substitutes for the DBCT service does not allow for proper identification of the market.

Assumption that demand in the market is demand for or use of the DBCT service

DBCT Management said that the QCA conflates the distinct concepts of 'demand for' and 'use of' a service, by assuming that demand in the market cannot include volumes that are served by other terminals. DBCT Management said that this means that the QCA defines the market assuming that demand in the market is equal to demand for the DBCT service.⁵³ Its consultant, HoustonKemp explained:

[T]he QCA's approach precludes the prospect that demand in the relevant market could meet or exceed the existing capacity of DBCT, and this in turn affects its view of which coal terminals supply this market.⁵⁴

The QCA has sought to establish the relevant market in which DBCT provides its coal handling service. The QCA does not assume that demand in the market cannot include volumes served by other terminals, or that demand in the market is equal to demand for the DBCT service. Rather, it considers the extent to which other terminals are close substitutes for the DBCT service. In doing so, the QCA has considered all potential demand in the relevant market and has not sought to constrain the demand in the market to DBCT's existing capacity.

Deciding to include volumes served by other terminals in the market before considering the extent to which other terminal services are close substitutes to the DBCT service would not provide for an accurate assessment of total foreseeable demand in that market.

Further, the QCA does not consider that its approach to market definition reflects demand that is equal to the current use of DBCT. The QCA estimates total foreseeable throughput demand in the market that exceeds DBCT's current nameplate capacity (section 2.6).

⁵² DBCT Management, sub. 26, p. 12, paras 30–32.

⁵³ DBCT Management, sub. 26, p. 12, para. 33.

⁵⁴ DBCT Management, sub. 26, appendix 1, p. 5.

Goonyella coal chain customers

DBCT provides its coal handling service to around 26 mines on the Goonyella system. ^{55,56} The furthest mines on the Goonyella system that access DBCT are:

- North Goonyella (north on the system)
- Blair Athol (west on the system)
- Oaky Creek (south on the system).

DBCT services nearly all of the demand for common-user coal handling services in the Goonyella system.

In considering the demand for coal handling services by mines in the Goonyella system and the extent to which the relevant mines would consider coal handling services at other terminals as close substitutes, the QCA has considered:

- the relevance of HPCT
- the relevance of cost and non-cost factors to the likelihood of DBCT users switching to alternative terminals
- the extent to which Goonyella system customers use other terminals.

Relevance of HPCT

Given HPCT (owned by BMA) and DBCT are both located at the same port, matters that may be relevant to determining whether the coal handling services provided at terminals in other coal systems are in the same market as the DBCT service (e.g. above-rail costs and below-rail access), do not apply in considering whether the service provided at HPCT is in the same market as the DBCT service.

The QCA has considered the extent to which the relevant mines would consider the coal handling service at HPCT as a close substitute to the DBCT service. The QCA considers that HPCT is not a sufficiently strong substitute to place it in the market in which DBCT operates as it is only used by BHP-affiliated entities. However, to the extent that BMA's demand for coal handling services exceeds HPCT's capacity, additional demand for coal handling services is considered to be in the relevant market. The QCA's analysis of the relevance of HPCT is outlined in Appendix B.

Factors relevant to the likelihood of switching by DBCT users

A range of factors are relevant and material as to the likelihood of DBCT users switching to alternative terminals (namely, AAPT, RG Tanna and WICET) over the declaration period under consideration.

Both cost and non-cost factors limit the extent to which users will regard coal handling services at other terminals as close substitutes for the DBCT service. In particular, the QCA notes that:

 the relative costs for a mine in the Goonyella system to access DBCT are substantially cheaper than accessing an alternative terminal

⁵⁵ QCA, DBCT Management's 2015 draft access undertaking, final decision, p. 1.

⁵⁶ DBCT Management, Maps, https://www.dbctm.com.au/coal-chain/maps-mining-locations/.

- a mine in the Goonyella system may incur additional costs (including costs associated with
 exiting contractual arrangements and investing in required rail and mine infrastructure) if it
 decided to switch to an alternative terminal
- there are a range of other product characteristics, such as co-shipping and blending opportunities, that may differentiate the coal handling service at DBCT from those provided by alternative terminals.

Each of these factors is explored further below.

Relative costs of accessing terminals

The DBCT User Group and Peabody said substitution to alternative terminals is not economically viable based on below- and above-rail costs; this was largely due to the greater distances Goonyella users must traverse to access alternative terminals.⁵⁷ The QCA notes that DBCT is the closest terminal for the overwhelming majority of Goonyella users. The distances from existing mines on the outer edges of the Goonyella system to DBCT and the closest alternative coal handling terminals are outlined below (Table 4).

Table 4 Distances from mines to DBCT and the closest alternative port

Mine	Location	Distance to DBCT (km)	Distance to closest alternative coal handling terminal (km)
North Goonyella	North on the Goonyella system	217	AAPT: 243
Blair Athol	West on the Goonyella system	282	AAPT: 391
Oaky Creek	South on the Goonyella system	298	Port of Gladstone (RG Tanna/WICET): 384

Note: Distance calculations are based on data reported in Aurizon Network, Goonyella System—Summary Sheet, version 7.0, March 2017; Aurizon Network, Blackwater System—Summary Sheet, version 7.0, March 2017; Aurizon Network, Newlands System—Summary Sheet, version 7.0, March 2017.

The DBCT User Group provided total infrastructure cost estimates of the cost of a Bowen Basin mine accessing DBCT, AAPT, RG Tanna and WICET.⁵⁸ The QCA has not relied on these estimates, as it has not seen the detailed assumptions or underlying data that underpin the calculations.⁵⁹

Rather, the QCA has sought to independently model its own cost estimates for mines in the Goonyella system to transport coal to other coal handling terminals, relative to transporting coal to DBCT. Table 5 shows the QCA's supply chain cost estimates of a mine in the Goonyella system accessing DBCT, AAPT, RG Tanna and WICET respectively.

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⁵⁷ DBCT User Group, sub. 3, p. 21; Peabody, sub. 2, pp. 6–7; DBCT User Group, sub. 30, pp. 18–19; Peabody, sub. 25, p. 3.

⁵⁸ DBCT User Group, sub. 3, p. 23 and schedule 3 (PwC report), pp. 32–33; sub. 30, p. 21 and schedule 2 (PwC report), p. 11; sub. 46, p. 9.

⁵⁹ For example, PwC notes that its costs are sourced from averaging actual data for a selection of mine sites to provide a sample. As this mine-specific data is confidential, it was not included in the DBCT User Group's submissions. See DBCT User Group, sub. 30, p. 21 and schedule 2, p. 11.

Table 5 Average supply chain cost to Goonyella system users of accessing alternative coal terminals (\$ per tonne)

Cost components	DBCT (\$/t)	AAPT (GAPE)(\$/t)	RG Tanna (\$/t)	WICET (\$/t)
Below-rail cost ^a	2.11	2.48	4.63	4.63
Above-rail cost	4.21	5.97	5.88	5.88
Coal handling cost	5.59	7.01	5.18	14.67
Other port and shipping costs	0.05	0.05	0.05	0.05
Supply chain cost	11.96	at least 15.52	at least 15.73	at least 25.22
Cost difference relative to accessing DBCT	-	at least 3.56 (30%)	at least 3.77 (32%)	at least 13.26 (111%)

Note: See Appendix A, Table A.3.

a In the draft recommendation, the QCA estimated the maximum allowable revenue (MAR) for each system from the revenue associated with Aurizon Network's AT2-AT4 reference tariff components. Noting that Aurizon Network's 2017 access undertaking has since been approved by the QCA, the final recommendation uses Aurizon Network's 2017 access undertaking MAR estimates to calculate the below-rail cost of traversing a given coal system. The QCA notes that adopting the 2017 access undertaking MAR estimates provides for a more recent estimate of the relevant below-rail costs and does not rely on reference tariff and volume forecast assumptions.

Goonyella system users would also incur additional charges in accessing terminals in other CQCN rail systems. As explained in Appendix A, the estimated below- and above-rail costs associated with accessing alternative terminals do not include the cost that Goonyella system users would incur on the Goonyella system before their coal is hauled through another system to access alternative terminals. To that extent, the cost difference reported in Table 5 is conservative. 60 In any case, the estimated average supply chain cost for a mine in the Goonyella system to access DBCT is substantially cheaper than that to access other terminals—a cost difference of 30 to 111 per cent.

DBCT Management considered it unreasonable to assume that the price charged for existing capacity at DBCT reflects the price that would be determined in the market by rivalrous interactions between coal terminals.61 DBCT Management submitted that the QCA errs in applying the SSNIP test on the basis that the price that clears the market is the regulated TIC determined by the QCA for the existing capacity of DBCT, and the potential charges associated with expanded capacity at DBCT or available capacity at other terminals do not inform this price.⁶² It said that as a result of this error, the QCA defines the market in an artificially narrow manner so as to include only a single supplier (DBCT), an example of the reverse cellophane fallacy.63,64

DBCT Management argued that where demand in the market exceeds DBCT's capacity, the QCA should focus on the degree of substitutability between DBCT's expanded capacity and coal

63 DBCT Management, sub. 26, p. 14, para. 44.

⁶⁰ DBCT User Group said that this is not a small exclusion, given some mines would need to travel over 100 km extra on the Goonyella system before entering the Newlands or Blackwater system. See DBCT User Group, sub. 30, p. 20.

⁶¹ DBCT Management, sub. 26, pp. 13-14, paras 42-43.

⁶² DBCT Management, sub. 26, p. 13, para. 41.

⁶⁴ In essence, the 'reverse cellophane fallacy' refers to the situation where prevailing prices are below the competitive level and as a result, the relevant market is defined too narrowly.

handling services provided by other facilities, rather than the degree of substitutability between the existing capacity of DBCT and coal handling services at other facilities.⁶⁵

Given that terminal capacity at DBCT will need to be expanded to meet total foreseeable demand, the QCA has also estimated the average supply chain cost for a mine in the Goonyella system to access DBCT, with Goonyella and DBCT expansions to allow for 102 mtpa (Table 6).

In comparing the costs associated with an expanded DBCT, the QCA considers it appropriate to account for the cost associated with the entire capacity of the facility—not just the expanded capacity. In defining the market, the QCA is considering the extent to which all mines in the Goonyella system would consider coal handling services at other terminals as close substitutes, not just those mines seeking to access the expanded portion of DBCT.

Table 6 Average supply chain cost to Goonyella system users of accessing alternative coal terminals with Goonyella and DBCT expansions (\$ per tonne)

Cost components	DBCT (\$/t)	AAPT (GAPE) (\$/t)	RG Tanna (\$/t)	WICET (\$/t)
Below-rail cost ^a	2.56	2.48	4.63	4.63
Above-rail cost	4.21	5.97	5.88	5.88
Coal handling cost	5.99	7.01	5.18	14.67
Other port and shipping costs	0.05	0.05	0.05	0.05
Supply chain cost	12.80	at least 15.52	at least 15.73	at least 25.22
Cost difference relative to accessing DBCT	_	at least 2.72 (21%)	at least 2.93 (23%)	at least 12.42 (97%)

a The QCA has updated its cost estimates, using Aurizon Network's 2017 access undertaking MAR estimates to calculate the below-rail cost of traversing a given coal system.

Note: See Appendix A, Table A.7.

As outlined in Appendix A, the QCA considers these estimates to be conservative.⁶⁶ Nonetheless, the QCA's estimated average supply chain cost for a mine in the Goonyella system to access DBCT with Goonyella and DBCT expansions remains substantially cheaper than that for accessing other terminals—the cost difference is 21 to 97 per cent.

Notably, in considering the degree of substitutability between DBCT's expanded capacity and coal handling services provided by other facilities, based on the evidence provided, the QCA has concluded that there is no existing spare capacity at either AAPT or RG Tanna, and 11.5 mtpa capacity is available at WICET. The ability of users in the Goonyella coal chain to switch to AAPT (via the Newlands system) will also be constrained to the extent that there is limited capacity on this network to accommodate cross-system traffics.⁶⁷

A more meaningful assessment of costs of accessing these alternative terminals would require consideration of any costs required to expand available capacity at the terminals and the below-rail network.

⁶⁵ DBCT Management, sub. 26, p. 13, para. 40.

⁶⁶ For instance, in estimating these average costs, the QCA has considered the highest estimate of expansion costs that are available without seeking to comment on the prudency of those expansion costs.

⁶⁷ DBCT User Group, sub. 3, schedule 3, pp. 15–17. DBCT User Group's consultant, PwC, said existing available capacity on the Newlands and GAPE systems is 2.31 mtpa, and the majority of the Newlands system has between 0 and 10 mtpa of available capacity. PwC said significant capital expenditure would be required to expand the existing network to accommodate additional capacity requests. See also DBCT User Group, sub. 30, p. 23.

However, the QCA does not have cost information in relation to expanding any of the terminal facilities. While the exact costs are uncertain, expanding any of the alternative terminals will incur additional terminal and rail infrastructure costs.⁶⁸

The QCA is also not aware of any plans to expand the alternative coal handling terminals for common-user access over the declaration period under consideration.

In any case, based on the QCA's cost estimates outlined above, even where the additional costs associated with expanding the alternative terminals are not taken into account, it would still be significantly cheaper for a miner in the Goonyella system to continue to access (an expanded) DBCT, compared to accessing AAPT, RG Tanna or WICET in existing form.

The QCA has also considered the extent to which its approach would define the market in an artificially narrow manner.

The QCA is of the view that the regulated access charge for DBCT generates expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service. The assessment criteria in relation to both approval of access undertakings and making access determinations include s. 168A(a) of the QCA Act, which provides clear guidance that the price of access to a service should:

generate expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved.⁶⁹

The QCA does not consider that assessing potential substitutes and the boundaries of the market with reference to the TIC for DBCT will artificially narrow the relevant market. No evidence to the contrary has been presented by stakeholders. The QCA notes that DBCT's capacity has continually expanded to service the growth in demand for the service since it was initially declared in 2001.

Additional costs incurred in switching to an alternative terminal

Below and above-rail network differences

The DBCT User Group, Peabody and BHP⁷⁰ said there were below-rail network differences that would discourage Goonyella system users from switching to an alternative terminal. For instance, the DBCT User Group noted that the Newlands system supported only diesel trains, whereas the Goonyella system supported both electric and diesel trains.⁷¹ Peabody said that there would be substantial switching costs associated with moving to diesel locomotives and these would be passed on to it, by its haulage operator, in the form of higher haulage costs.⁷²

BHP and the DBCT User Group noted that the requirement for smaller rollingstock consists⁷³ with lower payloads on the Newlands and Blackwater system increased costs.⁷⁴

⁷³ A consist is a sequence of railroad carriages.

⁶⁸ For instance, expanding DBCT requires additional capital costs of \$96 million per annum to expand the terminal, and additional capital costs of \$92 million per annum to expand the rail infrastructure in the Goonyella system (in 2017–18 dollars). See Appendix A.

⁶⁹ Section 168A(a) of the QCA Act.

⁷⁰ BHP, sub. 18, p. 8; Peabody, sub. 2, p. 7; DBCT User Group, sub. 3, p. 36.

⁷¹ DBCT User Group, sub. 3, p. 36.

⁷² Peabody, sub. 2, p. 7.

⁷⁴ BHP, sub. 18, p. 8; DBCT User Group, sub. 46, pp. 20–21.

DBCT Management said that the network differences on the Newlands line have not stopped mines proximate to DBCT utilising AAPT and noted that the mines subject to the GAPE Deed are predominately located proximate to Hay Point and rail to AAPT.⁷⁵

The QCA acknowledges that network differences may not necessarily have an impact on all Goonyella system users in switching to an alternative system. However, some mines in the Goonyella system may incur additional haulage costs if they decide to switch to an alternative terminal, given the Newlands line only accommodates diesel trains. This would affect the extent to which some users consider AAPT provides a closely substitutable service to the coal handling service at DBCT.

As the requirement for smaller rollingstock consists will affect the incentive of Goonyella system users to switch to an alternative system, these costs have been taken into consideration in the above-rail cost estimates presented in Table 5 and Table 6.

Terminal and below-rail capacity

DBCT Management said capacity constraints at alternative terminals or on rail systems are not a relevant consideration for defining the market.

A normal transaction for a coal handling service is a long term contract and the time dimension of the market should be consistent with this practice ... capacity constraints ... in the short term would not be expected to affect market definition.⁷⁶

While the QCA acknowledges that rail and terminal capacity may change over the declaration period under consideration, this will have implications for the costs associated with accessing the relevant rail and terminal infrastructure, as discussed above.

While uncertainties about the timing of any upgrades, and the need for alignment across belowrail, above-rail and coal terminal capacity, may impact on the extent to which Goonyella system users consider alternative terminals as close substitutes, the QCA has assumed that capacity will be gradually upgraded to reflect demand.

That said, there is no certainty that alternative coal handling terminals would be expanded over the 10-year declaration period under consideration. Should changes in rail and terminal capacity not be sufficiently responsive to demand throughout the declaration period under consideration, the QCA considers that this would clearly be relevant to defining the market.⁷⁷

DBCT Management said that the QCA's assessment of capacity at terminals and on railways fails to take into account that capacity can be obtained by transfers of underutilised capacity from third parties. In particular, DBCT Management submitted that while Aurizon Network's 2016 Baseline Capacity Assessment Report showed capacity on the Newlands/GAPE systems to be 53.7 mtpa and committed capacity to be 51.4 mtpa, Aurizon Network's 2018 Network Development Plan showed actual throughput on the Newlands/GAPE systems to be 25.3 mtpa in FY2017 and 29.2 mtpa in FY2018.⁷⁸

Long-term rail and terminal contractual arrangements are a characteristic of the CQCN. While capacity can be obtained by transfers of underutilised capacity, the QCA has no evidence before

⁷⁵ DBCT Management, sub. 26, p. 22, para. 94.

⁷⁶ DBCT Management, sub. 13, pp. 20–21, para. 87.

⁷⁷ The ACCC's merger guidelines have regard to limitations on the ability of customers to access alternative sources of supply in alternative regions as part of its approach to defining the market. ACCC, *Merger Guidelines*, November 2008, amended November 2017, p. 17, https://www.accc.gov.au/system/files/Merger%20guidelines%20-%20Final.PDF.

⁷⁸ DBCT Management, sub. 26, p. 22–23, para. 94.

it that miners within the CQCN would seek to utilise fluctuating spare rail capacity to ship on a long-term basis to another terminal.

Existing long-term take or pay contracts

DBCT Management said that costs of exiting contracts prior to their expiry are not relevant to market definition as, over a 10-year declaration period, long-term contracts will expire, terminal and rail capacity will change and users may switch terminals.⁷⁹

DBCT Management also stated that defining the market by reference to contractual arrangements would incorrectly constrain the identification of demand in the market. DBCT Management considered that the identification of total foreseeable demand must include all potential sources of demand—that is, the proper approach to defining the geographic scope of the market is to assume there are no constraints from existing supply contracts.⁸⁰

The QCA concluded in its draft recommendation that a DBCT user will not switch to another terminal during the declaration period under consideration to the extent that it has contractual entitlements (and take or pay obligations) at DBCT. The QCA considered that the cost of exiting a contract before its expiry is not the type of 'switching cost' that is relevant to assessing the existence of substitutes. Rather, the QCA considered that this aspect was relevant in assessing foreseeable demand in a given year.

The QCA remains of the view that a DBCT user will incur significant additional costs should it exit contractual entitlements at DBCT in order to switch to another terminal during the declaration period under consideration. However, to the extent that contractual arrangements have an impact on the degree to which services are considered substitutable, the QCA's view in this final recommendation is that contractual arrangements are a relevant consideration in defining the market.

The QCA considers that this approach to defining the market is consistent with the ACCC's merger guidelines, which state:

The following are examples of the types of information the ACCC may require to assess the height of any barriers to entry:

•••

the existence and nature of any long-term supply contracts in the relevant market/s.81

In taking this approach, the QCA is of the view that costs to exit existing terminal contracts before their expiry will impose a cost on a user, which will affect the extent to which other terminals are considered to be a closely substitutable service for the coal handling service at DBCT.

The QCA considers that although contractual arrangements are a significant constraint on substitution between terminals, at the time at which contractual arrangements expire, this constraint on substitution will cease to exist.

In the draft recommendation, the QCA assumed that the contracts for coal handling services, as well as above- and below-rail contracts, have broadly similar expiry dates. The DBCT User Group said that this assumption does not reflect market realities and that numerous DBCT users do not currently have aligned expiries for their DBCT, rail haulage and rail access arrangements. The DBCT User Group argued that misalignment of contracts creates real barriers to switching, such

⁷⁹ DBCT Management, sub. 26, p. 24, para. 94.

⁸⁰ DBCT Management, sub. 26, pp. 24–25, para. 94.

⁸¹ ACCC, Merger Guidelines, November 2008, amended November 2017, p. 38.

that it is not an accurate assumption that an opportunity to switch without a material take or pay liability will exist during the declaration period under consideration.⁸²

The QCA notes the DBCT User Group's comments that contractual arrangements for port terminal services, rail haulage and rail access are not aligned for numerous DBCT users. Where the expiration of contractual arrangements does not align, at the time at which port terminal service contracts expire, remaining rail contractual arrangements may still constrain the extent to which the relevant mines would consider coal handling services at other terminals as close substitutes.

Mine infrastructure investment

The QCA considers there may be additional, potentially material mine investment costs to switch to another terminal, given the need to align the mine/rail infrastructure appropriately to allow coal to be transported to an alternative terminal. For instance, some infrastructure in the Goonyella system, such as rail balloon loops or angle turn-arounds, would have been configured to transport coal from DBCT users' facilities in the direction of DBCT.

The DBCT User Group stated that various mines would require investment in turning angles for long-term rail transport to other terminals. This includes Goonyella mines most proximate to AAPT—for example, the North Goonyella mine, which has a rail angle that turns south towards DBCT—and any mine east of the Coppabella junction. Si Similarly, Peabody stated that for mines, such as Coppabella and North Goonyella—that are configured to export through DBCT—to switch to AAPT, they would require a turnout with the ability to send trains north to facilitate efficient delivery to AAPT on a consistent basis. It said that the associated costs would be material. All

DBCT Management acknowledged existing infrastructure at a mine site may reduce the substitutability of the DBCT service with other coal handling services. However, it considers that these costs are not relevant, submitting that:

even if these costs were very high so that switching terminals is not a viable option for these miners, it does not follow that they are not in the relevant market – rather, the relevant question is the extent of mines that do have a readily available choice of coal terminal.⁸⁵

The QCA considers the infrastructure upgrades to enable a switch to an alternative terminal have the potential to be incurred and, depending on the configuration of the existing mine and related infrastructure, the costs of the upgrades could be material. Therefore, additional costs associated with mine infrastructure investment to enable a switch to an alternative terminal are relevant to an analysis of the boundaries of the market.

Product characteristics

Metallurgical coal co-shipping opportunities

The QCA notes that DBCT predominantly handles metallurgical coal⁸⁶, and the geographic proximity of metallurgical producers to one another in the Goonyella system allows them to exploit co-shipment opportunities available at DBCT for metallurgical coal, over and above

⁸⁵ DBCT Management, sub. 13, p. 19, para. 78.2.

⁸² DBCT User Group, sub. 3, p. 29; sub. 15, pp. 7, 17, 36–37; sub. 30, p. 26; sub. 46, pp. 26–27. See also DBCT User Group, sub. 15, schedule 1, p. 8.

⁸³ DBCT User Group, sub. 30, p. 27; sub. 46, p. 27.

⁸⁴ Peabody, sub. 25, p. 4, para. 23.

Metallurgical coal (PCI and coking) accounts for approximately 82 per cent of DBCT's total throughput. See DBCT Management, *Master Plan 2019*, p. 27, https://www.dbctm.com.au/wp-content/uploads/2019/09/Approved-Master-Plan-2019.pdf.

those available at other terminals. The QCA also notes that, such co-shipment opportunities are of value to Goonyella system users, as outlined by a number of stakeholders.⁸⁷

To the extent that users value the co-shipping opportunities at DBCT such that they would not switch away from DBCT in response to a SSNIP, the QCA's view is that this is a relevant matter in defining the market.

DBCT Management said metallurgical coal co-shipping opportunities are not features of the DBCT service but rather a feature of DBCT's customer mix.⁸⁸ DBCT Management explained:

[T]he availability of co-shipping opportunities is not an intrinsic property of the DBCT service. Rather, it is an advantage conferred on miners who use DBCT as a result of the mix of miners that use the terminal. It would equally be available at other terminals should those miners use alternative coal handling services.⁸⁹

While the availability of co-shipping opportunities may be due to the nature of users that access the terminal, rather than the physical characteristics of the terminal, that in itself does not mean that it is not a relevant consideration when contemplating potential substitution between terminal services.

Blending

DBCT is able to blend coal into 58 registered coal products. 90 DBCT Management's 2016 Master Plan states:

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, however if the parcel is a blended product, both stockpiles associated with the reclaiming operation will contain two different products to be reclaimed simultaneously. This feature enables DBCT to blend cargoes from the stockpiles, allowing terminal Producers to create unique coal blends to match end-user requirements.⁹¹

The DBCT User Group said that a number of DBCT users consider the blending opportunities available at DBCT to be superior to that available at other terminals, due to:

- the greater range of metallurgical coal products available
- the existing facilities at DBCT, which allow two stacker reclaimers to be used to create a homogenous blend in a surge bin of up to three different coal products
- the ability to generate a further variety of blends by way of multiple grades of coal being delivered into a stockpile that will then be homogenously blended by the dual reclaim method.⁹²

The DBCT User Group submitted that some users have indicated that they place a particularly high value on blending opportunities at DBCT, due to concerns with product quality and saleability of some of their coal production in the absence of blending. The DBCT User Group

⁸⁷ DBCT User Group, sub. 3, pp. 28, 37, 39; Anglo American, sub. 14, p. 7; DBCT User Group, sub. 30, p. 24; Glencore Coal, sub. 34, p. 1.

⁸⁸ DBCT Management, sub. 26, p. 24, para. 94.

⁸⁹ DBCT Management, sub. 13, p. 20, para. 82.

⁹⁰ DBCT Management, submission to the QCA, *DBCT Management—2019 DAU Submission*, 1 July 2019, p. 46, para. 219, https://www.qca.org.au/wp-content/uploads/2019/05/2019-dau-submission.pdf.

⁹¹ DBCT Management, *Master Plan 2016*, p. 15, https://www.qca.org.au/wp-content/uploads/2019/05/30760_DBCTM-Master-Plan-1.pdf. While the 2016 Master Plan has been replaced by the 2018, and then 2019, Master Plan, the QCA has not received submissions indicating the quoted material in the 2016 Master Plan is incorrect.

⁹² DBCT User Group, sub. 30, p. 25; sub. 46, pp. 25–26.

considered that this is demonstrated by the high proportion of vessels shipping blended parcels from the terminal.⁹³

In contrast, DBCT Management said that users value a variety of services from CQCN coal terminals and the users fail to acknowledge where other terminals could be considered to provide better services, including in terms of blending.⁹⁴

From the information provided, the QCA is satisfied that blending capabilities at DBCT are typically superior to those provided at other terminals, particularly given the geographic proximity of metallurgical coal producers to one another in the Goonyella system and the facilities provided at DBCT.

To the extent that users value the blending opportunities at DBCT such that they would not switch away from DBCT in response to a SSNIP, the QCA's view is that this is a relevant matter in defining the market. Some DBCT users may also seek blending capabilities at other ports. In itself, that does not mean that other DBCT users do not value the blending capabilities at DBCT.

Goonyella system users that use terminals at other ports

Some mines in the Goonyella system are users or have been users of other ports (i.e. other than the terminals at the Port of Hay Point, namely DBCT and HPCT). DBCT Management noted that the following mines in the Goonyella system, which currently (or previously) used DBCT, are currently (or have previously) contracted with other terminals:

- Jellinbah's Lake Vermont mine (which has also exported coal through DBCT) has contracted capacity of 6 mtpa at AAPT and 4 mtpa at RG Tanna.⁹⁵
- Yancoal's Middlemount mine (which also exports coal through DBCT) has contracted capacity of 3 mtpa at AAPT.
- BMA's Peak Downs, Goonyella and Caval Ridge mines (which also export coal through DBCT) previously exported coal through AAPT.
- BMC's South Walker Creek and Poitrel mines have contracted capacity of approximately 4 mtpa through AAPT (but also have contracted capacity at DBCT).⁹⁶
- Glencore's Oaky Creek mine (which also exports coal through DBCT) exports coal through Gladstone.
- Anglo American has a contract with RG Tanna 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.
- The now-shut Gregory and Norwich Park mines previously exported coal through RG Tanna.
- Some BMA mines also export coal through RG Tanna (in addition to DBCT, HPCT and AAPT).⁹⁷

Up until 2016, Queensland Coal (a subsidiary of Rio Tinto) had an access agreement at DBCT (for 12 mtpa) and AAPT (for 9.3 mtpa) for the Blair Athol (Clermont) mine in the Goonyella system. Glencore and Sumitomo Corporation acquired Rio Tinto's 50.1 per cent shareholding in the mine in 2014, and that mine now utilises the DBCT service only.⁹⁸

⁹³ DBCT User Group, sub. 30, pp. 25–26; DBCT User Group, sub. 46, p. 26.

⁹⁴ DBCT Management, sub. 13, p. 18, para. 68; DBCT Management, sub. 26, p. 24, para. 94.

⁹⁵ DBCT Management, sub. 1, p. 29, paras 132.3, 136.1.

⁹⁶ DBCT Management, sub. 1, p. 84, para. 373.

⁹⁷ DBCT Management, sub. 1, p. 29, para. 132; sub. 1, p. 96, para. 433.

⁹⁸ DBCT Management, sub. 1, p. 29, paras 131–33.

DBCT Management said that the coal handling services provided at these terminals are a close substitute for mines using the DBCT service.⁹⁹ DBCT Management said the QCA erroneously discards evidence of substitution for non-cost reasons by dismissing actual examples of substitution in the market on the basis that they are not examples of users switching from DBCT to an alternative terminal in response to a price change.¹⁰⁰ In contrast, the DBCT User Group said that the limited usage of other terminals by Goonyella system mines is not evidence of substitution, but rather examples of a customer acquiring different services.¹⁰¹

In considering whether evidence of mines in the Goonyella system using terminals other than DBCT demonstrates that facilities are close substitutes, it is necessary to understand why mines are using the alternative terminals. The matters explored below are (a) the mines' strategic and commercial reasons for using alternative terminals and (b) marginal substitution between services. Generally, for the purposes of defining the market, products will be substitutable only where switching occurs (or would occur) as a result of price or quality incentives.

Strategic and commercial reasons for using alternative terminals

It is clear from evidence presented that BHP (BMA/BMC), Glencore and Anglo American do have mines in the Goonyella chain that also have contracts with, or utilise, terminals other than DBCT. The question to be considered is whether this represents strong substitution between DBCT and those other terminals (i.e. AAPT and RG Tanna).

BHP, Glencore and Anglo American noted that the limited use of terminals other than DBCT represented actions to optimise their business operations. In other words, the use of these other terminals did not represent substitution in response to price or non-price factors. For instance, BHP acknowledged BMC's contract entitlements at AAPT, but indicated that there was limited capacity at HPCT and DBCT during the mining boom and that costs of switching to AAPT are substantial. BHP also said BMA and BMC did not rail significant volumes from mines on the Goonyella system to RG Tanna. BHP submitted that it uses DBCT, AAPT, and RG Tanna in addition to HPCT on the basis that they are complements, not substitutes. 103

The DBCT User Group submitted that although Glencore's Oaky Creek utilises RG Tanna, it is a small proportion of its production and only occurs on an ad hoc basis to provide risk mitigation and flexibility to deal with supply chain outages.¹⁰⁴

Likewise, Anglo American said contracting at a range of terminals can be part of a broad risk mitigation strategy in order to protect against disruptions caused by system shutdowns or cyclones. Anglo American also said that moving product to an alternative terminal would allow a user to defray take or pay expenses under an existing contract at that alternative terminal.¹⁰⁵

DBCT Management considered that even if BHP, Glencore and Anglo American are using other terminals to optimise their business operations, this shows that these miners consider other terminals to be viable substitutes to DBCT.¹⁰⁶ DBCT Management said:

• The 'acquisition' of surplus capacity is not 'uneconomic' but is justified by the expected benefits of contracting elsewhere and does not indicate a lack of substitutability.

⁹⁹ DBCT Management, sub. 1, p. 28, para. 129.

¹⁰⁰ DBCT Management, sub. 26, p. 21, para. 92.

¹⁰¹ DBCT User Group, sub. 46, pp. 27–29. See also DBCT User Group, sub. 30, pp. 31–32.

¹⁰² BHP, sub. 18, pp. 7–9.

¹⁰³ BHP, sub. 42, p. 4.

¹⁰⁴ DBCT User Group, sub. 30, p. 32.

¹⁰⁵ Anglo American, sub. 14, p. 7.

¹⁰⁶ DBCT Management, sub. 26, pp. 17–18, paras 63, 67–68.

Miners that operate a geographically dispersed portfolio of mines and a corresponding
portfolio of terminal contracts have the ability to switch away from DBCT in the short and
medium term—noting their ability to renegotiate the contracts that underpin this
portfolio.¹⁰⁷

The QCA notes that a user within the Goonyella system may have contracts with, or utilise, terminals other than DBCT for commercial and strategic reasons—and that such use is evidence that these mines have the ability to use alternative terminals. However, the information provided by DBCT Management does not demonstrate that these users will regard coal handling services at other terminals as close substitutes for the DBCT service—in that it is not evident that the relevant entities identified by DBCT Management have switched to alternative terminals in response to price or quality incentives.

The QCA is of the view that the existence of various cost and non-cost factors limit the extent to which users will regard coal handling services at other terminals as close substitutes for the DBCT service. Most significantly, the QCA understands that it is materially more costly for a Goonyella system user to switch to an alternative terminal. DBCT Management has previously accepted this proposition during the 2017 DBCT draft access undertaking process (in the context of DBCT users that secured access at AAPT). ¹⁰⁸

It is not evident that Goonyella system users who use multiple terminals would vary the extent to which they use these facilities relative to one another in response to a small but significant and non-transitory change in the DBCT TIC. As such, the QCA's view is that other terminals do not provide close substitution possibilities to DBCT in the market for coal handling services in the Goonyella system.

The QCA understands that some DBCT users (in the case of Lake Vermont and Middlemount) would have sought to solely access DBCT, but that at the time of contracting, there was insufficient capacity at the terminal. Given commercial considerations, capacity was then sought at AAPT.^{109,110} In this respect, Peabody said:

It is correct that Middlemount approached DBCTM about the possibility of access at the time it was developing its mine. However, it was provided with no clear pathway to expand by DBCTM, who would not commit to any expansion. Faced with a clear offer for supply by [AAPT], and no clear offer of supply by DBCT, it elected to ship its coal to [AAPT] despite DBCT being a more proximate port and a significantly lower cost option in relation to coal shipped from other Peabody mines. This does not demonstrate economic substitution, it represents the Middlemount mine accepting the only firm offer of supply available to it at the relevant time. 111

DBCT Management said Lake Vermont and Middlemount chose AAPT over DBCT after comparing the cost to them of using the two terminals. DBCT Management considered that Lake Vermont and Middlemount mines would have had to extend their mine development timeframes to align with the completion of a DBCT expansion if there were no close substitutes to DBCT:

¹⁰⁷ DBCT Management, sub. 26, p. 17, paras 65–66.

¹⁰⁸ DBCT Management, submission to the QCA, DBCT Management's 2015 DAU—draft decision, 8 July 2016, p. 3.

¹⁰⁹ Lake Vermont was expanded in 2012/13. The QCA understands that in the absence of additional capacity at DBCT, Jellinbah contracted at AAPT. Further information about Lake Vermont is available on Jellinbah's website.

¹¹⁰ Middlemount commenced full-scale productions in 2011. Further information about Middlemount is available on Middlemount Coal's website.

¹¹¹ Peabody, sub. 12, p. 7, para. 23. See also Peabody, sub. 46, p. 9.

¹¹² DBCT Management, sub. 26, p. 16, para. 57.

Miners incur significant opportunity costs (e.g. deferred profits) if coal sales are delayed for any reason, including delays to availability of terminal capacity. 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.¹¹³

The QCA considers the decision by Lake Vermont and Middlemount to use an alternative terminal to DBCT reflects a commercial consideration at the time of contracting. However, the QCA acknowledges that should capacity constraints at DBCT result in potential delays for mine development timeframes, it may provide for marginal substitution between terminals for particular users at the time of investment.¹¹⁴ This matter is further discussed below.

Marginal substitution between services

The QCA considers that it is not evident that the entities noted by DBCT Management above have switched from DBCT in response to price or quality incentives, and therefore their usage does not constitute evidence of close substitutability between DBCT and other terminals. However, even if there were low levels of switching by DBCT users to an alternative terminal, it does not necessarily demonstrate that an alternative terminal is in the same market. This would require evidence of switching at levels that indicate that the two services are close substitutes.

Likewise, the DBCT User Group, having regard to the Courts' decisions in *Arnotts Ltd v TPC*¹¹⁵ and *Singapore Airlines Ltd v Taprobane Tours WA Pty Ltd*¹¹⁶, said:

Marginal switching between services by one or even a small number of users in particular circumstances does not demonstrate close substitutability of the type required to support a finding that two services are provided in the same market.

In other words, for the Service to be considered substitutable for the coal handling services provided at another coal terminal it would need to be shown that at least a significant proportion of DBCT Users would switch to that other terminal in response to a SSNIP for the Service. ¹¹⁷

Glencore Coal's consultant considered that a market is defined by assessing substitution constraints and the scope for marginal switching does not necessarily demonstrate sufficiently close substitution. 118

DBCT Management considered that rejecting evidence of switching on the basis that it is low-level or marginal switching is unreasonable, saying:

- The relevant market may include a significant number of customers for which the DBCT service is the only viable coal handling service, but this does not mean that the other coal handling services (and mines that use them) should be excluded from the relevant market.
- In contrast to the type of consumption referred to in Arnotts Ltd v TPC, the kind of substitution evidenced by mines proximate to DBCT involves long-term, significant and

¹¹⁷ DBCT User Group, sub. 3, p. 21. See also DBCT User Group, sub. 30, p. 32.

¹¹³ DBCT Management, sub. 26, p. 16, para. 58.

¹¹⁴ The QCA notes that DBCT Management has said that DBCT is fully allocated. However, the QCA considers the opportunities for marginal switching are limited, noting the QCA has concluded, based on the evidence available, that there is no spare capacity available at RG Tanna or AAPT.

¹¹⁵ (1990) 24 FCR 313 [62].

¹¹⁶ (1991) FCA 621.

¹¹⁸ Glencore Coal, sub. 43, annexure A, p. 6.

inescapable financial commitments to alternative terminals. DBCT Management considers that those terminals must be treated as substitutes in the QCA's analysis of criterion (b).

 The coal tonnage figures for Goonyella system mines contracting at alternative mines are not marginal amounts.¹¹⁹

DBCT Management submitted that mines within the Goonyella system exported tonnages totalling 22 per cent of DBCT's capacity through AAPT and the Port of Gladstone. DBCT Management considered that this is not marginal use of alternative terminals—it is significant.¹²⁰

The QCA is of the view that the use of alternative terminals by mines within the Goonyella system does not necessarily represent switching between terminals. The QCA considers there is no basis for concluding that the use of other terminals, accounting for 22 per cent of DBCT's capacity, represents substitution from DBCT to alternative terminals, noting:

- The use of alternative terminals by those mines in the Goonyella system may reflect a range of commercial and strategic reasons without constituting switching between terminals.
- Lake Vermont and Middlemount have invested in mine infrastructure and entered into longterm contractual arrangements with AAPT such that, in the QCA's view, they would not consider switching to DBCT until the contractual arrangements have expired. The QCA has considered the relevant demand from these mines upon the expiry of these contracts as part of its estimation of total foreseeable demand in the market.
- Based on the information provided, there has been negligible use of alternative terminals
 from mines in the Goonyella system due to the blending opportunities available at these
 alternative terminals.

In any case, the QCA considers that marginal substitution between coal terminals may exist for a select group of mines—for instance, where capacity constraints at DBCT result in potential delays for mine development timeframes and capacity is available at an alternative terminal. Similarly, as stated by Anglo American, certain Goonyella users may decide to use alternative terminals due to specific co-shipping and blending opportunities¹²¹ available at other terminals.¹²²

As such, these opportunities may provide for marginal substitution between terminals for particular users. However, the QCA considers the extent to which users would switch away from DBCT in these circumstances would be limited—noting that the evidence suggests that coshipping and blending opportunities at DBCT are generally more desirable than those available at alternative terminals; and there is no available capacity at RG Tanna and AAPT. Given that this type of switching is only likely to occur in particular circumstances, the QCA considers that it does not demonstrate close substitutability between the alternative terminals.

In this regard, the QCA also notes that the Federal Court in *Arnotts Limited & Ors v Trade Practices Commission* stated:

¹¹⁹ DBCT Management, sub. 26, pp. 18–19, paras 73–75.

¹²⁰ DBCT Management, sub. 38, pp. 55–56.

¹²¹ While co-shipping and blending opportunities are important to meet the specifications of particular end users, the extent to which these opportunities will affect an individual user's preference for contracting to an alternative terminal is not evident to the QCA—as the attractiveness of these opportunities may vary according to the user and the particular circumstances in the market.

¹²² Anglo American, sub. 14, p. 7.

[t]he application of the concept of substitutability requires the making of a value judgment. The question of substitutability is not to be disposed of merely by showing that, upon some occasions, some people consume one product rather than another or that some products within a claimed market do not directly compete with some other products in that market; or do compete with some products outside that claimed market.

63. The same point was made, in different language, by Mason CJ and Wilson J in Queensland Wire at 188. Their Honours did so by their quotations from Hoffmann-La Roche and United Brands. Both quotations include words which indicate that substitutability is a matter of degree: "sufficient degree of interchangeability" and "only to a limited extent interchangeable".

64. In the present case, emphasis is placed upon the fact that, upon some occasions, a consumer might select a non-biscuit product instead of a biscuit; for example, corn crisps might be served with a savoury dip rather than dry biscuits; chocolate mints might be offered as an after-dinner sweet, rather than chocolate biscuits. But the fact that, upon some occasions, some consumers select one product rather than another does not establish that the two products are "substitutable", so as to be within a single market. No doubt there are many people who sometimes drink tea and, at other times, coffee. But if, for example, a particular company dominated the sale of tea within Australia, it would thwart the objectives of provisions such as ss. 46 and 50 of the Trade Practices Act to deny their application because that company did not dominate the "hot beverage market". The fact is that tea and coffee are distinct beverages, for each of which there is a distinct demand. To adopt the test applied in QCMA, a rise in the price of tea would probably cause few consumers to abandon tea for coffee. It is important to remember that the notion of substitutability adopted in s.4E is one which looks to the market itself, not to the habits of individual consumers. The section speaks of "goods or services". 123

Long-term and significant investment is typically required in order to obtain access to the services provided at the coal terminals. This has been taken into consideration in the QCA's analysis of the extent to which DBCT users will switch to alternative terminals. However, the QCA does not consider that these characteristics of the market necessarily preclude marginal substitution—as referred to in *Arnotts Limited & Ors v Trade Practices Commission*—between alternative terminals.

Conclusion on Goonyella coal chain customers

In the absence of declaration, the QCA's view is that an unconstrained DBCT Management could substantially increase DBCT's TIC, without mines in the Goonyella coal chain switching to an alternative terminal.¹²⁴ The QCA's reasons for its position are as follows:

- DBCT has particular product characteristics, which in most instances substantially diminish
 the appeal of any alternative terminal as a suitable alternative service provider. This includes
 HPCT, given the likely unavailability of an open access HPCT during the declaration period
 under consideration.
- Goonyella coal chain users would incur additional rail and terminal costs in switching to an alternative terminal.
- While certain Goonyella coal chain users access other terminals, or have capacity
 entitlements with other terminals, the QCA remains unconvinced that these users have
 switched (or will switch) from DBCT in response to a small but significant and non-transitory

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^{123 (1990) 24} FCR 313 [62]-[64].

¹²⁴ The ACCC formed a similar draft view when considering the proposed acquisition of Asciano Limited by the Brookfield consortium in 2015. See ACCC, *Brookfield consortium—proposed acquisition of Asciano Limited, Statement of Issues*, 15 October 2015, paras 51–53, 88–89.

change in the DBCT TIC. The use of alternative terminals appears to more generally reflect a range of other commercial or strategic reasons.

 There is scope for marginal substitution between coal terminals for a select group of mines in particular circumstances. However, this does not demonstrate close substitutability between the terminals.

Non-Goonyella coal chain customers

The QCA considers that it is unlikely that non-Goonyella coal chain customers will consider DBCT as a close substitute for other coal terminals.

Newlands and Blackwater rail systems

The QCA has not been provided with evidence that it would be economic for mines on the Newlands and Blackwater rail systems to switch to DBCT. Modelling by DBCT Management's consultant on which mines would 'prefer' DBCT based on cost generally does not include these mines. 125,126

It is unclear that train operators would have an incentive to switch electric trains from the Blackwater system to the Goonyella system, because it may result in their existing electric train supporting infrastructure on Blackwater being underutilised. Similarly, it may be the case that train operators have to augment their supporting infrastructure on the Goonyella system to facilitate increased electric train services.

GAP system

Users of the GAP system have underwritten the GAP expansion, so it is unlikely that they will have an incentive to switch to an alternative terminal. Moreover, mines on the Newlands system can only access DBCT via the GAP system, which Aurizon Network's Network Development Plans (NDPs) indicate is currently capacity-constrained (Figure 3).

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¹²⁵ In defining the geographic dimension of the market, HoustonKemp noted that '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.' (DBCT Management, sub. 1, appendix 10, p. 32). The QCA notes that HoustonKemp includes the Kestrel mine and Teresa project, both of which are outside the Goonyella system, as part of its estimates of total foreseeable demand. There is no evidence to support a material redirection of Kestrel volumes to DBCT, while the status of the Teresa project is unknown.

¹²⁶ BHP also noted that it is 'not physically possible to rail the Blackwater coal into the Goonyella system, and hence all of Blackwater's production is exported from RGTCT'. As BHP has not provided further information on this matter, the QCA has been unable to consider the merits of BHP's position (BHP, sub. 18, p. 9).

¹²⁷ The Newlands and GAPE infrastructure is also not electrified and the QCA has not received evidence to indicate that Aurizon Network would be prepared to allow additional diesel trains to operate on the Goonyella system given its concerns that its electric traction services would become stranded.

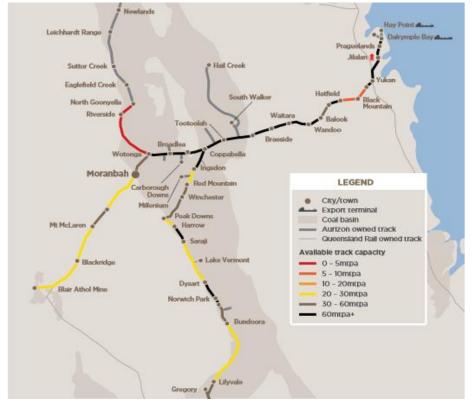


Figure 3 Goonyella system—available capacity and constraints

Source: Aurizon Network, Network Development Plans 2016–17 and 2017–18.

These plans also indicate that there is limited capacity (0–5 mtpa) on the Goonyella system south of the GAP system, such that GAP users and Newlands miners would be unable to access DBCT without rail capacity upgrades.

While the QCA notes that rail capacity may be upgraded to accommodate additional demand for coal handling services at a port, it is not clear that rail capacity will be upgraded on a network, in response to miners' desire to switch to an alternative terminal. To do so could mean that the rail capacity being used by the miner (before any switch) will become underutilised.

In other words, for GAP system users, it is not evident to the QCA that DBCT will be cheaper to access given the costs of potential future rail upgrades.

Evidence to date

More broadly, the QCA notes that there has been evidence to date that users from alternative rail systems on the CQCN do not consider DBCT a close substitute for other coal terminals more closely connected to said rail systems.

As recently as during the 2017 DBCT access undertaking process, DBCT Management said:

4.3 mtpa is uncontracted from the beginning of 2016-17 and it is likely that 6.3 mtpa will be uncontracted from 2017-18. If this trend persists, a further 36.2 mtpa may not be renewed in 2017-18.128

¹²⁸ DBCT Management, submission to the QCA, *DBCT Management's 2015 DAU—draft decision*, 8 July 2016, p. 7, https://www.qca.org.au/wp-content/uploads/2019/05/30764_DBCTM-Submission-1.pdf.

If users outside the Goonyella system considered DBCT a suitable substitute, presumably they would have considered switching to DBCT in the event of spare capacity becoming available at that terminal.

The QCA understands that cross-system traffic in the CQCN is typically low. 129 This would indicate that 'within system' mine to terminal traffic is the dominant form of coal traffic—that is, mines located in a coal system do not, in a substantial way, seek to transport coal to a terminal outside that system. For instance, the QCA understands that there is spare capacity on the Blackwater system, whereas the Goonyella system is almost fully contracted. So, a mine located on the Blackwater system may seek to continue to use the Blackwater system to access the Port of Gladstone, rather than accessing DBCT, considering any uncertainty it may face over whether and when the Goonyella system would be expanded to facilitate such a switch, other things remaining unchanged.

Mines on other systems that use DBCT

DBCT Management noted that Rio Tinto's Kestrel mine in the Blackwater system, which exports through RG Tanna, is sporadically exporting through DBCT. 130,131 DBCT Management included mines outside of the Goonyella system in the geographic scope of the market, namely the Kestrel mine and Teresa project, submitting:

In considering whether Kestrel is a customer in the market within which the DBCT service is supplied, the relevant consideration is whether DBCT is a viable alternative service for Kestrel not whether DBCT is a viable alternative service for a significant proportion of the users of RGTCT.132

As outlined above, it can be difficult to define a market precisely in geographic terms, as there can be some substitutions or overlaps, at the edge of the market, with other markets.

While the QCA considers that Goonyella coal chain customers fall within the geographic scope of the market, it may be the case that some mines in the Blackwater system would also be within the geographic scope to consider it economical to switch to DBCT via the Goonyella system. The closer a mine in the Blackwater system is to the boundary of the Goonyella and Blackwater systems, the shorter the distance and lower the cost to transport coal to DBCT.

However, in general, the QCA considers that based on the evidence available, it is unlikely that non-Goonyella coal chain customers will consider DBCT as a close substitute for other coal terminals.

While the QCA acknowledges that the relative costs associated with accessing DBCT (in comparison to an alternative terminal) will vary from mine to mine, depending on the mine's geographic location, a proper assessment of whether users will regard coal handling services at DBCT as close substitutes for other terminals requires consideration of additional costs that would be incurred if a mine decided to switch to an alternative terminal.

In this respect, the QCA notes that mines in the Blackwater system are likely to incur significant costs in order to access DBCT, including costs associated with exiting contractual arrangements and investing in required rail and mine infrastructure.

¹²⁹ For example, as per Aurizon Network's 2017–18 revenue cap submission, revenue from cross-system services was approximately 5 per cent of revenue from within system services (Aurizon Network, FY2018 Revenue Adjustment Amounts—Explanatory Memorandum, 28 September 2018, p. 13).

¹³⁰ DBCT Management, sub. 1, p. 30, para. 137.

¹³¹ The QCA understand that while Rio Tinto has now divested itself of the Kestrel mine, in the past it used its excess contract entitlements across its mines that access DBCT to enable Kestrel to sporadically access DBCT.

¹³² DBCT Management, sub. 26, appendix 1, p. 17.

The QCA is not persuaded that, to the extent that mines on other systems use DBCT, it demonstrates that the relevant market for the DBCT service extends beyond the Goonyella system.

DBCT Management said that presumably those mines that use terminals other than DBCT have the infrastructure to enable them to use alternative terminals.¹³³

The DBCT User Group submitted that the Kestrel mine would require the installation of additional mine infrastructure to transport coal on a regular basis to DBCT—requiring a northern turning angle (and that the only alternative to such turning angles is for the haulage provider to operate a 'push-pull' service with a lower scheduling priority and a higher operating cost, which would not be viable for long-term switching of the entirety of a mine's production). Noting that construction of the turning angles involves material costs, the DBCT User Group considered that mine-site infrastructure is a barrier to switching.¹³⁴ The DBCT User Group also submitted that the new owners of Kestrel are seeking to (or have) divested DBCT capacity to other users.¹³⁵

DBCT Management also considered that to the extent there is evidence of superior blending and co-shipping opportunities at DBCT, this makes DBCT preferable to a wider range of mines—drawing demand from potential customers away from other terminals that are said not to offer those services. ¹³⁶ In contrast, the DBCT User Group argued that these characteristics of DBCT are not attractive enough to overcome the increased cost to non-Goonyella users of seeking to access DBCT. ¹³⁷

While the QCA is of the view that blending and co-shipping opportunities at a terminal are important to meet the specifications of particular end users, the extent to which these opportunities will offset the costs of non-Goonyella coal chain customers (both relative and switching costs) of accessing DBCT is not evident. The attractiveness of certain blending and coshipping opportunities may vary according to the user and the particular circumstances in the market.

Given the above, the QCA does not consider that this demonstrates that for mines on rail systems (other than Goonyella), the coal handling service provided at DBCT is substitutable for the services provided at other terminals.

However, recognising that it is difficult to define a market precisely in geographic terms, the QCA has, for the purposes of reconciling total foreseeable demand, still assessed those mines that DBCT Management considered were in the relevant market but are not located in the Goonyella coal chain. The QCA considers it is unlikely that non-Goonyella coal chain customers will consider DBCT as a substitute for other coal terminals. As such, the QCA has assessed the relevant market as the market for DBCT's coal handling service in the Goonyella system.

Conclusion on market definition

The QCA considers the relevant market for criterion (b) is the market for DBCT's coal handling service for mines connected to the Goonyella system. The QCA considers there are no close substitutes to DBCT's coal handling service for mines in this market. Rather, it is evident that DBCT is overwhelmingly the dominant coal handling facility in this market.

¹³⁶ DBCT Management, sub. 26, p. 24, para. 94.

¹³³ DBCT Management, sub. 26, p. 25, para. 94.

¹³⁴ DBCT User Group, sub. 30, p. 27; sub. 46, pp. 19, 27.

¹³⁵ DBCT User Group, sub. 46, p. 19.

¹³⁷ DBCT User Group, sub. 30, p. 24; sub. 46, pp. 25–26.

The QCA has reached this view based on the following:

- The majority of DBCT Management's demand for contracted capacity comes from mines on the Goonyella coal chain.
- Mines in the Goonyella coal chain are unlikely to seek coal handling services from terminals outside the Goonyella coal chain in response to price or quality incentives (i.e. other terminals do not provide a close substitute to DBCT).
- At the same time, mines in other coal chains are unlikely to seek DBCT's coal handling service in response to price or quality incentives (i.e. DBCT does not provide a close substitute to other terminals).

Period for assessing total foreseeable demand 2.5

2.5.1 Stakeholder submissions

DBCT Management submitted that the DBCT service should not be declared for any further period (because it does not satisfy the access criteria) but assumed a declaration period of 10 years for the purposes of its submission (and for assessing total foreseeable demand).¹³⁸ Following the QCA's draft recommendation, the DBCT User Group stated that it would be willing to support a 10-year declaration period. However, the DBCT User Group said that if all criteria are not satisfied at 10 years, the QCA is legally required to consider whether there are other periods for which criterion (b) is satisfied. 139,140

2.5.2 QCA analysis

The QCA's view is that the appropriate period for assessing total foreseeable demand is 10 years.

Long-term certainty and mine duration

The QCA considers that the desirability for DBCT users to have certainty over the declaration period must be balanced with the interests of DBCT Management in having the terminal subject to declaration only as long as is considered necessary.

In this respect, the QCA is not satisfied of the DBCT User Group's assertion that it should adopt the longest period possible that satisfies criterion (b) on the basis that DBCT Management can seek revocation if circumstances change. 141

DBCT Management and the DBCT User Group provided examples of declaration periods¹⁴² that were based on the specific circumstances faced in the respective scenarios. The QCA has not sought to adopt any of these periods simply on the basis that the NCC or the Australian Competition Tribunal (the Tribunal) had adopted them in the past. The QCA considers it appropriate to consider a declaration period as is relevant and necessary to the circumstances in this review.

¹³⁸ DBCT Management, sub. 1, p. 22, para. 93; sub. 26, pp. 25–26, para. 96.

¹³⁹ DBCT User Group, sub. 3, p. 57; sub. 15, pp. 45–46; sub. 30, pp. 33–34.

¹⁴⁰ DBCT User Group, in its submissions before the draft recommendation, considered that 15 years was an appropriate starting point for consideration of criterion (b) and that if criterion (b) is to be tested based on a single declaration period, then it should be tested against a shorter period over which there is a high degree of certainty of the demand profile. See DBCT User Group, sub. 15, p. 46.

¹⁴¹ DBCT User Group, sub. 3, pp. 57–58.

¹⁴² DBCT Management, sub. 13, p. 12; DBCT User Group, sub. 15, p. 45.

DBCT Management's 2019 Master Plan indicates that a substantial proportion of contracts at DBCT will expire from 2024, unless they are renewed (Figure 4).

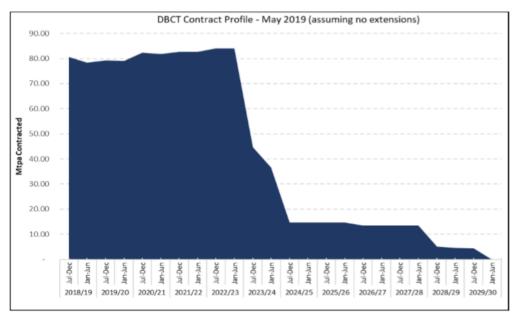


Figure 4 Contractual position, May 2019

Source: DBCT Management, Master Plan 2019, p. 16.

Given this, the QCA considers that a 10-year period (from 2021) would provide an adequate opportunity for any new users to execute access agreements under the aegis of declaration.

The QCA notes the DBCT User Group's position that mines typically have a life of 10 to 30 years, while above- and below-rail investments have lives of around 20 to 25 years and 30 years respectively. However, the QCA considers that to the extent that these assets are in place at the commencement of the declaration period, they would be partially life expired.

Pacific National submitted that most of the rollingstock on the CQCN is 'young', with new locomotives and wagons deployed as recently as 2014, and that it is not accurate to assert rollingstock assets are mid-life expired. The QCA considers nevertheless that its position that these assets would be partially life expired still holds. The QCA considers that while some rollingstock at the commencement of the declaration period may still be considered 'young', this does not necessitate a declaration period of 15 years.

Given the above, a 15-year period may go beyond what is necessary. A 10-year period provides some certainty to stakeholders who make long-term investments (i.e. investments in mines and above-rail haulage as well as in below-rail infrastructure). While some stakeholder investments may have a life well beyond the declaration period under consideration, other existing stakeholder assets will have a remaining life that expires within this 10-year period. Moreover, to the extent that new DBCT users contract at DBCT for access during any future declaration period, they will expect to procure the benefit of the evergreen renewal right (so long as these renewal rights remain in operation) to the extent that their mine life exceeds 10 years, and therefore beyond the declaration period under consideration.

¹⁴³ DBCT User Group, sub. 3, p. 57.

¹⁴⁴ Pacific National, sub. 28, p. 3.

Certainty of demand forecasts over the foreseeable period

The QCA notes that criterion (b) involves estimating total foreseeable demand over the period of declaration, which necessarily involves a level of prediction. Indeed, the QCA notes that even when the foreseeable demand estimates of DBCT Management and the DBCT User Group are compared (for those mines and projects included in both estimates), there are differences in views on both the anticipated outputs of existing mines and the timing and outputs of new developments.

One option in response to uncertainty about demand estimates could be to consider a shorter period for assessing total foreseeable demand of, say, five years. However, the QCA is minded to consider a period of 10 years, given the other factors discussed in this section. It would always be open for DBCT Management to seek revocation of any declaration if the estimates of demand that the QCA adopts are exceeded, and demand has been underestimated such that DBCT cannot satisfy criterion (b).

DBCT Management said:

It is not appropriate for the QCA to rely on the existence of the revocation process to support a 10 year declaration period in circumstances where the QCA has concluded that there is uncertainty with respect to forecasting demand beyond five years and, accordingly, discounted MMI Advisory's (MMI's) demand forecast on that basis (which demand forecast would otherwise clearly result in the conclusion that the DBCT service failed criterion (b)). ¹⁴⁵

While it is noted that the timing of some projects remains unclear (section 2.6), the QCA is of the view that the information made available both publicly and by stakeholders in this process, as well as the approach taken by the QCA in reconciling total foreseeable demand, addresses some of this uncertainty. Whilst accepting that uncertainty grows with the length of the forecast period, the dynamic nature of coal markets means a level of uncertainty is inherent—therefore, it is not useful to search for false precision in reconciling total foreseeable demand. On balance, the QCA remains of the view that a 10-year period is appropriate for assessing total foreseeable demand.

Timing of market changes in the future

Potential future changes in the market for coal handling services could impact on the nature and extent of competition for supplying coal handling services in the Goonyella coal chain. For instance, in the future:

- Adani Mining's planned expansion of T1 (i.e. T0) at AAPT may be designed with capacity beyond that necessary to simply support its planned Carmichael Coal Mine and Rail project.
- GVK Limited's planned development of a T3 terminal at Abbot Point may be designed to support mines in the Goonyella basin as well as the Galilee basin.
- The Dudgeon Point development may recommence.

The QCA notes that, at this time, these developments are speculative and there is considerable uncertainty about future changes in the market structure. Moreover, any future terminal development does not, in and of itself, necessarily change the competitive environment within which the coal handling service at DBCT is provided. Rather, the extent to which potential new developments may offer a substitutable service will depend on a range of factors, including costs, distance and the specific nature of the coal handling service that is offered.

¹⁴⁵ DBCT Management, sub. 26, p. 27, para. 102.

The QCA also notes that international developments in climate change policy could impact future coal demand, particularly for thermal coal (which comprises around 18 per cent of DBCT's throughput). That said, the QCA has not received any evidence, including from DBCT Management, to suggest that climate change policies are likely to adversely affect the demand for coal handling services in the Goonyella system over the declaration period under consideration. The DBCT User Group did not consider that climate change policies would have a material impact on demand for the DBCT service given the high proportion of throughput for DBCT that is metallurgical coal. Rather, it said it tends to indicate the QCA should be more sceptical of demand forecasts relating to new thermal mines in the outer years of the period. The DBCD impact of the period.

To the extent that any future developments do change the competitive environment for DBCT, it will be open for DBCT Management to seek revocation of any declaration (and it can seek revocation at any time).

Periodic review of declarations

More broadly, the QCA considers it appropriate for any declaration to be periodically reviewed. 149

The DBCT User Group said that in the context of the certification of the DBCT access regime in 2010, Brookfield supported a period of certification of 'at least ten years'. The QCA considers that this statement was made in a separate context and has not had regard to it. The CCA considers that this statement was made in a separate context and has not had regard to it.

Despite this, the QCA is of the view that a 10-year declaration period (if recommended) appropriately provides for such a periodic review. The QCA's view is that this period would adequately balance the interests of DBCT Management (in having its declaration reviewed for relevance), while providing a period of certainty for stakeholders (who make investment decisions in the expectation of access as a result of declaration).

Multiple declaration periods

In its draft recommendation, the QCA did not share the DBCT User Group's view that the QCA must consider multiple declaration periods and considered that the logical conclusion of the DBCT User Group's position was that the QCA should keep assessing criterion (b) based on varying periods until it finds a period for which criterion (b) is satisfied. The QCA concluded that this position is not consistent with the object of Part 5 of the QCA Act—to promote economically efficient investment, with the effect of promoting effective competition in dependent markets—as it means a declaration period of as short as one year (or even less) could be appropriate.

In response, the DBCT User Group maintained that its approach of reconsidering the declaration period where the QCA is not satisfied of an access criterion across its assessed declaration period is appropriate. The DBCT User Group considered that the QCA is legally required to consider whether the declaration criteria would be satisfied over shorter declaration periods. 152

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¹⁴⁶ DBCT Management, *Master Plan 2019*, p. 35.

¹⁴⁷ DBCT Management expects demand for thermal coal exports out of Queensland to grow in the medium to long term (DBCT, *Master Plan 2019*, p. 35).

¹⁴⁸ DBCT User Group, sub. 30, p. 34.

¹⁴⁹ Section 87A of the QCA Act provides for a declaration to be reviewed at least 6 months, but not more than 12 months, before the expiry date of a declaration.

¹⁵⁰ DBCT User Group, sub. 3, pp. 57–58.

¹⁵¹ DBCT Management, sub. 13, p. 11, paras 37–38.

¹⁵² DBCT User Group, sub. 30, p. 34.

It said that a declaration period of a year or less is not the logical conclusion of its position, as it is extremely unlikely that any service would satisfy criterion (d) if it was considered for such a short declaration period. Additionally, it said the QCA's position appears to 'run the risk of not declaring the service even if it meets all the access criteria for 9 years'. 153

The QCA considers that only where criterion (b) is not satisfied over the declaration period for which it is assessed, it may be appropriate to consider shorter declaration periods. As the QCA has concluded that criterion (b) is satisfied over a period of 10 years, this has not been further considered.

2.6 Total foreseeable demand over the relevant period

2.6.1 Background

Despite DBCT Management and the DBCT User Group broadly agreeing on the extent of the geographic region that defines the relevant market, there is a significant difference in estimates of total foreseeable demand between the parties over the 10-year period from 2021 to 2030.

In the context of the draft recommendation, both parties produced estimates, based on independent third party forecasts and under varying assumptions. DBCT Management's estimates were based on forecasts prepared by its consultant, AME Consulting (AME), while the DBCT User Group used estimates from Wood Mackenzie, which had been adjusted based on individual user advice. 154

In preparing its draft recommendation, the QCA engaged MMI Advisory (MMI) to undertake a reconciliation of estimates and make adjustments based on publicly available data, rather than undertaking a separate forecasting exercise. MMI's reconciliation focused on DBCT Management's forecasts as presented by its consultant, HoustonKemp (because in its initial submission, the DBCT User Group had not provided a mine-by-mine forecast for each year in the relevant period). The reconciliation was also based on a transparent set of decision rules.

MMI's analysis produced a base case and a high case reconciliation of total foreseeable demand.¹⁵⁵ The QCA adopted an intermediate path between both sets of adjustments by adopting MMI's high case but maintaining the 2026 forecast in the out-years.

Following the draft recommendation, DBCT Management maintained its initial forecasts, describing them as 'the most credible and realistic forecasts of demand'. The DBCT User Group provided a revised forecast (on a mine-by-mine basis for each relevant year) produced by its consultant, Wood Mackenzie, without any adjustments from individual users. These estimates are outlined below on a throughput basis (Table 7).

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¹⁵³ DBCT User Group, sub. 30, pp. 56.

¹⁵⁴ DBCT Management, sub. 1, p. 44, para. 212; DBCT User Group, sub. 15, p. 41, table 1.

¹⁵⁵ The details of MMI's methodology and analysis are provided in MMI's report that is available on the QCA's website under 'Draft recommendations'. See QCA, *Declaration review*, https://www.qca.org.au/project/declared-infrastructure/declaration-review/.

¹⁵⁶ DBCT Management, sub. 26, p. 31, para. 122.

¹⁵⁷ DBCT User Group, sub. 30, p. 39. The QCA notes that the DBCT User Group's revised estimates addressed issues identified in the QCA's draft recommendation, such that they have been used in the QCA's reconciliation of demand estimates in the final recommendation.

Table 7 Estimates of total foreseeable throughput demand (mtpa)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
DBCT Management	150.9	156.1	164.8	172.7	182.4	186.7	179.0	181.9	181.6	182.1
DBCT User Group	74.5	74.9	71.9	73.9	78.2	82.5	79.2	83.8	83.1	80.2

Sources: DBCT Management, sub. 1, p. 44, para. 212; DBCT User Group, sub. 30, p. 41.

Stakeholders also provided commentary on MMI's reconciliation and the QCA's approach to assessing total foreseeable demand in its draft recommendation.

2.6.2 Uncertainty in demand forecasting

There is inherent uncertainty in demand forecasting, which is apparent in stakeholders' differing views and the divergent nature of the total foreseeable demand estimates provided.

Dynamic nature of the market

The inherent uncertainty around demand forecasting is due to, amongst other things, the dynamic and evolving nature of markets for coal handling services.

Evolving views on demand

Relevantly, both DBCT Management and the DBCT User Group have shifted in their respective views on demand for coal handling services at DBCT in recent years.

In the context of the 2017 DBCT draft access undertaking process, DBCT Management was concerned about demand at DBCT:

DBCTM considers its prospects for fully contracting DBCT over the upcoming regulatory period are limited. 158

However, in its submission of 30 May 2018, DBCT Management considered that demand for contracted capacity in the market is as high as 168 mtpa¹⁵⁹ in 2021 and 207 mtpa¹⁶⁰ in 2026 (and as high as 134 mtpa excluding volumes to HPCT from BMA's mines), which is almost double DBCT's current terminal capacity.¹⁶¹

Likewise, during the same 2017 DBCT draft access undertaking process, the DBCT User Group noted that 'where a small portion of the capacity is not contracted [at DBCT], [it] should be expected and not seen as foreshadowing a long term decrease in demand' and that 'users have very strong incentives to exercise the renewal options'. 162

However, the DBCT User Group subsequently provided material on DBCT Management's proposed contract profile for the terminal in future years (presumably in support of its views) that, it said, demonstrates the following:

¹⁵⁸ DBCT Management, submission to the QCA, *DBCT Management's 2015 DAU—draft decision*, 8 July 2016, p. 6, https://www.qca.org.au/wp-content/uploads/2019/05/30764_DBCTM-Submission-1.pdf.

¹⁵⁹ This corresponds to a throughput estimate of 150.9 mtpa in 2021, as in Table 7.

¹⁶⁰ HoustonKemp's throughput estimates for 2026 are 186.7 mtpa, and 120.6 mtpa excluding volumes to HPCT from BMA mines.

¹⁶¹ The QCA understands that from DBCT Management's perspective, demand at DBCT and demand in the market are different concepts. Nevertheless, the QCA's view is that the relevant market is the market for the DBCT service. As such, the QCA has considered stakeholders' previous views regarding demand at DBCT.

¹⁶² DBCT User Group, submission to the QCA, DBCT Management's 2015 DAU—*draft decision*, 8 July 2016, p. 12, https://www.qca.org.au/wp-content/uploads/2019/05/30766_DBCT-User-Group-1.pdf .

- (i) firstly it shows that over the next 7 years or so until July 2025, DBCTM has a clear view that demand is well below the existing capacity of DBCT; and
- (ii) even in the later years, DBCTM expectations (sic) that the demand remains below the existing capacity of DBCT
- ... the DBCT User Group considers this projection may overstate long term demand ... 163,164

Factors influencing demand

The dynamic nature of the market and its effect on estimates of total foreseeable demand are largely due to factors such as volatile global coal prices and changes in policy. For instance, DBCT Management's 2018 Master Plan stated:

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 ... there is no way to reliably predict the timing of expansions ...¹⁶⁵

The QCA cannot predict the impact of these factors any more accurately than DBCT Management, nor their corresponding effect on demand for coal handling services. These factors not only influence production decisions at existing mines but may also underpin decisions to commence (or defer) the development of new projects.

DBCT Management's 2016 Master Plan appeared to echo this view:

Considering the long lead times required for infrastructure development, the difficulty for mine and infrastructure developers will be anticipating when the demand for additional coal production and export capacity is likely to return. DBCT Management does not believe the trigger point for development can be forecast with any reliability and has avoided doing so in this master plan. 166

Implications for estimating total foreseeable demand

Predicting total foreseeable demand is not a precise science. The dynamic nature of markets for coal handling services raises difficulties in producing a static forecast of demand in the market in which DBCT operates.

For example, following the QCA's draft recommendation, both DBCT Management and the DBCT User Group submitted new information in support of their suggested adjustments to the QCA's findings in that draft recommendation. Additionally, further information was received in the subsequent cross-submissions period that was not available when initial submissions were submitted seven weeks earlier. And even since then, further information in relation to projects has become publicly available. Assumptions that have been made regarding

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¹⁶³ DBCT User Group, sub. 3, p. 61.

¹⁶⁴ The QCA has not had specific regard to the material from DBCT Management referred to by the DBCT User Group, other than to illustrate that the DBCT User Group's position on total foreseeable demand in the relevant market has appeared to vary from the time of the 2017 DBCT draft access undertaking process to when the declaration reviews process started.

¹⁶⁵ DBCT Management, *Master Plan 2018*, p. 7, https://www.dbctm.com.au/wp-content/uploads/2018/08/dbct_masterplan.pdf.

¹⁶⁶ DBCT Management, *Master Plan 2016*, p. 44, https://www.qca.org.au/wp-content/uploads/2019/05/30760 DBCTM-Master-Plan-1.pdf.

¹⁶⁷ See DBCT Management, sub. 38, p. 69, paras 334–39 for a discussion in relation to the Winchester South Project.

¹⁶⁸ The draft EIS for the Olive Downs project was accepted as the final EIS on 13 May 2019. See Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP), Olive Downs Project, Queensland Government website, https://www.statedevelopment.qld.gov.au/assessments-and-approvals/olive-downs-project.html.

individual mines or projects today may (and are likely to) change in the future, which reflects the dynamic nature of the market.

While the QCA considers that it is appropriate for the determination of foreseeable demand to be updated with the most recent information available, it is important to recognise that the accuracy of any demand estimates produced is transient.

Despite this, the QCA acknowledges that, in assessing criterion (b), an estimate of total foreseeable demand in the market is required. As such, the QCA has approached the task of reconciling total foreseeable demand in the context of the above.

2.6.3 QCA analysis

The QCA considers that the appropriate market for the purposes of the criterion (b) assessment is the market for DBCT's coal handling service in the Goonyella system (section 2.4).

The QCA's reconciliation of total foreseeable demand suggests that demand for throughput in the relevant market peaks at approximately 96 mtpa in 2026 (Table 8). In applying an assumption that throughput is on average 90 per cent of contracted capacity, this volume corresponds with a peak demand for contracted capacity of 107 mtpa. However, given the inherent uncertainty involved in assessing demand, the QCA considers that the estimates for contracted capacity are potentially overstated, for the reasons outlined below.

This conclusion differs from the QCA's position in its draft recommendation as stakeholders provided new information in submissions and cross-submissions. The QCA has also refined its approach to address relevant concerns raised by stakeholders.

The following section outlines:

- the QCA's approach to assessing total foreseeable demand in the market including:
 - treatment of information provided by stakeholders
 - the QCA's reconciliation of stakeholders' estimates of total foreseeable demand
- the QCA's assessment of, and conclusions on, total foreseeable demand in the market.

Approach to assessing total foreseeable demand

The QCA does not consider it appropriate to simply adopt one of the total foreseeable demand forecasts put forward by DBCT Management or the DBCT User Group. As discussed in detail in Appendix C, there are potential issues with the assumptions that have been applied in developing both sets of forecasts (not all of which are fully transparent).

Treatment of information provided by stakeholders

Estimates of total foreseeable demand received

Both DBCT Management and the DBCT User Group submitted demand estimates, supported by their respective consultants, which they considered to be the most appropriate demand forecasts. In developing the draft recommendation, more reliance was placed on DBCT Management's forecast as it was (at the relevant time) the only stakeholder that was transparent in providing mine-specific forecasts on a year-by-year basis. This has proven

¹⁶⁹ On 25 July 2019, Anglo American announced board approval of its Aquila project, extending the life of the existing Capcoal underground operations to 2028. See Anglo American, *New mine approval expands Anglo American's Queensland operations*, media release, 25 July 2019, https://australia.angloamerican.com/media/press-releases/pr-2019/25-07-2019.

important in understanding what drove the forecasts that were submitted, including the assumptions regarding potential new sources of demand. The DBCT User Group has subsequently provided an updated year-by-year forecast on an aggregate and individual mine basis.

The QCA has identified potential issues that militate against the simple adoption of either set of estimates. For example, the DBCT User Group's forecasts, while addressing some of the QCA's initial concerns, appear to be a base case view of expected throughput based on a range of factors, including available DBCT capacity during the forecast window and a view on individual mine export allocations between ports. DBCT Management said that Wood Mackenzie takes a central Queensland-wide approach to its forecasts and predicts which terminals those mines are likely to use to export their coal, filling 'its understanding of available existing terminal capacity first before requiring an expansion of capacity at a terminal'. To the extent that this proposition is correct, it is unclear to the QCA whether Wood Mackenzie has forecasted demand in the Goonyella system or in a different area.

Wood Mackenzie has also not incorporated some projects that, in the QCA's view, appear likely to come into production during the declaration period under consideration; the reasoning for their exclusion is not clear.¹⁷² As such, the QCA considers that there is scope for underestimation if these forecasts were adopted as provided.

Conversely, while DBCT Management's forecasts appear to generally subsume those of the DBCT User Group, there are difficulties in reconciling AME's forecasts with those compiled by HoustonKemp.¹⁷³ The AME report was also prepared in May 2018. As outlined by AME, every operation is 'reviewed and updated on a quarterly basis to include the latest reported production and cost updates', suggesting that the May 2018 data may have been superseded by more recent data.¹⁷⁴ In addition to this, the QCA's view is that the HoustonKemp and AME data may be overstated, given its assumptions on rail capacity and timing of new developments.

The QCA considers that there is merit in using both sets of estimates, in conjunction with publicly available information and relevant commentary from stakeholders, rather than engaging another consultant to undertake yet another demand forecasting exercise. This is consistent with the QCA's approach in the draft recommendation (noting that forecasts from the DBCT User Group were not used in the draft recommendation for the reasons outlined in Appendix C).

Relevant commentary following the draft recommendation

The QCA has analysed the commentary provided by stakeholders following the draft recommendation, including proposed adjustments to the QCA's draft estimates (see Appendix C). In relation to this, the QCA concludes:

• The supplementary demand analysis produced by DBCT Management cannot be adopted as is, given that the approach taken creates the potential for double counting and

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¹⁷⁰ DBCT User Group, sub. 30, schedule 1, p. 6.

¹⁷¹ DBCT Management, sub. 38, p. 66, paras 321–24.

¹⁷² See Appendices C and D for further information. Mines not included by the DBCT User Group's consultant include Gregory Crinum, Dysart East and Ironbark No. 1.

¹⁷³ For example, the HoustonKemp forecasts for Capcoal, Eagle Downs, Talwood, Clermont, Coppabella, Foxleigh, Isaac Plains and Blair Athol mines differ from those figures reported in the AME report provided by DBCT Management. See DBCT Management, sub. 10, appendix 10, pp. 61–62 (table A1.1) and appendix 12, pp. 18–19 (figures 14, 15 and 16).

¹⁷⁴ DBCT Management, sub. 1, appendix 12, p. 23.

- overestimation (see Appendix C). However, there is merit in considering the additional mines and projects (which were not included in HoustonKemp/AME's original forecasts) as potential sources of demand when assessing total foreseeable demand in the market.
- The DBCT User Group's adjustments to demand estimates (as outlined by PwC) cannot be
 adopted without additional scrutiny. Instead, the QCA considers it appropriate to conduct its
 own assessment but notes that there is merit in adjusting the relevant forecasts, where
 publicly available information supports these conclusions.

Relevance of the access queue

The QCA is of the view that the access queue does not represent 'incontrovertible evidence' of demand for the DBCT service (as asserted by DBCT Management) and as such, should not be incorporated in the QCA's reconciliation of demand estimates (see Box 3).

Box 3: Evidence of DBCT's contracted capacity and the access queue

In November 2018, DBCT Management advised the QCA that DBCT had become fully contracted. The Following this, DBCT Management submitted that while contracted capacity and the access queue at DBCT do not reflect total foreseeable demand in the market, they provide incontrovertible evidence of foreseeable demand for the DBCT service.

In this context, DBCT Management asserted that the access queue gives rise to rights and imposes obligations on both DBCT Management and access seekers and, as such, must be treated as a component of total foreseeable demand in the market. DBCT Management therefore concluded that any measure of total foreseeable demand in the market must be higher than DBCT's contracted capacity plus the access queue. 178

Other stakeholders, including the DBCT User Group, pointed to how the queue operates and historical analysis of the extent to which the queue has been converted into aggregate demand in support of the view that the access queue cannot be considered a reliable estimate of demand.¹⁷⁹

The QCA has considered the submissions provided by stakeholders and relevant information relating to the DBCT access queue. Despite tightening of queuing provisions and the 'clean-up process' undertaken by DBCT Management (in late 2018), the QCA considers the nature of the access queue and the way it operates means that it does not necessarily reflect current demand for the DBCT service. In particular:

- Following the previous 'tightening of provisions' in 2016, the queue still consisted of some volumes that were not considered genuine demand, as evidenced by the removal of certain access seekers from the queue in late 2018.
- The notifying access seeker process undertaken in late 2018, and subsequent removal of
 access seekers who had not submitted signed access agreements, provided increased
 certainty around those participants who wish to contract capacity at DBCT. Despite this, by
 accepting new access seekers and allowing removed access seekers to re-join the queue, it is
 possible that the effect of this 'clean-up' of the queue may be eroded.
- The non-binding nature of access applications and the queue's operation mechanisms suggest that the volumes and timings reported in the queue do not necessarily reflect the actual volumes and timings that will eventuate.
- Potential users of DBCT may be able to acquire capacity at DBCT in other ways, including through trading for temporary or permanent assignments from existing users in the secondary trading market, which suggests that the queue is not a complete reflection of demand for DBCT.

The QCA does not consider that the access queue at DBCT is a reliable indicator of foreseeable demand for the DBCT service. As such, the QCA has not relied on queue volumes in reconciling the total foreseeable demand estimates provided.

¹⁷⁵ DBCT Management, sub. 36, p. 1.

 $^{^{\}rm 176}$ DBCT Management, sub. 26, p. 34, para. 138.

¹⁷⁷ DBCT Management, sub. 38, p. 60, para. 300.

¹⁷⁸ DBCT Management, sub. 26, p. 34, paras 138–39.

¹⁷⁹ DBCT User Group, sub. 46, p. 11.

Reconciling total foreseeable demand estimates

As outlined above, the QCA has refined its approach to assessing total foreseeable demand given the new information made available following the draft recommendation. Specifically, the QCA reviewed MMI's earlier reconciliation in the context of the QCA's views on market definition, as well as recent stakeholder comments, new public information and the updated Wood Mackenzie estimates. The QCA's reconciliation of demand is outlined in detail in Appendix D. Briefly, the QCA has applied the following adjustments:

- Exclude demand for HPCT, but only up to its nameplate capacity of 55 mtpa, as the QCA does not consider this demand to be in the market for the purposes of criterion (b).
- Exclude demand for Lake Vermont and Middlemount for the remaining duration of their current contracts at AAPT, as the QCA does not consider this demand to be in the market for the purposes of criterion (b). Upon expiration of these contracts, they are assumed to recontract at DBCT.
- Exclude mines outside the Goonyella system, namely Kestrel and Teresa (subject to a 'reasonableness' test).
- Consider the validity of stakeholders' proposed adjustments, including inclusion and exclusion of new projects, revised production forecasts and revised start and end dates.
- Consider the likelihood of projects commencing during the foreseeable demand period and make objective adjustments if necessary.

In its initial report, one of MMI's key issues was reconciling the proposed timing of the development projects and assessing whether they are likely to be commissioned over the forecast period. This was because there was limited transparency as to the assumptions and data sources relied upon by AME and Wood Mackenzie and, in some cases, limited (if any) publicly available information on the current status of projects.

In the absence of information to enable the conclusion that development is likely over the forecast period, MMI adopted a 'base case', where these developments were excluded, and a 'high case', which assumed that all of these excluded projects were commissioned mid-way through the forecast period.

In its draft recommendation, the QCA noted that coal mine development was likely to occur in a measured fashion rather than in the manner suggested by the MMI 'high case'. The QCA therefore adopted an intermediate path between both sets of adjustments by adopting MMI's 'high case' but maintaining the 2026 forecast in the out-years.

Stakeholders raised issues with the approach taken in the QCA's draft recommendation. DBCT Management noted that maintaining the 2026 forecast in the out-years was arbitrary and inappropriate, while the DBCT User Group stated that it was highly problematic. Peabody and the DBCT User Group also raised concerns with the 'high case' figures adopted, stating that they did not reflect commercial reality and were likely to be overstated and artificial. Glencore Coal said that the high estimates in the latter period have limited credibility as the MMI methodology was somewhat arbitrary and was likely to generate a maximum throughput that far exceeds even a maximum development profile. 182

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¹⁸⁰ DBCT Management, sub. 26, p. 30, para. 120; DBCT User Group, sub. 30, p. 48.

¹⁸¹ Peabody, sub. 25, p. 1; DBCT User Group, sub. 30, p. 48.

¹⁸² Glencore Coal, sub. 43, annexure A, p. 7.

The QCA accepts that there are issues in making what might be seen as arbitrary assumptions and adjustments, including to reconcile base case and high case estimates. However, the QCA is presented with highly divergent estimates and limited visibility of the underlying assumptions. For example, HoustonKemp has assumed that production from Moranbah South would commence in 2021, whereas Wood Mackenzie considered that demand from this mine will only materialise in 2034—a 13-year difference in assumed commencement dates.

However, having considered the comments received, the QCA has refrained from producing a 'high case' estimate in making its final recommendation. It has also refrained from making any adjustments to development timeframes where supporting information is not available.

Instead, the QCA considered the HoustonKemp/AME and Wood Mackenzie forecasts in the context of stakeholder comments and publicly available information. Broadly, the QCA applied the following decision rules:

- Where the most recent public information aligns with forecasts provided by either AME or Wood Mackenzie, or where the absence of publicly available information does not contradict one of those forecasts¹⁸⁴, adopt the relevant consultant's forecasts.
- Where the most recent public information concurrently aligns with forecasts from both AME and Wood Mackenzie, retain the original AME forecasts.
- Where both consultants' forecasts differ from the most recent public information, make objective adjustments only where public information is available to allow for a reasonable estimate of production volumes and/or timing.
- Where both consultants' forecasts differ from publicly available data, and information on the
 project's timing is unavailable, exclude the project from the demand reconciliation—as this
 suggests that the timing and volumes of the project are too uncertain to be predicted with
 any accuracy and cannot be included in a robust and reliable forecast of demand in the
 market.¹⁸⁵
- For mines currently in production, if there is no publicly available information, or it does not
 inform a reasonable estimate of production volumes and/or project timing, retain the
 original AME forecast, including where this differs from the Wood Mackenzie forecast.¹⁸⁶

The QCA considers that these updated decision rules remove much of the perceived arbitrariness and go towards addressing stakeholders' concerns in relation to the methodology applied in the QCA's draft recommendation.

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¹⁸³ As HoustonKemp's and AME's forecasts did not align for numerous projects, the QCA has assessed the AME forecasts (where applicable) rather than the HoustonKemp figures. This is due to a lack of transparency in relation to HoustonKemp's adjustments. The QCA notes that generally the AME forecasts seem to subsume the HoustonKemp figures such that this approach avoids the potential risk of underestimation.

¹⁸⁴ The main example of this is where (1) a consultant has forecast nil volumes for a project based on a view that the project is not expected to be developed and commissioned during the declaration period; and (2) there is no publicly available information to counter this view (that is, there is no information to indicate if and when development is likely to occur).

¹⁸⁵ Details surrounding the specific projects excluded are in Appendix D.

¹⁸⁶ The QCA assessed the effect of deferring to Wood Mackenzie forecasts (where applicable) rather than AME forecasts. The peak total foreseeable demand figure when deferring to Wood Mackenzie in these cases is 107.0 mtpa in 2026, compared with 107.1 mtpa in 2026 when deferring to AME. Given the minimal difference in peak total foreseeable demand figures, the QCA has deferred to AME, as this lessens the risk of underestimation across the declaration period, given that the AME figures generally subsume the Wood Mackenzie estimates over the period considered.

It is possible that the excluded projects will still be developed within the declaration period under consideration, despite the current significant uncertainty as to tonnages and timings. However, from the information currently before the QCA, there is insufficient evidence to confirm when (or indeed if) this will be the case. As such, the QCA considers that, presently, it is appropriate to exclude these projects from the reconciliation of foreseeable demand.

In undertaking this assessment, the QCA noted that there were various mines or projects where public information concurrently aligned with AME and Wood Mackenzie forecasts. The QCA has not formed a view on which forecasts are more appropriate and notes that there are potential issues with the assumptions that have been applied in developing both sets of forecasts (not all of which are fully transparent). Given this, the QCA deferred to the AME estimates to lessen the risk of underestimation, as these forecasts seem to generally subsume the Wood Mackenzie data. ¹⁸⁷

These adjustments are summarised in Table 8 (on a throughput basis). The approach taken by the QCA has been independently reviewed by MMI for consistency and accuracy, based on the QCA's decision rules.

Table 8 QCA's reconciliation of throughput demand forecasts

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Adjusted estimates (mtpa)	84.2	91.9	93.2	95.4	94.9	96.4	87.9	84.7	85.0	80.1

Adjustments for capacity entitlements

The QCA considers that demand for capacity entitlements derived from the demand for coal throughput is the appropriate measure of demand. Users will contract for more capacity than they are likely to ship, given that throughput is likely to be variable, and the take or pay costs associated with contracting are outweighed by the benefits of operational flexibility.

The QCA notes DBCT Management's view that throughput is on average 90 per cent of contract entitlements:

[I]t is normal for contracted capacity to exceed the volumes of coal handled by a significant margin, even in a long run equilibrium. For example:

- 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.

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. 188

The QCA notes that in assuming an average figure to be applied over the long term, DBCT Management has relied on contractual and throughput data over a one-year period. The QCA considers this is arbitrary, as an average over the longer term is likely to yield a different result. Relevantly, the period referenced by DBCT Management included throughput disruptions caused by Cyclone Debbie in 2017.

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¹⁸⁷ See Appendix D for further discussion.

¹⁸⁸ DBCT Management, sub. 1, pp. 43–44, paras 208–209; appendix 10, p. 37.

In contrast, the DBCT User Group said that this assumption that throughput is 90 per cent of contract entitlements is likely to have been set too low, particularly in the context of:

- (a) the DBCT User Agreements allowing users to provide permission for third party shippers to utilise the capacity (see clause 12.5 Standard Access Agreement);
- (b) there being clear evidence of a secondary capacity trading market where producers which hold surplus capacity are able (at least currently) to dispose of that capacity to other producers;
- (c) the renewal rights in the DBCT User Agreements which are exercisable every five years provide the ability to renew for less capacity than currently contracted, and there is examples of users doing that, so there is an option every five years to reduce contracted capacity (see clause 20 Standard Access Agreement); and
- (d) the DBCT User Agreement provisions regarding DBCTM having power to resume annual contract tonnage that a user is not utilising over a sustained period (see clause 11.3 Standard Access Agreement).¹⁸⁹

Despite this assessment, the DBCT User Group did not provide evidence to support a different ratio.

The QCA considers that factors such as the availability of capacity at DBCT, current coal prices and the global outlook for metallurgical coal, among other things, may impact upon the ratio of throughput to contracted capacity at DBCT, such that it is difficult to accurately predict.

DBCT is currently fully contracted. Given this, the QCA accepts that as throughput demand in the market rises closer to DBCT's capacity, the gap between throughput and contracted capacity is likely to lessen, as users without the capacity they require in the short term may seek to obtain it in the secondary trading market. Despite this, the QCA is not convinced that the gap will be negligible as in the QCA's view, users will still seek to contract excess capacity given that throughput is variable and the take or pay costs associated with contracting are outweighed by the benefits of operational flexibility.

In this context, the QCA has applied the assumption that throughput is on average 90 per cent of contract entitlements but notes that this assumption is likely to overestimate the gap between throughput and contracted capacity. Table 9 reflects the QCA's reconciliation of total foreseeable demand for capacity entitlements during the 10-year declaration period.

Table 9 QCA's reconciliation of contracted capacity demand forecasts

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Capacity entitlement estimates (mtpa)	93.6	102.1	103.6	106.0	105.4	107.1	97.7	94.1	94.4	89.0

Assessment of total foreseeable demand

The QCA reviewed its adjustments in an overall context of what it expects will be modest growth in the market for coal tenement development. DBCT Management's 2018 Master Plan states:

Unlike the previous "mining boom", DBCTM expects the next wave of coal mine development to occur in a much more measured and controlled fashion. 190

¹⁸⁹ DBCT User Group, sub. 15, p. 39.

Moreover, the 2019–20 Queensland Government Budget Papers note that:

Looking ahead, while coal export volumes are forecast to continue to grow, the rate of growth will likely be more modest than previously expected, reflecting the softer global outlook and the slowing of industrial production growth in most of the State's major coal export markets.¹⁹¹

The QCA considers that its reconciliation of demand (Table 8) broadly reflects this observation, but that the 9 per cent increase in estimated demand from 2021 to 2022 may be excessive in light of the above. In contrast, the Queensland Government Budget Papers forecasted coal export volumes to increase at an average of 1.75 per cent per annum between 2018–19 and 2022–23.¹⁹² Similarly, the World Steel Association has forecast growth in the global demand for steel in 2020 of 1.7 per cent.^{193,194}

The QCA's reconciliation of total foreseeable demand suggests that demand for throughput in the relevant market peaks at approximately 96 mtpa in 2026 (Table 8). In applying an assumption that throughput is on average 90 per cent of contracted capacity, this volume corresponds with a peak demand for contracted capacity of 107 mtpa. Having regard to the inherent uncertainties associated with demand forecasting, the QCA notes that this reconciliation of demand is potentially overstated, as it is influenced by a number of factors including current market conditions, as well as assumptions applied by the QCA.

Current market outlook

DBCT Management's consultant noted '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'. ¹⁹⁵

The Australian Government's Department of Industry, Innovation and Science predicted:

The premium Australian hard coking coal (HCC) spot price has declined sharply over recent months, and is forecast to remain subdued over the outlook period. Rising supply combined with falling demand is expected to drive an easing of the average price from US\$186 a tonne in 2019 to US\$158 a tonne in 2021.

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The price has declined more sharply than previously anticipated, driven by a combination of factors. 196

The QCA notes coal prices are likely to influence expected demand, such that previous forecasts may differ from those that will actually eventuate over the 10-year period. As noted by HoustonKemp in applying a sensitivity analysis to its demand estimates, 'at low prices, we see a

¹⁹⁰ DBCT Management, Master Plan 2018, p. 34, http://www.dbctm.com.au/_files/Documents/MP2018.pdf. The QCA does not accept the master plan's subsequent position that spare capacity at other ports will be more attractive than expansion capacity at DBCT for the reasons outlined earlier in this decision.

¹⁹¹ Queensland Government, Queensland Budget 2019–20, *Budget Strategy and Outlook: Budget Paper No. 2*, p. 38, https://budget.qld.gov.au/files/BP2.pdf.

¹⁹² Queensland Government, Queensland Budget 2019–20, *Budget Strategy and Outlook: Budget Paper No. 2*, p. 38, https://budget.qld.gov.au/files/BP2.pdf.

¹⁹³ World Steel Association, *worldsteel Short Range Outlook October 2019*, press release, Mexico, 14 October 2019, https://www.worldsteel.org/media-centre/press-releases/2019/worldsteel-short-range-outlook-2019.html.

¹⁹⁴ The QCA notes that the demand for metallurgical coal, which is DBCT's predominant export product, is a derived demand. Metallurgical (or coking) coal is a key raw material in steel production.

¹⁹⁵ DBCT Management, sub. 1, appendix 10, p. 47.

¹⁹⁶ Department of Industry, Innovation and Science, *Resources and Energy Quarterly*, September 2019, p. 37, https://publications.industry.gov.au/publications/resourcesandenergyquarterlyseptember2019/documents/Resources-and-Energy-Quarterly-September-2019.pdf.

notable reduction in the foreseeable demand in the market'. DBCT Management's 2016 Master Plan also noted that:

In 2014 the declining price of coal was already impacting the decision making process of the coal industry, resulting in the deferral of several new greenfield mining projects. ¹⁹⁸

It is possible that existing mines may respond to the decline in prices by increasing production, to attempt to offset reduced profitability. Indeed, the Australian Government's Department of Industry, Innovation and Science has forecast modest growth in export volumes from 2019 to 2022. However, following a peak in Australian metallurgical coal export volumes in 2022, the department projected a fall in 2023 and a further decline in 2024. This does not align with the QCA's reconciliation of total foreseeable demand, which increases by 9 per cent from 2021 to 2022 and rises to peak demand in 2026.

Additionally, it may be difficult for existing mines that increase production in response to falling prices to maintain this in the medium to long term. The QCA notes that during 2012 to 2016, various mines were placed into care and maintenance as they were unable to withstand the steadily falling prices.²⁰⁰

In the above context, it is apparent that declining prices may also affect investment decisions, resulting in a decline in the supply of greenfield projects. This would affect total foreseeable demand, given that new projects in the QCA's demand reconciliation represent 21 per cent of the contract demand in 2026, and 29 per cent in 2030.

While it is not possible to accurately forecast the extent of any changes in global coal prices over the 10-year period, past evidence and forecasting from government departments suggest that the market is cyclical and a downward movement in prices may occur during this period. This could affect investment decisions and influence total foreseeable demand.

Assumptions

The QCA has also applied assumptions in its assessment of total foreseeable demand, which may lead to an over-optimistic demand profile.

Optimistic views

The DBCT User Group's consultant, Wood Mackenzie, noted that significant demand comes from future projects from 2023 and potential delays to projects could affect realised throughput.²⁰¹ However, the QCA has not accounted for these types of delays in its reconciliation. Instead, where miners have publicly provided maximum saleable coal volumes and project start dates, these figures have been used.²⁰² The QCA notes that this may mean that

¹⁹⁷ DBCT Management, sub. 1, appendix 10, p. 47.

¹⁹⁸ DBCT Management, *Master Plan 2016*, p. 47, https://www.qca.org.au/wp-content/uploads/2019/05/30760_DBCTM-Master-Plan-1.pdf.

¹⁹⁹ Department of Industry, Innovation and Science, Resources and Energy Quarterly, March 2019, p. 46, https://publications.industry.gov.au/publications/resourcesandenergyquarterlymarch2019/documents/Resources-and-Energy-Quarterly-March-2019.pdf. The more recent December 2019 publication does not seem to refute this. See Department of Industry, Innovation and Science, Resources and Energy Quarterly, December 2019, pp. 35–42, https://publications.industry.gov.au/publications/resourcesandenergyquarterlydecember2019/documents/Resources-and-Energy-Quarterly-December-2019.pdf.

These mines included Isaac Plains and Blair Athol. See RMI, Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Undertaking, report prepared for the Queensland Competition Authority, May 2017, p. 11, https://www.qca.org.au/wp-content/uploads/2019/05/32481_Resource-Management-International-Assessment-of-coal-volume-forecasts-for-Aurizon-Network-s-20171275889 1-1.pdf.

²⁰¹ DBCT User Group, sub. 15, schedule 2, p. 7.

²⁰² See Appendix D.

mine production is overstated if delays subsequently ensue. However, the QCA also considers it reasonable to take the most recent public statements made by developers on face value, noting that many of these companies are (directly or indirectly) subject to disclosure requirements.

Additionally, both AME's and Wood Mackenzie's estimates typically involve a ramp-up where coal volumes are lower in the initial phases of the mine's life and increase to full production over the span of a few years. In some cases where the QCA has had to rely on more recent public information for a new project, the QCA has refrained from applying any sort of ramp-up due to a lack of oversight of the production profile in a project's earlier stages and instead adopted the reported saleable coal output. In this way, some of the volumes may be overstated.

Contracted capacity

The QCA adopted the assumption that throughput is on average 90 per cent of contract entitlements in its reconciliation of total foreseeable demand, while noting its limitations (discussed in section 2.6.3 above). In doing so, the QCA accepts there are issues with applying this ratio to throughput figures over a 10-year period, given that DBCT Management relied on data from a one-year period to make this assumption.

The QCA's view is that this assumption may provide a larger buffer between throughput and contracted capacity than will realistically eventuate given DBCT's current contractual status and the ability for users to divest capacity in the secondary trading market, at least in the short term. As such, the QCA considers that applying this assumption may lead to contracted capacity at DBCT being overstated.

Conclusion

Overall, the QCA's reconciliation of total foreseeable demand suggests that demand for throughput in the relevant market peaks at approximately 96 mtpa in 2026 (Table 8). In applying an assumption that throughput is on average 90 per cent of contracted capacity, this volume corresponds with a peak demand for capacity entitlements of 107 mtpa (Table 9). However, given the inherent uncertainty involved in assessing demand, the QCA considers that the estimates for contracted capacity are potentially overstated and total foreseeable demand could be lower than these volumes.

2.7 Meeting total foreseeable demand in the market

The QCA considers that DBCT can meet total foreseeable demand in the market over the declaration period under consideration. While peak demand over the relevant period exceeds DBCT's current capacity, the QCA considers that it is reasonably possible to expand DBCT to meet this demand. The QCA has had regard to the relevant facility as if it had this expanded capacity (in accordance with s. 76(3) of the QCA Act).

2.7.1 Stakeholder submissions

DBCT Management submitted that 'the reasonably possible capacity of DBCT over the declaration period is 102 mtpa'. ²⁰³ As such, DBCT Management said that it would not be reasonably possible to expand DBCT's capacity beyond 102 mtpa during the declaration

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²⁰³ DBCT Management, sub. 1, p. 21, para. 87.

period.²⁰⁴ It concluded that DBCT could not meet total foreseeable demand in the market based on its own estimates for demand.

The DBCT User Group considered that 'reasonably possible' is a low threshold, such that the Zone 4, 8X and 9X expansions represent reasonably possible expansions of DBCT. It said that foreseeable demand could be met by reasonably possible expansions of DBCT (through the Zone 4 and 8X expansions), based on its own estimates of demand.²⁰⁵

2.7.2 QCA analysis

After reconciling total foreseeable demand (section 2.6), the QCA observes that DBCT will need to be expanded to meet demand in the relevant market over the declaration period under consideration.

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 authority and the Minister may have regard to the facility as if it had that expanded capacity.

Noting that DBCT is fully contracted²⁰⁶, the QCA must determine if it is 'reasonably possible to expand' DBCT's capacity in order for s. 76(3) to apply to the QCA's assessment of criterion (b).²⁰⁷

The QCA has considered the potential expansion options as outlined in DBCT Management's submissions to the QCA (Table 10). These expansion options are consistent with those presented in DBCT Management's 2018 Master Plan.

Table 10 Expansion options available at DBCT

DBCT expansion	Incremental capacity (mtpa)	Resultant terminal capacity (mtpa)
Zone 4	4	89
8X Phase 1	4.5	93.5
8X Phase 2	8.5	102
9X Phase 1	12	114
9X Phase 2	12	126
9X Phase 3	10	136

Source: DBCT Management, sub. 1, appendix 10, p. 40.

The QCA notes that since then, DBCT Management has released a 2019 Master Plan which features changes to the planned expansion pathway.

In this regard, the QCA notes that the planned expansions of DBCT are often reconfigured to align with DBCT's capacity requirements at the relevant time. The development options presented by DBCT Management have varied across the 2009, 2016, 2018 and 2019 Master Plans and may be reconfigured again in the near future. Additionally, improved modes of operating also have the potential to improve capacity without an expansion. DBCT Management noted that at the time of writing its 2009 Master Plan, its view was that the existing footprint

²⁰⁶ DBCT Management, sub. 26, para. 311.

²⁰⁴ DBCT Management, sub. 1, p. 39, para. 191.

²⁰⁵ DBCT User Group, sub. 46, p. 5.

²⁰⁷ See Overview—Chapter 2 for further discussion of the relevant legal application.

could accommodate a maximum capacity of 88 mtpa; however, the introduction of the hybrid operating mode meant that this increased to 102 mtpa. 208

In its 2019 Master Plan, DBCT Management said updated modelling revealed that the capacity of the existing footprint of DBCT will be limited to 97.5 mtpa.²⁰⁹ Conversely, in its earlier submissions on the declaration review process, DBCT Management stated that 'the reasonably possible capacity of DBCT over the declaration period is 102 mtpa¹.²¹⁰ The extent to which the change in modelled capacity is due to changes to the expansion pathway or the implementation of updated modelling is not evident.

Given the above, the QCA considers that it is more appropriate to continue to have regard to the expansion options outlined by DBCT Management in its submissions on the declaration review (Table 10).

Expansions required

The level of expansions necessary depends on the additional capacity required to meet total foreseeable demand in the market over the relevant period.

The QCA notes that nameplate capacity at DBCT is 85 mtpa. In October 2018, the Integrated Logistics Company (ILC) prepared a report on DBCT's capacity, outlining terminal capacity of 94.7 mtpa and system capacity of 84.2 mtpa from FY22 onwards. The QCA is of the view that the full extent of this assessed terminal capacity is unlikely to be achievable at DBCT due to the unrealistic assumptions applied, namely that there are no constraints in the supporting supply chain components. 211 However, there may be scope for realistic supply chain and operating improvements in the future to increase available system capacity at DBCT without capital expansions. Due to the potential for variations in system capacity over time, the QCA has undertaken its assessment on the basis that DBCT's existing capacity is 85 mtpa (noting that this may underestimate the capacity of the terminal in the future to satisfy demand).

The QCA's reconciliation of total foreseeable demand suggests that demand for throughput in the relevant market peaks at approximately 96 mtpa in 2026. In applying an assumption that throughput is on average 90 per cent of contracted capacity, this volume corresponds with a peak demand for contracted capacity of 107 mtpa. The QCA considers that the Zone 4 and 8X expansion projects would be sufficient to meet total foreseeable demand in the market.

In doing so, the QCA notes that applying the assumption that throughput is on average 90 per cent of contract entitlements is likely to overstate the gap between throughput and contracted capacity. Further, the QCA considers that its optimistic assumptions in relation to the absence of project delays and production ramp-ups also mean the reconciliation of total foreseeable demand may be overstated (as discussed in section 2.6.3).

In this respect, the QCA notes that demand for capacity entitlements exceeds the capacity provided by Zone 4 and 8X by at most 5.1 mtpa for a period of five years (2022-2026) before falling well below 102 mtpa in the subsequent years (Table 9). Users may acquire capacity in the secondary trading market to meet these limited and short-term capacity requirements, rather than seeking to acquire additional contracts at DBCT. The QCA notes the seemingly active

²⁰⁸ See DBCT Management, Master Plan 2016, p. 46, https://www.gca.org.au/wpcontent/uploads/2019/05/30760 DBCTM-Master-Plan-1.pdf.

²⁰⁹ DBCT Management, Master Plan 2019, p. 5, https://www.dbctm.com.au/wpcontent/uploads/2019/09/Approved-Master-Plan-2019.pdf.

²¹⁰ DBCT Management, sub. 1, p. 21, para. 87.

²¹¹ DBCT Management, sub. 38, p. 76, para. 376.

nature of this market. Relevantly, in this five-year period, the corresponding throughput capacity ranges from approximately 92 mtpa to 96 mtpa, well below the capacity provided by the Zone 4 and 8X expansions.

Additionally, the QCA notes that due to the current market outlook, production volumes and timings may not materialise as expected over the relevant 10-year period. There is also the possibility of development options proposed by DBCT Management being reconfigured to provide a higher terminal capacity within the footprint of the Zone 4 and 8X expansions, to align with potential demand for capacity.

Reasonably possible to expand

In assessing whether the facility for the service is able to meet total foreseeable demand in the market, the QCA considers that the Zone 4 and 8X expansions are 'reasonably possible' within the declaration period under consideration. The QCA notes that stakeholders did not dispute this.²¹²

For completeness, the QCA has also considered whether it is reasonably possible to expand DBCT's capacity beyond these expansions within the declaration period under consideration, should additional capacity be required to meet future demand in the market. This also contemplates a scenario where capacity is limited to below 102 mtpa within the existing footprint (as contemplated by DBCT Management's 2019 Master Plan) and further expansions beyond Zone 4 and 8X are required to meet total foreseeable demand.

Expanding DBCT beyond 8X expansions

In the context of this declaration review, DBCT Management considered that because of the level of uncertainty about whether necessary approvals, permits or land can be obtained for the 9X expansion, there is no basis to conclude that expansions beyond Zone 4 and 8X are reasonably possible. DBCT Management also considered that even if reasonably possible, the planning, approvals and development timeframes for the 9X expansions are highly unpredictable and likely to span over a decade.²¹³ In this respect, DBCT Management's 2018 Master Plan states:

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 [Great Barrier Reef Marine Park Authority] for capital dredging has become materially more difficult in recent years, thereby jeopardising DBCTM's ability to deliver the 9X Project.²¹⁴

The QCA considers DBCT Management's position in relation to the declaration review incongruous with its positions on a 9X expansion in other contexts. Moreover, DBCT Management has failed to articulate the change in circumstances since the 2016 Master Plan and its 2017 draft access undertaking—neither of which indicated that a 9X expansion was not reasonably possible.

²¹² DBCT User Group, sub. 46, p. 5; DBCT Management, sub. 26, appendix 6. The QCA notes that in concluding that the Zone 4 and 8X expansions would be completed within the declaration period, DBCT Management applied what it considered were aggressive assumptions. The QCA considers that such assumptions do not preclude the development from being 'reasonably possible' within the declaration period.

²¹³ DBCT Management, sub. 1, pp. 40–41, para. 198.

²¹⁴ DBCT Management, Master Plan 2018, p. 62, http://www.dbctm.com.au/_files/Documents/MP2018.pdf.

It is unclear to the QCA why the state's legislative requirements outlined in the *Sustainable Ports Development Act 2015* (Qld) prevent further expansion of DBCT beyond the planned 8X expansions. The 2016 Master Plan noted that the 9X pathway includes a proposal to reclaim land using material from the necessary dredging consistent with the principles of 'beneficial reuse'. Additionally, the QCA also notes that the aim of the Act is to limit port development to designated ports (including Hay Point). So while any future port development would still be subject to environmental approvals, it may not be unreasonable to assume that further port development at Hay Point would be consistent with the intent of the Act.

The QCA accepts that an expansion to the scale of 9X would be subject to a range of regulatory controls. The QCA notes that all significant expansions face similar hurdles. However, it is not apparent that such controls would preclude this further expansion of DBCT from occurring during the declaration period under consideration.

The QCA acknowledges that planning, approvals and development timeframes are unpredictable and may have implications as to whether the 9X expansion could be developed during the declaration period under consideration. In this respect, the QCA notes:

- DBCT Management has started to undertake studies in relation to the 9X project, with DBCT Management stating that the 9X concept is reasonably well understood.²¹⁶
- The DBCT 7X expansion project from 60–85 mtpa commenced in 2005, and the final works were completed in 2009.²¹⁷

In any case, the QCA notes that the entire 9X expansion, which provides an additional 34 mtpa of capacity, would likely not be required to meet additional demand. Rather, a smaller scoped expansion, or alternatively Phase 1 of the 9X expansion, would likely be sufficient to meet any additional demand. Therefore, the QCA considers that the planning, approvals and development timeframes, while unpredictable, are unlikely to restrict DBCT from being expanded via a 9X expansion within the declaration period under consideration.

Conclusion

The QCA considers that DBCT can meet total foreseeable demand in the market over the declaration period under consideration. Specifically, the QCA considers that it is reasonably possible to expand DBCT (by way of the Zone 4 and 8X expansions) to meet this demand.

In the event that additional capacity is required to meet total foreseeable demand in the market, from the information available, the QCA is satisfied that despite the relative uncertainty, it is reasonably possible to expand DBCT via a 9X expansion phase within the declaration period under consideration.

http://www.dbctm.com.au/ files/EOMReports/Master%20Plan%202016.pdf.

²¹⁵ DBCT Management, *Master Plan 2016*, p. 73,

²¹⁶ DBCT Management, *DBCT Incremental Expansion Study*, DAAU submission, 23 May 2017, p. 6, https://www.qca.org.au/wp-content/uploads/2019/05/31748_DBCT-Incremental-Expansion-Study-DAAU-Resubmission-Final_Redacted-1.pdf.

²¹⁷ QCA, submission to the Department of Transport, Queensland Government, Review of Current Port Competition and Regulation in Queensland—discussion paper, 24 October 2007, p. 4; DBCT Management, submission to the QCA, DBCT Incremental Expansion Study, 23 May 2017, p. 5, https://www.qca.org.au/wp-content/uploads/2019/05/31748_DBCT-Incremental-Expansion-Study-DAAU-Resubmission-Final_Redacted-1.pdf.

2.8 At the least cost compared to two or more facilities

The QCA considers that DBCT in expanded form can meet total foreseeable demand at a lower cost compared to any two or more facilities.

The QCA's consideration of this matter is separated into the following sections:

- methodological issues
- calculation of 'least cost'.

2.8.1 Methodological issues

This section outlines methodological issues related to the QCA's approach to undertaking the 'least cost' analysis, namely what costs are relevant in forming a view on the 'least cost' and matters relevant to calculating the costs of meeting total foreseeable demand.

Treatment of sunk and incremental costs

The QCA's view is that both sunk and incremental costs may be relevant to the 'least cost' analysis, depending on the scenarios being compared.

DBCT Management said:

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.²¹⁸

DBCT Management said that its approach of excluding sunk costs is consistent with the Tribunal's 2010 decision in the matter of the application for declaration of four railways in the Pilbara region used for the transportation of iron ore²¹⁹ (*Pilbara* matter).²²⁰

In the Tribunal's decision in the *Pilbara* matter, the Tribunal was concerned with criterion (b) in its previous form. In that case, the criterion required a comparison of the cost of expanding a facility to meet total foreseeable demand versus the cost of developing a duplicate facility to meet incremental demand. In either scenario, the cost of using the existing facility to meet additional demand was unavoidable.²²¹

While earlier decisions applying criterion (b) in its previous form may provide guidance, it is the language of the QCA Act that is paramount (Overview—Chapter 2). DBCT Management made similar comments in its submission to the QCA.²²²

The QCA considers that criterion (b) is concerned with the question of whether the facility for the service has natural monopoly characteristics (i.e. whether there are economies of scale such that total foreseeable demand would be met at least cost by the facility in question, compared to any two or more facilities). The Explanatory Notes to the Queensland Competition Authority Amendment Bill 2018 (Qld) state:

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²¹⁸ DBCT Management, sub. 1, p. 35, paras 169, 170.

 $^{^{219}}$ In the matter of Fortescue Metals Group Limited [2010] ACompT 2.

²²⁰ DBCT Management, sub. 1, p. 35, para. 171.

²²¹ In the matter of Fortescue Metals Group Limited [2010] ACompT 2 [907].

²²² DBCT Management, sub 13, pp. 9–10.

The changes made to the access criteria by the Bill will also assist in ensuring Queensland's access regime continues to be easily understood and addresses the economic problem of natural monopoly in markets for infrastructure services.²²³

An approach which focuses only on identifying the incremental costs to society is less likely to reveal whether the facility for the service has the requisite natural monopoly characteristics and is not, in the QCA's view, consistent with the proper construction of s. 76(2)(b) of the QCA Act. Rather, the QCA considers all costs to be relevant to the 'least cost' analysis.

However, where the least cost calculation results in the same costs being considered under both scenarios (thereby cancelling each other out), it is not necessary to go through the process of quantifying those costs. The QCA considers this is consistent with the Tribunal's decision in the *Pilbara* matter, where the Tribunal excluded sunk costs in its cost comparison because it was not necessary to quantify costs where they cancel each other out.

DBCT Management considered that 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.²²⁴ HoustonKemp submitted that 'an assessment of the least cost means by which to serve foreseeable demand can objectively be made by reference to the option of using any facility, whether inside or outside the market'.²²⁵

In contrast, the DBCT User Group submitted that it is entirely inappropriate and an error of law to include existing coal terminals, which are not substitutable services, in the least cost analysis.²²⁶

The QCA considers that s. 76(2)(b) is concerned with estimating the costs of satisfying total foreseeable demand in the market. As such, the QCA considers that those costs associated with accessing an alternative terminal are not a relevant consideration, if such costs are not incurred in meeting foreseeable demand in the relevant market.

The QCA is of the view that this application of criterion (b) is consistent with a test that focuses on the natural monopoly characteristics of the relevant facility. This approach is consistent with the Tribunal's approach in the *Pilbara* matter. In that instance, the Tribunal accounted for all relevant costs associated with meeting demand in the relevant market.

Price versus cost

The QCA notes that there may be a range of ways to undertake an analysis of what facility or combination of facilities satisfies total foreseeable demand at least cost. However, to the extent that a uniform access price reflects a building block methodology of all factors relevant in the provision of a service (including a return on sunk costs), the QCA considers that the price for the use of a facility is a suitable proxy for the cost of meeting demand using that facility.

Application of the QCA's methodology in the draft recommendation

In the draft recommendation, the QCA's least cost assessment compared the average supply chain costs for a mine in the Goonyella system of accessing an expanded DBCT to the costs of accessing alternative available facilities.

²²³ Queensland Competition Authority Amendment Bill 2018 (Qld), Explanatory Notes, p. 2.

²²⁴ DBCT Management, sub. 1, p. 37, para. 182.

²²⁵ DBCT Management, sub. 38, p. 75.

²²⁶ DBCT User Group, sub. 46, pp. 53–56.

The QCA received submissions from stakeholders stating that the QCA had not undertaken the least cost analysis in accordance with the methodology outlined in the QCA's staff issues paper. In response to this, the QCA has revised its assessment of least cost to ensure consistency with the approach in that paper—as further outlined below.

Consideration of the alternative terminal

In response to the QCA's draft recommendation, DBCT Management argued that the QCA should compare the cost of an expanded DBCT meeting total foreseeable demand with the cost of a combination of DBCT in its existing form and RG Tanna in its existing form.²²⁷

The QCA acknowledges that the least cost analysis should compare the cost of an expanded DBCT meeting total foreseeable demand with the cost of an unexpanded DBCT and an alternative facility meeting total foreseeable demand.

However, having considered stakeholder submissions in response to the draft recommendation, the QCA has concluded that s. 76(2)(b) requires the alternative facility to be a facility within the relevant market. The Explanatory Memorandum to the amendments to Part IIIA of the Competition and Consumer Act 2010 (Cth) (CCA) states:

12.29 Broadly, the alternative scenarios to be considered will depend on whether there is a substitute service provided by another facility. Different alternative scenarios could be considered based on whether there are existing substitutable services or not, for example:

- if there is a substitute service provided by another facility there are, broadly, two potential alternative scenarios: the two substitute facilities share total foreseeable market demand; or a third facility is built to provide part of total foreseeable market demand; or
- if there is not a substitute service provided by another facility there may only be one potential alternative scenario, that is the duplication (or partial duplication) of the facility.

The QCA considers that such an interpretation would be consistent with s. 76(2)(b) of the QCA Act. The QCA views the reference in the Explanatory Memorandum to a 'substitute service' as a reference to a service provided in the same market as the service being considered for declaration. This is consistent with the text of the statute, which speaks of meeting total foreseeable demand 'in the market'.

The QCA considers that there are no close substitutes to DBCT's coal handling service for mines within the Goonyella system (section 2.4). Given this, the QCA is of the view that criterion (b) requires a comparison of the cost of meeting total foreseeable demand using an expanded DBCT facility versus the cost of meeting total foreseeable demand using the existing DBCT facility and a duplication (or partial duplication) of DBCT. This is the primary basis on which the QCA has approached criterion (b). Nonetheless, for completeness, the QCA has also considered the cost of meeting foreseeable demand using facilities outside of the relevant market further below.

Consideration of supply chain costs

In considering the cost of meeting foreseeable demand using facilities outside of the relevant market (i.e. AAPT, RG Tanna and WICET), the question arises whether costs of meeting total foreseeable demand are only those costs associated with the use and expansion of coal terminals, or whether they include costs associated with the use and expansion of the supply chain more generally.

²²⁷ DBCT Management, sub. 26, p. 13.

The Tribunal, in decisions applying criterion (b) in its previous form, has moved between a 'net social benefit' test (which takes into account all costs and benefits to the community as a whole) and a 'natural monopoly' test (which focuses on production costs associated with the facility for the service). The first approach would appear to permit consideration of supply chain costs, while the second suggests a narrower inquiry. However, both approaches were superseded by the decisions of the Full Federal Court and High Court in relation to the Pilbara rail infrastructure (which endorsed a 'private profitability' test) and the subsequent amendment of criterion (b).

Higher transportation costs associated with the use of more distant facilities is one of the reasons why, in the QCA's view, other coal terminals are not operating in the same market as DBCT. However, if other facilities are to be considered, the comparison of the different options must still be directed towards ascertaining whether DBCT has natural monopoly characteristics. If supply chain costs are ignored, there is a risk that other facilities may appear less costly in circumstances where, from the perspective of users, total demand in the market would in fact be met at least cost by expanding the facility for the service, rather than using a more distant facility. For this reason, in considering the cost of using alternative facilities, the QCA has taken supply chain costs into account.

Consideration of total cost versus average cost

In response to the QCA's draft recommendation, DBCT Management argued that the QCA made a fundamental error in assuming that an 'average cost' standard is the same as a 'total cost' standard. DBCT Management submitted:

The QCA purports to adopt a 'total cost' standard for its least cost analysis. However, its least cost analysis employs an 'average unit cost' standard. The QCA makes a fundamental error in assuming that an 'average cost' standard is the same as a 'total cost' standard. As a result, the QCA's least cost analysis proceeds on an illogical basis with an incorrect and unreasonable conclusion.²²⁸

The QCA notes that criterion (b) refers to meeting total foreseeable demand in the market 'at least cost compared to any 2 or more facilities'.²²⁹ Therefore, in assessing whether an alternative terminal is able to meet foreseeable demand at a lower cost, the QCA considers that criterion (b) refers to the costs of the whole facility, rather than the cost of that part of the alternative facility that is needed to meet the incremental demand that cannot be satisfied by the facility for the service in its existing form.

The QCA considers a total cost assessment is appropriate for assessing least cost. Using the average supply chain cost only captures the capital costs associated with the proportion of capacity used at an alternative terminal to meet total foreseeable demand.²³⁰ The QCA is of the view that this application of criterion (b) is not consistent with a test that focuses on the natural monopoly characteristics of the relevant facility.

²²⁸ DBCT Management, sub. 26, p. 39, para. 168.

²²⁹ See s. 76(2)(b)(ii) of the QCA Act.

²³⁰ If an average capital cost (per tonne) is adopted to estimate the average costs of meeting an additional 17 mtpa, only 17 mtpa of the terminal's capacity has been considered in calculating the total capital costs. For instance, if RG Tanna has an average capital cost of \$2.59 per tonne, the average capital costs of meeting an additional 17 mtpa would be approximately \$44 million per annum (= 17 mtpa * \$2.59 per tonne). However, noting that the capital costs of an existing terminal do not vary with throughput, the total capital cost will consider the costs associated with total terminal capacity, not just the proportion of the capital used. That is, if the terminal capacity of RG Tanna is 75 mtpa, the total capital cost of RG Tanna will be approximately \$194 million per annum (= 75 mtpa * \$2.59 per tonne).

HoustonKemp submitted that the QCA's assessment of least cost is distorted, as it:

- ignores the sunk costs associated with other terminals when considering scenarios under which DBCT meets all foreseeable demand
- takes into account the sunk costs associated with other terminals when considering scenarios under which some foreseeable demand is met at those other terminals.²³¹

As such, DBCT Management considered that the QCA's approach is contrary to commonly understood microeconomic principles and the Tribunal's decision in the *Pilbara* matter.²³²

As discussed above, the QCA considers that those costs associated with accessing an alternative terminal are not a relevant consideration where they are not incurred in meeting foreseeable demand in the relevant market. The QCA is of the view that it is appropriate to consider only those costs incurred in meeting total foreseeable demand in each of the comparative total cost scenarios.

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²³¹ DBCT Management, sub. 26, appendix 1, pp. 24, 28.

²³² DBCT Management, sub. 26, p. 39.

Box 4: Responding to GHD's average supply chain cost comparison

In response to the QCA's draft recommendation, DBCT Management's consultant, GHD estimated the average supply chain costs of an expanded DBCT to be higher than the equivalent costs of a combination of an unexpanded DBCT and the existing RG Tanna terminal meeting total foreseeable demand in the market.

The QCA has moved away from an approach to 'least cost' that compares the average supply chain costs of meeting total foreseeable demand using different terminals. However, for completeness, the QCA presents the average (per unit tonne) supply chain costs of providing capacity equal to that provided by the Zone 4 and 8X expansions of DBCT (Table 11). This compares the average supply chain costs of using an expanded DBCT with the costs of using the existing DBCT facility in combination with another terminal.

Table 11 Average supply chain costs of meeting demand in the market using other terminals

Relevant terminal	DBCT (\$/t)	Other terminal (\$/t)	Average cost (\$/t)	
DBCT expanded	12.80 (for 102 mtpa)	-	12.80	
DBCT existing and AAPT	11.96 15.52 (for 85 mtpa) (for 17 mtpa)		12.55	
DBCT existing and RG Tanna	11.96 (for 85 mtpa)	15.73 (for 17 mtpa)	12.58	
DBCT existing and WICET	11.96 (for 85 mtpa)	25.22 (for 17 mtpa)	14.17	

Note: Capital and operating costs are estimated with respect to the averaged costs of meeting 17 mtpa.

The QCA notes that under this approach, the least cost option for meeting total foreseeable demand would involve exporting through the existing DBCT terminal and AAPT. However, aside from the QCA's calculation of the costs of accessing alternative terminals being conservative (as explained in Appendix A), the QCA notes that this cost comparison does not account for the fact that there is currently no available capacity at RG Tanna or AAPT.

The QCA considers that, if this was the appropriate approach to the 'least cost' analysis, a proper analysis would require consideration of the costs associated with expanding RG Tanna and AAPT and the relevant rail infrastructure, as well as the increased below-rail costs for accommodating increased traffic. As outlined by Glencore Coal's consultant:

GHD does not appear to address the issue of the non-recognition of additional rail costs for using RGTCT, including the costs to construct physical infrastructure to gain incremental capacity in the other systems where constraints currently exist to limit capacity.²³³

The QCA notes that while the additional terminal and below-rail costs associated with expanding DBCT are included in that scenario, they are not included in the scenarios involving the utilisation of other terminals; this is not a like-for-like comparison. For instance, where the below-rail expansion cost is not included in the average supply chain cost comparison (noting that an expansion of the Goonyella below-rail system would be required regardless of which terminal is

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²³³ Glencore Coal, sub. 43, annexure A, p. 22.

used to meet total foreseeable demand in the relevant market), an expanded DBCT becomes the least cost option (\$12.35²³⁴) when compared to the other terminals, which is conservative given this cost comparison does not consider relevant expansion costs at other terminals.

2.8.2 Calculation of 'least cost'

The QCA considers an expanded DBCT can meet total foreseeable demand in the market at least cost compared with the existing DBCT facility and an alternative facility.

The existing DBCT facility

The QCA considers that expanding DBCT's capacity to 102 mtpa (equivalent to the Zone 4 and 8X expansions) will be sufficient to meet total foreseeable demand in the market (section 2.7). Thus, the least cost assessment will be directed to determining whether DBCT (in this expanded form) can meet total foreseeable demand at least cost compared with DBCT (in existing form) and an alternative facility.

As outlined in section 2.4, the average supply chain cost for a mine in the Goonyella system to access DBCT is substantially cheaper than that for accessing other terminals—with a cost difference of 30 to 111 per cent. Therefore, in assessing the least cost of meeting total foreseeable demand, it is assumed that the first 85 mtpa of demand will be met by DBCT's existing facility, given it is the cheapest option available to customers in the market.

Given that each scenario relies on the existing DBCT facility meeting 85 mtpa of total foreseeable demand, the costs associated with the existing DBCT facility can be excluded from the assessment of least cost as they will be incurred in both scenarios. Thus, the following cost assessment focuses on whether the remaining foreseeable demand can be provided at lower cost by expanding DBCT or by an alternative facility.

The likely costs associated with meeting the additional demand have been considered for:

- an expansion of the DBCT facility (the facility)
- a duplication of the DBCT facility (the alternative facility)
- other alternative terminals that are not substitutes in the market, for completeness.

An expansion of the DBCT facility

The QCA's view is that for total foreseeable demand in the market to be met by DBCT, the Zone 4 and 8X expansions are required (section 2.7). Additionally, as per Aurizon Network's 2016–17 Network Development Plan, DBCT's Zone 4 and 8X expansions would require expanding the capacity of the Goonyella system to accommodate the higher tonnage. DBCT Management's consultant, HoustonKemp, provided capital cost estimates for these expansions which equate to a capital cost of \$1,460 million.²³⁵

Therefore, in assessing whether DBCT could meet the total foreseeable demand in the market at the least cost compared to any two or more facilities, the following costs of expanding DBCT and the Goonyella system (Appendix A) are relevant:

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²³⁴ This figure is calculated by excluding the below-rail expansion costs when calculating the overall DBCT supply chain cost i.e. \$12.80 - (\$2.56 - \$2.11) = \$12.35. Refer to Appendix A, Tables A.3 and A.7.

²³⁵ See Appendix A, Table A.5. See also DBCT Management, sub. 1, appendix 10, pp. 40, 67.

- The capital costs associated with expanding DBCT equate to an annual cost of \$98 million (\$96 million in 2017–18 dollars)²³⁶ for the additional 17 mtpa.
- The infrastructure-based expansion costs and increased operating and maintenance expenditures in the Goonyella system equate to an annual cost of \$108 million.²³⁷

It is assumed that the other coal supply chain costs remain unchanged.

A duplication of DBCT

The QCA considers that an expanded DBCT would be able to meet total foreseeable demand in the market at least cost compared to DBCT in existing form and a duplicated, or partially duplicated, facility.

A comparison of costs between an expansion of DBCT and a duplication of DBCT only requires consideration of the costs associated with meeting an additional 17 mtpa of demand. That is, the QCA must consider whether a duplication, or partial duplication, of DBCT can be provided for less than the capital costs of \$1,460 million associated with expanding DBCT to meet an additional 17 mtpa.

Clearly, a fully duplicated facility providing 85 mtpa would not be able to be developed for \$1,460 million. For example, the QCA observes that the development of the WICET terminal to provide 27 mtpa cost approximately \$5,000 million and the 11 mtpa expansion of HPCT to 55 mtpa equated to a capital cost of \$3,000 million.²³⁸

Relevantly, the QCA notes that a full duplication of the DBCT facility will overstate the costs required to meet an additional 17 mtpa of demand in the market. Rather than contemplating the construction of an 85 mtpa capacity terminal to meet an additional 17 mtpa of demand, it is more appropriate to consider a partial duplication of the facility in assessing the cost of meeting total foreseeable demand using an alternative facility.

In doing so, the QCA has considered whether servicing foreseeable demand in the market using more than one terminal will result in greater costs than if serviced solely by an expanded DBCT.

Given the long life, high cost and sunk nature of infrastructure assets associated with developing a coal terminal, the QCA notes that the economies of scale of a coal terminal are significant. That is, as output of the terminal increases, the terminal's large upfront capital expenditure will be averaged across a larger volume of output, reducing average costs for the users of the terminal. These characteristics are normally typical of coal terminals (Table 12), with larger coal terminals likely to capitalise on economies of scale, up to a certain level of output.

Table 12 Capacity and average capital costs of alternative coal terminals servicing the CQCN

Terminal	Capacity (mtpa)	Capital cost (\$/t)		
RG Tanna	75	2.59		
AAPT	50	5.52		
WICET	27	7.33		

Note: Appendix A contains the QCA's assumptions and methodology for differentiating between the capital and operating costs of the terminals.

²³⁶ See Appendix A.

²³⁷ See Appendix A.

²³⁸ DBCT Management, sub. 13, p. 13.

In this regard, the Zone 4 and 8X expansions at DBCT are able to capitalise on the economies of scale of the larger existing facility. While an expansion capitalises on the upfront capital expenditure already incurred, a duplication cannot. Instead, the capital expenditure would be duplicated, suggesting servicing foreseeable demand in the market from more than one terminal will result in greater costs than if supplied solely by DBCT.

While a duplication will have the effect of duplicating the large upfront fixed costs, the QCA acknowledges that operating costs may be lower with a duplication. However, no evidence has been provided to suggest that the 8X expansion will increase operating costs to the extent that it would make a duplication cost efficient.

DBCT Management's 2018 Master Plan states:

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.²³⁹

The economies of scale resulting from the expansion of an existing facility, compared to the significant capital costs of developing a duplicate facility, are clearly indicative that a partial duplication is not cost efficient and that an expanded DBCT is able to meet foreseeable demand at least cost.

The DBCT User Group considered the Dudgeon Point development as part of its least cost analysis.²⁴⁰ While the proposed Dudgeon Point Coal Terminal was to be located at the Port of Hay Point, the project's status as a 'coordinated project' was cancelled by the Coordinator General in 2014.²⁴¹ Although the DBCT User Group, and its consultant PwC, estimated that the Stage 1 development cost of Dudgeon Point would have been in excess of \$4 billion²⁴², the QCA notes that accurate information on the cost of developing the Dudgeon Point Coal Terminal is not publicly available.

Further, the 2012 cost estimates appear to be based on previous cost assumptions, some of which are outdated. For instance, the DBCT User Group noted that the *Sustainable Ports Development Act 2015* (Qld) has since been enacted, and would actually prohibit the use of the existing dredging spoil ground identified in the Initial Advice Statement for Dudgeon Point Coal Terminal—'such that the anticipated 11-15 million cubic metres of dredging material would need to be disposed onshore (at significant higher cost)'.²⁴³ The QCA has therefore not relied on previous estimates of the costs of developing this terminal.

In considering the capital costs of other pre-existing terminals as a proxy for a duplicated facility, the QCA notes that these terminals do not reflect the scale and site characteristics associated with the construction of a partial duplication. As such, the QCA has not relied on the capital costs associated with constructing these existing terminals in considering the likely costs of a duplication (or partial duplication).

While the relevant facility, as defined in s. 250(5) of the QCA Act, refers to the port infrastructure associated with the handling of coal at DBCT, the QCA notes that additional

²⁴⁰ DBCT ²⁴¹ As no

²³⁹ DBCT Management, Master Plan 2018, p. 54.

²⁴⁰ DBCT User Group, sub. 46, p. 54.

²⁴¹ As noted in Overview—Chapter 2, it is questionable whether the natural monopoly characteristics of the facility for the service would be properly identified or assessed if, for example, the existing facility was to be compared with two or more facilities which could not, in any feasible scenario, meet any part of this foreseeable demand.

²⁴² DBCT User Group, sub. 46, schedule 2, p. 22.

²⁴³ DBCT User Group, sub. 3, p. 25.

ancillary infrastructure is also required in order to access the port handling services.²⁴⁴ This would likely result in additional costs being incurred.

For the reasons outlined above, the QCA considers that an expanded DBCT is able to meet total foreseeable demand in the market at least cost compared to the existing DBCT facility and a duplicated (or partially duplicated) facility.

Other facilities that are not in the market

The QCA has approached criterion (b) on the basis that it requires consideration of the cost of meeting total foreseeable demand using only those facilities that are supplying services in the relevant market. However, for completeness, the QCA has also given consideration to the cost of meeting total foreseeable demand using RG Tanna, AAPT and WICET.

In considering the extent to which other terminals could meet foreseeable demand, undertaking a total cost assessment requires considering the costs of the whole facility in meeting foreseeable demand, rather than just the costs associated with the capacity of the terminal required to meet the demand that could not be met using the existing capacity of DBCT.

Noting that the capital cost component of a terminal will not vary with contracted tonnes, the QCA considers that such an approach requires consideration of the entire capital cost of that terminal. It is therefore necessary to differentiate between the capital and operating costs of the terminals that may be able to satisfy total foreseeable demand (see Appendix A).

In addition to the terminal costs, other costs associated with supply chain components are incurred in accessing the various terminals. These supply chain components do not form part of the port infrastructure associated with the handling of coal, as referred to in defining DBCT, in s. 250(5) of the QCA Act. However, the QCA notes that:

- alternative ports are not accessible to users in the market without additional supply chain infrastructure
- the different costs for accessing these alternative ports will contribute to the costs of meeting demand in the market.

Thus, the QCA considers these supply chain costs to be a relevant consideration in assessing whether servicing the additional demand in the market from an alternative terminal will result in greater costs than if supplied solely by an expansion at DBCT.

The QCA has estimated the terminal capital costs (fixed) and variable costs including other supply chain costs associated with meeting total foreseeable demand using other facilities outside of the relevant market. In considering the equivalent capacity provided by the Zone 4 and 8X expansions of DBCT (i.e. 102 mtpa), the QCA estimates that a DBCT expansion would provide this level of capacity at a lower cost than other terminals (Table 13). For the reasons outlined in Appendix A, the QCA considers the cost estimates for the alternative terminals to be conservative.

supplied solely by DBCT.

²⁴⁴ The QCA notes that the infrastructure-based expansion costs in the Goonyella system that will need to be incurred to service an expansion of DBCT will also be incurred where the additional demand is met by a duplicated facility. However, additional ancillary infrastructure (such as shipping channel infrastructure) would be required to service a duplicated facility, which would not be required for an expansion to the existing terminal. Again, this suggests that servicing foreseeable demand in the market from more than one terminal will result in greater costs than if

Table 13 Total supply chain cost of meeting 17 mtpa of demand using alternative terminals (2017–18 dollars)

Relevant terminal	Terminal capital costs (\$ million/ annum)a	Variable costs (\$ million/annum) ^b	Total (\$ million/annum)	Cost difference relative to DBCT expanded (%)
DBCT expanded	96	227	323	-
AAPT	276	170	446	+38%
RG Tanna	194	223	418	+29%
WICET	198	304	502	+55%

a Capital costs for AAPT, RG Tanna and WICET are estimated with respect to total terminal capacity based on data reported in Table 12.

b Variable costs are estimated with respect to meeting 17 mtpa of demand.

The much larger costs of accessing the services provided by the alternative terminals stems from, amongst other things, the larger scale of these terminals and their location—which requires transporting the coal greater distances in order to access these terminals.

Relevantly, adjoining below-rail and shipping channel infrastructure (which has not been considered when assessing the capital cost of terminal infrastructure to provide coal handling services) also exhibits considerable economies of scale—resulting from the high cost and sunk nature of this infrastructure. These characteristics will contribute to, and likely enhance, the extent to which it is cost efficient for a single terminal to meet total foreseeable demand in the market

The QCA's cost estimates are based on the assumption that the additional supply chain costs associated with accessing alternative terminals are variable with contracted volumes. Such an assumption reflects the fact that other markets, outside of the relevant market, also utilise the below-rail and shipping channel infrastructure.

In assessing the costs of meeting demand in the market, it is not clear to the QCA that the utilisation of below-rail or shipping channel infrastructure by users outside of the relevant market is a relevant consideration. As such, there may be merit in considering the total capital costs of the supply chain and not simply the proportion used by the relevant market.

However, the QCA notes that taking such an approach to estimating supply chain costs would be unrealistic, given the configuration of the below-rail and shipping channel infrastructure. The associated costs would be significantly different if it were to only service the relevant market. The QCA also notes that cost information is not sufficiently disaggregated to estimate the total supply chain costs that would be incurred by a Goonyella user accessing either RG Tanna, WICET or AAPT.

If such an approach were able to be adopted, this would significantly increase the supply chain costs of accessing the alternative terminals, given the high cost and sunk nature of the relevant infrastructure.

Treatment of expansions beyond 102 mtpa

The QCA has assessed that expanding DBCT's capacity to 102 mtpa will be sufficient for DBCT to meet total foreseeable demand in the market. However, the QCA considers that, from the information available, should a further expansion be required in future to meet some additional demand, an expanded DBCT facility providing capacity beyond 102 mtpa would likely be able to meet total foreseeable demand at least cost compared to two or more facilities.

In considering the costs associated with expanding beyond 102 mtpa, the QCA notes that there is limited visibility of the costs required to be incurred. DBCT Management's 2018 Master Plan provides cost breakdowns for the Zone 4 and 8X expansions. However, a similar breakdown was not provided for the 9X expansions in this master plan.²⁴⁵ In its submissions to the QCA, DBCT Management said that the capital cost of each 9X stage would range between \$1.5 billion to \$2 billion.²⁴⁶

HoustonKemp provided the total capital costs associated with each stage of DBCT's 9X expansions, with Phase 1 costing approximately \$1.74 billion.²⁴⁷ The DBCT User Group's consultant, PwC, said that there were discrepancies between these figures and those provided in the 2017 Incremental Expansion Study DAAU.²⁴⁸ Due to the limited information available, the QCA is unable to accurately estimate the costs that may be incurred in relation to such an expansion and, as such, has not sought to model these costs.

A duplication of DBCT

Despite uncertainty in relation to costs, a DBCT expansion beyond 102 mtpa would continue to capitalise on the economies of scale of the existing facility. This ability to capitalise on the existing DBCT infrastructure when expanding suggests the costs would be lower compared to those associated with constructing an entirely new and separate facility. As there is no requirement to undertake the entire 9X expansion (to provide capacity up to 136 mtpa) if this level of capacity is not required, a smaller scoped expansion—or alternatively Phase 1 of the 9X expansion—could be undertaken. This type of scoped expansion would likely incur less costs than those associated with the construction of a new facility. Furthermore, an expansion at DBCT would also avoid investment in additional ancillary infrastructure that would otherwise be required to service a duplicated facility.

The QCA acknowledges the possibility that operating costs may potentially be lower with a duplication, noting that it appears that the economies of scale at DBCT may begin to diminish with further expansions of the terminal. However, the potential exists for significant capital costs to be avoided. There is also a lack of evidence to suggest that a further expansion beyond 102 mtpa would increase operating costs to the extent that it would make a duplication more cost efficient. Indeed, the fact that DBCT Management is considering the 9X expansion over a duplication suggests that this is likely to be a more viable development option.

Alternative terminals that are not in the market

For completeness, the QCA has briefly considered the use of alternative terminals to accommodate demand beyond 102 mtpa, despite these not being close substitutes in the market.

The QCA would expect the total costs of an expansion of DBCT beyond 102 mtpa to be less than the total cost associated with utilising a terminal outside of the market. The higher costs of accessing these alternative terminals—stemming from the larger scale of these terminals and

²⁴⁵ The QCA notes that high level cost breakdowns for the 9X expansion were provided in DBCT Management's 2019 Master Plan. However, as discussed in section 2.7, the QCA considers it appropriate to assess the expansion options outlined in DBCT Management's submissions to the QCA on the declarations review (which mirror its 2018 Master Plan). The costs in the 2019 Master Plan do not align with this expansion pathway. In any case, the costs presented in the 2019 Master Plan are less than those in DBCT Management's submissions such that the QCA's conclusions still hold.

²⁴⁶ DBCT Management, sub. 1, p. 41, para. 199.

²⁴⁷ DBCT Management, sub. 1, appendix 10, p. 40.

²⁴⁸ DBCT User Group, sub. 15, schedule 1, p. 18.

their location in relation to Goonyella system users generally, amongst other things—suggest that these terminals would be unable to meet the additional demand at a lower cost.

2.9 Conclusion on criterion (b)

Following consideration of stakeholder comments and the QCA's analysis, the QCA's view is that criterion (b) is satisfied.

DBCT services the demand for coal handling services in the Goonyella system. In this market, there are no close substitutes for the coal handling service provided by DBCT.²⁴⁹ DBCT could meet the total foreseeable demand in this market over a 10-year period (following an expansion) at least cost compared to any two or more facilities.

²⁴⁹ HPCT, which is a vertically integrated facility without open access, is discussed in Appendix B.

3 CRITERION (A)—PROMOTE A MATERIAL INCREASE IN COMPETITION

3.1 Introduction

Section 76(2)(a) of the QCA Act is expressed 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

The key matters in respect of s. 76(2)(a) for the DBCT service are summarised below.

Table 14 Summary of key positions—s. 76(2)(a) of the QCA Act

Criterion (a)				
Issue	DBCT Management	Other stakeholders	QCA final recommendation	
That access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration of the service would promote a material increase in competition in at least 1 market, other than the market for the service	Access to DBCT on reasonable terms and conditions will not promote a material increase in competition in any dependent market	Declaration promotes a material increase in competition in the market for exploration and development coal tenements in the Hay Point catchment	Criterion (a) is not satisfied	
Identify markets other than the market for the DBCT service (dependent markets)	Dependent markets include: mining authorities market (coal tenements market) coal haulage services market coal export markets below-rail services market specialist mining services market	Dependent markets include: coal tenements market coal haulage services market DBCT secondary capacity trading market coal export markets rail access market mining inputs and services markets	See section 3.2	
DBCT Management's ability and incentive to exercise market power: with and without declaration	Without declaration, DBCT Management's ability and incentive to exert market power would be constrained by several factors, including: • competition from other coal export terminals • threat of declaration • alternative access arrangements (deed poll	Without declaration, DBCT Management would be able to exert market power because of several factors, including: • no competition from other coal export terminals • threat of declaration is not a constraint	Access arrangements in the absence of declaration, in the form of the executed deed poll and access framework, combined with the threat of declaration, constitute a constraint upon DBCT Management's ability to exercise market	

Criterion (a)					
	and access framework)	deed poll and access framework do not impose a constraint	power See section 3.3		
Whether 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 the:					
Coal tenements market(s)	Declaration would not promote competition The deed poll and access framework, including the \$3 per tonne price difference cap, ensures there would be no material impact on competition in dependent markets without declaration	Declaration would promote competition Without declaration, there will be unequal access terms between existing users and new entrants, which will affect competition	The QCA is not satisfied that declaration would promote a material increase in competition in the following functionally distinct tenements markets: • development stage tenements • exploration stage tenements • operating mines See section 3.4 and Part C, Chapter 4		
Coal export market	Declaration would not promote competition Coal markets are effectively competitive, terminal charges are a small proportion of metallurgical coal price and access framework ensures no difference in volume exported compared to declaration	Declaration would potentially promote competition in the metallurgical coal market	The QCA is not satisfied that declaration would promote a material increase in competition in the metallurgical coal export market See section 3.4 and Part C, Chapter 5		
Coal haulage services market	Declaration would not promote a material increase in competition Access framework ensures no difference in coal volume, so same haulage services would be required as with declaration	Declaration would promote a material increase in competition in the central Queensland coal region rail haulage market Declaration would improve the environment for new entry	The QCA is not satisfied that declaration would promote a material increase in competition in the coal haulage services market in the Goonyella system See section 3.4 and Part C, Chapter 6		
DBCT secondary capacity trading market	Declaration would not promote a material increase in competition Standard user agreement limits ability to refuse consent to a transfer; the access framework provides	Declaration would create conditions for improving competition in the secondary trading market Without declaration, protections against anticompetitive impacts of	The QCA is not satisfied that declaration would promote a material increase in competition in the DBCT secondary capacity trading market		

Criterion (a)					
	protections; and market is derivative of coal export market	future vertical integration are removed	See section 3.4 and Part C, Chapter 7		
Rail access market	Declaration would have no impact on competition	Identified as a market in which competition may be promoted	The QCA is not satisfied that declaration would promote a material increase in competition in the rail access market See section 3.4 and Part C, Chapter 8		
Other markets (for example, port services, shipping services, mining services)	Declaration would have no impact on competition	Identified as markets in which competition may be promoted	The QCA is not satisfied that declaration would promote a material increase in competition in these other markets. See section 3.4 and Part C, Chapter 9		

This chapter is structured as follows:

- identify the market for the service and relevant dependent markets (section 3.2).
- assess whether DBCT Management would be constrained from exercising market power in the absence of declaration (section 3.3).
- assess the environment for competition in relevant dependent markets in a future with and without declaration (section 3.4 and Part C, Chapters 4–9).
- set out the QCA's conclusions in respect of criterion (a) for the DBCT service (section 3.5).

3.2 Market for the service and relevant dependent markets

Criterion (a) requires identification of at least one market other than the market for the service.

The service is the handling of coal at DBCT by the terminal operator, and the market for the service is the market for DBCT's coal handling service in the Goonyella system (see Part C, Chapter 2).

Stakeholders identified the following dependent markets as separate from the market for the coal handling service at DBCT:

- the coal tenements market
- the coal export market
- the coal haulage services market (above-rail services)
- the DBCT secondary capacity trading market
- the rail access market (below-rail services)
- a number of other markets such as port services (e.g. pilotage and towage services); coal shipping services; and various mining inputs and services markets (such as geological and

drilling services, construction services, mining safety services, and mining technology services).²⁵⁰

DBCT Management and the DBCT User Group collectively focused on the effect of declaration on competition in the coal tenements market, coal export market, coal haulage services market and the DBCT secondary capacity trading market. However, the QCA considers that all the markets listed above are relevant for this assessment, and has assessed the environment for competition with and without declaration in each of these dependent markets. The markets listed above are similar to those considered by the NCC in the Port of Newcastle Operations matter (*PNO declaration revocation* matter).²⁵¹ Criterion (a) requires the QCA to be satisfied that there is at least one dependent market where access (or increased access) to the DBCT service as a result of declaration of the service would promote a material increase in competition.

3.3 Whether DBCT Management would be constrained from exercising market power in the absence of declaration

It is relevant to first assess if there are any effective constraints on DBCT Management's ability and incentive to exercise market power in the absence of declaration before assessing the environment for competition in dependent markets in a future with and without declaration.

Stakeholders submitted opposing views on whether DBCT Management's ability and incentive to exert market power in the absence of declaration would be constrained by the following factors:

- potential competition from other coal export terminals
- countervailing power of users
- DBCT Management's lease arrangement with the state
- DBCT Management not being vertically integrated
- the threat of declaration or regulation
- likely access arrangements in the absence of declaration.

3.3.1 Competition from other coal export terminals

Stakeholder submissions

DBCT Management said that DBCT is exposed to competition from other coal terminals—HPCT, AAPT, RG Tanna and WICET. DBCT Management submitted that, if differentiated pricing were to apply to an expansion at DBCT, the cost of accessing DBCT would be similar, and possibly greater, than the cost of accessing RG Tanna. With DBCT fully contracted and an expansion required at DBCT, it said there is a real prospect that DBCT Management will be constrained by RG Tanna.²⁵²

²⁵⁰ DBCT Management, sub. 1, p. 74; DBCT User Group, sub. 3, p. 40.

²⁵¹ National Competition Council, Revocation of the declaration of the shipping channel service at the Port of Newcastle, Recommendation, 22 July 2019.

²⁵² DBCT Management, sub. 1, pp. 9, 82–84, sub. 38, p. 42–44, sub. 26, schedule 7.

The DBCT User Group, taking an opposite view, identified a range of price and non-price constraints that it argued would mean that users of the DBCT service would not switch to other export terminals.²⁵³

QCA analysis

The QCA has assessed whether other coal export terminals are a close substitute for the service in relation to criterion (b) (see Part C, Chapter 2). The QCA's view is that coal handling services at other coal export terminals are not close substitutes for the DBCT service due to cost factors (for instance, relative supply chain costs and mine-specific costs) and non-cost factors (including product characteristics such as co-shipping and blending that may differentiate the coal handling services at DBCT). It has not been demonstrated that capacity is available at other coal handling terminals, other than at WICET, which is significantly more expensive. Therefore, other coal export terminals cannot be regarded as close substitutes for DBCT; hence, the QCA's view is that other terminals would not provide a competitive constraint on DBCT Management's behaviour towards mines in the Goonyella system seeking terminal access.

3.3.2 Countervailing power of users

Stakeholder submissions

DBCT Management said that the presence of viable alternative coal handling facilities provided miners with a significant degree of countervailing power, as users:

- could switch (or threaten to switch) if DBCT Management did not offer access on reasonable terms
- have the ability to support the expansion of other facilities such as HPCT, AAPT, RG Tanna and WICET.²⁵⁴

DBCT Management also said that it faces a potentially significant drop-off in contracted capacity, as user agreements that account for approximately 91 per cent of the existing contracted capacity at DBCT are due to expire by 2024. DBCT Management argued that:

users could make credible threats to withdraw from negotiations with DBCT Management and utilise other coal terminals, and such bargaining power will constrain DBCT Management's conduct in the future without declaration. ²⁵⁵

The DBCT User Group and Peabody submitted that given the substantial cost difference involved in using other terminals, and the substantial below-rail investment that would be required to enable switching of substantial volume away from DBCT, DBCT users did not have countervailing power against DBCT Management.²⁵⁶

QCA analysis

For DBCT users to have countervailing market power, there must be a credible threat of switching to an alternative terminal. As discussed in relation to criterion (b), the QCA does not consider that coal handling services at other coal terminals are a close substitute for the DBCT service. Therefore, all other things being equal, any threat by existing users to switch to other terminals will not be credible.

²⁵⁵ DBCT Management, sub. 1, pp. 84–85.

²⁵³ DBCT User Group, sub. 3, pp. 16–18, sub. 30, p. 64.

²⁵⁴ DBCT Management, sub. 1, p. 85.

²⁵⁶ DBCT User Group, sub. 15, pp. 89–90, sub. 30, pp. 64–65; Peabody, sub. 25, p. 4.

The QCA understands that DBCT Management's existing user agreements are considered to be 'evergreen' because existing users have the option to extend their agreements and continue to access DBCT for any mine on their portfolio based on the terms of access and volumes set out in those agreements.²⁵⁷ This includes provisions in relation to future pricing through periodic contractual price reviews based on negotiation between DBCT Management and the user and a dispute resolution mechanism for the determination of charges, for the life of the contract.²⁵⁸ Based on the 2017 access undertaking standard access agreement (SAA), these pricing provisions specify the matters the arbitrator (if not the QCA) must have regard to, including, amongst other things:

- an appropriate asset valuation
- an appropriate rate of return
- the then current approach of the QCA in respect of appropriate charges (with the intent that the arbitration should produce an outcome similar to that which might have been expected had the QCA determined it).²⁵⁹

Effectively, existing user agreements provide a mechanism to ensure that access charges are cost-reflective, with the pricing mechanism known and expected to remain unchanged for the life of the contract. Therefore, existing user agreements (both with and without declaration) will provide an effective constraint on DBCT Management's exercise of market power up to the volumes specified in those agreements. Moreover, the QCA Act provides that an access agreement entered into before expiry of declaration or revocation is protected for its life. Given this, and because there are no close substitutes for the DBCT service for mines in the Goonyella coal chain, existing users would have an incentive to continue to access DBCT up to the volumes in their agreement rather than threaten to switch to a higher-cost terminal (see Part C, Chapter 2).

In the event an existing user seeks to increase its contracted tonnage, it could do so under the terms of its existing user agreement by acquiring rights from another existing user in the secondary capacity trading market.²⁶¹ However, an existing user who is unable to obtain capacity through the capacity transfer mechanism would need to negotiate new access terms with DBCT Management, since other export terminals would not be a close substitute. This is also the case for potential new entrants seeking access to DBCT.

The QCA's view is that since other export terminals would not be a close substitute for DBCT, both existing users—in so far as they require additional capacity and are unable to obtain it through the transfer mechanism—and new entrants would have no effective countervailing power against DBCT Management in a future without declaration, in the absence of the access framework. The effect of DBCT Management's access framework on its ability to exercise market power in the absence of declaration is considered in section 3.3.6.

²⁵⁷ DBCT User Group, sub. 3, p. 63. See also clause 20 of the 2017 access undertaking standard access agreement (SAA).

²⁵⁸ DBCT Management, sub. 1, p. 63; DBCT User Group, sub. 3, p. 4.

²⁵⁹ 2017 access undertaking SAA, cl. 7.2.

²⁶⁰ The QCA Act provides that the expiry of a declaration or the revocation of a declaration of a service or part of a service does not affect (among other things), the operation of an access agreement, or a right acquired, or liability incurred, under an access agreement, that was entered into before the expiry or revocation (s. 95(c)).

²⁶¹ See, for example, 2017 access undertaking SAA, cl. 12.2, schedule 6. The QCA notes that permanent capacity transfers are associated with the sale of an existing mine. Therefore there is doubt over the extent to which existing users could secure increased access rights from other users without the sale of a mine.

3.3.3 DBCT Management's lease arrangement with the state government

Stakeholder submissions

DBCT Management argued that another constraint on its ability or incentive to exercise market power to adversely affect competition in dependent markets is its arrangements with the Queensland Government relating to the lease of the terminal.

While the arrangements are contractual arrangements between the Queensland Government (State) and DBCT Management (and DBCT Management acknowledges that the QCA has previously expressed the view that the QCA is not bound to treat the terms of DBCT Management's arrangements with the State as determinative), DBCT Management considers that being a lessee of the Terminal and its relationship with the State operate to constrain its behaviour and mean that DBCT Management cannot operate in an unfettered manner.²⁶²

The DBCT User Group said that although they understand that the Port Services Agreement (PSA) contains obligations owed by DBCT Management in favour of DBCT Holdings (a State government owned corporation) to use reasonable endeavours to submit a voluntary draft access undertaking (DAU) to the QCA:

- Other stakeholders (i.e. access seekers, access holders and rail haulage providers) are not
 parties to the PSA, which is a confidential document; therefore, non-PSA parties would not
 know and would not be able to enforce the terms of the PSA. Also, there is potential that the
 state would allow an amendment to the PSA.
- DBCT Management would control the contents of a voluntary access undertaking, as it was
 highly unlikely that DBCT Management would accept terms the QCA would consider
 appropriate and the QCA would not have the power to require DBCT Management to
 resubmit a compliant DAU if the QCA refused to approve a voluntary DAU.²⁶³

Further, the DBCT User Group said that despite the existence of the PSA, the state nevertheless considered at the time of privatisation that declaration was appropriate. Also, enforcement action would not be effective in preventing any adverse effects on competitive conditions in the coal tenements market that are likely to have occurred in the interim. The DBCT User Group considered that the lease arrangement with the state provides no constraint.²⁶⁴

QCA analysis

The PSA is an agreement between DBCT Management and the Queensland Government (through DBCT Holdings), which was entered into at the time of privatisation of the terminal in 2001. The PSA establishes the rights and responsibilities of DBCT Management with respect to the operation, management and expansion of the terminal.

DBCT Management argued that its arrangements with the Queensland Government relating to the lease of the terminal would constrain its ability and incentive to exercise market power in a future without declaration. The QCA does not consider this argument compelling for several reasons:

 Despite the existence of the PSA, the government had declared the terminal's service under Part 5 of the QCA Act for third party access.

²⁶² DBCT Management, sub. 1, p. 86, sub. 13, p. 71.

²⁶³ DBCT User Group, sub. 3, pp. 80–81, sub. 30, pp. 68–69.

²⁶⁴ DBCT User Group, sub. 30, pp. 68–69.

- The PSA is not a public document, so users would not be aware of its terms and whether they are an effective constraint on DBCT Management's conduct.
- It is possible that the parties to the PSA (i.e. DBCT Management and DBCT Holdings) could agree to amend its terms.
- If, as argued by the DBCT User Group, DBCT Management submitted a voluntary DAU to the QCA in a future without declaration, it would be considered under s. 136 of the QCA Act. Therefore, if the QCA's decision was not to approve such a DAU, the QCA would not be able to require compulsory amendment of the DAU under s. 136A, as that section applies only to a voluntary DAU for a declared service.
- Rather than relying on the terms of the PSA to provide access in a future without declaration, DBCT Management has executed a deed poll and access framework.²⁶⁵

The deed poll executed by DBCT Management provides that the state is a beneficiary (along with DBCT Holdings, access holders, access applicants and access seekers) and DBCT Management makes the covenants in the deed poll in favour of, and only for the benefit of, those parties. The QCA notes that DBCT Management has not provided any information, and the QCA has no information, on the state's view of DBCT Management's deed poll.

The QCA notes that in relation to the *PNO declaration revocation* matter, the NCC said that the NSW Government would be likely to intervene if Port of Newcastle Operations (PNO) imposed excessive price increases or other access limitations, including (among other possible means) through the terms of PNO's lease.²⁶⁶

However, for the reasons outlined above, the QCA does not consider that the PSA would constrain DBCT Management from exercising market power in a future without declaration.

3.3.4 DBCT Management is not vertically integrated

Stakeholder submissions

DBCT Management said it does not have any vertically related entity in dependent markets that it could seek to advantage through the operation of DBCT; therefore, it does not have any incentive to hinder third party access or treat any particular user differently from another so as to cause a distortion in any related markets.²⁶⁷ DBCT Management said that, in the absence of vertical integration, it had an incentive to encourage, not deter, efficient new entrants into the market for both terminal capacity and coal tenements:

More efficient entrants will have lower cost bases, and therefore greater rents. It is in DBCTM's interest to encourage these efficiencies so that it can attempt to share in those rents.²⁶⁸

DBCT Management also said that even if it was not constrained by existing user agreements and the access framework, it would still be able to charge less to inefficient incumbents than it could to an efficient new entrant with a higher capacity to pay.²⁶⁹

²⁶⁵ The deed poll is included in DBCT Management, sub. 26 at appendix 9; the access framework is included in DBCT Management, sub. 26, at appendix 11. See section 3.3.6.

²⁶⁶ National Competition Council, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, Recommendation, 22 July 2019, p. 66, http://ncc.gov.au/images/uploads/Port_of_Newcastle_-Recommendation 22.7.2019.pdf.

²⁶⁷ DBCT Management, sub. 1, pp. 6, 57, sub. 13, pp. 67, 78, sub. 26, pp. 59, sub. 38, p. 31.

²⁶⁸ DBCT Management, sub. 26, p. 59.

²⁶⁹ DBCT Management, sub. 38, pp. 44–45.

DBCT Management argued that any concerns about future vertical integration would be addressed through:

- ring-fencing provisions in DBCT Management's access framework, which include restrictions on DBCT Management and a related party owning or operating a supply chain business in a market related to the terminal
- provisions of the Competition and Consumer Act 2010 (Cth) (CCA) which prohibit arrangements and acquisitions that have the effect or likely effect of substantially lessening competition in a market.²⁷⁰

The DBCT User Group said the QCA cannot rely on DBCT Management's word that it will not vertically integrate in the future.²⁷¹ The DBCT User Group acknowledged that DBCT Management is no longer vertically integrated following the cessation of the trading business (Brookfield Port Capacity Pty Ltd (BPC)). However, it said that while a non-vertically integrated monopolist may not have the incentive to foreclose competitors in a dependent market, it still has incentives to engage in monopoly pricing and the ability to do so due to lack of constraints.²⁷²

The DBCT User Group said that DBCT occupies a bottleneck position in the coal supply chain for the Goonyella market and DBCT Management is likely to be able to earn monopoly profits by denying access to the service and/or substantially increasing the costs of access. As a commercial entity, it has an incentive to maximise profits. Peabody said it cannot be assumed that DBCT Management will always face incentives to maximise demand for use of its services, particularly where it faces capacity constraints.²⁷³

QCA analysis

In a conventional sense, whether a service provider is vertically integrated is about whether the service provider operates in markets upstream or downstream of the facility by which the services are provided—that is, whether the service provider competes with third parties in upstream or downstream markets.

The QCA understands that DBCT Management does not presently have a related party in the coal supply chain—it does not have a direct or indirect interest in above-rail services, coal mining operations or shipping services. Following cessation of BPC's trading activity in the secondary capacity trading market, DBCT Management is no longer vertically integrated into any dependent market.²⁷⁴ Based on the information before it, the QCA does not have a reasonable basis to form a view that vertical integration is likely in future and, therefore, this assessment is undertaken on the basis that the status quo will continue. The QCA notes that, should DBCT Management become (or be likely to become) vertically integrated in future, it would be open to stakeholders to apply for declaration. Stakeholders could also approach the ACCC if this involved a merger or acquisition.

The QCA recognises that the CCA would prohibit future vertical integration if it would be likely to have the effect of substantially lessening competition in a market. However, this does not address the question of whether DBCT Management would be constrained from exercising its

²⁷³ DBCT User Group, sub. 30, p. 63, sub. 46, p. 58; Peabody, sub. 47, p. 8.

²⁷⁰ DBCT Management, sub. 13, pp. 92, 94.

²⁷¹ DBCT User Group, sub. 3, p. 76, sub. 15, p. 57.

²⁷² DBCT User Group, sub. 30, p. 70.

²⁷⁴ See QCA, *DBCTM's Trading SCB DAAU*, final decision, September 2018, which approves amendments to the 2017 access undertaking to reflect the cessation of BPC's trading of capacity at DBCT.

existing market power in the absence of declaration, which is the focus of this part of the QCA's inquiry.

As a vertically separated infrastructure service provider, DBCT Management may have little incentive to foreclose particular access seekers from access to the DBCT service on the basis of favouring a related business in dependent markets. However, as there is no close substitute for the DBCT service, DBCT Management would have an incentive to maximise profits by charging more, which would not necessarily align with maximising throughput. For instance, in the absence of the access framework, DBCT Management could impose a high enough access charge that may maximise profits even if some projects become potentially unviable (see Part C, Chapter 4 (Figures 14 and 15)).

Under the above market conditions, DBCT Management, despite not being vertically integrated, would have the ability and incentive to exert market power in the absence of declaration.

The QCA also does not consider that DBCT Management would be able to encourage more efficient entrants.²⁷⁵ That would be the case if DBCT Management could price discriminate. Conceptually, DBCT Management could price discriminate between different mining projects to extract all available rents. For instance, coal mine projects with greater returns would have a higher ability to pay, allowing DBCT Management the opportunity to extract additional rents from these projects. However, as the Productivity Commission noted, 'information limitations and administrative costs can limit the degree of price discrimination that is possible'.²⁷⁶ The QCA also considers that DBCT Management's ability to price discriminate would be limited by the \$3 per tonne price difference cap hard-coded in the deed poll which would apply in the absence of declaration (see section 3.3.6). The circumstances at DBCT can be contrasted with that at the Port of Newcastle, where there is substantial excess capacity and where PNO has not set, or proposed to set, different charges for coal exporters albeit in doing so it might improve allocative efficiency.²⁷⁷

3.3.5 Threat of declaration or regulation

Stakeholder submissions

Threat of access regulation

DBCT Management argued that the threat of declaration gives it a strong disincentive to harm competition in the first place. DBCT Management said it had no incentive to seek access charges at a level that would harm competition in a dependent market, as any short-term gains that would be achieved by increasing charges in a way that would harm competition would be outweighed by the significant harm of being declared in the future.²⁷⁸

DBCTM has a much greater incentive to seek reasonable access charges that are only marginally higher than they would be under declaration, but over the long term. This is preferable to markedly higher charges (notwithstanding the constraints under the Access Framework) in the

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²⁷⁵ DBCT Management said more efficient entrants will have lower cost bases. However, that is not necessarily the case. The most efficient entrant will have the highest willingness to pay, reflecting the highest difference between value and cost, which would be affected by a number of factors, including the type and quality of coal.

²⁷⁶ Productivity Commission, *National Access Regime*, inquiry report no. 66, October 2013, p. 79.

²⁷⁷ National Competition Council, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, Recommendation, 22 July 2019, pp. 34–35.

²⁷⁸ DBCT Management, sub. 1, p. 85, sub. 26, p. 60; sub. 38, p. 45.

short term, which would harm competition in dependent markets and quickly lead to redeclaration.²⁷⁹

DBCT Management submitted that its actions in voluntarily offering a binding commitment to comply with a framework that restricts its behaviour without declaration demonstrates the effectiveness of the threat of declaration.²⁸⁰ It also considered that this constraint would be ongoing:

If the QCA concludes that criterion (a) is not satisfied, the binding commitments DBCT Management has made to comply with the Access Framework are likely to be the key determinant. As such, DBCT Management is abundantly aware that if it does not strictly abide by these commitments, both to the letter of the law and in spirit, then it will likely be re-declared. DBCT Management therefore has every incentive to ensure it diligently conducts itself in accordance with the Framework.²⁸¹

However, other stakeholders disagreed.²⁸² The DBCT User Group's view was that DBCT Management's actions following the draft recommendation do not in any way evidence that the threat of declaration will be a constraint on its exercise of market power where declaration has ceased:

DBCT Management's response to the Draft Decision was evidently contrived in an attempt to avoid declaration being continued. For a profit maximising monopolist that is a rational response in the face of the highly credible threat of declaration that currently exists where the Draft Decision recommends declaration and (subject to the Minister agreeing with the QCA's analysis) the Minister has a right (without any further cost or material time delay) to declare the DBCT service. DBCT Management would know in that scenario that seeking revocation in the future would also be more difficult without a fundamental change in circumstances. In other words, it is the very fact of an *existing declaration* which gives rise to this review and is constraining DBCT Management's behaviour.²⁸³

The DBCT User Group argued that any future threat of declaration will not be credible in constraining DBCT Management's exercise of market power because:

- there is significant time and cost involved in seeking declaration
- the prospect of a future declaration is extremely limited unless there is a fundamental change in circumstances
- it will be extremely difficult for an individual party exposed to monopoly pricing to convince the QCA and the Minister about the impact on the environment for competition in the market
- a future declaration would not rectify the anti-competitive harm that will have already occurred because declaration and any arbitrated price or reference tariff will not apply retrospectively.²⁸⁴

Glencore had similar views.²⁸⁵ Separately, Pacific National said the threat of regulation hangs potentially over every monopoly service provider but does not constrain the exercise of monopoly power.²⁸⁶

²⁷⁹ DBCT Management, sub. 26, p. 60.

²⁸⁰ DBCT Management, sub. 58, p. 4.

²⁸¹ DBCT Management, sub. 58, p. 5.

²⁸² DBCT User Group, sub. 60, p. 4; New Hope, sub. 59, p. 3,

²⁸³ DBCT User Group, sub. 60, p. 4.

²⁸⁴ DBCT User Group, sub. 60, pp. 4, 7, 12, sub. 3, p. 76, sub. 15, p. 91, sub. 30, p. 70.

²⁸⁵ Glencore, sub. 43, p. 3.

Section 46 of the CCA

DBCT Management submitted that the CCA imposed a legal constraint on the activities of infrastructure providers such that:

If DBCT Management 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.²⁸⁷

However, the DBCT User Group submitted that the general prohibition against misuse of market power in s. 46 of the CCA was suboptimal, as competition could be lessened without that section being technically contravened. The DBCT User Group said further that there is lack of certainty as to whether s. 46 would even apply and would be enforced. Also, that section requires lengthy court processes and only applies to lessening of competition in markets in which DBCT Management participates.²⁸⁸

QCA analysis

Threat of access regulation

The QCA considers that DBCT Management has market power, as DBCT is a 'bottleneck' or essential service for mines in the Goonyella system, and it is not constrained by any close substitute services. DBCT Management also has an incentive to maximise profits by seeking to achieve as high an access charge as possible. Given this, and without regard to other potential constraints, DBCT Management would have the ability and incentive to exert market power in the absence of declaration.

Prospective mine investors make long-term investment decisions—over the length of mine life—requiring the commitment of sunk investments. Hence, mine owners seeking to invest now would need to consider DBCT Management's conduct over the economic life of a mine. This creates the potential for hold-up of new investment.

The QCA does not consider that, on its own, the threat of declaration would constrain DBCT Management from exercising market power or mitigate the risks of hold-up.

However, the response of DBCT Management to the present threat of declaration indicates that it is at least a relevant consideration that should be taken into account in deciding whether criterion (a) is satisfied.

DBCT Management has executed a deed poll in which it commits to comply with an access framework for the term (discussed in section 3.3.6). Importantly, the deed poll hard-codes a price difference cap—that is, that the terminal infrastructure charge (TIC) will be no more than \$3 per tonne higher than the price that would apply under a QCA-administered pricing regime for the existing terminal. The QCA considers such conduct, if continued over the economic life of a mine, would be unlikely to have a detrimental effect on the ability of new users to make investment decisions in the coal tenements market (see Part C, Chapter 4).

The fact that DBCT Management has elected to execute this form of a deed poll with pricing constraints that it cannot amend is an indicator that the threat of declaration is a factor impacting upon DBCT Management's conduct. The QCA considers that this threat combined with the commitments contained in the deed poll and access framework will constitute a constraint upon DBCT Management's ability and incentive to exercise market power.

²⁸⁶ Pacific National, sub. 37, p. 12.

²⁸⁷ DBCT Management, sub. 1, p. 86.

²⁸⁸ DBCT User Group, sub. 15, p. 91, sub. 30, pp. 70–71.

The DBCT User Group said that any future threat of declaration would not be credible in constraining DBCT Management's exercise of market power due to, among other things, the cost and time associated with a declaration process. The QCA is not convinced that a miner would be discouraged from applying for declaration in future due to the costs and uncertainty involved with the declaration process, particularly given the long-term nature of mining investment and the potential long-term gains from declaration (see Part C, Chapter 4).

Section 46 of the CCA

DBCT Management argued that s. 46 of the CCA would prevent it from engaging in conduct that substantially lessens competition in a market. While s. 46 is directed towards such conduct, the QCA does not consider that s. 46 of the CCA would, in the absence of declaration, be a sufficient constraint on the ability and incentive of DBCT Management to exercise market power in a way that could materially affect competitive conditions in a dependent market. This provision is applicable to conduct that has the purpose, or is likely to have the effect, of substantially lessening competition in the market in which the relevant firm (or a related body corporate) has market power, or any other market in which it supplies or acquires goods or services. Since DBCT Management does not operate in a dependent market, s. 46 may not restrain DBCT Management's pricing behaviour. The QCA also notes that its task under Part 5 of the QCA Act is to ascertain if declaration would promote a material increase in competition whilst s. 46 prohibits conduct that would lead to a substantial lessening of competition (see Overview—Chapter 2).

3.3.6 Access arrangements

Access arrangements with declaration

The QCA assessed the service under criterion (a) by considering whether access (or increased access) on reasonable terms as a result of declaration would promote a material increase in competition in a dependent market compared to a scenario without declaration.

In a future with declaration, the obligations on the access provider are established by Part 5 of the QCA Act. The QCA Act includes overarching obligations with which DBCT Management would have to comply, such as an obligation to negotiate with access seekers for making an access agreement; and requirements to provide certain information about the service to access seekers (which may include a QCA-approved reference tariff as a basis for access negotiations) and an obligation not to prevent or hinder access.²⁸⁹ There is also an ability for either an access provider or access seeker to refer an access dispute to the QCA for determination.²⁹⁰ These access obligations can only be altered by amending the QCA Act (Appendix E summarises some key access seeker/user and access provider rights and obligations under Part 5 of the QCA Act).

The QCA Act also provides for the submission of an access undertaking for the QCA's approval (on either a voluntary or mandatory basis). An access undertaking sets out in detail the access negotiation framework and the terms and conditions on which access will be provided. Once approved, the access provider is bound to comply with the access undertaking. The approval of an access undertaking provides certainty for both access seekers and the access provider—access seekers have the benefit of certainty of terms and conditions of access that will apply;

²⁹¹ QCA Act, ss. 133, 134, 135, 136.

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²⁸⁹ QCA Act, ss. 99, 100, 101, 104.

²⁹⁰ QCA Act, s. 112.

²⁹² QCA Act, s. 150A.

the access provider has the benefit of the 'safe harbour' provisions of the QCA Act.²⁹³ The undertaking also facilitates access negotiations and minimises the scope for disputes.

Once approved, an access undertaking operates for the specified term and may only be withdrawn by the person who gave it with the agreement of the QCA²⁹⁴ (although it may be amended with QCA approval—see below).

Both in approving an access undertaking or in determining an access dispute, the QCA must have regard to certain mandatory considerations in the QCA Act.²⁹⁵ These include, amongst other things the object of Part 5 of the QCA Act (access to services), the legitimate business interests of the access provider, the interests of access seekers, the public interest and the pricing principles in the QCA Act. The object of Part 5 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. 296

The QCA considers that the terms and conditions that would result from the QCA weighing the mandatory considerations in an arbitration or in approving an access undertaking would be 'reasonable terms and conditions' as a result of declaration referred to in criterion (a).

As this is an assessment of whether a currently declared service should remain declared, the terms and conditions of access that exist now (and state of competition in related markets) reflect the current outcome of declaration, including the application of the QCA Act, the operation of access undertakings and user agreements entered into under these arrangements (although it should not automatically be assumed that the current state of competition in dependent markets is necessarily a result of declaration). While a future scenario in which there is declaration does not necessarily involve a continuation of the status quo, the existing conditions help illustrate this future scenario.

Access arrangements without declaration

Two aspects of access arrangements in a future without declaration drew extensive comments from stakeholders—existing user agreements and DBCT Management's deed poll, which has been executed since the draft recommendation and which gives effect to the access framework.

The QCA is satisfied that the existing user agreements, so long as they remain in operation, would provide an effective constraint on DBCT Management's exercise of market power up to the volumes specified in those agreements (see section 3.3.2).

However, if, for example, an existing user sought to increase its contracted tonnage and was unable to obtain additional capacity from another existing user, or if a potential DBCT user (potential entrant) sought access to the DBCT service, they would be subject to whatever access arrangements existed in the absence of declaration.

DBCT Management has developed an access framework, which it said would apply in a future without declaration, in the form of an annexure to an executed deed poll. The access

²⁹³ The authority must not make an access determination that is inconsistent with an approved access undertaking (s. 119(1)(a)). Also the access provider cannot be in breach of the preventing and hindering access provisions of the QCA Act if it is complying with an approved access undertaking (s. 104(6)(a)).

²⁹⁴ QCA Act, ss. 148–149. Also, the QCA may withdraw an approved access undertaking it prepared only with the agreement of the responsible person.

²⁹⁵ QCA Act, s. 120 (Matters to be considered by authority in making an access determination) and s. 138(2) (Factors affecting approval of a draft access undertaking).

²⁹⁶ QCA Act, s. 69E.

framework would remain in effect throughout its term, which is 10 years (that is, until 9 September 2030), unless the relevant service is declared under the QCA Act with effect on or after 9 September 2020 (in which case the term ends).²⁹⁷ A key factor in the QCA's consideration is the pricing constraint in the deed poll which provides certainty to access seekers that DBCT Management's ability to impose TIC increases is subject to a limit.

DBCT Management said that the access framework that would apply in a future without declaration will ensure that open access to terminal services will continue to be available on substantively the same terms as under the 2017 access undertaking, and would effectively constrain DBCT Management's market power so that access seekers would have certainty of access to DBCT on reasonable terms.²⁹⁸ DBCT Management also said that the non-price terms and conditions of access would be substantively the same with and without declaration.²⁹⁹

There have been a number of changes to the deed poll and access framework since the draft recommendation, including:

- inclusion of a price difference cap, which DBCT Management said cannot be amended and
 will prevent it from charging new users a TIC that is more than \$3 per tonne more than the
 charges that would apply for the existing terminal under a QCA-administered pricing regime.
 This cap is included in the deed poll as well as the access framework
- linking the framework objective in the deed poll to the QCA Act Part 5 objective
- changes to the access framework amendment process
- restrictions on unfairly differentiating between users
- changes to the process for allocating capacity and negotiating access charges.³⁰⁰

DBCT Management executed the amended deed poll on 11 March 2019 and submitted that it is binding and irrevocable, requiring it to comply with the access framework. It said that a theory of harm to competition in the coal tenements market cannot hold with regard to pricing of access.³⁰¹

The QCA's approach to the deed poll

The QCA has had to determine whether it is satisfied that access (or increased access) on reasonable terms as a result of declaration would promote a material increase in competition in a dependent market compared to a scenario in which the service is not declared.

The QCA's approach, as a matter of principle, to how it has considered the deed poll and access framework is explained in Overview—Chapter 2.

As discussed in Overview—Chapter 2, the QCA does not consider that the QCA Act forbids consideration of a deed poll as part of a counterfactual for the purpose of applying criterion (a). The existence of the deed poll is a matter of fact. As a matter of principle, the QCA does not see why the QCA Act would forbid a deed poll forming part of a counterfactual scenario for the purpose of applying the access criteria.

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²⁹⁷ Clause 5 of the deed poll provides for renewal of the framework for a further term. Where the framework is renewed for a further term, details of the term and a copy of the framework with any amendment(s) must be published on DBCT Management's website.

 $^{^{298}}$ DBCT Management, sub. 1, pp. 6, 56, 72, sub. 13, p. 69, sub. 35, sub. 26, p. 50, sub. 38, p. 8.

²⁹⁹ DBCT Management, sub. 1, pp. 56–57.

³⁰⁰ DBCT Management, sub. 26, pp. 45, 69, sub. 38, pp. 35–36.

³⁰¹ DBCT Management, sub. 26, pp. 43–44.

A number of questions relating to the deed poll must be considered (as set out in Overview—Chapter 2):

- (a) Is a deed poll an effective means for a service provider of creating a right of access on reasonable terms (as contemplated by criterion (a))? How does access under a deed poll compare to the rights and obligations created by declaration, which exist by force of the QCA Act? This issue focuses on the attributes of a deed poll generally, rather than the terms of the submitted deed poll that go to the application of the deed poll.
- (b) When compared to the terms contained in the instrument that DBCT Management submitted in the context of this review (the deed poll), would access as a result of declaration promote a material increase in competition in a dependent market? This does not entail a clause by clause analysis of the deed poll—rather, it is a question of whether there are any particular terms or conditions that are relevant in comparing competitive conditions in a dependent market with conditions that would prevail if the relevant service were declared.

Therefore, the QCA has assessed the following key aspects of access arrangements under the deed poll:

- Whether the deed poll is an appropriate counterfactual in the absence of declaration.
- How effective the deed poll and access framework are as a constraint on DBCT
 Management's ability to exercise market power, with particular reference to the following matters:
 - operation of the deed poll and access framework, including
 - the ability to amend the access framework
 - access negotiation and arbitration
 - compliance and enforcement
 - pricing.

The interaction in future between existing user agreements and the deed poll and its effect on competitive conditions in relevant dependent markets are discussed in Part C, Chapters 4–9.

Is the deed poll an appropriate counterfactual?

Stakeholder submissions

A fundamental point of difference between the views of DBCT Management and other stakeholders is about whether it is appropriate for the QCA to consider the deed poll and access framework in assessing what will be the impact on competition in dependent markets absent declaration.

Without declaration, the deed poll is the legal instrument that, according to DBCT Management, establishes access arrangements for use of the terminal in the event the DBCT service is not declared, including obligations to access seekers, access holders and other identified beneficiaries.

DBCT Management's view is that the 'deed poll is irrevocable and only subject to the condition precedent that DBCTM is not re-declared'.³⁰²

³⁰² DBCT Management, sub. 26, p. 70.

To put beyond doubt that DBCTM cannot act in any way that will adversely impact competition in relevant markets if the relevant service is not declared, DBCTM has executed an irrevocable Deed Poll. As a result, the Access Framework will automatically become operational and binding upon the relevant services not being declared. DBCTM is now bound to provide services on terms substantively the same as under the current QCA approved access undertaking, with the agreed or arbitrated price for services being subject to a binding \$3 cap. Given the enforceable nature of the Access Framework, DBCTM considers that there can be no further reason to conclude that the terms and conditions of access, including price, in an unregulated environment could materially impact the tenements market.³⁰³

DBCT Management noted it had added further safeguards following the draft recommendation, including: safeguards in relation to amendments to the access framework; to ensure it is enforceable for the term; restrictions on unfair differentiation; and to the capacity allocation process.³⁰⁴ It said:

Following the QCA's draft recommendation, DBCTM amended clause 4.1 of the Deed Poll to include a new covenant that the Framework will continue to apply to the use of the terminal (including access to the DBCT Service) throughout the term of the Framework.

This covenant was included to address any perceived risk that DBCTM could assign its interest in the terminal to a third party without conditioning that assignment on the assumption by the third party of DBCTM's obligations under the Deed Poll and the Framework. If DBCTM were to assign its interest without ensuring that the Framework would continue in force, it would breach clause 4.1. The executed Deed Poll also provides that specific performance is available as a remedy for a breach of this covenant.³⁰⁵

However, other stakeholders did not consider the access framework to be an appropriate counterfactual³⁰⁶ and had concerns with its effectiveness in constraining DBCT Management's ability to exercise market power. The DBCT User Group argued that what is relevant is DBCT Management's ability and incentives, in the absence of declaration, to act in a way that harms competition in a dependent market, and that this should not be seen to be artificially constrained by a self-imposed, uncertain and unproven set of commitments proposed for the purpose of avoiding declaration.³⁰⁷ The DBCT User Group said that if the QCA considers it is bound to have regard to the deed poll and access framework, it should give little weight to them given the uncertainty of their application and whether their terms would remain the same as presented to the QCA.³⁰⁸

The DBCT User Group submitted a legal opinion noting that if a unilateral contractual constraint of this nature can be considered as part of determining the likely state of competition in dependent markets without declaration, it leads to the result that infrastructure service providers can (and in fact are) incentivised to simply contrive a manner of 'contracting out' of access regulation.

That is, prior to a declaration review or revocation process, it would (on DBCTM's interpretation) be open to the infrastructure service provider to contrive a set of constraints that it judged to be more favourable to it (and less favourable to users of the service) than 'the reasonable terms and conditions' that would exist with declaration, but not so much so that the QCA (or ultimately

³⁰³ Anthony Timbrell (Chief Executive Officer of DBCT Management), letter to Professor Flavio Menezes (Chair of the QCA), 11 March 2019 (DBCT Management, sub. 26).

³⁰⁴ DBCT Management, sub. 26, pp. 44–45, sub. 38, pp. 24, 35–36.

³⁰⁵ DBCT Management, sub. 38, p. 24.

³⁰⁶ DBCT User Group, sub. 30, pp. 65–66, sub. 46, p. 76, schedule 7; Peabody, sub. 47, p. 3; Glencore, sub. 43, p. 2; Pacific National, sub. 37, p. 2.

³⁰⁷ DBCT User Group, sub. 30, pp. 65–66.

³⁰⁸ DBCT User Group, sub. 46, p. 76.

the Minister) will be able to be positively satisfied that the improvement of terms that would result from declaration would be such as to satisfy criterion (a).³⁰⁹

Other stakeholders also raised concerns:

- Peabody did not consider the access framework to provide certainty and said it is a
 'contrived attempt to circumvent criterion (a) by trying to guess the level of monopoly
 profits that will be permitted, while removing regulatory oversight'.³¹⁰
- Glencore said an analysis of terms and conditions promised by the service provider and expected regulatory outcomes would be inappropriate and contrary to the intent of criterion (a), particularly as the proposed counterfactual is of questionable legal enforceability, has never been relied on or shown to be effective and could be subsequently changed.³¹¹
- Pacific National said the deed poll/access framework is not a relevant counterfactual; it is contrived to circumvent the declaration criteria, while leaving flexibility to amend the framework in future.³¹²

The DBCT User Group also considered the deed poll to be legally ineffective, as it has not been accepted by alleged beneficiaries. It provided an opinion by Queen's Counsel in support of this view—specifically, that in order for the deed poll to be legally binding it must not only be executed, but it must also be 'delivered' in the sense that it has been accepted or relied upon by a covenantee.³¹³

DBCT Management is proffering the deed poll to the covenantees, but not pursuant to a preexisting bargain with the covenantee. Rather, DBCT Management is proffering the deed poll for its own commercial advantage, so as to avoid the imposition of a QCA pricing regime under the competition legislation. The covenantees may well prefer the imposition of a QCA administered pricing regime, and for that reason be unwelcoming of the deed poll. It is difficult to see how DBCT Management could be prevented from revoking the deed poll ... prior to one or more covenantees accepting or relying upon it. In those circumstances, I think a Court would likely apply the reasoning from Burns Philp to hold that "delivery" of this deed poll would only occur at the point where at least one covenantee accepts or relies upon the deed poll.³¹⁴

The DBCT User Group submitted that there has been no acceptance or reliance on the deed poll by its members and that the key reason for this rejection is that the benefits it theoretically offers are only offered conditional on such offer being effective in removing the much greater benefits of declaration.³¹⁵ Further submissions on this issue were received both from DBCT Management and the DBCT User Group.³¹⁶

QCA analysis

The QCA considers that the operation of the deed poll and access framework in the absence of declaration is a relevant consideration in assessing whether access (or increased access) on reasonable terms as a result of declaration would promote a material increase in competition in a dependent market.

³¹² Pacific National, sub. 37, pp. 1–2.

³⁰⁹ DBCT User Group, sub. 46, schedule 7, p. 9.

³¹⁰ Peabody, sub. 47, pp. 3, 4–5, sub. 25, p. 4.

³¹¹ Glencore, sub. 43, pp. 2-4.

³¹³ DBCT User Group, sub. 46, pp. 80–84, schedule 8, p. 3.

³¹⁴ DBCT User Group, sub. 46, schedule 8, p. 3.

³¹⁵ DBCT User Group, sub. 46, p. 80.

³¹⁶ DBCT User Group, sub. 56; DBCT Management, sub. 55.

The QCA has assessed the deed poll on its terms. In this regard, the relevant issue is whether the deed poll and access framework collectively represent a suite of arrangements that will in the absence of declaration effectively constrain DBCT Management's ability to exercise market power.

Are access arrangements under the deed poll binding and irrevocable?

The QCA acknowledges that there are divergent views on whether the deed poll is binding on DBCT Management and is irrevocable. The QCA has carefully considered the submissions received and the issues raised on this question.

The QCA considers that DBCT Management has manifested an intention to be legally bound by the deed poll and access framework such that it considers it to be irrevocable, although it will not impose access obligations unless and until the service ceases to be declared. This intention is manifest from DBCT Management's letter of 11 March 2019 (quoted above) together with the terms of the deed poll itself, and in other submissions and comments DBCT Management made during the consultation process.

The QCA has not assessed the deed poll and access framework on the basis that they are 'artificial' or 'contrived'. While the deed poll has been produced in the context of the declaration review, having been executed it should be assessed on its terms.

A party's intention to be legally bound by a deed can either be absolute or subject to fulfilment of a condition. The intention in question is the intention of the person said to be bound, rather than a mutual intention of the person bound and the putative beneficiaries of the deed. Where the intention is conditional, the deed is immediately irrevocable but becomes binding according to its terms once the condition is satisfied (although nothing further need be done by the party who delivered it).³¹⁷ In the present context, DBCT Management does not purport to be bound only if a condition is satisfied. Rather, it considers itself bound immediately, with the effect that the deed poll is irrevocable (put another way, DBCT Management cannot 'change its mind').

Ultimately, the proposition advanced by the DBCT User Group—that a deed poll is not delivered (and therefore is not binding) without acceptance or reliance—raises a question of legal principle in respect of which it is unnecessary for the QCA to form a concluded view. The deed poll, by its terms, will apply to access seekers only where those parties complete required forms specified in the access framework. Where this is done, the factual foundation for the proposition that there is no acceptance or delivery will fall away.

The argument advanced by the DBCT User Group appears to contemplate the possibility that, until there is acceptance or reliance, DBCT Management can, in effect, change its mind and repudiate the obligations it has taken upon itself through the deed poll. Even if the law permits this, the QCA does not consider this to be a realistic scenario. DBCT Management has asserted on numerous occasions that it is bound by the deed poll it executed. Were it to simply reverse this position, after the declaration of the DBCT service has lapsed, it would face the prospect of a fresh application for declaration, which would be founded, in part at least, on the ability of the service provider to repudiate commitments given in a deed to prospective users apparently entered into in good faith. The QCA considers that this is highly unlikely to occur even if, as a matter of law, it is permitted.

Irrespective of the strength of the legal arguments that the DBCT User Group submitted, the QCA considers that the deed poll is a part of the appropriate counterfactual in circumstances

³¹⁷ Beesly v Hallwood Estates Ltd [1961] 1 Ch 105; Alan Estates Ltd v WG Stores [1982] 1 Ch 511; Monarch Petroleum NL v Citco Australia Petroleum Ltd [1986] WAR 310 at 357.

where prospective access seekers seek access or increased access in a future scenario where the DBCT service is not declared.

Non-compliance and disclaimer

Even though the deed poll is part of the counterfactual, there may be circumstances where, in the absence of declaration, the deed poll and access framework would not determine the basis upon which access or increased access to the DBCT service would be provided.

Under the terms of the access framework, if an access seeker does not agree to 'unconditionally and irrevocably' comply with the framework and deed poll, DBCT Management will have no obligations and the access seeker no rights under the framework in respect of its access application, and DBCT Management may refuse to accept it (cl. 5.2(b)). It appears that in these circumstances, DBCT Management has a broad discretion to refuse to accept the access application. Should the application be refused, in the sole discretion of DBCT Management, access seekers would have no right to request access and DBCT Management would have no obligation to negotiate, and there would be no binding and enforceable obligations owed to those access seekers under the deed poll. Should the access application not be refused, it appears that nonetheless, the access seeker will forfeit any rights under the framework. No alternate basis for proceeding to access negotiations in the absence of declaration is identified.

The QCA acknowledges that alternatively the beneficiary of a deed poll may unilaterally disclaim the benefits given under the deed poll.³¹⁸ If this occurred, the rights and obligations would cease to have effect between the maker of the deed and the beneficiary. The DBCT User Group stated that there has been no reliance or acceptance of the deed poll and that the DBCT User Group unanimously rejected the offer. It also said that the access seekers in the DBCT User Group confirmed that they will take steps to disclaim the deed poll if any covenantee accepts the deed poll in any way, such that the QCA (and ultimately the Minister) can be in no doubt that the deed poll is legally ineffective in relation to those access seekers.³¹⁹ In the circumstances, the QCA does not understand this to be a disclaimer of the benefits of the deed poll by would-be beneficiaries. Further, users who are not members of the DBCT User Group, as well as potential future access seekers who are not yet identified, could not be taken to have disclaimed the benefits of the deed poll.

In the case of an access seeker's refusal to comply with cl. 5.2(b), with a consequential refusal of an access seeker's access application, or of an access seeker's disclaimer, the counterfactual is a situation where new access seekers may have no rights, and DBCT Management no obligations, under the deed poll. Alternatively, access seekers may be able to negotiate access, but without the benefit of enforceable rights afforded under the deed poll and access framework.

A prospective user who had disclaimed the benefits of the deed poll or refused to comply with the access framework would still have the option of seeking declaration of the relevant service in order to seek access on terms it deemed acceptable. The QCA notes that:

 In the event of a declaration application, the QCA would be required to consider the access environment with and without declaration to assess the relative effect on competitive conditions in dependent markets and, in these circumstances, the counterfactual will be the deed poll and access framework terms. The QCA does not consider that, in any such

³¹⁸ FCT v Cornell (1946) 73 CLR 394; N Seddon, Seddon on Deeds, 1st edn, Federation Press, Alexandria, NSW, 2015, para. 7.9.

³¹⁹ DBCT User Group, sub. 46, p. 80.

assessment, it would be appropriate to disregard the available terms on the basis that one or more access seekers choose to reject them.

As outlined in Overview—Chapter 2, the existence of the deed poll is a matter of fact and an assessment of competitive conditions in relevant dependent markets in a future without declaration (i.e. a future with the deed poll) relative to a future with declaration, is relevant. As a matter of principle, the QCA does not see why the QCA Act would forbid a deed poll forming part of a counterfactual scenario for the purpose of applying the access criteria.

• If deed poll and access framework terms would be unlikely to materially affect competitive conditions in a dependent market compared to a future with declaration, it would lead to a perverse outcome if the service was declared because these terms have been rejected. That would also not satisfy the requirements of criterion (a).

In summary, the QCA considers that in a future without declaration, the deed poll is an appropriate part of the counterfactual. On this basis, the QCA has assessed the effectiveness of the deed poll and access framework as a constraint on DBCT Management's conduct (set out below).

New terminal operator scenario

The QCA has considered a potential scenario in which the terminal is sold and whether, in that circumstance, the deed poll and access framework would bind a new terminal operator.

Under the existing declaration, the service taken to be declared³²⁰ is defined by reference to the 'terminal operator'. This in turn is defined in the QCA Act to mean:

- (a) the owner or lessee of Dalrymple Bay Coal Terminal; or
- (b) a person operating Dalrymple Bay Coal Terminal for the owner or lessee.³²¹

This definition is not dependent on the identity of a specific entity. As such, in a future with declaration, access obligations under the QCA Act would continue to apply to the 'terminal operator' in the event of a sale of the terminal.

In contrast, in a future without declaration, access obligations would be governed by the mechanism of the deed poll, which has been executed by DBCT Management and is binding on DBCT Management. Access obligations under the deed poll are therefore specific to a particular service provider—DBCT Management. Under the access framework, 'DBCT Management' by definition in Schedule G also means 'its successors and permitted assigns, including persons taking by way of novation'.

DBCT Management noted that the deed poll includes the following provision (cl. 4.1):

Subject to any amendments permitted in accordance with clauses 7 and 8 of this Deed Poll, DBCT Management covenants in favour of the Covenantees that the Framework will remain in effect for, and continue to apply to the use of the Terminal (including Access to the Services) throughout, the Term.

DBCT Management argued that this provision will address any perceived risk that DBCT Management could assign its interest in the terminal to a third party without making that assignment conditional upon the third party assuming DBCT Management's obligations under

³²⁰ That is, 'the handling of coal at Dalrymple Bay Coal Terminal by the terminal operator' (QCA Act, s. 250(1)(c)).

³²¹ QCA Act, s. 250(5).

the deed poll and access framework. It said that specific performance³²² is available as a remedy for a breach of this covenant.³²³

Should a scenario of a transaction occur in such a way that DBCT Management's obligations in the deed poll and access framework no longer applied to the provision of access to the DBCT service, then this would appear to be a material change in circumstances, which would give rise to questions about the effectiveness of the deed poll as a constraint. In that circumstance, it would be open to parties to apply for declaration.

Effectiveness as a constraint on conduct

The task before the QCA is to determine if it is satisfied that access (or increased access) on reasonable terms as a result of declaration would promote a material increase in competition in a dependent market compared to a scenario in which the deed poll has been executed and is operative. This does not entail a clause by clause analysis of the deed poll—rather, it is a question of whether there are any particular terms or conditions that are relevant in comparing competitive conditions in a dependent market with conditions that would prevail if the relevant service were declared.

The following aspects of the deed poll and access framework may be particularly relevant to the assessment of their effectiveness as a constraint in preventing DBCT Management from exercising market power in a way that affects competition in dependent markets:

- operation of the deed poll and access framework, including
 - the ability to amend the access framework
 - access negotiation and arbitration
 - compliance and enforcement
- · pricing.

Operation of the deed poll and access framework

Features of the deed poll and access framework that are particularly relevant to this assessment include the ability to amend the access framework; access negotiation and arbitration; and compliance and enforcement. A summary of the QCA's assessment of these matters is given below, and a detailed analysis appears in Appendix F. An analysis of the pricing arrangements with and without declaration is provided separately below.

Ability to amend access arrangements

Access arrangements can be amended, whether there is declaration or not. DBCT Management has the ability to make amendments to the access framework in accordance with the deed poll. In contrast, with declaration, access undertakings may be amended with the approval of the QCA.

In the declaration scenario, access seekers and access holders would have a degree of confidence that access would continue to be available on reasonable terms and conditions, given the role of the independent regulator in approving any amendments to access arrangements as embodied in access undertakings.

³²² The QCA notes that 'specific performance' is a discretionary order made by the court that compels a person to carry out the obligations they have accepted under a contract or deed.

³²³ DBCT Management, sub. 38, p. 24.

Without declaration, it is DBCT Management that would determine what, if any, amendments are made, subject to court proceedings if parties challenge the validity of the proposed amendments. It is not possible to say with certainty what, if any, amendments DBCT Management might propose in future. An important consideration for the QCA is the inclusion of the pricing constraint in the deed poll—namely the pricing methodology, including a price difference cap, to apply in an arbitration—so that it cannot be changed for the term.³²⁴ This provides protection and certainty to users about the key issue of access pricing and, in particular, the application of the pricing constraint for the term.

Terms in the access framework (other than the pricing constraint hard-coded in the deed poll), including the access framework SAA, can be modified in accordance with the deed poll, which may create some uncertainty for access seekers and access holders about potentially disadvantageous changes to these terms in future, compared to access under declaration. This is because amendments are subject to DBCT Management's view of what is appropriate with respect to the mandatory factors and the costs and risks associated with enforcement of the deed poll amendment provisions. This is in contrast to access under declaration, where the independent regulator must approve any amendments to access arrangements.

However, the QCA considers that there are mitigating factors that can be expected to constrain DBCT Management from modifying the access framework in a manner that would materially affect competitive conditions in a dependent market, relative to access under declaration. These include the fact that DBCT Management, as a non-vertically integrated access provider, does not have an incentive to favour particular access seekers or access holders in providing access to the service. This is relevant when considering DBCT Management's incentive to amend non-price terms of the access framework, such as those relating to the terminal regulations (the governing procedures for the operation of the terminal) and ring-fencing provisions.

Arguably, DBCT Management's incentive to maximise its profits may mean that, if there is excess demand, it has an incentive to amend the queuing provisions in the access framework (for instance to change the order of access seekers) to allow it to negotiate with the access seeker with the highest willingness to pay. However, the inclusion of the price difference cap in the deed poll would limit any incentive DBCT Management may have to amend queuing provisions in a way that would materially affect competitive conditions in a dependent market compared to access under declaration, as it would still obtain no more than \$3 per tonne above the TIC that would apply under a QCA-administered pricing regime for the existing terminal. The QCA notes that DBCT Management has explicitly sought to irrevocably constrain itself in this respect for the term and that it cannot amend or remove this constraint, which is an indicator that the threat of declaration is a factor impacting upon DBCT Management's conduct (see section 3.3.5).

The key issue is whether the uncertainty created by DBCT Management's ability to amend the access framework would affect the provision of access to such a degree as to materially affect competitive conditions in a dependent market compared to access under declaration. The QCA's view is that the hard-coding of the pricing constraint in the deed poll is an important consideration in this regard. This provides protection and certainty to users that the pricing methodology, including the price difference cap, will not change for the term. DBCT Management's ability to amend other access framework terms creates some uncertainty. The

³²⁴ The QCA notes that it is the price difference cap of \$3 per tonne and the basis on which it is calculated—that is, the floor TIC, which is the TIC that would apply under a QCA-administered pricing regime—that is hard-coded in the deed poll.

potential for this to materially affect competitive conditions in a dependent market would however be mitigated by the aforementioned factors. In addition, the QCA's view is that the risk resulting from that uncertainty is unlikely to be material considering the range of risks a prospective mine investor generally would face.

Access negotiation and arbitration

Parties have the ability to negotiate to reach an access agreement and the ability to refer a dispute for independent arbitration if they fail to reach agreement, whether there is declaration or not.

The QCA's view is that, under declaration, the QCA Act provides an environment of greater certainty for access seekers in negotiations compared to access under the deed poll/access framework—particularly through the QCA's ability to determine a reference tariff (or otherwise the requirement under the QCA Act for the access provider to provide the access seeker with price, cost and asset value information), which facilitates access negotiations and minimises the scope for disputes. Nevertheless, the access framework provides a transparent framework for negotiations, including standard terms and conditions of access (other than the price) that would apply for its term (until 2030) and a constraint through the ability to refer a dispute to independent arbitration (which would apply the pricing approach in the access framework arbitration provisions). The pricing approach in an arbitration is considered below.

Compliance and enforcement

The QCA considers that enforcement by a court or an expert/arbitrator provide mechanisms to hold DBCT Management accountable for compliance with the deed poll and access framework. However, potential new users and access holders will likely face a greater degree of uncertainty associated with compliance and enforcement than would be the case with access under declaration, as there would be no independent regulator with the role of monitoring and enforcing compliance.

The QCA notes that there may be limitations on the ability of a covenantee to enforce the pricing covenant (including the \$3 per tonne price difference cap) in the deed poll—or at least a perception that it will be difficult to obtain relief from a court. However, the price difference cap is also included in the access framework in the pricing methodology to be applied by an arbitrator in the event of a dispute. The hard-coding of the pricing covenant in the deed poll as well as its inclusion in the access framework prevents this constraint from being changed for the term. The QCA considers that, in practice, the ability to refer a dispute to arbitration under the access framework is the primary mechanism to enforce this pricing constraint, and a determination by the arbitrator would be enforceable in court.

The deed poll and access framework provide mechanisms to hold DBCT Management accountable for compliance with its access obligations and, as such, provide some constraint on its conduct. Moreover, as DBCT Management has executed the deed poll in the present circumstances (with the pricing constraint contained within it), the threat of declaration, which can be applied for at any time, can also be expected to influence DBCT Management's conduct in how it would administer the deed poll and access framework.

Conclusions on the operation of the deed poll and access framework

While access seekers would likely have a greater level of certainty in access negotiations under declaration, the access framework provides a transparent framework for negotiations and a constraint through the ability to refer a dispute to independent arbitration (which would apply the pricing approach specified in the access framework). Moreover, access prices would be

capped, and in a manner that cannot be revoked or amended for the term of the access framework.

The QCA acknowledges that the access environment under the deed poll would be less favourable for access seekers and access holders than access under declaration, given the uncertainty about potential amendments to the access framework (other than to the pricing constraint) and about aspects of enforcement of the deed poll, because there would be no independent regulator to monitor access arrangements and enforce compliance.

However, in terms of DBCT Management's ability to amend the access framework, an important consideration for the QCA is that the pricing constraint—namely, the pricing methodology and the price difference cap—is included in the deed poll and therefore cannot be amended or revoked for the term. This provides protection and certainty to users about the application of the pricing constraint for the term.

Further, the deed poll and access framework include mechanisms to hold DBCT Management accountable for its compliance with its access obligations and, therefore, provide some constraint. In particular, the QCA considers that the ability to refer a dispute to arbitration under the access framework will provide a mechanism to enforce the pricing constraint.

Pricing

Stakeholder submissions

In its initial submission, DBCT Management proposed to implement an access framework that it said would provide access on reasonable terms in a future without declaration and which would result in no difference in the throughput level at DBCT. Existing user agreements are 'evergreen', so existing users will have the option to continue to access the terminal based on the terms of access and volumes set out in those agreements.³²⁵

DBCT Management submitted that the access framework is a negotiate–arbitrate model based on the 2017 access undertaking and SAA, with key changes being the removal of the QCA's role in access disputes and how an arbitrator will determine the terminal infrastructure charge (TIC) in the event of a dispute.³²⁶

As described previously, in March 2019 (after the QCA's draft recommendation was published) DBCT Management submitted an executed deed poll (including access framework) with a modified pricing approach to apply in an arbitration. Specifically, a price difference cap was included such that the ceiling TIC for new users³²⁷ can be no more than \$3 per tonne higher than the TIC that would apply for the existing terminal under a QCA-administered pricing regime.³²⁸ This cap has been included in the executed deed poll, which DBCT Management said 'hard codes' it so that it cannot be amended. It considered this amendment addresses any concerns about asymmetry between new and existing users and that a \$3 per tonne price differential could not be considered to have a material impact on competition in tenement markets.³²⁹

³²⁵ DBCT Management, sub. 1, pp. 62–63.

³²⁶ DBCT Management, sub. 1, pp. 64–66, sub, 26, pp. 56–57.

³²⁷ And existing users to the extent they seek increased access under the deed poll/access framework. For the purpose of this section, 'new users' is used to refer to users that would seek new or increased access.

³²⁸ DBCT Management said that the only circumstances where it could charge more than this is where the QCA determined TIC for the new terminal component would exceed the existing floor TIC + \$3 (i.e. in the case of an expensive and differentially priced expansion). In that case, it could charge up to the equivalent of a QCA-determined TIC for that terminal component. (DBCT Management, sub. 38, p. 12).

³²⁹ DBCT Management, sub. 26, pp. 43–44, 52, appendix 2, pp. 10–19, sub. 38, pp. 12–13, 38.

DBCT Management submitted a report by HoustonKemp that explained that in the event of a dispute, the access framework directs the arbitrator to determine a 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. Notwithstanding this, the TIC will not:

- be less than the floor TIC, being that which would have prevailed had a QCA-administered regime continued to be applied; and
- be greater than the ceiling TIC, being:
 - 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 limitation on volumes that are able to be delivered to either DBCT or any other coal terminal; but
 - no higher than \$3.00 per tonne above the floor TIC, expressed in real terms of 2020– 21.³³⁰

HoustonKemp said that the 'willing but not anxious' standard is a commonly applied commercial standard for determining prices that reflect market value in Australia. Also, it said that the floor and ceiling ensure prices cannot reach levels that would affect volumes served at the terminal, as compared to the volumes that would be served with declaration. The ceiling will be no higher than \$3 per tonne above the floor TIC (in real terms of 2020–21).³³¹

DBCT Management said in relation to setting of the floor TIC through arbitration under the access framework that: ³³²

- an arbitrator would be required to put itself 'in the shoes' of the QCA in order to determine the TIC that would apply under a QCA-administered pricing regime
- clarity would be provided by QCA regulatory precedent
- this is similar to the process taken by an arbitrator under existing user agreements, so that there is no asymmetry between new and existing users.

The access framework also includes drafting to prohibit DBCT Management engaging in discriminatory conduct or unfairly differentiating between users of the service.³³³

DBCT Management considered that the QCA had mischaracterised the operation of the pricing provisions of the access framework in the draft recommendation as pricing on the basis of users' willingness to pay.³³⁴ It said that, properly applied, the access framework provides certainty of access on substantially the same terms as with declaration and provides a strong constraint on DBCT Management's ability to exercise market power in relation to new users.³³⁵

Further, DBCT Management said that access seekers will have the same level of certainty both with and without declaration, as precise charges that would be determined by the QCA for a

³³⁰ DBCT Management, sub. 26, appendix 2, p. 10.

³³¹ DBCT Management, sub. 26, appendix 2, p. 10.

³³² DBCT Management, sub. 38, pp. 14–16.

³³³ DBCT Management, sub. 26, p. 75, sub. 38, p. 12.

³³⁴ Refer to Appendix G for a discussion of this issue.

³³⁵ DBCT Management, sub. 26, pp. 51–57.

new entrant will not be clear due to time lags between decisions to invest in exploration and development tenements market and gaining access to DBCT.³³⁶

The DBCT User Group said that existing users will not face materially different pricing with and without declaration due to the constraints imposed by the price review mechanism in existing user agreements. However for new users (or existing users seeking capacity in addition to existing contracted capacity), if there is no declaration, the coal handling charge is likely to reflect the cost to access the next available terminal with spare capacity, which is WICET. That would give existing users a considerable cost advantage over potential entrants compared to the situation with declaration, where all users would be subject to the QCA reference tariff.³³⁷

Stakeholders raised a range of concerns about the effectiveness of the pricing approach in the access framework as a constraint, given the reliance on a price difference cap based on a hypothetical floor price that would apply under a QCA-administered pricing regime; the uncertainty and risks the pricing approach creates for access seekers; and the scope for appropriating all available rents. Stakeholder comments included:

- The DBCT User Group said the \$3 price difference cap is not a constraint, given that it is not possible to provide a point estimate of what a future QCA estimate might be, because of the range of possible approaches and estimates for building block parameters; the QCA's residual discretion; changes over time in approach; and DBCT-specific elements of calculating the TIC (such as the QCA's ongoing prudency assessment of capital expenditure). Given this, and DBCT Management's incentives, there will be a high likelihood of access pricing being beyond the asserted cap. It noted that the floor from which the price difference cap is determined is more akin to a range. Glencore, Pacific National, New Hope and Peabody also had concerns about the uncertainty created by this pricing approach, noting that this uncertainty would increase over time as the period between QCA-administered prices and DBCT Management administered prices increases. New Hope said this approach creates a significant amount of uncertainty regarding costs for access seekers.³³⁸
- The DBCT User Group cited evidence from past regulatory processes that shows DBCT
 Management had an inflated view of what the regulated price should be compared to the
 QCA, for example in relation to the weighted average cost of capital it received.³³⁹
- Glencore said it is not possible to replicate a TIC as it would apply under a QCA-administered pricing regime, where the party administering the pricing calculation has a significant commercial interest in the outcome. Glencore also noted the regulatory discretion typically applied in making decisions about efficient costs and appropriate rate of return.³⁴⁰
- Peabody and Glencore submitted the pricing approach enabled monopoly pricing. Glencore
 noted that the QCA Act pricing principles would not apply and that it would be inappropriate
 to enable DBCT Management to extract a \$3 per tonne rent from access seekers purely due
 to its monopolistic position, allowing it to expropriate miners' equity. Peabody also said it
 locks in an ability to extract monopoly rent over and above current efficient costs and allows

³³⁶ DBCT Management, sub. 38, pp. 14–16.

³³⁷ DBCT User Group, sub. 30, pp. 71–72; Glencore, sub. 43, p. 6.

³³⁸ DBCT User Group, sub. 46, pp. 82–83, schedule 6, sub. 60, p. 20; Glencore, sub. 43, pp. 6–8; Pacific National, sub. 37, p. 18; Peabody, sub. 25, p. 7, sub. 47, pp. 1–6; New Hope, sub. 59, p. 4.

³³⁹ DBCT User Group, sub. 46, p. 93.

³⁴⁰ Glencore, sub. 43, p. 6.

for gaming by DBCT Management to inflate the price that would apply under a QCA regime. $^{\rm 341}$

- Peabody said that the pricing approach under the access framework was likely to require a series of costly disputes to establish pricing for new users. In contrast to QCA Act mechanisms, private arbitration is inferior and would entail a high degree of uncertainty. Stakeholders said that under declaration, pricing for all users is determined through a transparent, rigorous and consistent undertaking review process with the TIC established by the QCA as an objective party with substantial experience in price determination.³⁴²
- The ceiling price that applies in addition to the \$3 cap provides no safeguards, as it is a
 hypothetical price dependent on a 'completely unworkable judgement about whether
 volume would remain the same at a different price'.³⁴³

Price reviews under access agreements

The access framework SAA provides for the TIC to be reviewed with effect from the start of each five-year pricing period, to be adjusted for review events and for annual CPI escalation. DBCT Management submitted that the combined application of these review event adjustments shall not cause the TIC to exceed the ceiling price for that year or fall below the floor price for that year.³⁴⁴

DBCT Management said that when the framework is renewed, the five-yearly price reviews will proceed as they do in the initial term, with negotiations followed by arbitration under the access framework if agreement is not reached. If DBCT Management did not renew the access framework, a similar process of negotiation would be in place, and if parties cannot agree, commercial arbitration (under cl. 15 of the SAA) would occur. DBCT Management submitted that it will likely renew the access framework for a further term prior to expiration and, if it did not, the service may be declared unless there are other constraints on its ability and incentive to exercise market power.³⁴⁵

The DBCT User Group submitted that future users face higher pricing as well as uncertainty of the price they will face over the life of a proposed mining project arising from DBCT Management's discretion under the access framework to set prices at five-yearly intervals. It noted that the risk of expropriation at the next pricing review or a change in willingness to pay after the price is set may change a project from being viable to uneconomic, becoming a major disincentive to invest.³⁴⁶

The DBCT User Group submitted a report by Palaris, which concluded that a two-tier pricing structure would emerge in which:

 potential users will have far less incentive to invest in the acquisition or development of coal tenements, as they will be unable to reliably estimate returns that can be derived from an investment

³⁴⁴ DBCT Management, sub. 1, pp. 66–68.

³⁴¹ Glencore, sub. 43, p. 6; Peabody, sub. 25, p. 7, sub. 47, pp. 1–6.

³⁴² Peabody, sub. 25, p. 7, sub. 47, pp. 1–6; Pacific National, sub. 37, p. 18; Glencore, sub. 43, p. 6.

³⁴³ Glencore, sub. 43, p. 7.

³⁴⁵ DBCT Management, sub. 38, pp. 17–19.

³⁴⁶ DBCT User Group, sub. 30, pp. 76–77.

 existing users with established mines and tenements (especially the major mining houses with multiple mines with a portfolio effect) would be incentivised to expand and develop tenements to make use of the more favourable pricing structure.³⁴⁷

DBCT Management did not agree with this view of competitive harm, noting that if this effect were valid, it would be observable now. It further noted that, even if this effect were valid, it would occur both with declaration (at the end of the declaration period) and without declaration (at the end of the framework term, assuming it is not renewed). DBCT Management said that uncertainty beyond 2030 is no different with or without declaration as declaration or revocation could occur at any time.³⁴⁸

QCA analysis

In considering the pricing approach, the QCA has assessed whether declaration would promote a material increase in competition in a dependent market compared to a future without declaration in which access would be determined in accordance with the deed poll. It is therefore necessary to consider the extent to which the pricing approach in the deed poll is an effective constraint on DBCT Management's ability to exercise market power in setting access charges.

The future with declaration

For existing users, the terms of their user agreements provide an effective constraint on DBCT Management's ability to exercise market power up to the volumes in those agreements (see section 3.3.2).

With declaration, the price a future access seeker would pay will be determined in accordance with QCA Act provisions and if an access undertaking is in place, in accordance with the terms of that access undertaking.

In approving a draft access undertaking, the QCA must have regard to, amongst other things, the pricing principles in the QCA Act.³⁴⁹ These provide that the access price should:³⁵⁰

- (a) generate expected revenue that is at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved
- (b) allow for multi-part pricing and price discrimination when it aids efficiency
- (c) not allow a related access provider to set terms and conditions that discriminate in favour of the downstream operations of the access provider or a related body corporate, except to the extent the cost of providing access to other operators is higher
- (d) provide incentives to reduce costs or otherwise improve productivity.

To date, the QCA has determined a cost-reflective reference tariff for the DBCT service, and the standard access agreements approved by the QCA provide a mechanism for the access charge to be cost-reflective. Therefore, in a future with declaration, expanding existing users and new users would likely expect cost-reflective access charges over the economic life of a mine.

Once an access agreement is entered into, the terms of that agreement will determine the access charges that will apply in subsequent pricing periods under the contract.³⁵¹

³⁵⁰ QCA Act, s. 168A.

³⁴⁷ DBCT User Group, sub. 30, schedule 3, pp. 38–40.

³⁴⁸ DBCT Management, sub. 38, pp. 17–22.

³⁴⁹ QCA Act, s. 138(2).

In summary, with access under declaration, existing users would continue to get the benefit of constraints in the existing user agreements up to the volumes in those agreements; and new users would get access under the QCA Act provisions during the declaration period, and so would expect access on reasonable terms and conditions. Having entered into an access agreement under declaration, subsequent price reviews would follow the QCA-approved pricing approach in the SAA (which can be assumed to reflect reasonable terms and conditions and provide an effective constraint, as do the existing user agreements). While any future decisions of the QCA are not known, the terms of the current approved SAA are illustrative of what can be approved under declaration having regard to the factors in the QCA Act.

The QCA is satisfied that, similar to an existing user, a new user entering into an access agreement in a future with declaration would expect certainty of pricing on reasonable terms for the duration of that agreement.

The future without declaration

Establishing the initial access charge

This section addresses the application of the pricing approach in the deed poll and access framework for access to existing terminal capacity. Expansion capacity pricing is considered in Part C, Chapter 4 (coal tenements market).

Existing users would continue to get the benefit of constraints in existing user agreements up to the volumes in those agreements, with or without declaration. Also, the QCA Act provides that an access agreement entered into before expiry of declaration or revocation is protected for its life.³⁵²

Without declaration, the TIC for a new user would be determined in accordance with the access framework. The TIC would be negotiated between the parties and, failing agreement, the matter would be resolved by referral to an independent arbitrator.³⁵³ The access framework specifies a pricing methodology to be applied by the arbitrator.³⁵⁴

Under this approach, the arbitrator must determine a 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, between a floor and ceiling price. The floor TIC is specified in the access framework as the TIC for the existing terminal component that would apply under a QCA-administered pricing regime.³⁵⁵ The ceiling TIC is subject to a price difference cap of no more than \$3 per tonne above the floor TIC.³⁵⁶

DBCT Management's deed poll and access framework do not define the 'TIC that would apply for the existing terminal under a QCA-administered pricing regime'. Nevertheless, DBCT

³⁵¹ See for example the 2017 access undertaking SAA, cl. 7.2.

³⁵² QCA Act, s. 95(c).

³⁵³ DBCT Management, sub. 26, p. 52.

³⁵⁴ Access framework, cl. 10.4(d), schedule C. The access framework also sets out the matters the arbitrator must have regard to in making a determination (cl. 16.4(h)). These are broadly similar to the matters to be considered by the QCA in making an access determination (QCA Act, cl. 120), with certain exceptions—for example, there is no reference to the QCA Act pricing principles.

³⁵⁵ Access framework, schedule C, cl. 2.

³⁵⁶ Deed poll, cl. 6.1; access framework, schedule C, cl. 2. DBCT Management said that the only circumstances where it could charge more than this is where the QCA-administered TIC for the new terminal would exceed the existing floor TIC + \$3 (i.e. in the case of an expensive and differentially priced expansion). In that case, it could only charge up to the equivalent of a QCA-determined TIC for that terminal component (DBCT Management, sub. 26, p. 71).

Management's submissions have variously characterised that the floor TIC refers to the QCA-regulated TIC for the existing terminal.³⁵⁷ For instance:

This requires the arbitrator to determine the TIC that would apply, by putting itself in the shoes of the QCA ... Clarity will also be further enhanced by a clear and well documented regulatory precedent between 2005 and 2020, under which the QCA has developed the building blocks approach it has used to determine DBCTM's access charges. This means that determination of the floor TIC should be a relatively straightforward assessment.³⁵⁸

Also:

The introduction of the \$3.00 cap comprehensively addresses the QCA's key concern, by ensuring that the access charges paid by new users are within the \$3.50 materiality threshold (which the QCA has already concluded would not appear to be material) of the QCA determined charges for the existing terminal.³⁵⁹

DBCT Management has also said that the floor TIC will be determined on the same basis as the TIC in existing user agreements (noting the standard access agreements approved by the QCA prescribe a number of matters that an arbitrator other than the QCA must have regard to, including the then current approach of the QCA).³⁶⁰

Therefore, the QCA understands the characterisation of the floor TIC in the access framework by DBCT Management to mean the QCA-regulated cost-reflective TIC for the existing terminal, and the ceiling would be no more than \$3 per tonne above this floor TIC.³⁶¹

The QCA considers that the pricing methodology specified in the access framework to apply in the event of a dispute would likely inform access negotiations. Importantly, access negotiation would occur in the knowledge that independent arbitration is available if parties cannot reach agreement.

DBCT Management said that both with and without declaration potential access seekers will be able to reasonably estimate the TIC that would be determined under a QCA-administered pricing regime.³⁶²

The QCA considers that without declaration there would be greater uncertainty for prospective access seekers than under declaration, given the various elements to be determined in the access framework pricing methodology (i.e. the floor TIC, the ceiling TIC and the price that would be agreed between a willing but not anxious buyer and seller), aspects of which are untested in this context. In particular, there would likely be a range of views on the floor price.

The DBCT User Group and New Hope said that the floor TIC or hypothetical QCA price would be akin to a range, and DBCT Management would have the incentive to seek to price at the top of the range.³⁶³ This comment would seem to relate to a TIC based on a building blocks methodology. Since stakeholders may have different opinions on the parameter values, it seems the argument is that DBCT Management may have the incentive to propose the values that produce a higher TIC. However, even under declaration, DBCT Management may have an

³⁵⁷ See DBCT Management, sub. 26, paras 13, 187, 442 and appendix 2, p. ii, sub. 38, paras 57, 59.

³⁵⁸ DBCT Management, sub. 38, p. 15.

³⁵⁹ DBCT Management, sub. 26, p. 6.

³⁶⁰ See DBCT Management, sub. 38, pp. 14–15.

³⁶¹ Under declaration, matters related to pricing of access are typically outlined in an access undertaking approved by the QCA. The analysis contained in this chapter should not be construed as presupposing any conclusion in respect of the QCA's 2019 DBCT DAU process that has commenced.

³⁶² DBCT Management, sub. 38, p. 15.

³⁶³ DBCT User Group, sub. 60, p. 20; New Hope, sub. 59, p. 4.

incentive to propose values that produce a higher TIC. Nevertheless, those values are subject to the QCA's assessment when the QCA approves a reference tariff. Likewise, without declaration, the QCA considers that in a negotiation and arbitration process under the access framework, each party would have an incentive to advance arguments about the 'TIC that would apply under a QCA-administered pricing regime' that are in their commercial interests. Ultimately, the TIC would be determined by an independent arbitrator.³⁶⁴ Therefore, DBCT Management's ability to secure a higher TIC will be constrained by the view of the independent arbitrator.

The QCA understands that the 'willing but not anxious' principle is a common approach used to determine 'market value'. It has previously been adopted by courts in a range of contexts.³⁶⁵ The test asks what a 'willing but not anxious' buyer would be prepared to pay, compared to the price a 'willing but not anxious' seller would accept. The ACCC has included this 'hypothetical bargain approach' in guidance provided to the Copyright Tribunal and describes it as follows:

The hypothetical bargain approach refers to a hypothetical bargain between a willing, but not anxious, licensor and a willing, but not anxious, licensee. This description is symmetrical and implies that neither party has particular power over the other. In this sense, it reduces the effect of any market power held by the collecting society. It does so by assuming symmetry in power between the parties. [footnote excluded]³⁶⁶

There is no certainty about how an arbitrator would apply this principle in the context of an arbitration between DBCT Management and an access seeker. The QCA notes that it would not necessarily result in the same charge that is derived using the building block approach applied by the QCA to date. For example, a seller who is willing but not anxious may seek a price that provides a 'reasonable return' on their investment. However, what the seller regards as reasonable may differ from the regulated rate of return in that it may not be based on the efficient value of those assets that a regulator would determine.

The QCA acknowledges that there is a greater degree of uncertainty around estimating the TIC compared to access under declaration. However, the ability to refer a dispute to arbitration—which would apply the pricing approach in the access framework arbitration provisions, including the price difference cap (based on a cost-reflective TIC that would apply for the existing terminal under a QCA-administered regime)—provides a pricing constraint. The QCA notes DBCT Management's view that the price would be up to \$3 per tonne more than the floor TIC (as ultimately determined by an arbitrator), but not necessarily at that level under the 'willing but not anxious' test.³⁶⁷

The question of whether a TIC that is up to \$3 per tonne more than the floor TIC—the TIC that would apply for the existing terminal under a QCA-administered regime—would have a material impact on competition in dependent markets is considered in section 3.4 and Part C, Chapters 4–9.

³⁶⁴ The QCA notes that existing user agreements also provide for a non-QCA arbitrator to determine an access price having regard to, among other things, the then current approach of the QCA (with the intent that the arbitration should produce an outcome similar to that which might have been expected had the QCA determined it) (2017 access undertaking SAA, cl. 7.2(e)).

³⁶⁵ For example, in relation to valuation of land and shares. See *Spencer v The Commonwealth of Australia* (1907) 5 CLR 418; *Federal Commissioner of Taxation v Miley* [2017] FCA 1396, [34]; *Abrahams v Federal Commissioner of Taxation* (1944) 70 CLR 23.

³⁶⁶ ACCC, ACCC Guidelines to assist the Copyright Tribunal in the determination of copyright remuneration, April 2019, p. 17.

³⁶⁷ DBCT Management, sub. 26, p. 54; sub. 58, pp. 19–20.

In summary, given the above, the QCA considers that, for a prospective access seeker, the following will apply in establishing the initial TIC in the absence of declaration compared to access under declaration, for the period until 2030:

- The TIC will likely be higher than under declaration, as the TIC that would apply in a QCA-administered pricing regime is the floor TIC in the access framework. That is, unless the arbitrator determines that the 'willing but not anxious' price would be at the floor, the TIC will be higher than under declaration. The amount by which it exceeds the floor would be determined by the arbitrator, but is subject to the \$3 per tonne price difference cap.
- In approving a reference tariff for DBCT, the QCA does not seek to establish a floor price, but
 rather the price that it considers appropriate having regard to the relevant criteria. The very
 fact that the deed poll and access framework give DBCT Management the ability to impose
 an access price that is necessarily higher than the price that would be determined by the
 QCA is an indicator that this framework would give DBCT Management an ability to exercise
 a degree of market power it would not have if the service was declared.
- While an arbitrated TIC may be less than the ceiling, it is reasonable to assume a new user looking to invest in a coal tenement would likely factor in a TIC ranging from a cost-reflective floor TIC to a TIC that is \$3 per tonne more than that floor TIC.
- A new user will potentially pay up to \$3 per tonne more for access than an existing user up to the volumes in existing user agreements.

Price reviews under access agreements

An access seeker entering into an agreement under the access framework would do so on the terms of the access framework SAA. This provides for periodic price reviews—before the start of a pricing period. The review may have regard to the access framework in effect at the time. If the parties cannot agree, they may refer the matter to arbitration in accordance with the access framework. The arbitration must be conducted in accordance with the access framework implemented under the March 2019 deed poll. Before the access framework implemented under the March 2019 deed poll.

Consequently, any arbitration of a dispute relating to the first price review (in 2026) under an access framework access agreement would be determined in accordance with the access framework. This means that the pricing guidance to the arbitrator in the access framework outlined above would apply—that is, the TIC would be determined as the price that would be agreed between a willing but not anxious buyer and seller, between the floor and ceiling price, and subject to the overall \$3 per tonne price difference cap. As noted above, while the arbitrated TIC may be less than the ceiling, a potential access seeker would likely factor into its assessment of the mine project that it would pay up to the highest TIC that may apply—that is, the floor TIC + \$3 per tonne—up until at least the next price review.

However, the TIC—and the pricing approach to determine it—that would apply in subsequent price reviews under an access framework access agreement would be subject to some uncertainty at the time of entering into the agreement. This is because it would not be known if the deed poll and access framework would be in operation beyond 2030 or, if they were, what their terms would be. This gives rise to a potential for 'hold-up'—that is, the risk that, having

³⁶⁸ 'Pricing Period' means the period commencing on the commencement date and ending on 30 June 2026 and each subsequent 5-year period during the term (access framework, schedule G).

³⁶⁹ The access framework SAA also includes an evergreen renewal provision, similar to the 2017 access undertaking SAA (cl. 20).

³⁷⁰ Access framework, SAA, cl. 7.2.

entered into an agreement for long-lived assets with considerable sunk costs, the access provider may appropriate a mine's rents at subsequent price reviews. This risk of hold-up has the potential to deter investment in mine projects.

The access framework has a term of 10 years, until 2030. The deed poll provides that, at least 12 months before the expiry of the term, DBCT Management will publish a notice of its intention to renew, or not renew, the operation of the framework for a further term. Where the access framework is being renewed for a further term, details of the term and a copy of the access framework with any amendment(s) must be published on DBCT Management's website. DBCT Management also covenants in the deed poll that it will not revoke or amend the deed poll until the expiry of the term.³⁷¹

Consequently, a range of scenarios are possible after 2030. This causes some uncertainty as to what pricing constraints would apply to a price review arbitration under an access framework SAA beyond 2030. The QCA has considered the implications of these possible scenarios for a potential new user seeking access within the term of the access framework (i.e. until 2030). In particular, the QCA has assessed how the price review provisions of the access framework SAA would be likely to apply in the event of an arbitration after 2030.

Under the terms of the access framework SAA, parties are able to refer a dispute where they are unable to agree terms as part of the pricing review. However, the pricing approach that would govern the setting of the TIC in an arbitration of a price review dispute beyond 2030 would appear to depend on DBCT Management's action at that time and the operation of the deed poll. For instance:

- DBCT Management may not renew the 2020 access framework or may put in place a
 different deed and access framework after its expiry. In those circumstances, the QCA
 considers that the pricing arbitration based on the terms of the 2020 access framework—
 which include the pricing constraints noted above—may continue to apply. This is because,
 as noted, the arbitration under the access framework SAA must be conducted in accordance
 with the access framework implemented under the March 2019 deed poll. A different deed
 poll, for instance, would be unlikely to satisfy this condition.
- Alternatively, DBCT Management could put in place an amended version of the 2020 access framework, which may potentially include changes to secure additional rents.

Given that DBCT Management has an incentive to maximise profits, the QCA has considered whether it may seek to amend the access framework to secure additional rents beyond 2030. However, whether DBCT Management would be able to conduct itself in this manner would depend on whether the amendments:

- could override the \$3 per tonne price difference cap that is included in the deed poll
- satisfy the requirements set out in the deed poll that they:
 - promote the framework objective (which is the same as the object of Part 5 of the QCA Act)
 - are appropriate, having regard to the other mandatory considerations set out in the deed poll, which are similar to the factors set out in s. 138(2) of the QCA Act.³⁷²

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³⁷¹ Deed poll, cls. 3, 5.

³⁷² Deed poll, cl. 8.

To the extent a DBCT user considers the amendments would not satisfy these requirements, it would be open for the user to contest the proposed change by initiating court proceedings as set out in the deed poll (see the discussion above and in Appendix F regarding constraints on DBCT Management's ability to amend the access framework).

For the reasons already outlined, the QCA notes that the threat of declaration is also a relevant consideration when considering DBCT Management's likely conduct in relation to pricing after 2030. It would be open to parties to apply for declaration at any time should there be concerns about any adverse impact of DBCT Management's conduct on the environment for competition in a dependent market, compared to a future with declaration. The fact that DBCT Management has elected to execute the deed poll with a specific pricing constraint to address concerns about adverse impacts on the competitive environment in the present instance—that is, when it is facing the prospect of declaration—is an indicator that the threat of declaration is a relevant factor impacting upon DBCT Management. Given this, it is reasonable to conclude that the same factors that prompted it to execute the deed poll now may also motivate it to offer access arrangements beyond 2030 that constrain DBCT Management in a similar way in order to avoid declaration. In other words, it may be in DBCT Management's interest to implement an access framework at that time that enables it to secure a share of available rents but which would not materially affect competitive conditions in dependent markets, compared to a future with declaration (see Part C, Chapters 4–9).

Therefore, given the above factors, the QCA does not consider that beyond 2030 DBCT Management would necessarily be able to impose a price to extract an inefficient level of rents³⁷³ from access holders who have entered into an agreement under the access framework.

Operation and maintenance charge

Access charges for the terminal comprise two parts: the TIC and an operation and maintenance charge (OMC). With declaration, the 2017 access undertaking provides for terminal operating costs to be recovered from access holders through the OMC as a 'pass-through'. This arrangement reflects the fact that day to day operation and maintenance of the terminal is subcontracted to DBCT Pty Ltd—which is an independent, user-owned entity—and that this provides transparency and alignment of interests between DBCT Management and the users of the terminal.³⁷⁴

Without declaration, the access framework, too, provides for recovery of terminal operating costs from access holders through an OMC and includes similar commitments regarding the operator.³⁷⁵ The deed poll also defines 'operator' to mean DBCT Pty Ltd. DBCT Management covenants in the deed poll that, other than the TIC, access charges it imposes under an access agreement negotiated under the framework or otherwise entered into during the term will be limited to any charges that pass terminal operating costs incurred by DBCT Management through to access holders.³⁷⁶ The inclusion of these matters in the deed poll means they cannot be changed for the term.

The QCA therefore considers that these factors provide an effective constraint on DBCT Management in terms of operating and maintenance charges and are similar with and without declaration.

³⁷³ That is, a level of rent extraction that would be likely to have a detrimental impact on competitive conditions in a dependent market, compared to a future with declaration.

³⁷⁴ QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016, p. 43.

³⁷⁵ Access framework, cls. 3.2, 3.3, 10.5, schedule H.

³⁷⁶ Deed poll, cls. 1.1, 6.2.

Conclusion on access arrangements

The QCA has considered whether the deed poll and access framework collectively represent a suite of arrangements that will operate in the absence of declaration to effectively constrain DBCT Management's ability to exercise market power, compared to access with declaration. The QCA's view is:

- Access under declaration will provide new access seekers and access holders with access on reasonable terms and conditions.
- Existing users have the benefit of the terms of existing user agreements, which provide an
 effective constraint on DBCT Management's conduct for the life of the agreement, up to the
 volumes specified in the agreement. These protections will apply with or without
 declaration.
- In the absence of declaration, the deed poll is a part of the appropriate counterfactual in circumstances where prospective access seekers seek access or increased access in a future scenario where the DBCT service is not declared.
- Without declaration, new access seekers and access holders will likely face a greater degree of uncertainty and, therefore, a less favourable environment, compared to access under declaration due to aspects of the deed poll's operation compared to access under declaration—namely, DBCT Management's ability to amend the access framework (other than the pricing constraint); the access negotiation and arbitration process; and compliance and enforcement. However, the ability to refer a dispute to independent arbitration (which would apply the pricing approach specified in the access framework) provides a constraint. The QCA's view is that hard-coding the pricing constraint in the deed poll provides certainty that the constraint will apply for the term. Also, the deed poll and access framework include mechanisms, through court enforcement or independent dispute resolution, to hold DBCT Management accountable for compliance with its access obligations and therefore provide some constraint.
- Until 2030, the access framework provides a pricing constraint through an ability to refer a dispute to arbitration where parties cannot agree terms, with the pricing approach to be applied by the arbitrator as specified in the deed poll and access framework. This includes a price difference cap of no more than \$3 per tonne over the price that would apply under a QCA-administered regime (that is, the QCA-regulated cost-reflective TIC for the existing terminal). As such, a prospective user would likely expect to pay more without declaration compared to with declaration (given the estimate of the price the QCA would determine is the floor price under the access framework), and would likely factor in a TIC ranging from a cost-reflective floor TIC to a TIC of \$3 per tonne more than that floor TIC for the existing terminal. A prospective user would also expect to pay up to \$3 per tonne more than an existing user (up to the volumes in an existing user agreement).
- The pricing arrangement that would govern setting the TIC at periodic reviews beyond the expiry of the access framework in 2030 would appear to depend on DBCT Management's action at that time and the operation of the March 2019 deed poll. DBCT Management has an incentive to maximise profits; however, mitigating the risk for users arising from this is the existence of contractual constraints (in the form of arbitration under the agreement and constraints in the deed poll on amendments to the access framework) as well as the threat of declaration. Given these factors, the QCA does not consider that beyond 2030 DBCT Management would necessarily be able to price in a way to materially impact competition in a dependent market (see Part C, Chapter 4).

3.3.7 Conclusion: DBCT Management's ability and incentive to exercise market power in the absence of declaration

The QCA has assessed a number of potential constraints and whether, taken together, they effectively constrain DBCT Management's ability and incentive to exercise market power in the absence of declaration.

The QCA considers that DBCT Management's ability and incentive to exert market power in the absence of declaration would not be constrained by:

- competition from other coal export terminals, as other coal export terminals would not provide an effective competitive constraint on DBCT Management's behaviour
- the countervailing power of users (in particular, new entrants and existing users seeking increased access)
- DBCT Management's lease arrangement with the state
- DBCT Management not being vertically integrated.

The QCA does not consider that the threat of declaration by itself would effectively constrain DBCT Management. However, the threat of declaration is a relevant consideration when it is combined with the commitments contained in the deed poll and access framework, including a pricing constraint to address concerns identified in the draft recommendation.

The QCA considers that access arrangements in the absence of declaration, in the form of the executed deed poll and DBCT Management's access framework, provide some constraint on DBCT Management's ability to exercise market power. Nevertheless, future access seekers and access holders will likely pay more (up to a capped amount) than they would under declaration, and more than an existing user (up to the volumes in existing user agreements). Future access seekers and access holders would also likely face a greater degree of uncertainty due to the operation of the deed poll and access framework as a means of providing access compared to access under the QCA Act.

Although establishing that DBCT Management possesses market power is relevant to the assessment of criterion (a), the existence of market power is itself not enough to satisfy criterion (a). What is relevant is whether DBCT Management's ability and incentive to exercise market power in a future without declaration would materially affect competitive conditions in a dependent market compared to a future with declaration, such that the QCA can be satisfied that declaration would promote a material increase in competition in at least one dependent market.

Given the evidence before the QCA, the QCA is not satisfied that access as a result of declaration would promote a material increase in competition in a dependent market compared to access under the deed poll and access framework (see sections 3.4–3.5 and Part C, Chapters 4–9).

3.4 Environment for competition with and without declaration

Criterion (a) requires identification of at least one market other than the market for the service.

The service is the handling of coal at DBCT by the terminal operator, and the market for the service is the market for DBCT's coal handling service in the Goonyella system (see Part C, Chapter 2).

Stakeholders identified the following dependent markets as separate from the market for the coal handling service at DBCT:

- the coal tenements market
- the coal export market
- the coal haulage services market (above-rail services)
- the DBCT secondary capacity trading market
- the rail access market (below-rail services)
- a number of other markets such as port services (e.g. pilotage and towage services); coal shipping services; and various mining inputs and services markets (such as geological and drilling services, construction services, mining safety services, and mining technology services).³⁷⁷

DBCT Management and the DBCT User Group collectively focused on the effect of declaration on competition in the coal tenements market, coal export market, coal haulage services market and the DBCT secondary capacity trading market. However, the QCA considers that all the markets listed above are relevant for this assessment and has assessed the environment for competition with and without declaration in these dependent markets. The markets listed above are similar to those considered by the NCC in the *PNO declaration revocation* matter.³⁷⁸ Criterion (a) requires the QCA to be satisfied that there is at least one dependent market where access (or increased access) to the DBCT service as a result of declaration of the service would promote a material increase in competition.

The QCA's conclusions are summarised in Table 15. A detailed assessment of each dependent market is included in Part C, Chapters 4–9.

Table 15 Environment for competition in dependent markets—the QCA's view

Dependent market	QCA's view	Chapter
Coal tenements market(s)	Criterion (a) is not satisfied	Part C, Chapter 4
Coal export market	Criterion (a) is not satisfied	Part C, Chapter 5
Coal haulage services market (above-rail services)	Criterion (a) is not satisfied	Part C, Chapter 6
DBCT secondary capacity trading market	Criterion (a) is not satisfied	Part C, Chapter 7
Rail access market (below-rail services)	Criterion (a) is not satisfied	Part C, Chapter 8
Other markets	Criterion (a) is not satisfied	Part C, Chapter 9

3.5 Conclusion on criterion (a)

The QCA's conclusions are as follows:

³⁷⁷ DBCT Management, sub. 1, p. 74; DBCT User Group, sub. 3, p. 40.

³⁷⁸ National Competition Council, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, Recommendation, 22 July 2019.

- The coal handling service at DBCT is an essential service for moving coal from rail to ships for mines in the Goonyella system.
- DBCT Management, despite not being vertically integrated, would have an incentive to exert market power.
- In the future without declaration, the deed poll and access framework provide some
 constraint on DBCT Management's ability to exercise market power. In particular, DBCT
 Management does not have the discretion to impose excessive TIC increases. Nevertheless,
 new users would expect higher access charges (up to a capped amount) and would also face
 a degree of uncertainty due to the operation of the deed poll and access framework, so that
 access terms in a future without declaration would be less favourable than access in a future
 with declaration.
- Despite this, given the evidence before the QCA, the QCA's view is that access (or increased
 access) as a result of declaration would not promote a material increase in competition in a
 dependent market.

Therefore, criterion (a) is not satisfied.

4 COAL TENEMENTS MARKET

4.1 Introduction

The QCA's view is that the terms and conditions of access to the DBCT service would be less favourable to new users and expanding existing users in a future without declaration than in a future with declaration. In particular, new users and expanding existing users would expect a higher access charge in a future without declaration than in a future with declaration, and would expect to pay more than existing users (up to the volumes in their existing user agreements).³⁷⁹

Having formed that view, the QCA has considered whether access (or increased access) as a result of declaration would promote a material increase in competition in the coal tenements market.

4.2 Coal tenements market

Nature and types

A coal tenement is the right to carry out prospecting, exploration, resource development or mining activity in respect of a specific piece of land—a right created through a licence issued by the state.

In Queensland, coal tenements refer to resource authorities under the *Minerals Resources Act* 1989 (Qld) that allow mining companies to explore, evaluate and operate coal mines. The Queensland Government grants three types of coal tenements:

- exploration permit for coal (EPC)—which allows the tenement holder to prospect, conduct geophysical surveys, conduct drilling, sampling and testing of materials, and use other advanced exploration methods to determine the quantity and quality of coal present
- mineral development licence (MDL)—which allows the tenement holder to conduct geoscientific programs (e.g. drilling, seismic surveys), mining feasibility studies, metallurgical testing and marketing, and environmental, engineering and design studies to evaluate the development potential of the defined resource
- mining lease (ML), also known as production tenement—which allows the tenement holder to conduct larger-scale mining operations and other activities associated with mining (see Table 16).³⁸⁰

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³⁷⁹ Section 3.3.7.

³⁸⁰ Business Queensland, Mineral and coal authorities, Queensland Government, viewed 9 August 2018, https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/applying/authorities.

Table 16 Main features of coal tenements in Queensland

Feature	Exploration permit for coal	Mineral development licence	Mining lease
Duration	Up to 5 years; and renewable Requirement to annually relinquish sub-blocks that are of no long-term interest, reducing the ongoing number held	Up to 5 years; and renewable No annual relinquishment	Depends on identified reserves and projected mine life; and renewable No annual relinquishment
Size	300 sub-blocks	No size restrictions	No size restrictions, except in restricted areas
Rent (excluding GST)	\$161.30 per sub-block	Annual rent from \$4.45 per hectare in first year to \$29.25 per hectare after 4 years A discount based on area of the licence applies	Variable rate: \$62.30 per hectare A fixed rate may be determined by special agreement
Pre-requisite authority	-	Exploration permit over the area	Prospecting permit, exploration permit or mineral development licence
Environmental authority	May not be required for a small-scale mining activity	Required	Required
Native title requirement	Need to be addressed	Need to be addressed	Need to be addressed
Landholder notification requirement	-	-	Required to engage with landholders and compensate them

Source: Business Queensland, Mineral and coal authorities, https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/applying/authorities.

How coal tenements are obtained

New EPCs are only available through a successful tender submitted in the context of a competitive process managed by the Queensland Government. At this early stage, an EPC reflects a high-risk, speculative activity arising from the possibility that there may be no economic coal in the area covered by the tenement.³⁸¹

Generally, once a reasonable degree of confidence is obtained about the quantity and quality of coal present, and that the coal deposit has a conceptual economic value, a holder of an EPC may:

apply for an MDL in respect of the tenement area to evaluate the commercial feasibility of
the project and progress all relevant permits including landholder agreements and an
environmental authority. Alternatively, if the degree of confidence is sufficiently high, a
holder of an EPC may apply for an ML for coal and progress all relevant permits. In either
case the applicant must hold an EPC in respect of that tenement area or have the permission

³⁸¹ DBCT Management, sub. 26, appendix 2, p. 26; sub. 38, p. 27, para. 124 and appendix 2, p. 3.

of the EPC holder to apply for an ML, which means an MDL or an ML is always associated with an EPC.

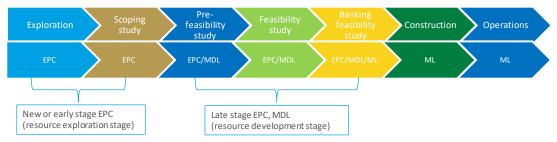
 at any time, sell the tenement (comprising of an EPC, MDL or ML) to another party to take the project to the development/operation stage.³⁸²

In other words, a late stage EPC would likely be associated with an MDL or an ML, and represent a reasonable and increasing degree of confidence about the quantity and quality of coal present and about the commercial feasibility of the mining project.

In contrast, a new or early stage EPC would unlikely be associated with an MDL or an ML, and would reflect speculation about the coal resource.

The life cycle of a coal tenement would represent the various stages of a coal mining project ranging from exploration through to feasibility studies to commencement of commercial operations (Figure 5).

Figure 5 Coal mine development stages and associated coal tenement type



Source: QCA analysis.

The primary source of coal tenements is the government, which creates new EPCs and grants MDLs and MLs. Existing coal tenements (comprising EPCs, MDLs and MLs) can be bought and sold, by purchasing coal tenements from parties that hold such rights or by acquiring entities that hold such rights.³⁸³

Therefore, the product in relation to a coal tenement is the 'right' encapsulated in the EPC, MDL and ML, where the right ranges from being for a speculative activity to resource development and operations. The market for coal tenements is where these rights are bought and sold. A coal tenement can be acquired for development into a mining project or for exploration and on-sale.

Is the market for coal tenements a relevant dependent market

In the matter of the application for declaration of four railways in the Pilbara region used for the transportation of iron ore (*Pilbara* matter), the Tribunal considered the iron ore tenements market to be a relevant dependent market. The Tribunal noted that there had been transactions in tenements other than by grant, and also considered that there was both a demand for tenements and sellers willing to meet that demand, including sellers who did not carry out mining operations. On that basis, the Tribunal's view was that there is a functionally distinct market for iron ore tenements, and it examined the impact on competition in the iron ore tenements market.³⁸⁴

³⁸³ DBCT User Group, sub. 3, pp. 41–42 and schedule 2, p. 10. DBCT Management, sub. 38, p. 29, paras 140–143 and sub. 26, appendix 2, p. 26.

³⁸² See also DBCT Management, sub. 38, p. 29, paras 140–143.

³⁸⁴ Australian Competition Tribunal, *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 [1108–1112].

However, in the matter of application for declaration of the service at the Port of Newcastle (*PNO declaration* matter), the Tribunal's view, based on the information before it, was that the coal tenements market is a derivative of the coal export market. In that matter, the Tribunal did not consider it necessary to examine the impact on competition in the coal tenements market independently of the coal export market, observing that:

The Tribunal does not consider it necessary to address the impacts asserted in relation to derivative markets. If 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 as noted above. The Tribunal was not taken to material specifically concerning those derivative markets or any of them which would indicate a material increase in competition by increased access independently of the coal export market (and the asserted consequences to competition in that market) if the declaration was made. Senior counsel for Glencore in oral submissions, whilst not abandoning the relevance of the derivative markets, focused largely on the coal export market itself.³⁸⁵

In the matter of the application for revocation of the declaration of the service at the Port of Newcastle (*PNO declaration revocation* matter), the NCC maintained the view that the coal tenements market is a derivative of the coal export market. Nevertheless, the NCC considered it appropriate to examine the competition impacts in the coal tenements market in greater detail.³⁸⁶ The NCC also accepted that the coal tenements market is likely to be functionally separate from the market for the service, stating that:

The Council has received no evidence to suggest that there is integrated competition across levels of the supply chain that would make distinct functional markets inappropriate.³⁸⁷

An argument made by Aurizon Network in the current declarations review process is that a relevant dependent market for assessment under criterion (a) is one in which the monopoly infrastructure service provider is vertically integrated, so markets in which the provider is not vertically integrated are not relevant. For instance, Aurizon Network argued in the context of the declaration review of the Aurizon Network service:

The NCC has previously considered that the market for iron ore tenements in the Pilbara to be a relevant market for consideration of declarations applications for the Pilbara rail networks. However, the relevance of this market is in the context of the owners of the rail networks also being vertically integrated into the market for iron ore extraction and marketing. As Aurizon Network is not vertically integrated into the market for coal extraction or marketing and would have strong incentives to increase incremental demand for the service then the market for coal tenements in the Bowen Basin is not a relevant market.³⁸⁸

Although this argument was not made in the context of the DBCT service, it is relevant to consider it since DBCT Management is not vertically integrated into the coal tenements market.

Since Aurizon Network's argument is based on its interpretation of the *Pilbara* matter, it is pertinent to recall the Tribunal's view in that matter. The Tribunal had considered the iron ore tenements market as relevant for criterion (a) analysis in the *Pilbara* matter based on, among other things, evidence of tenements transactions in the *Pilbara* region, stating:

What these dealings in tenements and the statements of the mining companies show is that there is both a demand for tenements and sellers willing to meet that demand, including sellers

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³⁸⁵ Australian Competition Tribunal, *Application by Glencore Coal Pty Ltd* [2016] ACompT 6, p. 29 [139].

³⁸⁶ National Competition Council, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, recommendation, 22 July 2019, paras 7.184, 7.186.

³⁸⁷ NCC, July 2019, para. 7.187.

³⁸⁸ Aurizon Network, sub. 6, pp. 39–40.

who do not carry out mining operations. It is difficult in those circumstances to deny that there is a functionally distinct market for iron ore tenements. We agree with the NCC's contention that it is sufficient that companies sell tenements, whatever their intention ...³⁸⁹

The QCA's view is that the evidence of transactions in coal tenements will demonstrate the existence of, and relevance of, the coal tenements market as a dependent market for criterion (a) assessment, regardless of whether an infrastructure service provider is vertically integrated. In that case, whether a service provider is (or is not) vertically integrated into a dependent market would be a relevant factor in assessing the impact of its conduct on competitive conditions in that dependent market.

In the current matter of the declaration review of the DBCT service, stakeholders have submitted information presenting their views about the impact that declaration may have on competition in the coal tenements market.

In particular, both DBCT Management and the DBCT User Group submitted information on coal tenements transactions in the Hay Point catchment area that shows there is a demand for coal tenements and there are sellers willing to meet that demand, including sellers who do not carry out mining operations.³⁹⁰ For instance, the database on coal tenements in the Hay Point catchment submitted by DBCT Management shows:

- There are sellers of coal tenements, other than the government, who do not carry out mining operations, for example Wavenet International Limited (EPC 1067) and Area Coal Pty Ltd (EPC 1824).
- Coal miners have purchased tenements with proven coal deposits from an unrelated party
 (another coal miner or a non-miner), for example, the acquisition of MDL 137 by Peabody's
 subsidiary Millennium Coal from BMC in 2008, and the acquisition of MDL 274 by Anglo Coal
 from Viva Energy in 2010. This suggests that coal producers do not regard the exploration
 and development of coal deposits as a matter that must necessarily be undertaken 'in-house'.
- About half the EPCs are held by more than 20 firms that currently do not carry out coal
 mining operations and it is unlikely that all of them will become a coal miner over the
 declaration period under consideration. This would suggest that some coal tenements will
 be sold, and therefore, there is the potential for transactions in coal tenements in the future.

Given transactions in coal tenements have occurred between unrelated parties and the potential for transactions in the future, the QCA is satisfied that there is a functionally distinct market for coal tenements in relation to the DBCT service, which requires separate consideration in respect of the criterion (a) assessment.

4.3 Stakeholder submissions

Stakeholders commented on:

- the boundaries of the coal tenements market
- the existing state of competition in the coal tenements market
- whether access as a result of declaration would promote a material increase in competition in the market.

³⁸⁹ Australian Competition Tribunal, In the matter of Fortescue Metals Group Limited [2010] ACompT 2 [1117].

³⁹⁰ DBCT Management, sub. 38, appendix 2; DBCT User Group, sub. 3, pp. 41–42.

Boundaries of the market

The DBCT User Group's view was that the market for coal exploration and development tenements, which characterises the pre-production stages of a coal tenement life cycle, is separate from the market for coal production tenements.³⁹¹ DBCT Management noted this proposition but did not consider it necessary to address whether separate markets exist for these functions.³⁹²

Stakeholders (i.e. the DBCT User Group and DBCT Management) agreed that the market for coal tenements is distinct from the market for other minerals tenements.³⁹³ However, DBCT Management did not see merit in further narrowing the market definition to tenements with predominantly metallurgical coal, arguing that buyers of coal tenements appear to be able to substitute between metallurgical coal and thermal coal tenements.³⁹⁴ The DBCT User Group also considered that the market for coal tenements related to metallurgical coal, thermal coal or both.³⁹⁵

Stakeholders disagreed on the geographic boundary of the coal tenements market.

The DBCT User Group's view was that the geographic scope of the coal tenements market is the Hay Point catchment region³⁹⁶, whereas in DBCT Management's view the geographic scope of the market is wider than the Hay Point catchment and likely extends at least to the central Queensland region or beyond.³⁹⁷

Existing state of competition in the coal tenements market

Both the DBCT User Group and DBCT Management said the coal tenements market in the Hay Point catchment is currently competitive.

The DBCT User Group's consultant, Palaris, said that several developments—such as movements in coal prices and company consolidation and divestitures—resulted in increased competition in the coal tenements market, which is reflected in a number of acquisitions of tenements in the Queensland coal industry, including in the Hay Point catchment.³⁹⁸

DBCT Management submitted coal tenements transactions data pertaining to the Hay Point catchment and observed that the data show a 'thriving market' for exploration and development coal tenements, with significant acquisitions by firms who are not incumbent users of coal handling service at DBCT. ³⁹⁹ DBCT Management said the data show that future uncertainty regarding access at DBCT, due to the expiry of the existing declaration in 2020, has not affected participation by non-incumbent firms.

³⁹¹ DBCT User Group, sub. 46, p. 64.

³⁹² DBCT Management, sub. 26, appendix 2, p. 27.

³⁹³ DBCT User Group, sub. 15, p. 54 and sub. 30, p. 58; DBCT Management, sub. 1, appendix 9, p. 38.

³⁹⁴ DBCT Management, sub. 26, appendix 2, p. 27.

³⁹⁵ DBCT User Group, sub. 46, pp. 64–66.

³⁹⁶ The DBCT User Group referred to the Goonyella system as the Hay Point catchment, and acknowledged that the Hay Point catchment is not perfectly aligned with the Goonyella system, as tenements that are not connected to the system, but for which that [Goonyella system] would be the most efficient rail network for export, would be within the market (DBCT User Group, sub. 3, pp. 34, 44). For presentational purpose, the QCA has referred the Hay Point catchment and the Goonyella system interchangeably in its discussion of the coal tenements market in relation to the DBCT service.

³⁹⁷ DBCT Management, sub. 26, pp. 61–62, paras 286, 297 and appendix 2, p. iv.

³⁹⁸ DBCT User Group, sub. 46, p. 73, sub. 30, schedule 3, pp. 32–33.

³⁹⁹ DBCT Management, sub. 38, pp. 19–20, paras 80–83.

Environment for competition with and without declaration

Stakeholders disagreed on whether access as a result of declaration would promote a material increase in competition in the coal tenements market.

The DBCT User Group said declaration would promote a material increase in competition in the market for exploration and development coal tenements in the Hay Point catchment. The DBCT User Group's view was that with declaration, existing users and new users would be subject to the same access charge (the terminal infrastructure charge—TIC) because existing terminal capacity will become available and terminal expansions are likely to be socialised. On the contrary, it argued that without declaration, under DBCT Management's access framework, new users would likely pay 'at least' \$3 per tonne more than existing users. The DBCT User Group considered that the asymmetric pricing outcomes for existing and future users in the absence of declaration (even with the \$3 per tonne price difference cap) creates a barrier to entry for efficient future users—particularly in the market for coal exploration and development tenements—which will not exist with declaration.

DBCT Management said that declaration would not promote a material increase in competition in the market for coal tenements due to, among others, the following reasons:

- The market for coal tenements is wider than the Hay Point catchment, and a change in the terms of access at DBCT without declaration would not be expected to affect the opportunities and environment for competition in this market.
- Empirical evidence demonstrates that uncertainty regarding the terms and conditions of access at DBCT post-2020 has not deterred investment in coal tenements by miners without existing access to DBCT.
- Given that DBCT is now fully contracted, new users would obtain access to expansion terminal components, which would most likely be priced on a differential basis, so new users would face similar TIC with and without declaration.
- Terminal charges are only a fraction of the costs (and risks) considered by a miner in deciding whether to invest in a coal tenement.
- Miners face far greater risks than uncertainty regarding access terms at DBCT, such as highly volatile coal prices, the risk that DBCT will reach full expanded capacity with or without declaration, and political risks.⁴⁰²

4.4 QCA analysis

The QCA's view is that there are three functionally distinct coal tenements markets:

- the market for the supply and acquisition of new or early stage exploration permits for coal in the central Queensland region (exploration stage tenements)
- the market for the supply and acquisition of late stage exploration and development tenements in relation to metallurgical coal in the Hay Point catchment (development stage tenements)

⁴⁰⁰ Likewise, New Hope (sub. 59, p. 5) said 'the assumption that this [expansion] capacity would be differentially priced is not sound.'

⁴⁰¹ DBCT User Group, sub. 46, pp. 59, 95, 100, sub. 60, p. 5.

⁴⁰² DBCT Management, sub. 38, p. 48, paras 240 and 241, appendix 2, p. 15, sub. 26, p. 61, para. 288 and appendix 2, pp. vii and 27, sub. 58, pp. 11–13.

• the market for the supply and acquisition of operating mines in relation to metallurgical coal in the Hay Point catchment (operating mines).

The QCA's view is that the coal tenements markets so defined are already workably competitive. Nevertheless, since the DBCT service is already declared (and has been for some time), existing competitive conditions in the relevant coal tenements markets may not necessarily represent the 'future without' declaration. Hence, the QCA has considered the likely competitive conditions in the relevant coal tenements markets in a future with and without declaration, and has assessed whether access (or increased access) to the service as a result of declaration of the DBCT service would promote a material increase in competition in a market.

Criterion (a) requires the QCA to be satisfied that declaration of the service would promote a material increase in competition in a dependent market. In summary, the QCA's views on the respective coal tenements markets are as follows:

- Market for exploration stage tenements: Activity in this market would be focused on proving
 an economic resource for development and operations. Access terms and conditions, which
 would be relevant after an economic resource has been proved, are unlikely to be a key
 consideration in this market. Additionally, the state has countervailing power in the market
 for exploration stage tenements, as it can design the tender process for issuing EPCs to
 counter a reduction in competition. Accordingly, the QCA is not satisfied that declaration of
 the DBCT service would promote a material increase in competition in this market.
- Market for development stage tenements: Access terms and conditions would be a relevant
 consideration for developing tenements into mining operations. Given the terms of DBCT
 Management's executed deed poll and access framework, including the access framework
 SAA, and considering DBCT Management's actions when faced with the present threat of
 declaration, the QCA does not consider that a future without declaration would materially
 impact on the ability of new users to develop coal tenements, relative to those developed by
 existing users and compared to if coal tenements were developed in a future with
 declaration. Accordingly, the QCA is not satisfied that declaration of the DBCT service would
 promote a material increase in competition in this market.
- Market for operating mines: Sale of existing coal mines in the Hay Point catchment are
 usually associated with the permanent transfer of terminal capacity rights to the acquirer.
 Given the provisions governing permanent capacity transfers in existing user agreements
 (based on the access undertaking SAAs) and in DBCT Management's access framework SAA,
 the QCA does not consider that DBCT Management would be able to frustrate the sale of
 existing mines in the absence of declaration. Therefore, the QCA is not satisfied that
 declaration of the DBCT service would promote a material increase in competition in this
 market.

In reaching this final view, the QCA considered:

- the boundaries of the coal tenements markets
- the existing state of competition in the markets
- the competitive conditions in the markets in a future with and without declaration, and assessed whether access (or increased access) to the service as a result of declaration would promote a material increase in competition in those markets.

This section considers the boundaries of the coal tenements markets and identifies three functionally distinct coal tenements markets. Subsequently, for each coal tenements market,

the QCA considered the existing competitive conditions and assessed the competitive conditions in a future with and without declaration.

Boundaries of the coal tenements markets

An economic market is typically defined by reference to its product and geographic dimensions, and where relevant, its functional dimension. Identifying strong substitutes, both actual and potential, across those dimensions is crucial to defining the relevant market.

A starting point is to consider the narrowest product and geographic dimension of the market, and assess if there is likely to be strong substitution on the demand and supply side across those dimensions. If another product or geographic area is a close substitute, the definition of the market is expanded to include close substitutes.

Stakeholders (i.e. the DBCT User Group and DBCT Management) did not contest the proposition that the market for coal tenements is separate from the market for minerals tenements. In particular, the DBCT User Group argued that was because:

- the Queensland Government grants separate tenements for coal and for other minerals
- buyers of coal tenements are different to those of other mineral tenements
- the value of coal tenements is affected by factors that are different to those that affect the value of tenements for other minerals—most notably, the price of coal
- tenements for coal and other minerals will not be substitutable and may require different experience and equipment to explore and extract.⁴⁰³

The QCA is satisfied the market for coal tenements is distinct from the market for mineral tenements. The issues to consider in defining the boundaries of the coal tenements markets in assessing criterion (a) for the DBCT service are:

- Whether there are separate markets for coal exploration permits, development licences and mining leases for coal? (functional dimension).
- Whether there is a distinct market for tenements in relation to metallurgical coal, or whether the market is wider, comprising tenements in relation to metallurgical coal and thermal coal? (product dimension).
- Whether the geographic scope of the coal tenements market is the Hay Point catchment, or is it wider (which is the main point of contention between stakeholders)? (geographic dimension).

Market for coal tenements—functional dimension

The DBCT User Group's view was that the market for exploration and development coal tenements is separate from the market for production tenements (operating mines), because:

- greater rights and obligations are attached to production tenements than to exploration and development tenements
- prices, risks, suppliers and acquirers are fundamentally different for operating mines relative to exploration and development tenements
- companies are highly unlikely to switch between the two types of coal tenements in response to a change in the relative price due to a range of factors including the availability

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⁴⁰³ DBCT User Group, sub. 15, p. 54, sub. 30, p. 58.

of capital and acquisition costs, location and synergy value for existing tenements and risk appetite. 404

In particular, the DBCT User Group viewed that exploration and development tenements are intrinsically high-risk and speculative, relative to operating mines. For instance, the DBCT User Group observed:

[This] is a clear distinction that separates exploration and development projects with a lower level of certainty and higher risk profile, to that of operating mines where most risks are known, and production volumes and operating costs can be estimated with a much higher level of certainty.⁴⁰⁵

Although DBCT Management did not submit a definite view on the functional dimension of the market, it too noted that the risks are different between exploration and development tenements, and production tenements:

124. Investing in exploration and development tenements is particularly high risk and speculative activity, as many tenements never turn into revenue generating production mines.

124.1 At the exploration stage, risk arises from the possibility that there will be no coal in the area covered by the tenement.

124.2 At the development stage, the miner still faces feasibility risks, where the mine may be unsuitable for production due to geological challenge, such as a low mining ate [sic], the amount of dilation [sic] or some other factor which means that the deposit is unfeasible, given market conditions. 406

The tenements market comprises two distinct tenement types (or functions), being:

- exploration and development tenements ... [footnote omitted]
- production tenements, where the risks arise principally in relation to the price of coal (rather than whether there are sufficient reserves to allow mining).⁴⁰⁷

Additionally, DBCT Management's consultant HoustonKemp observed that an exploration tenement is legally and functionally distinct from a development tenement, as an exploration tenement focuses on determining the extent of any mineral resource, while a development tenement focuses on the development potential of a defined resource. However, HoustonKemp did not see the need to distinguish the two forms of coal tenements for the purpose of a criterion (a) analysis.⁴⁰⁸

Thus, stakeholders' views are that the market for exploration and development tenements is functionally distinct from the market for production tenements (operating mines). If so, and as argued by the DBCT User Group, one would expect that firms participating in the market for exploration and development tenements generally would be different from those participating in the market for production tenements. The QCA examined the coal tenements database submitted by DBCT Management to test this proposition.

Coal tenements database submitted by DBCT Management

The database relates to coal tenements in the Hay Point catchment, as identified by DBCT Management's consultant HoustonKemp. The database sets out, among other things, the name

⁴⁰⁶ DBCT Management, sub. 38, p. 27, para. 124

⁴⁰⁴ DBCT User Group, sub. 15. pp. 54–55, sub. 30, schedule 3, p. 32.

⁴⁰⁵ DBCT User Group, sub. 46, p. 64.

⁴⁰⁷ DBCT Management, sub. 38, appendix 2, p. 1.

⁴⁰⁸ DBCT Management, sub. 38, appendix 1, p. 4.

of the authorised holder of each tenement, the percentage shareholding in a tenement, and the start date and end date of a tenement holding.

HoustonKemp also identified tenement holders that are part of the corporate structure of an existing user of DBCT (incumbents) to identify coal tenements held by incumbents and those held by non-incumbents (i.e. users that do not access a coal handling service at a Hay Point terminal).

The QCA considers it is useful to identify the extent to which firms that use a coal handling service at a Hay Point terminal (i.e. coal miners) hold coal tenements in the Hay Point catchment. Such firms would represent the type of tenement investor that generally would hold coal tenements for exploitation by mining. From this perspective, it is relevant to include BHP as an incumbent user of a coal handling service, noting that it predominantly uses HPCT rather than DBCT.

HoustonKemp's classification does not recognise Jellinbah as a user of a coal handling service, which has a majority shareholding in the Lake Vermont mine and has used the DBCT service. For this exercise, the QCA has considered Jellinbah as a user of a coal handling service.

HoustonKemp analysed the coal tenements data from 1990 onwards. The QCA understands that at least two coal miners, Rio Tinto and Vale, who were users of the DBCT service until 2016, have exited the Queensland coal mining market. HoustonKemp's classification does not identify them as users of a coal handling service. The QCA considers that for this exercise, they should be regarded as users of a coal handling service for the period until 2016. Additionally, some of the existing users at DBCT, for example, Stanmore Coal, TerraCom and Fitzroy Australia Resources (Fitzroy), are new DBCT users who acquired Rio Tinto and Vale coal tenements and entered the DBCT service market in or after 2016. There are also potential coal miners who are in the DBCT queue; so they have expressed an interest in using the coal handling service at DBCT.

For this exercise, the QCA also considered a tenement holder's parent company and identified if the parent company or the relevant tenement holder was a user of a coal handling service at a Hay Point terminal. The process of exit and entry in the market means that a given tenement holder's ownership structure may have changed. For instance, HoustonKemp identified Fitzroy as a parent company of Queensland Coal Resources, which held a mining lease (ML 70161) between 1997 and 1998. However, a document published by Fitzroy states that Fitzroy was established in 2016. 409 The QCA had difficulty reconciling such historical information. Therefore, to minimise errors, particularly relating to past information, and considering the superior quality of information available to the QCA for recent years, the QCA examined the coal tenements database from 2014 onwards (a period of approximately 5 years).

The QCA considered DBCT Management's tenements database and made adjustments as per above to identify whether a tenement holder, itself or through a parent firm, was:

- (a) an incumbent user of coal handling service during that period ('incumbent user')
- (b) a new user of coal handling service ('new user')
- (c) an incumbent user that exited the market during that period ('incumbent exited the market')
- (d) in the DBCT queue ('potential user').

⁴⁰⁹ Fitzroy Australia Resources, *Ironbark No. 1 Coal Mine Project MLA*, Attachment 1: Project Introduction, p. 6, viewed 9 May 2019, http://www.fitzroyoz.com/_asset/pdf/Project%20Introduction.pdf.

Tenement holders that were not matched to the categories (a) to (d) were classified as a non-user of a coal handling service during that period ('other'). Thus, firms in (a) to (d) would collectively represent the type of tenement investor that generally would hold coal tenements for exploitation by mining, whereas tenement holders in the 'other' category would generally represent investors that would hold coal tenements for exploration and potential on-sale.

Coal tenements data analysis

The QCA considered the distribution of tenements holding by users (classified at (a) to (d) above) and non-users ('other') at two points of time: in 2014 and in 2019 (which is the most recent year identified in the database). The data, presented in Figure 6, show the following consistent pattern at those two periods:

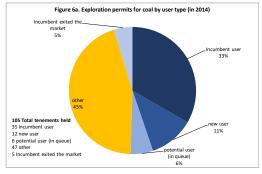
- EPCs are almost evenly held by the groups of users (blue shaded in Figure 6) and non-users (yellow shaded in Figure 6)—about 45 to 50 per cent of EPCs are held by firms that are not users of the coal handling service at a Hay Point terminal during the period examined.
- For non-users, relative to their holding of EPCs (45 to 50 per cent), there is a significant drop in their holding of development licences for coal (13 to 20 per cent of MDLs) and mining leases for coal (2 to 3 per cent).
- The decline in the non-users' share of MDLs and MLs for coal is mirrored by a significant
 increase in the share of users, who hold the majority of MDLs and almost all MLs. In other
 words, MDLs and MLs are predominantly held by firms that also seek a coal handling service
 at a Hay Point terminal.

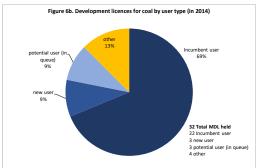
Queensland Competition Authority Coal tenements market

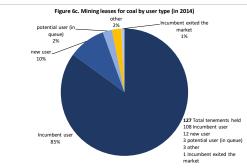
Figure 6 Distribution of the holding of coal tenements by users and non-users in the Hay Point catchment



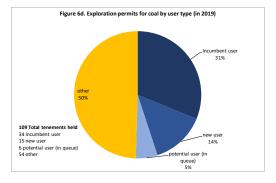
In 2014

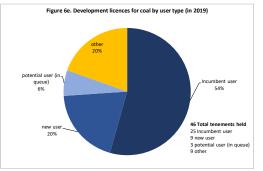


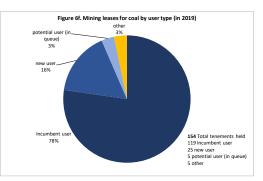




In 2019







Source: QCA analysis based on coal tenements database submitted by DBCT Management (sub. 38).

What this pattern suggests

A new exploration permit for coal granted by the government would reflect a high-risk, speculative activity arising from the possibility that there may be no economic coal in the area covered by the tenement. So, it is likely to see participation by firms that specialise in exploration activity and generally have a lower capital base (relative to that required for a coal mining operation) and an appetite for undertaking short-term high-risk activity. Such firms would be picked up in the non-user category.

There may also be firms that are not a coal miner, yet may possess the capital resource to enter coal mining activity, who would also be picked up in the non-user category.

The QCA notes that about half the exploration permits for coal are also held by users or coal miners. The DBCT User Group argued that the fact that there may be some buyers who acquire exploration, development and production tenements is not evidence of substitution. Rather in this case, these are complementary products that are likely to be attractive to larger coal companies as part of maintaining a portfolio of coal projects at different stages of the mine life cycle.⁴¹⁰ The QCA considers this makes sense from an economics viewpoint.

Thus, in a functional sense, there is a market for new or early stage exploration permits for coal that encapsulates the right to carry out resource exploration to determine the quantity and quality of coal present (exploration stage tenements). The supplier in this market is the government, the buyers are non-users and users (i.e. resource exploration companies, coal miners and potential coal miners), and the product bought and sold is a right to a speculative activity through a competitive tender. At this stage, although the existence of an established supply chain infrastructure would be relevant for participating in the exploration stage market⁴¹¹, it is unlikely that the terms and conditions of infrastructure access would be relevant in a circumstance where the extent and value of the deposit have not been proven. Additionally, the state would have countervailing power in the market for exploration rights, as it could design the tender process to counter a reduction in competition. This market would be similar to a market for exploration services.

Once a reasonable degree of confidence is obtained about the quantity and quality of coal present, and that the coal deposit has a conceptual economic value, a holder of an EPC may apply for an MDL or an ML, or sell the tenement to another party to take the project to the development and operation stage. So, at this stage of a coal tenement, there is likely to be participation by firms with a relatively stronger balance sheet and an appetite for undertaking long-term investments.

The significant and progressive drop in non-users' participation in MDLs and MLs and the predominant and increasing presence of users (existing or potential coal miners) in MDLs and MLs would indicate that non-users that hold an exploration permit for coal either would sell their right to users when a reasonable degree of confidence has been obtained about the coal resource, or would themselves seek to develop the tenement to mining operations. Therefore, non-user MDL and ML holders may also include potential coal miners that are not represented

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⁴¹⁰ DBCT User Group, sub. 30, p. 59.

⁴¹¹ For instance, on the one hand there is the central Queensland region, which has a well-established infrastructure of rail network and coal handling ports and witnesses considerable investment activity in exploration stage coal tenements. On the other hand there is the Surat Basin catchment, which is constrained by limited rail infrastructure to a port and where not much investment activity has occurred (also refer DBCT User Group, sub. 30, schedule 3—Palaris report, pp. 26–29).

in categories (a) to (d) identified above, for example, potential miners that are not in the DBCT queue.

Unlike the speculative nature of a new or early stage exploration permit for coal, the right that is bought and sold at this stage would represent a reasonable and increasing degree of confidence about the quantity and quality of coal present. Thus, the right at this stage is more in the nature of a coal mine development project and less so a resource exploration project.

What this suggests is that, in a functional sense, there is a separate market for coal tenements that include late stage EPCs, MDLs and MLs that encapsulate the right to carry out a resource development and operation project (development stage tenements). The sellers in this market would be companies that choose to not exploit by mining a proven coal deposit and the buyers would be users (i.e. existing or potential coal miners) who would acquire those tenements for exploitation by mining.

Thus, when stakeholders refer to the market for exploration and development tenements, the QCA considers it is relevant to make a distinction between the markets for:

- exploration stage tenements comprising new and early stage exploration permits for coal, which represent the right to identify and prove coal deposits, and which are speculative in nature. This market comprises coal tenements that are acquired for exploration and proving coal deposits
- development stage tenements comprising late stage EPCs, MDLs and MLs where the
 economic resource risk has conceptually been proven; they therefore represent the right to
 carry out a resource development and operation project. This market comprises coal
 tenements that are acquired for developing into mining operations.

The QCA's view that the market for exploration stage tenements is functionally distinct from the market for development stage tenements is consistent with that of the NCC in the *Pilbara* matter, which stated:

7.58 [Further] the product dimension of iron ore tenements is limited to those tenements that contain iron ore in quantities sufficient to be capable of efficient exploitation. The margins of this market may shift over time in response to changes in the price of iron ore and the cost of extraction, including costs relating to the availability of suitable transport.

7.59 [Finally] the value of an iron ore deposit will depend, in part, on the extent of proving the deposit. It is unlikely that an iron ore deposit would be subject to transactions where the extent and value of that deposit have not been proven, at least to a level where there is a reasonable prospect that the deposit will prove to be economically exploitable.

...

7.63 [Accordingly] the Council considers that the product dimension of the market for iron ore tenements may be characterised as 'mineral tenements containing proven iron ore deposits'. This is to be distinguished from a market for exploration services – a transaction does not take place in the market for iron ore tenements until the tenement has been explored and one or more deposits have been identified and proven to a degree. 412

⁴¹² National Competition Council, 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.

Market for operating mines

Stakeholders said that there is a market for coal production tenements that is distinct from the market for coal exploration and development tenements.

The DBCT User Group, in relation to production tenements, referred to operating mines and said prices, suppliers and acquirers are fundamentally different for operating mines relative to coal exploration and development tenements (which it classified as pre-production stage tenements). The DBCT User Group also said that most risks in relation to operating mines are low, as production volumes and operating costs can be estimated with a higher level of certainty.⁴¹³

DBCT Management also said that the tenements market comprises two distinct tenement types (or functions), with one of them being production tenements, where the risks arise principally in relation to the price of coal (rather than whether there are sufficient reserves to allow mining).⁴¹⁴

A production tenement (mining lease) would relate to either an existing mine or a mining project that is yet to be constructed, which are two fundamentally different goods. This is because an existing mine represents, among other things, existing mining infrastructure with all relevant permits and infrastructure contracts in place. In contrast, a yet to be constructed mining project would be subject to approvals, financing and construction risk.

There have been transactions of existing mines on care and maintenance or highly geared mines with high debt servicing costs (that is, such mines were not considered operationally or economically viable by their owner in that commodity market cycle). For example, Vale sold Broadlea mine, which was on care and maintenance, to Fitzroy. 415

Therefore, when stakeholders refer to the market for production tenements, they are referring to the market in which existing coal mines (typically on care and maintenance or highly geared) are bought and sold.

The DBCT User Group argued that prices, suppliers and acquirers are fundamentally different for operating mines relative to coal exploration and development tenements. It also said that buyers are unlikely to switch between coal exploration and development tenements and operating mines in response to a change in the relative price due to a range of factors including availability of capital and acquisition costs, location and synergy value for existing tenements and risk appetite.

The QCA considers the explanation provided by the DBCT User Group makes sense for the purposes of defining an economic market. The QCA is satisfied that there is a separate market for the supply and acquisition of existing mines. In this market, the suppliers are existing miners who may be seeking to sell a distressed asset, and buyers are other existing or potential miners who are seeking to buy an operational asset with immediate cash flow, rather than seeking to acquire a development stage tenement, which, among other things, has a longer gestation period before the project is operational.

Conclusion: Market for coal tenements—functional dimension

The QCA is satisfied that there are three functionally distinct markets:

⁴¹³ DBCT User Group, sub. 46, p. 64; sub. 30, schedule 3, p. 32.

⁴¹⁴ DBCT Management, sub. 38, appendix 1, p. 4.

⁴¹⁵ DBCT User Group, sub. 15, p. 78.

- a market for the supply and acquisition of new or early stage exploration permits for coal (exploration stage tenements), which represent the rights to identify and prove coal deposits that are speculative in nature
- a market for the supply and acquisition of late stage exploration and development tenements for coal (development stage tenements), which represent the rights to develop tenements into a mining operation
- a market for the supply and acquisition of operating mines.

The QCA's view is that access terms and conditions for the DBCT service would be directly relevant to assessing the environment for competition in the market for development stage tenements, which requires making long-term investment decisions in developing tenements into mining operations. Accordingly, the QCA has first considered the market for development stage tenements, that is, established its market boundary and assessed the competitive conditions in the market in a future with and without declaration. Then the QCA has considered separately the market for exploration stage tenements and the market for operating mines.

4.4.1 Market for development stage tenements

This section:

- defines the market by reference to its product and geographic dimensions
- considers if the market as defined is already workably competitive, noting that since the service is already declared (and has been for some time), existing competitive conditions may not necessarily represent the 'future without' declaration
- considers competitive conditions in the market in a future with and without declaration, and assesses whether access (or increased access) to the service as a result of declaration would promote a material increase in competition in the market.

Geographic and product dimensions of the market

The QCA considers the relevant market is the market for the supply and acquisition of development stage tenements predominantly in relation to metallurgical coal in the Hay Point catchment.

In reaching this view, the QCA considered:

- the principles for defining an economic market
- the context of coal tenements in the Hay Point catchment relative to other coal catchments
- whether development stage coal tenements outside the Hay Point catchment are in the same economic market as tenements in the Hay Point catchment.

Market definition approach

The concept of a 'market' is defined in s. 71 of the QCA 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-
 - (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).

In the *Pilbara* matter, the Tribunal had observed that:

1009 ... to a businessperson, a market is a place or area where goods may be sold or, more broadly, where there are people who are sufficiently aware of a firm's product to consider buying it. This concept of a market concentrates its attention on buyers rather than sellers.

1010 We are not here concerned with the businessperson's understanding of a market but rather with the analytical definitions developed by economists ...

1011 This economic (or relevant) market, then, consists of groups of buyers and groups of sellers in a geographic region who seek each other out as a source of supply of, or as customers for, products. The interaction of the buyers and sellers determines the price for the products.

1012 We have not referred to a "group" of products because implicit in the classic economists' definition of a market is the assumption that there is only a single homogeneous product and that the firms in the market produce perfect substitutes.

1013 In the real world it is not only homogeneous products of rival sellers that affect price; price is also affected by the products of rival sellers that are close substitutes. Hence it is necessary to expand the definition of a market to include not only identical goods but also close substitutes.

The QCA's view is also that what matters is the concept of 'economic market', and that identifying strong substitutes, both actual and potential—not purely theoretical—is crucial to defining the relevant market.

Tenements relate to rights attached to a piece of land in a given location—and such rights could be acquired at different locations. Therefore, in order to establish the boundaries of the coal tenements market, it would be relevant to examine whether tenement seekers would readily turn to acquiring tenements in another location in response to, for instance, an increase in the price of tenements at a given location. Hence, geographic dimension analysis is crucial for establishing the boundaries of the coal tenements market.

In the *Pilbara* matter, the NCC's view was that the geographic dimensions of the market for iron ore tenements are not determined by the geographic location of tenement owners, but by the degree to which tenements in different geographic locations are substitutable. The NCC observed:

7.72 RTIO submits that if there is a market for iron ore tenements, it is global in nature, given that an iron ore producer can theoretically mine ore anywhere in the world.

7.73 This argument is supported by the significant levels of international ownership of iron ore projects — the Pilbara operations of RTIO and BHPBIO each involve joint venture partners from Japan, China and/or South Korea. Further, both RTIO and BHPBIO themselves own and operate iron ore projects overseas.

7.74 The nature of modern production of mineral commodities is that ownership and operations are likely to be geographically diverse. For example, BHP Billiton is headquartered in Melbourne and yet controls mining operations on every continent (except Antarctica).

7.75 However, the geographic dimensions of the market for iron ore tenements are not determined by the geographic location of tenement owners, but by the degree to which tenements in different geographic locations are substitutable.

•••

7.81 Given that most iron ore tenements in the Pilbara are attractive only to parties with access to rail infrastructure in the Pilbara or parties that have reasonable prospects of being able to negotiate access to rail and port infrastructure in the Pilbara, they are substitutable only for

other iron ore tenements in the Pilbara. Accordingly, the market for iron ore tenements is Pilbara-wide. 416

In the same matter, the Tribunal did not accept the view that the iron ore tenements market was global:

Most of the experts accept that the market for tenements is at least Pilbara-wide. Dr Fitzgerald supported a global market and pointed to the prevalence of international investors in joint venture arrangements. By the same token, many investors in tenements only participate in Australia. Further, as Mr Houston pointed out, differences in the scale and quality of resources, and different regulatory requirements and business environments, mean that businesses most likely characterise their operations on a region-by-region basis, rather than a global basis. We believe that the market is most likely Pilbara wide, and not global for the reasons given by Mr Houston.⁴¹⁷

Broadly, the QCA has adopted the same approach to defining the geographic boundary of the coal tenements market as described above by the Tribunal and the NCC. That is, an important factor is the degree to which coal tenements at different geographic locations are strong substitutes.

The tenements that are considered here represent the rights to develop and exploit a proven deposit of coal, and the starting point for establishing the geographic boundary of this market is the Hay Point catchment. As discussed previously, holders of such tenements are predominantly incumbent users and potential users of coal handling services in the Hay Point catchment who acquire coal tenements to develop them into a mining operation. Therefore, expected returns over the life of a mining project and the risks arising in relation to those returns would be a relevant consideration in the decision to develop coal tenements into a mining operation.

A key issue is whether tenement acquirers who already have access to coal handling services in the Hay Point catchment, or are likely to seek access, would consider tenements outside the Hay Point catchment a close substitute for tenements in the Hay Point catchment. To examine this issue, the QCA considered the context of coal tenements in the Hay Point catchment and considered the other coal catchments within Australia and overseas.

Context of coal tenements in the Hay Point catchment area

In the *PNO declaration revocation* matter, the NCC took a narrow view of the geographic and product dimensions of the coal tenements market on the basis that if declaration of the service provided at the Port of Newcastle is unlikely to materially promote competition in a narrowly defined tenements market, then it would be unlikely to materially promote competition in a more broadly defined market. Accordingly, the NCC considered the geographic dimension of the tenements market to be the Newcastle catchment and focused on thermal coal, which is the prevalent type of coal in that catchment.⁴¹⁸

⁴¹⁶ 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, March 2006.

⁴¹⁷ Australian Competition Tribunal, In the matter of Fortescue Metals Group Limited [2010] ACompT2 [1119].

⁴¹⁸ NCC, Revocation of the declaration of the shipping channel service at the Port of Newcastle, Statement of preliminary views, December 2018, p. 52, paras 6.145, 6.148; NCC, Revocation of the declaration of the shipping channel service at the Port of Newcastle, Recommendation, July 2019, pp. 119–20, paras 7.304–7.307.

Unlike the Newcastle catchment, the prevalent type of coal in the Hay Point catchment is metallurgical coal—about 87 per cent of coal production in the Hay Point catchment is metallurgical coal.⁴¹⁹

Furthermore, about one-third of the thermal coal production in the Hay Point catchment is a by-product from coal mines that predominantly produce metallurgical coal (for example, Hail Creek operated by Glencore, and German Creek operated by Anglo American; see Appendix H). Indeed, of the 26 mines that produced coal in the Hay Point catchment during 2015–18, 24 mines produced only metallurgical coal or the majority of their production was metallurgical coal. Additionally, DBCT Management's 2019 Master Plan indicates that metallurgical coal accounts for 82 per cent of coal throughput at DBCT. DBCT Management also indicates that its master planning is primarily focused on metallurgical coal demand and development, as this is the dominant resource within DBCT's catchment area. Therefore, the available evidence strongly suggests that the prevalent type of coal in the Hay Point catchment is metallurgical coal, which is likely to remain so over the declaration period under consideration.

Furthermore, almost all the coal produced in the Hay Point catchment is exported on the seaborne market. This is primarily to the Asia-Pacific region, in particular to China (28 per cent), India (20 per cent), Japan (12 per cent) and South Korea (10 per cent), which together accounted for approximately 70 per cent of metallurgical exports from Hay Point in 2017–18.⁴²³

Metallurgical coal: use and types

The global coal industry produces two key products: thermal coal and metallurgical coal. Thermal coal is used in power generation, and metallurgical coal is used in the production of steel. Given their different end uses and different returns and risk profiles over the life of a metallurgical coal and a thermal coal mining project, the QCA's view is that metallurgical coal and thermal coal tenements are in separate markets.

Metallurgical coals are generally classified as having high carbon or energy levels, low moisture content and low impurities such as ash, sulphur and phosphorous. Metallurgical coal grades, in order of quality, include premium hard coking coal, hard coking coal, semi-hard coking coal, semi-soft coking coal and PCI coal. 424

According to the World Steel Association, there are two main processes to produce steel: the blast furnace – basic oxygen furnace (BF–BOF) route and electric arc furnace (EAF) route. The key difference between the two routes is the type of raw materials they consume. For the BF–

⁴¹⁹ QCA analysis based on coal production data published by Department of Natural Resources and Mines (DNRME): Coal industry review tables 2015–18, *Queensland production by individual mines (tonnes)*, updated June 2019, *Queensland's major mineral, coal and petroleum operations and resources*, updated November 2019 (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0003/242085/qld-resources-map.pdf). See Appendix H.

⁴²⁰ QCA analysis based on DNRME, Coal industry review statistical tables 2015–18, *Queensland production by individual mines (tonnes)*, updated June 2019. See Appendix H.

⁴²¹ DBCT Management, Master Plan 2019, p. 27, https://www.dbctm.com.au/wp-content/uploads/2019/09/Approved-Master-Plan-2019.pdf.

⁴²² DBCT Management, DBCT Master Plan 2019, p. 27.

⁴²³ DNRME, Coal industry review statistical tables, *Table 3 - Queensland production by individual mines (tonnes)*, 2015–18, updated June 2019, *Table 5: Queensland exports by mine (tonnes) 2013–18*, updated June 2019 and *Table 7: Queensland exports by mine and coal type to overseas countries (tonnes) 2017–18*, updated June 2019. The other 30 per cent of exports was spread across a number of countries including countries in Europe (combined share about 12 per cent), Taiwan (4 per cent), Brazil (4 per cent), Singapore (3 per cent) and Vietnam (2 per cent).

⁴²⁴ Commodity Insights, *Market Demand Study: Australian Metallurgical Coal*, Report to the Minerals Council of Australia, October 2018, p. 7; ACCC, *South32—proposed acquisition of Metropolitan*, Statement of Issues, February 2017, pp. 5, 7.

BOF route these are predominantly iron ore, metallurgical coal, and recycled steel, while the EAF route produces steel using mainly recycled steel and electricity. About 75 per cent of steel is produced using the BF–BOF route. 425

As per published industry material, the blast furnace method requires preparing coke, which is then layered with iron ore in the blast furnace. Coking coal is a necessary input in the production of coke, which is produced by heating coking coal in a coke oven in the absence of oxygen. Coke is then charged into a blast furnace to provide fuel and to help convert iron ore into liquid iron. From a technological perspective, metallurgical coal has a threefold purpose in the blast furnace—it acts as a source of heat, acts as a reducing agent for the iron ore, and provides permeability to the blast furnace burden. PCI coal, which is a lower quality form of metallurgical coal, is injected directly into the blast furnace as a supplementary fuel.⁴²⁶

It is typical for producers of coke and steel to blend coals from various sources to produce coke with the desired physical and chemical characteristics. While semi-hard coking coal can replace a certain volume of hard coking coal in an overall blend of coals used by a steel mill, only a proportion of hard coking coal can be displaced without affecting the performance of the blast furnace and the efficiency of iron production. Poorer quality coals also lead to higher levels of impurities, such as ash, resulting in lower yield and higher disposal costs for the steelmaker.⁴²⁷

Hay Point catchment relative to other coal catchments in Australia and overseas

Given the prevalent type of coal in the Hay Point catchment is metallurgical coal, the geographic dimension analysis is crucial to establishing the boundaries of the market for development stage tenements.

The Hay Point catchment accounts for the majority of metallurgical coal production in Queensland (approximately 74 per cent), followed by the Blackwater system (approximately 21 per cent). The Moura and Newlands systems are relatively small catchments accounting for 4 and 1 per cent respectively. The West Moreton system does not produce metallurgical coal (Figure 7).

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⁴²⁵ World Steel Association, About steel, 2019, viewed 23 July 2019, https://www.worldsteel.org/about-steel.html; Commodity Insights, *Market Demand Study: Australian Metallurgical Coal*, 2018, p. 6.

⁴²⁶ Commodity Insights, *Market Demand Study: Australian Metallurgical Coal*, 2018, p. 6.

⁴²⁷ ACCC, South32—proposed acquisition of Metropolitan, 2017, p. 7.

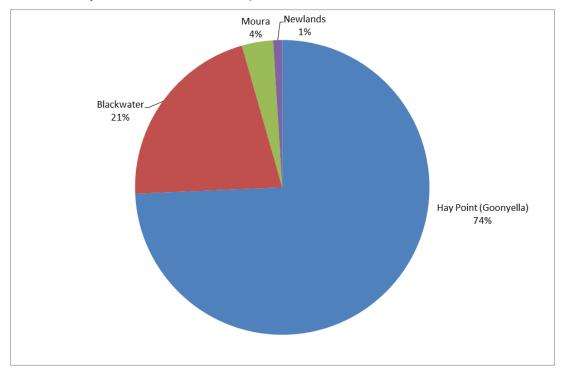


Figure 7 Queensland metallurgical coal production share by catchment (average share over the period 2015–16 to 2017–18)

Source: QCA analysis based on coal production data published by Department of Natural Resources and Mines (DNRME): Coal industry review tables 2015-18, updated June 2019.

Blackwater's share of metallurgical coal production in Queensland is not insignificant (Figure 7). Of the 10 mines that produced coal in the Blackwater catchment in 2015–18, seven mines produced only metallurgical coal, or the majority of their production was metallurgical coal. Furthermore, almost 90 per cent of coal production from Blackwater is exported on the seaborne market.⁴²⁸ Therefore, it would be relevant to consider if development stage coal tenements in relation to metallurgical coal in the Blackwater system are a strong substitute for tenements in the Hay Point catchment.

Within Australia, the other major coal production catchment other than Queensland is New South Wales (NSW)—Queensland and NSW together account for over 97 per cent of Australia's black coal production (Figure 8).⁴²⁹ Although not represented in Figure 8, the QCA understands there are relatively small deposits of coal in Victoria (Latrobe Valley—brown thermal coal) and Tasmania (Fingal Valley—thermal coal) which are mined to produce coal for domestic electricity production. Thermal coal is the prevalent type of coal in NSW, accounting for about 86 per cent of the state's total coal production (Figure 8). The coal produced in NSW is predominantly exported on the seaborne market.⁴³⁰

⁴²⁸ As per data published by Department of Natural Resources and Mines (DNRME), *Coal industry review statistical tables, Table 3: Queensland production by individual mines (tonnes) 2015–18,* updated June 2019 *and Table 5: Queensland exports by mine (tonnes) 2013–18,* updated June 2019.

⁴²⁹ National Energy Resources Australia (NERA), *Coal Industry Competitiveness Assessment*, Report on the Framework, Baseline Score, Insights and Opportunities, December 2016, p. 7; Commodity Insights, Market Demand Study: Australian Metallurgical Coal, 2018, p. 8.

⁴³⁰ Australian Competition Tribunal, *Application by Glencore Coal Pty Ltd [2016] ACompT 6* [9]; National Competition Council, *Declaration of the shipping channel service at the Port of Newcastle*, final recommendation, November 2015, para. 4.60.

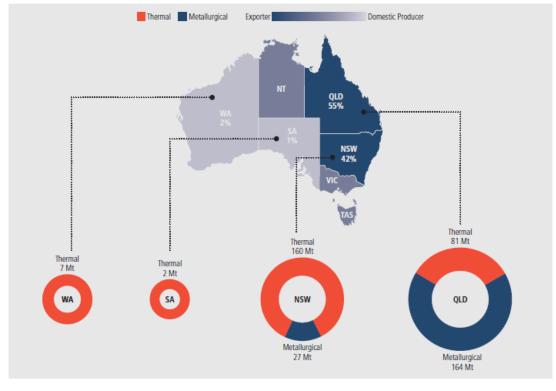


Figure 8 Black coal production by states in Australia

Source: National Energy Resources Australia (NERA), Coal Industry Competitiveness Assessment, Report on the Framework, Baseline Score, Insights and Opportunities, December 2016, p. 7.

Since metallurgical coal produced in the Hay Point catchment is predominantly exported on the seaborne market to the Asia-Pacific region, it is relevant to consider the other geographic regions overseas that export metallurgical coal on the seaborne market.

Australia is the largest seaborne exporter of metallurgical coal globally, accounting for about 60 per cent of overall exports, followed by the United States (about 20 per cent) and Canada (about 10 per cent) (Figure 9).⁴³¹

The data suggest that export volumes from the United States have tended to be higher in years when export volumes from Australia dropped, such as in 2011 and 2017, which was due to adverse weather in Queensland (floods). Therefore, it would be relevant to consider if coal tenements in relation to metallurgical coal in the United States and Canada are strong substitutes for tenements in the Hay Point catchment.

⁴³¹ See also Commodity Insights, Market Demand Study: Australian Metallurgical Coal, 2018, p. 10; NERA, Coal Industry Competitiveness Assessment, Report on the Framework, Baseline Score, Insights and Opportunities, 2016, p. 6

⁴³² Commodity Insights, Market Demand Study: Australian Metallurgical Coal, 2018, p. 11.

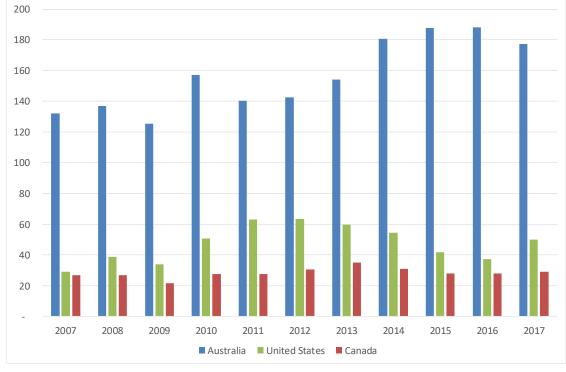


Figure 9 Metallurgical coal exports by principal countries, 2007-17 (million tonnes)

Source: Adapted from United Nations Statistics Division, Energy Statistics Database, last update 28 January 2019, data.un.org.

In summary, the following three aspects were examined to establish the geographic boundary of the economic market for development stage coal tenements in relation to metallurgical coal in the Hay Point catchment:

- Are coal tenements in relation to metallurgical coal in the Blackwater system strong substitutes for those in the Hay Point catchment?
- Are coal tenements in relation to predominantly thermal coal in NSW strong substitutes for those in the Hay Point catchment?
- Are coal tenements in relation to metallurgical coal in the United States and Canada strong substitutes for those in the Hay Point catchment?

Are coal tenements in the Blackwater system strong substitutes

The Goonyella and Blackwater systems are located in two inter-connected but distinct coal sub-basins:

- Goonyella is in the Northern Bowen Basin
- Blackwater is in the Southern Bowen Basin.

The predominant evidence is that miners operate mines within a specific rail—port catchment; that is, the Hay Point terminals are predominantly used by mines located in the Goonyella system, and RG Tanna and WICET are predominantly used by mines located in the Blackwater system. This is also demonstrated by the low cross-system traffic. That is, incumbent users of coal handling services at Hay Point terminals do not generally use those access rights to transport coal from mines outside the Hay Point catchment.

Among the reasons for this would be longer rail distance and shorter trains that operate in the Blackwater system relative to those in the Goonyella system, which results in higher supply

chain costs. Incumbent users are also more likely to develop a new mining project in the vicinity of their existing operations to be able to use existing rail infrastructure and port capacity, to avoid take or pay liability on rail contracts that are specific to mine location and to achieve economies of scale through co-location. Furthermore, coal miners underwrite the risks of expanding and developing below-rail capacity in any given rail system and therefore have an incentive to maximise the use of their existing rail-port combination.⁴³³

Therefore, incumbent users of coal handling services at Hay Point terminals are likely to face lower operating and capital costs, and lower supply chain costs in developing tenements within the Hay Point catchment as opposed to outside the Hay Point catchment.

The question then is whether potential acquirers of development stage coal tenements in the Hay Point catchment—that is, buyers who do not already have access to rail and port infrastructure—would consider development stage coal tenements in the Blackwater system to be in the same economic market.

The QCA notes the following differences between developing a coal tenement into a mining operation within the Hay Point catchment relative to the Blackwater system:

Scale and quality of coal resources: The Hay Point catchment generally has a higher proportion of premium hard coking coal and hard coking coal. In contrast, the Blackwater system has semi hard coking coal and PCI coal, and does not have tenements with premium hard coking coal. For instance, Hay Point terminals accounted for the majority (70 per cent) of hard coking coal exports from Queensland ports during 2014 to 2018 (Figure 10)—the type of coal that commands a higher export price (on average, about 30 per cent more than soft coking coal) (Figure 11).⁴³⁴

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⁴³³ DBCT User Group, sub. 15, pp. 55–56, sub. 30, p. 63.

⁴³⁴ DNRME data classifies metallurgical coal type as hard coking coal and soft coking coal. PCI coal, by its nature, would be in the category of soft coking coal.

THERMAL COAL

THERMAL COAL

SOFT COKING COAL

THERMAL COAL

Figure 10 Proportion of Queensland exports of different coal types by port (average port share by coal type, 2014–2018)

Source: Adapted from DNRME, Queensland annual coal sales 2014–18: Coal exports by port and region, updated May 2019.

Due to rounding, percentages reported in the figure do not add to 100 per cent.

Figure 11 Average coal export price (A\$ per tonne)

Source: Adapted from DNRME, Queensland annual coal sales 2014–18: Average export prices AU\$, updated May 2019.

- Proximity to port: Mining projects in the Hay Point catchment are generally closer to the port terminal, relative to those in the Blackwater catchment. This is because the Hay Point catchment is constrained on the western side by the crop line of the Moranbah coal measures, which are the western edge of the Bowen Basin and approximately 280 km west of Mackay, with the furthest mine of Oaky Creek on the Goonyella system 298 km southwest from DBCT. By contrast, the western edge of the Blackwater system extends to Emerald and to the south to Rolleston, which is about 420 km from RG Tanna or WICET, and Minerva which is about 406 km from those two terminals. Proximity to port reduces rail distance, and hence supply chain cost.
- Rail infrastructure: Besides longer distance, trains on the Blackwater system are shorter (the payload of the reference train service is 8,369 tonnes) than on the Goonyella system (payload is 10,236 tonnes⁴³⁵), which adds to the supply chain cost.
- Co-shipping and blending opportunities: As concluded in respect of the DBCT criterion (b) analysis, the blending opportunities available at DBCT are typically superior to those at other terminals. Co-shipping opportunities at DBCT are also generally of value to Goonyella system users. That would likely enhance the saleability of the coal produced, all other things remaining unchanged, and so would be of value to potential coal miners seeking to develop tenements in the Hay Point catchment relative to the Blackwater system. 436

The differences in export price (due to differences in coal quality), supply chain cost and market environment would result in development stage tenements in the Hay Point catchment providing a different return-risk profile, relative to those in the Blackwater system. To that extent, development stage coal tenements in the Blackwater system would be a weak substitute for tenements in the Hay Point catchment.

In support of its argument that coal tenements in the different catchments are economically substitutable, DBCT Management submitted information on the geographic spread of tenements held by six coal companies in Queensland, comprising a mix of miners that hold access rights at DBCT and those who do not, and observed:

It appears that miners develop mine sites (and acquire tenements to underpin those mine sites) across a range of port catchment areas. This is not consistent with a pattern of conduct that suggests a lack of substitutability between Hay Point catchment tenements and those in other locations, at least for many businesses. 437

The QCA considers the information presented by DBCT Management does not demonstrate that development stage tenements in other catchments in central Queensland are in the same economic market as those in the Hay Point catchment, for the following reasons:

- It includes information on tenements that are in relation to thermal coal (e.g. those held by Glencore and Yancoal), which are not representative of the coal type (that is, predominantly metallurgical coal) found in the Hay Point catchment. The QCA's view is that thermal coal tenements and metallurgical coal tenements are in separate product markets considering their different end uses, returns and risk profiles over the life of a mining project.
- It includes information on EPCs (e.g. those held by Cuesta Coal) and it is unclear at what stage those EPCs are—that is, whether they are speculative in nature and not in the market being considered here or at a stage where the coal resource has been reasonably defined.

⁴³⁵ Aurizon Network, 2017 Access Undertaking (UT5), pp. 396, 399.

⁴³⁶ Section 2.4.3.

⁴³⁷ DBCT Management, sub. 26, appendix 2, p. 32.

The coal tenements considered here are those that are acquired to develop into a mining operation. Also, coal tenements in the Hay Point catchment are predominantly metallurgical coal. The QCA has therefore examined the extent to which Hay Point coal producers have metallurgical coal mining operations outside the Hay Point catchment:

- BHP, which accounts for almost half the metallurgical coal production in Queensland, has
 eight operating mines in the Hay Point catchment and one in the Blackwater system; 80 per
 cent of its metallurgical coal production in Queensland originates from its mines in the Hay
 Point catchment.
- Anglo American operates four mines in the Hay Point catchment and one in the Moura system; 80 per cent of its metallurgical coal production in Queensland originates from its mines in the Hay Point catchment.
- Metallurgical coal operations of Peabody, Glencore, Middlemount Coal, Fitzroy, Stanmore Coal and Realm Resources (now QMetco) in Queensland are located within the Hay Point catchment.
- The exception is Jellinbah, which operates a metallurgical coal mine in each of the Hay Point catchment and Blackwater system.⁴³⁸

This evidence demonstrates that the metallurgical coal operations of Hay Point coal producers in Queensland are predominantly concentrated in the Hay Point catchment, which also indicates that development stage coal tenements outside the Hay Point catchment would be a weak substitute for those in the Hay Point catchment.

Are coal tenements in NSW strong substitutes

Since thermal coal is the prevalent type of coal in NSW, the question is whether development stage coal tenements in relation to thermal coal in NSW are a close substitute for tenements in relation to metallurgical coal in the Hay Point catchment.

The QCA's view is that they are not in the same economic market:

- Unlike metallurgical coal, which is an essential input in steel making, thermal coal is used for power generation—they have a different end use. Besides, thermal coal faces competition from other sources of energy supply in the end use market. So, the risk of operating a thermal coal mine is higher.
- Thermal coal projects also face higher financing risk and approvals risk due to pressures
 associated with the issue of climate change. Indeed, coal companies are indicating a
 preference for metallurgical coal over thermal coal. For instance, Rio Tinto has divested itself
 of all thermal coal investments and only mines coking coal, and BHP is reported to have said
 that 'it has no appetite for new investments in thermal coal'.⁴³⁹
- In general, metallurgical coal tenements offer higher economic returns as the export price for metallurgical coal is generally double the export thermal coal price.⁴⁴⁰ The advantage of

⁴⁴⁰ For instance, average export price for hard coking coal between 2014 to 2019 was A\$198 per tonne and that for thermal coal was \$99 per tonne (2018 calendar year—Coal sales statistics at

⁴³⁸ QCA analysis based on DNRME, Coal industry review statistical tables, *Queensland production by individual mines* (tonnes), updated June 2019, *Queensland coal mines and advanced projects*, July 2017, Queensland's major mineral, coal and petroleum operations and resources, updated November 2019 (https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0003/242085/qld-resources-map.pdf).

⁴³⁹ K, Peter, *BHP dark on thermal coal's future*, Financial Review, 22 May 2019, https://www.afr.com/business/mining/bhp-dark-on-thermal-coal-s-future-20190521-p51psg

higher revenues provides opportunity for metallurgical coal operators to extract more of the resource at greater depths, although at higher stripping ratios and higher cost while still maintaining strong profit margins.

Thus, considering their different end uses, returns and risk profiles over the life of a mining project, the QCA considers that metallurgical coal tenements and thermal coal tenements are in separate economic markets.

Are coal tenements in the United States and Canada strong substitutes

The question is whether development stage coal tenements in the Unites States or Canada are a close economic substitute for tenements in the Hay Point catchment.

The QCA's view is that they are not in the same economic market:

- Hard coking coal from Queensland's Bowen Basin is generally considered the best in the world.⁴⁴¹
- Mining areas in the United States have been mined for over 200 years (compared to the 50 years in the Bowen Basin), and the United States mines are deeper and mostly underground, with high mine operating costs. Additionally, the United States metallurgical coal sector is quite fragmented, with mines generally producing small volumes (less than 2 mtpa) and typically servicing the domestic steel industry. The cost of supply chain is also substantially higher due to longer rail distances from mines to port on the south or the east coast and longer shipping distances to access Asian markets through the Panama Canal, which results in relatively low volumes shipped over long distances to Asia-Pacific. For this reason, coal exports from the United States are generally into the Atlantic market including the United Kingdom, Europe and Brazil and less so into the Asia-Pacific market.⁴⁴²
- Mines in Canada are typically located in the mountainous Rocky Mountains in British
 Colombia, which results in high operating costs. Furthermore, cost of supply chain is higher,
 due to longer shipping distances to the Asian market and longer rail distances to port, which
 generally exceed 1000 km, compared to 300 km for mines in the Hay Point catchment.⁴⁴³

Based on differences in coal quality, cost-prohibitive geographical constraints and operating costs, and generally different end markets, development stage coal tenements in the United States and Canada are considered not to be in the same economic market as the Hay Point catchment.

Other arguments for a wider geographic market

DBCT Management's view was that the geographic scope of the market is wider than the Hay Point catchment and likely extends at least to the central Queensland region or beyond.⁴⁴⁴ It provided several reasons to support its view.

https://www.dnrm.qld.gov.au/__data/assets/excel_doc/0004/378985/coal-sales-statistics.xlsx, viewed 29 July 2019). NERA (in *Coal Industry Competitiveness Assessment, Report on the Framework, Baseline Score, Insights and Opportunities*, December 2016, p. 16) observed that metallurgical coal mines have a higher share of mines with positive margins compared to thermal coal mines (88 per cent compared to 66 per cent respectively).

⁴⁴¹ Commodity Insights, Market Demand Study: Australian Metallurgical Coal, 2018, p. 4; NERA, Coal Industry Competitiveness Assessment, Report on the Framework, Baseline Score, Insights and Opportunities, December 2016, p. 7

⁴⁴² Commodity Insights, Market Demand Study: Australian Metallurgical Coal, 2018, pp. 11–12.

⁴⁴³ https://www.cn.ca/en/your-industry/coal; Coal Association of Canada, *Coal Mining in Canada: Fact Sheet*, June 2016, https://coal.ca/wp-content/uploads/2017/12/Coal-Mining-in-Canada final June2016.pdf.

⁴⁴⁴ DBCT Management, sub. 26, pp. 61–62, paras 286, 297.

DBCT Management argued that the Queensland Government, which runs tenders for coal exploration permits, does not tender on the basis of a Hay Point catchment area or the DBCT service being declared. Accordingly, there is no basis for defining the geographic dimension of the tenements market as narrowly as the Hay Point catchment.⁴⁴⁵

This argument by DBCT Management applies to the market for new or early stage EPCs where the supplier of tenements is the government. The market for new or early stage EPCs is functionally distinct from the market for tenements that is being considered here—that is, development stage tenements that represent the rights to develop and exploit proven coal deposits. Since suppliers in the development stage tenements market are companies that choose to explore a tenement and on-sell it, DBCT Management's argument does not apply to this market.

DBCT Management also argued that tenement buyers would be able to redeploy capital and relevant technical expertise from one region to another in response to a reduction in their returns, so as to bring about an equalisation of expected returns across regions. As imilar argument was made by NERA Economic Consulting in the PNO declaration revocation matter, which said that a firm wishing to supply the coal export market could do so from coal fields located in Newcastle, elsewhere in Australia and overseas. NERA Economic Consulting's argument was that potential investors could consider exploring or mining for coal elsewhere if tenements in the Newcastle catchment were not attractive.

The argument that DBCT Management and NERA Economic Consulting presented does not account for the differences in risks associated with investing in coal tenements in different regions or those associated with tenements in relation to different coal types.

For instance, metallurgical coal and thermal coal tenements present different expected returns and risk profile over the life of a mining project, and potential coal miners would not switch between developing thermal coal and metallurgical coal tenements in response to a reduction in the expected returns in one coal type.

Similarly, a potential coal miner would not consider switching between metallurgical coal tenements in the Hay Point catchment and another region, because coal tenements in each catchment presents a different return-risk profile over the life of the mining project. For instance, coal tenements in catchments with higher supply chain and/or shipping costs would be more exposed to price falls and thus greater risks.

DBCT Management and NERA Economic Consulting's argument implicitly assumes that coal tenements across all regions face the same level of risks; therefore they focused on equalisation of expected returns. This assumption might apply to new or early stage EPCs, which reflect the rights to identify and prove a coal deposit. Since the rights are speculative in nature, the level of risks would be similar across all regions. The market for new or early stage EPCs is functionally distinct from the market for development stage coal tenements—therefore, DBCT Management's and NERA Economic Consulting's argument does not apply to this market.

Additionally, the argument presented by DBCT Management and NERA Economic Consulting is not consistent with the evidence that shows that the metallurgical coal operations of Hay Point

⁴⁴⁵ DBCT Management, sub. 13, pp. 84–85.

⁴⁴⁶ DBCT Management, sub. 26, p. 62, para. 293, and appendix 2, p. 28, sub. 38, p. 9, para. 31, and appendix 1, p. 5.

⁴⁴⁷ NERA Economic Consulting, *Declaration of the shipping channel service at the Port of Newcastle*, prepared for the National Competition Council, 8 April 2019, p. 4.

coal producers in Queensland are predominantly concentrated in the Hay Point catchment, rather than being spread across different catchments within central Queensland.

Another argument of DBCT Management was that to the extent the Goonyella system (or Hay Point catchment) offered more cost-effective supply chain infrastructure, or superior coal qualities, it would factor into a miner's assessment of the value of a tenement. The higher expected value will drive competition for tenements in the Goonyella region and result in higher prices being paid for tenements by miners. Thus, any cost efficiencies from buying a tenement in the Goonyella system will be balanced out by increased tenement prices and bring about an equalisation of expected returns from holding tenements in different catchments.⁴⁴⁸

DBCT Management's argument implicitly assumes that increased demand for coal tenements in the Hay Point catchment will result in an increased price and that there will be no supply response. Such an assumption may apply to the market for new or early stage EPCs to the extent the government, as the sole supplier for such tenements, does not increase the supply of new EPCs in response to an increased price of tenements. However, in a market where tenements representing the rights to a resource development and exploitation project are supplied by companies that choose to explore a tenement and on-sell it, an increase in the price of tenements could incentivise the suppliers to increase the supply of tenements with identified and proven coal deposits.

The QCA's view is that DBCT Management's argument for a geographically wider tenements market might be applicable in the market for new or early stage EPCs, but it is not applicable to the market for development stage tenements, which represent the rights to develop and exploit proven coal deposits.

Conclusion: Market definition—development stage tenements

The QCA's view is that development stage tenements in the Hay Point catchment are a distinct product due, among other things, to differences in the scale and quality of coal resources, supply chain costs, and market environment. Therefore, the QCA is satisfied that there is a distinct market for the supply and acquisition of development stage tenements (that is, the rights to develop and exploit proven coal deposits) predominantly in relation to metallurgical coal in the Hay Point catchment area.

Existing state of competition in the market

The QCA has considered if the market for development stage tenements in the Hay Point catchment is already workably competitive, noting that since the service is already declared (and has been for some time), existing competitive conditions may not necessarily represent the 'future without' declaration.

Both the DBCT User Group and DBCT Management were of the view that the coal tenements market, defined in general terms, in the Hay Point catchment is currently competitive.

The DBCT User Group's consultant Palaris considered that increased competition in the tenements market is reflected in a number of acquisitions of tenements in the Queensland coal industry, including in the Hay Point catchment. DBCT Management submitted tenements transactions data in the Hay Point catchment and observed that the data show a liquid tenements market.

⁴⁴⁸ DBCT Management, sub. 38, p. 33, para. 159.

⁴⁴⁹ DBCT User Group, sub. 46, p. 73, sub. 30, schedule 3—Palaris report, pp. 32–33.

⁴⁵⁰ DBCT Management, sub. 38, p. 20, para. 83.

DBCT Management stated, based on the coal tenements transactions data it submitted, that there have been a significant number of transactions of coal tenements, namely of EPCs and MDLs, including by firms who are not incumbent users of coal handing services at Hay Point terminals.⁴⁵¹ The QCA found it difficult to verify this statement for a number of reasons.

First, the QCA understands that tenements (comprising of EPCs, MDLs, MLs) can be bought from parties that hold such rights, or by acquiring entities that hold such rights. In other words, a tenement 'transaction' involves the purchase and sale of a tenement by unrelated parties. However, there are issues with how DBCT Management classified tenement transactions. For instance, it included as a transaction:

- events where the ownership of a tenement is transferred between parties that are part of the same corporate group in DBCT Management's database
- events where a tenement holding is renewed by a given tenement holder (for example, EPCs and MDLs can be held for five years and are renewable)
- the grant of an MDL or an ML—a holder of an EPC may apply for an MDL or an ML, which is granted by the government. It is an administrative step and not a market transaction between unrelated parties.

Second, EPCs could be new or early stage exploration permits (so would be in the market for exploration stage tenements) or late stage exploration projects with a reasonable degree of confidence about the coal deposit (so would be in the market for development stage tenements which would also include MDLs). However, DBCT Management's tenements database does not contain information to help identify the stage of a coal tenement. Therefore, it is difficult to verify whether DBCT Management's conclusion that there have been a significant number of transactions of EPCs and MDLs applies to the market for exploration stage tenements, the market for development stage tenements, or both markets.

Given the difficulty in identifying coal tenements pertaining to the three functionally distinct coal tenements markets based on the information in DBCT Management's database, the QCA examined ownership holding of coal tenements at two points in time: in 2014 and in 2019 (which is the most recent year identified in DBCT Management's database). Since the focus is on the market for development stage tenements, the QCA examined ownership holding patterns for development licences and mining leases, which would represent coal tenements with a reasonable degree of confidence about the coal deposit. ⁴⁵² The data shows:

- Incumbent coal miners (BHP, Peabody, Glencore, Anglo American and Jellinbah) together held 82 per cent of development licences and mining leases in 2014, which dropped to 72 per cent in 2019.
- The decline in the proportion of coal tenements held by incumbents is mirrored by an
 increase in the share of new players—that is, new and potential coal miners (e.g. Pembroke
 Resources, Realm Resources (now QMetco), Fitzroy) now hold a combined 17 per cent of
 coal tenements, up from 9 per cent in 2014.

⁴⁵¹ DBCT Management, sub. 38, p. 8, para. 24.4.

⁴⁵² Since development stage tenements also include late stage EPCs (which the QCA is unable to identify based on information provided in DBCT Management's database), the number of MDLs and MLs would represent a subset of the market for development stage tenements. To the extent this subset is workably competitive, it would be expected that the broader market comprising, in addition, late stage EPCs would also be workably competitive.

 Among the new and potential coal miners that hold a development licence or a mining lease in the Hay Point catchment are entities that previously were exploration companies (e.g. TerraCom); that currently are exploration companies and have expressed an interest in carrying out mining operations (e.g. Bowen Coking Coal); or that have coal mining operations outside the Hay Point catchment (e.g. Bengal Coal⁴⁵³).

Conclusion: Existing state of competition—market for development stage coal tenements

The QCA considers that although development stage tenements remain concentrated amongst incumbent coal miners, the entry of new players and an increase in the proportion of coal tenements held by new players (potential coal miners) indicate that the market for development stage coal tenements is workably competitive. Since the service is already declared (and has been for some time), existing competitive conditions may not necessarily represent the 'future without' declaration. Therefore, the QCA examined the environment for competition in this market in a future with and without declaration.

Environment for competition with and without declaration

It is necessary to assess the environment for competition in a dependent market if the coal handling service at DBCT is not declared, compared with the situation if the service is declared. If there is at least one dependent market where access (or increased access) to the DBCT service as a result of declaration of the service would promote a material increase in competition, criterion (a) will be satisfied.

Promote a material increase in competition

At the federal level, the words 'material increase' were first introduced into criterion (a) (in s. 44CA(1) of the CCA) in 2006, following a review of the National Access Regime by the Productivity Commission in 2001.⁴⁵⁴

The Productivity Commission had recommended that criterion (a) be amended such that access (or increased access) promote a 'substantial' increase in competition in at least one market (other than the market for the service).

However, the enacted amendment used the word 'material' instead of 'substantial'. The federal government responded:

The current declaration criteria, such as 'the national significance' test, preclude declaration where the relevant infrastructure and subsequent potential public benefits are not significant. However, this does not sufficiently address the situation where, irrespective of the significance of the infrastructure, declaration would result in only marginal increases in competition.

The Government considers that, in this context, the term 'substantial' may exclude situations where a small supplier is prevented from gaining access to nationally significant infrastructure. The Government therefore will include the word 'material' to ensure access declarations are only sought where the increases in competition are not trivial.⁴⁵⁵

⁴⁵³ Bengal Coal, established in 2009, is a subsidiary of Bengal Energy that has coal mining operations in India (https://www.bengalcoal.com/company, viewed 5 August 2019).

⁴⁵⁴ Trade Practices Amendment (National Access Regime) Act 2006 (Cth); Productivity Commission, Review of the National Access Regime, inquiry report no. 17, 28 September 2001; National Competition Council, November 2015, Declaration of the shipping channel service at the Port of Newcastle, final recommendation, para. 4.86; Australian Competition Tribunal, June 2010, In the matter of Fortescue Metals Group Limited [2010] ACompT 2 [582–584].

⁴⁵⁵ The Treasury, Government response to Productivity Commission report on the review of the national access regime, 20 February 2004, p. 7; Australian Competition Tribunal, In the matter of Fortescue Metals Group Limited [2010] ACompT 2 [583].

In Queensland, the words 'material increase' were first introduced into criterion (a) by the *Motor Accident Insurance and Other Legislation Amendment Act 2010* (Qld). The Explanatory Notes to that amending Act state that the purpose of the amendment to s. 76 of the QCA Act is to:

amend section 76(2)(a) to clarify that access (or increased access) to the service should be expected to promote a material increase in competition in order for this criterion to be satisfied. This will prevent the declaration of services where only a trivial increase in competition is expected to result ... 456

Given criterion (a) is the same in the CCA and the QCA Act, it is relevant to consider the NCC's approach in the *PNO declaration revocation* matter.⁴⁵⁷

In that matter, the NCC observed:

The Council considers that competition is a dynamic process and 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.⁴⁵⁸

[While] it is possible that lower prices for access to a service may arise in a future with declaration of a service compared to a future without declaration, this does not necessarily mean that competition will be promoted in a related market. To the extent that a lower price for access would lead to little (if any) change in consumption or production decisions by participants in related markets, the lower price may merely have the effect of redistributing the economic surplus generated within a supply chain. It is also possible that lower prices for access to a service do not materially impact on the ability of market participants in related markets to compete against each other on their merits. This is especially the case if prices were not significantly lower, and were set at broadly equivalent levels for all access seekers.⁴⁵⁹

In assessing the effect of declaration on competition in the coal tenements market in that matter, the NCC considered that it was likely (but not certain) that charges across all miners will be higher in a future without declaration compared to a future with declaration. However, the NCC did not consider that PNO would have an incentive to impose excessive price increases. Although the NCC considered that higher charges may reduce the expected net present value of a mining project, its view was that the charges would not be at a level that would reduce the ability of individual miners to compete against each other for coal tenements on their merits. Additionally, although the NCC noted that higher charges may have the effect of making some marginal coal exploration/mining activities unprofitable in a future without declaration, compared to a future with declaration, the NCC did not consider that effect is likely to be significant.⁴⁶⁰

In the current declaration review process, DBCT Management submitted that the promotion of a material increase in competition requires there to be a material enhancement of the

⁴⁵⁶ Explanatory Notes to the *Motor Accident Insurance and Other Legislation Amendment Act 2010* (Qld), p. 16.

⁴⁵⁷ The QCA considers that there are significant differences between the Newcastle shipping channel service and the DBCT service (also noted by the NCC, *Revocation of the declaration of the shipping channel service at the Port of Newcastle, recommendation*, para. 6.59). Therefore, the analysis undertaken by the NCC and the conclusion reached by the NCC in the *PNO declaration revocation* matter will reflect those different circumstances. Nevertheless, since criterion (a) is the same in the CCA and the QCA Act, it is relevant to consider how the NCC addressed the 'materiality' threshold in criterion (a).

⁴⁵⁸ NCC, Revocation of the declaration of the shipping channel service at the Port of Newcastle, recommendation, July 2019, para. 7.28.

⁴⁵⁹ NCC, Revocation of the declaration of the shipping channel service at the Port of Newcastle, recommendation, July 2019, para. 7.31.

⁴⁶⁰ NCC, Revocation of the declaration of the shipping channel service at the Port of Newcastle, recommendation, July 2019, paras 7.221–7.227, 7.328–7.336.

competitive process, and the volume and/or quality of output in the market must be expected to increase. DBCT Management argued that the ceiling TIC under its access framework would be set at a level that the volume of coal handled at DBCT is the same as that under the floor TIC. It considered that since there can be no change in utilisation of DBCT without declaration, charges at DBCT without declaration would not have an adverse impact on competition in dependent markets.⁴⁶¹

The DBCT User Group's view was that the QCA needs to be satisfied that without declaration there would be a new barrier to entry, which reduces the likelihood or probability of new efficient entry in a nontrivial way. According to the DBCT User Group, the QCA does not need to be satisfied that a particular efficient new entrant to a dependent market would cease to enter without declaration or a particular volume of new entrants, transactions or resulting demand would be deterred. Rather, the focus is on the opportunities and environment for competition. 462

The QCA's view is that criterion (a) requires consideration of competitive conditions in the dependent market in a future with and without declaration, and a comparison of conditions in each of those scenarios to determine whether declaration would promote a material increase in competition.

The market for coal tenements that is being considered here represents a market for the rights to carry out a development and operations project in respect of proven deposits of predominantly metallurgical coal. Given the nature of activity undertaken in the development stage tenements market—making of long-term investment decisions in developing tenements into mining operations—the QCA does not consider that the volume of coal handled at DBCT is an indicator of competitive conditions in this market.

The QCA's view is that an assessment of a material increase in competition in this market requires considering whether a future without declaration would materially impact on the ability of market participants to compete against each other in developing tenements on their merits, compared to a future with declaration, all other considerations remaining unchanged.

For instance, the QCA's view is that in a future without declaration, potential DBCT users (new users) would face a less favourable access environment (including a higher TIC) than existing users, which would not arise in a future with declaration. The 'materiality' threshold requires the QCA to consider whether, for instance, the higher TIC faced by new users would have the effect of making some tenements developed by new users unprofitable—that is, would it have a detrimental impact on the ability of new users to develop some tenements, relative to those developed by existing users, and compared to if they were developed in a future with declaration, all other things being equal. If the TIC new users would be subject to in a future without declaration would necessarily be at a level to have that effect, the QCA can be satisfied that declaration would promote a material increase in competition in this market. Otherwise, the QCA cannot be satisfied that declaration would promote a material increase in competition in this market. In the latter case, a higher TIC may represent a redistribution of the economic surplus generated within a supply chain.

The ensuing analysis demonstrates that if the pricing arrangement in DBCT Management's executed deed poll and access framework—that is 'no more than \$3 per tonne above the floor TIC'—were to continue over the economic life of a coal mine, it would be unlikely to have a

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⁴⁶¹ DBCT Management, sub. 26, appendix 2, p. 3, sub. 58, pp. 19–20.

⁴⁶² DBCT User Group, sub. 30, 10, sub. 46, p. 63.

detrimental impact on the ability of new users to develop coal tenements in a future without declaration relative to existing users and compared to if coal tenements were developed in a future with declaration.

However, that pricing arrangement applies for 10 years (i.e. until 2030). A threshold issue is the pricing arrangement that would apply beyond 2030 and over the economic life of a mine, which typically is longer (on average 30 years⁴⁶³). This issue is relevant in assessing whether, in a future 'without' declaration, DBCT Management's pricing behaviour beyond 2030 would give rise to potential hold-up concerns over the economic life of a mine, and have a detrimental impact on the ability of new users to develop coal tenements within the term of the access framework.

Given DBCT Management has chosen to constrain its pricing conduct over the next 10 years in order to avoid declaration, DBCT Management could seek to retain the existing form of pricing arrangement, or put in place some variation of it beyond the term of the access framework, such that it would be unlikely to have a detrimental impact on the ability of new users to develop coal tenements in the absence of declaration.

Alternatively, given DBCT Management has an incentive to maximise profits, it could attempt to put in place a form of pricing arrangement beyond 2030 that transfers additional rents to itself.

The QCA acknowledges that a potential DBCT user would face uncertainty over the pricing arrangement that may apply beyond 2030. However, contractual remedies would be available to a potential DBCT user—in the form of arbitration under the access framework SAA and constraints in the deed poll on amendments to the access framework. Additionally, a potential DBCT user could seek a declaration of the DBCT service, should there be an additional transfer of rents beyond 2030 that would have the effect of making some coal tenements developed by new users unprofitable relative to those developed by existing users at that time. The QCA's view is that DBCT Management's actions in the present declaration review process demonstrate that the threat of declaration would likely constrain DBCT Management's conduct beyond 2030. Given the existence of these remedial mechanisms, the QCA does not consider that DBCT Management would necessarily be able to set TIC at a level to extract an inefficient level of rents beyond the term of the access framework.

Accordingly, the QCA is not satisfied that access (or increased access) as a result of declaration would promote a material increase in competition in the market for development stage tenements in the Hay Point catchment.

Issues to examine

Assessing the environment for competition in a future with and without declaration requires, among other things, consideration of access terms and conditions in a future with and without declaration, information about new mining projects and estimation of their economic profit margins in the two future scenarios to assess their economic viability. Accordingly, the QCA has considered the following:

⁴⁶³ For instance, the Winchester South project is expected to produce coal for approximately 30 years (https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/current-projects/winchester-south-project.html); the expected life of Grosvenor mine (operated by Anglo American) is over 30 years (https://australia.angloamerican.com/operations-and-projects); and BMA expects its Caval Ridge mine to produce coal over a life of approximately 30 years (https://www.bhp.com/-/media/bhp/regulatory-information-media/coal/bhp-billiton-mitsubishi-alliance/caval-ridge/regulatory-compliance/160127_coal_bma_cavalridge_threatenedflorafaunaandecologicalcommunitiesmanagementplanv2.pd f).

- (a) access terms in a future with and without declaration
- (b) existing DBCT users' ability to perpetually use existing rights at DBCT
- (c) coal handling capacity at DBCT
- (d) profit margin estimates of new mining projects in a future with and without declaration
- (e) assessment of DBCT Management's incentive and conduct in a future without declaration.

Access terms with and without declaration

The coal tenements that are being considered here represent the rights to carry out a development and operations project in respect of proven deposits of predominantly metallurgical coal. The QCA's view is that expected returns over the economic life of a mining project and the risks arising in relation to those returns are central to making long-term investment decisions in developing mining projects into coal mines.

Typically, coal miners seek to develop a tenement into a mining operation if they expect, among other things, to obtain rail and port access. As the expected access terms and conditions would affect the expected return and associated risks over the life of a mining project, this would likely influence a tenement holder's decision to develop a coal tenement into a mining operation, all other things remaining unchanged. Therefore, it is relevant to consider expectations about access terms (in particular, pricing) over the economic life of a mine.

Access terms for existing users—with and without declaration

The QCA considers that existing users would be able to access the DBCT service based on the terms of access and volumes set out in their existing user agreements.⁴⁶⁴ Two key features of an existing user agreement (based on the access undertaking SAAs) are relevant here:

- price review provisions—that is, the agreement provides for periodic reviews of access
 charges, and includes a dispute resolution mechanism for determination of charges. The
 agreement specifies the matters the arbitrator (if not the QCA) must have regard to,
 including among other things, an appropriate asset valuation and an appropriate rate of
 return—with the intent that arbitration should produce an outcome similar to that which
 might have been expected had the QCA determined the access charge⁴⁶⁵
- evergreen nature of the agreements—that is, the agreement does not lapse if the relevant mining operation ceases operations; rather, existing users would have the option to continue to access DBCT for another mine on their portfolio based on the terms, including price review provisions, and subject to the volumes, set out in the agreement.

Effectively, existing user agreements (based on the access undertaking SAAs) provide a mechanism such that the access charge under those agreements would be expected to be cost-reflective in a future either with or without declaration. Also, the pricing mechanism is known and would remain unchanged for the life of the contract.

In the event an existing user seeks to increase its contracted coal handling volume at DBCT (expanding existing user) and is unable to obtain additional access rights from other existing

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⁴⁶⁴ Section 3.3.2.

⁴⁶⁵ See for instance the 2017 access undertaking SAA, clause 7.2.

⁴⁶⁶ See for instance the 2017 access undertaking SAA, clause 20.

users through the capacity transfer mechanism⁴⁶⁷, it will need to negotiate access terms with DBCT Management for the additional demand for the DBCT service. Similarly, users that do not have contractual rights to access the DBCT service and seek access to it (new users) will also need to negotiate access terms with DBCT Management.

Access terms for new users and expanding existing users—with declaration

In a future with declaration, access terms and conditions for expanding existing users and new users will be governed by Part 5 of the QCA Act. In particular, a coal mine investor seeking to make a long-term investment decision would, similar to an existing user, expect pricing on reasonable terms for the duration of the agreement.

While any future decisions of the QCA are not known, the terms of the 2017 access undertaking SAA are illustrative of what could be approved under declaration having regard to the assessment criteria in the QCA Act. In this review the QCA has considered a declaration period of 10 years for the DBCT service—that is, declaration until 2030. An access agreement executed in a future with declaration may include price review provisions akin to the SAAs approved by the QCA, such that the TIC may be expected to be subject to:

- the QCA approval or determination, for the part of the mine economic life that overlaps with a declaration period until 2030
- a dispute resolution mechanism akin to the mechanism in the QCA-approved SAA, if the declaration expires in 2030 and the economic life of the relevant mine lasts longer than the declaration period.⁴⁶⁸

To date, the QCA has determined a cost-reflective reference tariff for the DBCT service, and the SAAs approved by the QCA provide a mechanism for the access charge to be cost-reflective. Therefore, in a future with declaration, expanding existing users and new users would likely expect cost-reflective access charges over the economic life of a mine.⁴⁶⁹

Access terms for new users and expanding existing users—without declaration

DBCT Management executed a deed poll in March 2019, which implements an access framework that will apply in the absence of declaration. DBCT Management's access framework includes a standard access agreement ('access framework SAA'). Once executed the access framework SAA will be a contract between a user (coal miner) and DBCT Management, enforceable on its own terms.

Among other things, the access framework SAA provides for periodic review of the access charge (TIC) at five-year intervals, and includes an arbitration mechanism for determination of the TIC. The agreement provides that pricing arbitration must be in accordance with the access framework implemented under the March 2019 deed poll.

⁴⁶⁷ The QCA understands that permanent capacity transfers have been associated with the sale of a mine which would be relevant for consideration in the market for operating mines, which is a separate market. Accordingly, permanent capacity transfers may not be relevant to decisions about developing tenements into a mining operation, that is, in the market for development stage tenements being considered here.

⁴⁶⁸ Section 95(c) of the QCA Act provides that 'the expiry of a declaration, or the revocation of a declaration of a service or part of a service, does not affect the operation of an access agreement, or a right acquired, or liability incurred, under an access agreement, that was entered into before the expiry or revocation.'

⁴⁶⁹ While there is no requirement in the QCA Act for the QCA to approve a reference tariff, the QCA must have regard to the factors in s. 138(2) in approving an access undertaking.

DBCT Management has put in place the deed poll and the access framework to constrain its conduct in providing access in a future without declaration.⁴⁷⁰ In particular, the access framework, in combination with the deed poll, caps the level of the TIC to no more than \$3 per tonne (real dollar value) above the 'floor TIC', which is the TIC that would apply for the existing terminal under a QCA-administered pricing regime. This pricing commitment by DBCT Management has been made for the term of the access framework that expires in 2030. There are three key issues in DBCT Management's pricing approach:

- characterisation of the floor TIC
- characterisation of the \$3 per tonne price difference cap
- price terms beyond 2030 and over economic life of a mine.

Characterisation of the floor TIC

Although DBCT Management's deed poll and access framework do not define the 'TIC that would apply for the existing terminal under a QCA-administered pricing regime', DBCT Management stated:

The Floor TIC under the Framework is expressed as "the TIC for that Terminal Component that would apply under a QCA administered pricing regime". This requires the arbitrator to determine the TIC that would apply, by putting itself in the shoes of the QCA.

Clarity will also be further enhanced by a clear and well documented regulatory precedent between 2005 and 2020, under which the QCA has developed the building blocks approach it has used to determine DBCTM's access charges [footnote omitted]. This means that determination of the floor TIC should be a relatively straightforward assessment.

If the Floor TIC – which requires an arbitrator to set charges having regard to the Floor TIC (which is the TIC that would apply under a QCA administered pricing regime) – was not a workable proposition then: this must also be so for the protections under the existing user agreements, which require a similar process and considerations; this would mean that the purported harm caused by asymmetry of terms and conditions of access cannot occur, as incumbents would not be protected by the provisions in the existing user agreements post-declaration, and new and existing users would be on a level playing field;⁴⁷¹

As per DBCT Management's submission, the floor TIC refers to the QCA-determined charges for the existing terminal. To date, the QCA has determined a cost-reflective reference tariff for the DBCT service.

DBCT Management also said the floor TIC will be determined on the same basis as the TIC under existing user agreements. Existing user agreements (based on the access undertaking SAAs) specify a number of matters that an arbitrator other than the QCA must have regard to. These matters effectively provide a mechanism for access charges to be cost-reflective.

Therefore, the QCA understands the characterisation of the floor TIC in the access framework by DBCT Management to mean the QCA-regulated cost-reflective TIC for the existing terminal, and the ceiling would be no more than \$3 above this floor TIC.

Characterisation of the \$3 per tonne price difference cap

The QCA's draft recommendation observed that, in a future with declaration, if potential new entrants obtained access to DBCT expansion capacity and if expansion costs were priced on an incremental differential basis, the resultant regulated TIC could be higher by at most \$3.50 per

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⁴⁷⁰ DBCT Management's deed poll and access framework are considered in greater detail in section 3.3.6.

⁴⁷¹ DBCT Management, sub. 38, p. 15.

tonne relative to the TIC that existing users would pay for the existing terminal capacity.⁴⁷² Considering that the \$3.50 per tonne difference would be an overestimate, the draft recommendation noted that this difference in TICs would not appear to have a material effect on competition in the coal tenements market. In other words, the draft recommendation acknowledged that while there may be a possible difference in TICs between potential DBCT users and existing DBCT users if potential DBCT users obtained access to expansion capacity that was differentially priced, any such difference is unlikely to have a material impact on competition in the coal tenements market.

Following the draft recommendation, DBCT Management executed a deed poll which hard codes the TIC during the term of the access framework to no more than \$3 per tonne (real dollar value) above the access charge that would apply under a QCA-administered pricing regime for the existing terminal capacity. DBCT Management stated:

The introduction of the \$3.00 cap comprehensively addresses the QCA's key concern, by ensuring that the access charges paid by new users are within the \$3.50 materiality threshold (which the QCA has already concluded would not appear to be material) of the QCA determined charges for the existing terminal.⁴⁷³

The \$3 Cap addresses concerns raised by the QCA and User Group that an asymmetry in pricing between new and existing users would result in efficient new entrants being deterred from entering the coal tenements market.⁴⁷⁴

Thus, DBCT Management considered that the \$3 per tonne price difference cap addresses concerns about a material impact on competition in dependent markets in a future without declaration.

However, DBCT Management's approach would create a price difference between potential DBCT users and existing users regardless of whether potential DBCT users access existing terminal capacity or expansion capacity that is either socialised or differentiated. Therefore, it is relevant to examine if the price difference between potential DBCT users and existing DBCT users under DBCT Management's revised position would have a detrimental impact on the ability of potential DBCT users to develop tenements relative to those developed by existing users and compared to if the tenements were developed in a future with declaration.

DBCT Management also stated:

Under the executed deed poll, DBCTM is prevented from charging new users a TIC that is more than \$3.00 per tonne greater than what the QCA would determine for the existing terminal component. The only circumstances where DBCTM can charge more than this is where the QCA would determine a TIC for the new terminal component which would exceed the existing terminal component TIC + \$3.00. In those circumstances, DBCTM can only charge up to the equivalent of a QCA determined TIC for that terminal component.

This means that access charges will be similar 'with and without' declaration - in most cases no greater than \$5.50 per tonne [footnote: Based on the current regulated TIC for the existing terminal of ~\$2.50 plus the maximum possible spread of \$3.00/t. DBCTM notes that this is the ceiling TIC, and an arbitrator must determine a price between the floor and ceiling TIC].⁴⁷⁵

This means in a future without declaration under DBCT Management's approach, potential DBCT users would generally expect a TIC of no more than \$3 per tonne above existing users. The QCA's analysis of the economic profit margins of coal mining projects is based on the \$3 per

⁴⁷² QCA, Part C: DBCT declaration review, draft recommendation, December 2018, pp. 85–86.

⁴⁷³ DBCT Management, sub. 26, p. 6, para. 13.

⁴⁷⁴ DBCT Management, sub. 38, p. 12.

⁴⁷⁵ DBCT Management, sub. 26, p. 89, paras 441–442.

tonne price difference cap. Subsequently, the QCA has considered the scenarios where the TIC difference between existing users and potential DBCT users in a future without declaration may exceed the \$3 per tonne price difference cap. Given the evidence before the QCA, the QCA does not consider that the TIC potential DBCT users would face in a future without declaration would necessarily be at a level that would have a detrimental impact on their ability to develop tenements relative to those developed by existing users and compared to developing tenements in a future with declaration, all other things being equal.

Pricing terms beyond 2030

A more fundamental issue is that the commitment by DBCT Management to charge a TIC of 'no more than \$3 per tonne above floor TIC' has been made until 2030—that is, until the term of the access framework. Since the economic life of a coal mine typically is longer (about 30 years), uncertainty about DBCT Management's pricing behaviour beyond 2030 may give rise to potential hold-up concerns over the economic life of a mine and have a detrimental impact on the ability of new users to develop tenements within the term of the access framework.

There is therefore a threshold issue of what pricing arrangement would govern the setting of the TIC at periodic reviews beyond 2030 if a coal miner were to execute a user agreement in the form of the access framework SAA in the absence of declaration.

The QCA considers that the pricing mechanism that may apply beyond 2030 would depend on DBCT Management's action at that time. 476 For instance:

- DBCT Management could choose to not renew the access framework or could put in place a
 different deed poll and framework. In those circumstances, the QCA's view is that the
 periodic price reviews and pricing arbitration based on the terms of the access framework
 that the March 2019 deed poll implements may continue to apply.
- Alternatively, DBCT Management could renew the access framework after its term expires in 2030 and put in place an amended version of the access framework seeking to secure additional rents. However, the QCA's view is that it would be open to DBCT users to contest the amendments in the renewed access framework by initiating court proceeding as set out in the March 2019 deed poll. Users could also apply for declaration of the DBCT service. If so, whether a DBCT user would be subject to the amended terms would depend on the outcome of a court proceeding or DBCT Management's actions when faced with a threat of declaration.

Table 17 summarises the pricing terms a potential coal mine investor could expect in a future with and without declaration. Given the evidence before the QCA, the QCA is not satisfied that beyond the term of the access framework DBCT Management would necessarily be able to price in a way that would have a detrimental impact on the ability of new users to develop tenements relative to existing users in a future without declaration, compared to a future with declaration.

⁴⁷⁶ Section 3.3.6.

Table 17 Pricing terms in the future 'with declaration' and 'without declaration' scenarios

User type	Scenario	2020–2030 (declaration period/access framework term)	Beyond 2030	
Existing users	Future with declaration	Process in existing user agreements (based on the access undertaking SAAs) (cl. 7.2)	Process in existing user agreements (based on the access undertaking SAAs) (cl. 7.2)	
	Future without declaration	Process in existing user agreements (based on the access undertaking SAAs) (cl. 7.2)	Process in existing user agreements (based on the access undertaking SAAs) (cl. 7.2)	
New users/expanding existing users that execute an agreement during the period 2020–2030	Future with declaration	Standard access agreement that may be approved by the QCA	Process akin to existing user agreement (based on the access undertaking SAAs) (cl. 7.2)	
	Future without declaration	Deed poll/access framework terms (no more than \$3 per tonne above floor TIC for existing terminal)	Depends on DBCT Management's action	

Source: QCA analysis.

Existing users' ability to perpetually use existing rights at DBCT

For existing users, access rights under existing user agreements (based on the access undertaking SAAs) would be significantly more valuable than seeking access rights in a scenario where access terms would give rise to potential hold-up concerns over the economic life of a mine. Therefore, all other things being equal, existing users are likely to perpetually exercise the evergreen renewal right in their existing user agreements in a future without declaration.

As the DBCT User Group's consultant Castalia said:

The existing users, particularly those with a portfolio of mines will sequence mine development with new mines coming onstream to replace capacity within their portfolios from the depletion of their existing mines.

This follows the historic pattern of large miners replacing existing mines with new mines; for example, between 2007 [and 2012] Rio wound down the Blair Athol mine as the reserves depleted and ramped up production in the Clermont mine, essentially maintaining production and DBCT throughput at around 12mtpa.⁴⁷⁷

DBCT Management/Houston Kemp observed:

The only way that 'incumbents [which] ... have access through existing contracts at arbitrated prices' could use any benefit of those contracts to bid for new tenements would be if either the particular new tenement just happened to become available at exactly the same time as an existing mine was reaching the end of its economic life or DBCT had unallocated capacity available and an existing user was first in the queue and allowed to increase its contracted tonnage. 478

Thus, under the existing user agreements, existing users would have the option to use terminal rights for another mine on their portfolio as long as the tonnage is not in excess of their

⁴⁷⁷ DBCT User Group, sub. 15, schedule 3, p. 6; Rio Tinto, *Blair Athol mine to finish production*, media release, 8 August 2012, viewed 29 October 2018, https://www.asx.com.au/asxpdf/20120808/pdf/427xgr4glzzpwt.pdf. ⁴⁷⁸ DBCT Management, sub. 13, appendix 1, p. 10.

contracted tonnage. That said, a tenement may not be developed into a mining operation at exactly the same time as an existing mine is reaching the end of its economic life—as noted by DBCT Management. If that were the case, it would likely result in a situation where an incumbent may not be using its contracted tonnage. Therefore, it is relevant to consider what may happen if an incumbent is not using its contracted tonnage in a future without declaration.

As per clause 11.3 of the standard form of DBCT user agreements that have been approved by the QCA from time to time, as long as the incumbent is able to produce reasonable evidence that demonstrates that it is likely in future to substantially ship the whole of its annual contract tonnage, it could retain its existing rights even if it was not using the contracted tonnage. This means an existing user may have to plan ahead, for instance, by holding a coal mining tenement with a proven coal deposit in order to be able to satisfy the requirement of clause 11.3.

Until the time the existing user is not using its contracted tonnage, the user would be liable for take or pay that would reflect the take or pay liability based on a TIC similar to that which the QCA would have determined. As noted above, existing user agreements provide a mechanism for access charges to be cost-reflective in a future without declaration, and so a take or pay liability would likely be based on a cost-reflective access charge. An existing user could reduce its take or pay liability by trading the unused capacity rights on a short-term basis with another user in the DBCT secondary capacity trading market.⁴⁷⁹

An alternative option for the existing user to avoid take or pay liability would be to give up its existing rights and seek new access rights when it is considering developing a tenement into a mining operation. That would mean obtaining access on the terms of DBCT Management's access framework, in particular, expecting a TIC greater than under its existing user agreement, that is, up to \$3 per tonne more. Additionally, since DBCT is currently capacity constrained, the relevant miner may expect to join the queue of access applications and may face uncertainty about whether and when it would obtain access. In those circumstances, an existing user would have an incentive to assume a take or pay liability over the short term to preserve its existing evergreen rights rather than face the risk of paying a higher TIC over the economic life of its future mining operation as well the risk of whether and when it would obtain access.

In conclusion, existing users could use existing terminal rights to ship coal from another mine on their portfolio. They would also have an incentive to preserve those rights for future mining operations.

According to information available to the QCA, approximately 23 mtpa of coal handling throughput at DBCT relates to mines operated by existing users that are expected to reach the end of their economic life over the next 10 years. To the extent that the relevant existing users have another mining project for developing into an operating mine, they would be able to use their existing rights up to the volume specified in their access agreements. In the event an existing user is seeking to develop a tenement into a mining operation that would result in the user's coal handling demand at DBCT exceeding the volume specified in its existing agreement, it would effectively be a new user in respect of that increased demand for access rights.

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⁴⁷⁹ For instance, another existing user would be able to use the traded capacity rights under the terms of its existing user agreement in a future without declaration.

⁴⁸⁰ QCA, Part C: DBCT declaration review, December 2018, p. 89; DBCT Management, sub. 58, p. 16, para. 71.

Coal handling capacity at DBCT

DBCT capacity is currently fully contracted.⁴⁸¹ Nevertheless, coal mining investors would expect capacity at DBCT to become available.

First, some mines operated by existing users are expected to reach the end of their economic life over the next 10 years (about 23 mtpa). To the extent relevant existing users of an expired mine do not intend to use the associated access rights for another coal mining operation, those rights would revert to DBCT Management and would potentially be available for use by other users. Alternatively, existing users could transfer the associated rights to another user on a permanent basis. The QCA's understanding is that permanent capacity transfers have occurred in relation to the sale of an existing mine. Effectively, there is the potential for redistribution of existing terminal capacity.

Second, DBCT Management's master plans canvass the expansion options at DBCT to meet increased demand for the coal handling service at DBCT. Relevantly, infrastructure expansions, port as well as rail, have been undertaken to meet additional demand from coal mining when existing infrastructure capacity was inadequate to meet increasing demand.

For instance, DBCT Management's 2018 Master Plan describes past expansions and mentions future expansion plans:

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.

...

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.⁴⁸³

DBCT Management also stated that it is 'primarily the demand for capacity that determines expansion requirements'.⁴⁸⁴

Similarly, rail network expansions have been associated with port investments. For instance, Aurizon Network's 2016–17 Network Development Plan (NDP) identifies network expansion options to align with forecast port expansions. For the Goonyella system, the NDP identifies five future expansion scenarios, all of which are driven by port developments:

- An initial 4 mtpa from the North Goonyella branch to DBCT in 2020, corresponding to the DBCT Zone 4 project.
- This is followed in 2021 by DBCT 8X with 13 mtpa from the Blair Athol and North Goonyella branches.
- In 2023 and 2024, 20 mtpa of capacity is provided for HPX4 from the South Goonyella and North Goonyella branches.

⁴⁸¹ DBCT Management, sub. 36.

⁴⁸² See, for instance, clause 20(d) in the 2017 access undertaking SAA.

⁴⁸³ DBCT Management Master Plan 2018, p. 6 (sub. 1, appendix 19).

⁴⁸⁴ DBCT Management, sub. 13, p. 101, para. 460.

- In 2025, 10 mtpa of capacity is provided for the Bowen Basin Terminal from the South Goonyella branch.
- 34 mtpa of capacity is provided from the North Goonyella and South Goonyella branches for DBCT 9X, ramping up in 2026 and 2027.⁴⁸⁵

Accordingly, the fact that DBCT is currently capacity-constrained is not a binding constraint for the development of tenements into mining operations, and it is unlikely to discourage the development of coal mining projects. Rather, the potential demand from coal mining projects would trigger the need to expand DBCT capacity and rail infrastructure capacity.

Therefore, the QCA's view is that coal mining investors would expect capacity at DBCT to become available, and that expectation would remain unchanged in a future with and without declaration.

Profit margin estimates of new mining projects in a future with and without declaration 486

The QCA's view is that expected returns over the economic life of a mining project and the risks arising in relation to those returns would be relevant for making long-term investment decisions in developing mining projects into coal mines. Expected access terms and conditions would affect the expected return and associated risks over the life of a mining project, all other things remaining unchanged. Hence, it is relevant to examine if access terms and conditions in a future with and without declaration would be such that they would influence a tenement holder's decision to develop a tenement into a mining operation, all other things remaining unchanged. An approach is to estimate profit margins of new coal mining projects taking into account the access terms existing users and new users (including expanding existing users) would expect in a future with and without declaration.

In the analysis that follows, the QCA estimated the profit margin (per tonne) of a coal mine project as the difference between:

- forecast coal price per tonne, and
- cost per tonne of producing and delivering coal to a terminal, which comprises mine operating and capital costs, and cost of supply chain.

Typically the economic life of a coal mine is 30 years.⁴⁸⁷ The average profit margin of a coal mine project was estimated for three decades:

- 2021 to 2030 (decade of 2020s), which has been selected to coincide with the term of DBCT Management's access framework
- decade of 2030s

⁴⁸⁵ Aurizon Network, *2016–17 Network Development Plan*, p. 41.

⁴⁸⁶ The analysis in this section is based on public data submitted by stakeholders in relation to the review of the DBCT service. For the purpose of the criterion (a) assessment, the QCA has not sought to assess the appropriateness of that data, as the nature of assessments required for criterion (b) and criterion (a) are different.

⁴⁸⁷ For instance, the Winchester South project is expected to produce coal for approximately 30 years (https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/current-projects/winchester-south-project.html); expected life of Grosvenor mine (operated by Anglo American) is over 30 years (https://australia.angloamerican.com/operations-and-projects); and BMA expects its Caval Ridge mine to produce coal over a life of approximately 30 years (https://www.bhp.com/-/media/bhp/regulatory-information-media/coal/bhp-billiton-mitsubishi-alliance/caval-ridge/regulatory-compliance/160127_coal_bma_cavalridge_threatenedflorafaunaandecologicalcommunitiesmanagementplanv2.pd f).

decade of 2040s.

The QCA has considered whether or not average profit margin estimates for coal mine projects would be positive throughout the three-decade period in a future with and without declaration. A negative average profit margin estimate during a decade would affect the economic viability of a project. Although not considered in the analysis, even a positive profit margin could raise questions about the viability of a mining project if the anticipated profit margin over the economic life of a mine does not meet a coal miner's internal rate of return threshold.

Coal mine projects

The submission by DBCT User Group's consultant, Palaris, includes a list of 35 coal projects in the Hay Point catchment that are at different stages of development, namely:

- early stage exploration (11 projects)
- late stage exploration (12 projects)
- pre-development (8 projects)
- care and maintenance (4 projects).

Since the tenements that are being considered here represent the rights to carry out a development and operations project in respect of proven coal deposits, the QCA considered the 20 projects that are classified as late exploration and pre-development stage. The 11 early stage exploration projects would be part of the market for new or early stage exploration permits whereas mines on care and maintenance would be part of the market for operating mines, which are functionally separate markets—they are not considered any further.

Of the 20 projects that are considered further, one (Wilunga) is classified as a thermal coal project. As concluded previously, the prevalent type of coal in the Hay Point catchment is metallurgical coal, and metallurgical coal tenements and thermal coal tenements are in two separate markets. Therefore, the Wilunga project is not considered any further.

Although the QCA's focus is on coal mine projects that predominantly would produce metallurgical coal, the QCA understands that thermal coal may also be produced by a mine that produces predominantly metallurgical coal.

The 19 projects considered further are summarised in Table 18.

Table 18 Coal mine projects in Hay Point catchment

	Project name	Holder	Mining type	Stage
(1)	Codrilla	Peabody	Open cut (OC)	Late stage exploration
(2)	Eagle Downs	Aquila/South32	Underground (UG)	Pre-development
(3)	Grosvenor West	Carabella (Wealth)	ос	Late stage exploration
(4)	Hillalong	Shandong	OC/UG	Late stage exploration
(5)	Ironbark No. 1	Fitzroy	UG	Pre-development
(6)	Moranbah South	Anglo American/Exarro	UG	Late stage exploration
(7)	New Lenton	Aquila/New Hope ^a	ос	Pre-development
(8)	Olive Downs North	Peabody	ос	Late stage exploration
(9)	Red Hill	ВМА	UG	Pre-development
(10)	Talwood	Aquila	OC/UG	Late stage exploration
(11)	Vermont East	Jellinbah Group	UG	Late stage exploration
(12)	Winchester South	Whitehaven Coal	ос	Late stage exploration
(13)	German Creek (Aquila seam)	Anglo American	UG	Pre-development
(14)	Hail Creek UG	Glencore	UG	Late stage exploration
(15)	Isaac Downs/South	Stanmore Coal	ос	Late stage exploration
(16)	Isaac Plains Underground	Stanmore Coal	ос	Pre-development
(17)	Olive Downs Complex	Pembroke	ос	Pre-development
(18)	Valeria	Glencore	ос	Late stage exploration
(19)	Wards Well	ВМА	UG	Pre-development

Source: DBCT User Group, March 2019, schedule 3—Palaris report, pp. 15–16.

a New Hope included as a holder of the New Lenton project based on information reported in DBCT Management, sub. 26, appendix 4, p. 8.

Seaborne coal price forecasts

To estimate profit margins of the coal mine projects, among other things, data on seaborne coal price forecasts and production cost estimates are required. In the absence of detailed, publicly available, mine-specific data from other sources, the QCA used the HoustonKemp data provided by DBCT Management in June 2018. In doing so, the QCA notes that this data has limitations,

including that it is assumption-driven and as a static forecast, may not be reflective of actual inputs and market circumstances over time.⁴⁸⁸

DBCT Management's June 2018 submission includes mine level coal price forecasts for a number of coal mines in Queensland, which includes existing mines as well as new mining projects at various stages of exploration and development. The price forecasts were prepared by AME Consulting (AME). DBCT Management stated that AME calculated a specific coal price for each product of each mine by considering the price for benchmark coal types and applying any relevant discounts or premiums due to the specific quality of coal at the respective mines as assessed by AME. 490

Of the 19 projects listed in Table 18, coal price forecasts data for 12 projects listed at (1) to (12) in Table 18 were available in DBCT Management's submission, which are considered further. The other seven projects, listed at (13) to (19) in Table 18, are not considered further, because of non-availability of mine level price and production cost data to the QCA.⁴⁹¹

For each coal mine project, DBCT Management's submission provided forecast coal prices data for metallurgical coal and thermal coal, with forecast prices data for metallurgical coal type further separated into three sub-types: hard coking coal (which commands the highest price); low-volatile PCI coal; and high-volatile PCI coal or semi-soft coking coal (which commands the lowest price in DBCT Management's data).

- For example, for the Hillalong project, separate forecast coal prices data are provided for hard coking coal and semi-soft or high-volatile PCI types of metallurgical coal. There are four other projects with separate forecast prices data for different metallurgical coal types. These projects are New Lenton, Olive Downs North, Talwood and Winchester South. Since data are not available on the production of the different metallurgical coal types for such mine projects to calculate a weighted average metallurgical coal price, the QCA calculated a simple average of the forecast prices for different metallurgical coal types to obtain a metallurgical coal price forecast for a project for a given year.
- Three projects—Vermont East, Moranbah South and Red Hill—are forecast to produce only metallurgical coal whereas the other nine projects are forecast to also produce thermal coal. Since the focus is on estimating profit margin (per tonne) for a coal mine project, this required an estimate of the price (per tonne) of coal produced by a mine. For these nine projects, the QCA used the corresponding production forecasts of metallurgical coal and thermal coal in DBCT Management's submission to calculate a weighted average coal price for a project for a given year.

Coal price data in DBCT Management's submission are reported in US dollar (US\$) per tonne. The QCA applied the exchange rate between the US dollar and Australian dollar (A\$) assumed in DBCT Management's submission of US\$1 = A\$1.3, to convert the US\$ coal price to A\$ coal price.

⁴⁸⁹ The data reported in DBCT Management, sub. 10 were prepared by AME and Wood Mackenzie.

⁴⁸⁸ DBCT Management, sub. 10.

⁴⁹⁰ DBCT Management, sub. 10, p. 4, para. 4.2.

⁴⁹¹ The 7 projects excluded from the analysis are: German Creek, Isaac Downs/South, Isaac Downs Underground, Olive Downs Complex, Valeria, Wards Well and Hail Creek Underground (which was not considered because DBCT Management (sub. 10) does not distinguish between the already existing Hail Creek mine and the new mining Hail Creek underground project).

⁴⁹² This is particularly because DBCT Management (sub. 10) provides data on production cost estimates of a coal mine project and does not separate production cost estimates by metallurgical coal and thermal coal produced by a coal mine.

DBCT Management's submission provides coal price forecasts generally for the years 2021 to 2037 and specifically for each mine project from the year when a project is forecast to commence production.

Given coal price forecasts data in DBCT Management's submission are specific to each coal mine project, and considering it is difficult to reliably forecast coal prices over a long time horizon, the base analysis of profit margin estimates considers coal price forecast data for 2021 and, where forecasts for a mine project are not available for 2021, the year when forecasts are first available after 2021 (initial price forecast). The price is assumed to remain at that level throughout the three-decade period. Table 19 summarises the initial coal price forecast for the 12 mine projects.

To assess sensitivity of estimated profit margins to coal prices, the QCA considered an alternative scenario where coal prices are higher by 5 per cent than the level considered in the base scenario and remain at that level throughout the three-decade period. The 5 per cent increase in coal price is not dissimilar to the trend in forecast coal prices data in DBCT Management's submission which, for instance, shows that forecast prices for the new coal mine projects in 2030 are on average higher by about 7 per cent for metallurgical coal⁴⁹³ and 6 per cent for thermal coal compared to the forecast coal prices in 2021.

Table 19 Forecast coal prices for new mine projects (A\$ per tonne)

Project	Coal price forecast year	Metallurgical coal	Thermal coal	Weighted average coal price
Eagle Downs	2021	\$184/t	\$122/t	\$178/t
Grosvenor West	2021	\$166/t	\$91/t	\$140/t
Hillalong	2021	\$138/t	\$98/t	\$120/t
Ironbark No. 1	2021	\$192/t	\$103/t	\$148/t
Moranbah South	2021	\$179/t	-	\$179/t
New Lenton	2021	\$167/t	\$104/t	\$136/t
Olive Downs North	2021	\$176/t	\$115/t	\$161/t
Red Hill	2022	\$185/t	-	\$185/t
Vermont East	2023	\$181/t	-	\$181/t
Talwood	2024	\$169/t	\$105/t	\$156/t
Codrilla	2025	\$166/t	\$122/t	\$151/t
Winchester South	2026	\$141/t	\$105/t	\$123/t

Source: QCA calculation based on data in DBCT Management, sub. 10.

Cost of producing and delivering coal to a terminal

The cost of producing and delivering coal to a terminal comprises mine operating and capital costs, and cost of supply chain. The QCA has considered costs in real dollar values.

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⁴⁹³ Based on a comparison of forecast prices for hard coking coal and low volatile PCI coal in 2030 compared to the levels in 2021, which are the two predominant form of metallurgical coal types for the mining projects being considered.

Mine operating costs

DBCT Management's June 2018 submission provides annual forecasts of production costs per tonne for individual mines in Queensland (existing as well as new mining projects) for 2021–2037. Production costs data were prepared by AME.

DBCT Management considered these forecast production costs data and separately estimated transport and terminal charges for individual mines as part of its least cost analysis and in estimating willingness to pay of mines for DBCT.⁴⁹⁴

AME identifies two broad categories of costs:

- cash costs, which comprise on-site costs (costs of extracting and processing mined material
 for sale) and off-site costs (costs associated with bringing a product to market, which occur
 'beyond the mine gate' and include royalties and transport costs)
- total costs, which comprises in addition to cash costs (as described above), capital charges associated with the mine site.⁴⁹⁵

AME's classification and DBCT Management's treatment of AME's production costs data show that the forecast unit production costs reported in DBCT Management's June 2018 submission would refer to cash costs excluding transport and terminal charges for a mine, and would also not include capital costs of a mine. The QCA therefore estimated transport and terminal charges (cost of supply chain) and capital costs of a mine.

Forecast production costs per tonne data in DBCT Management's submission are in real dollar values, because:

- the year on year data across mines show a mixed pattern of an increase, a decrease or no change
- for mines where forecast unit production cost estimates are consistently increasing over a
 period of consecutive years (though not all years), the increase is generally about 1 per cent
 per year. This increase would be consistent with the view that per tonne operating costs of
 coal mines generally increase over time due to a higher mine strip ratio, that is, the deeper
 the operation of a mine, the higher the amount of waste material required to be handled
 per tonne of coal.

For the new mine projects considered here, the production costs per tonne data in DBCT Management's submission generally show a consistent pattern of a decline after the first year of forecast production before costs stabilise. The decline in forecast production costs per tonne in the initial years is likely due to forecast production volume ramping up to a stable level. To avoid conflating production costs per tonne with the initial years of fluctuation in a mine's life, the QCA considered production costs per tonne from the year when forecast production volumes stabilise (initial unit production costs). For instance:

For the Eagle Downs project, forecast production volume data are from 2021, and the
forecast production volume stabilises in 2023. Therefore, the QCA considered forecast
production costs per tonne in 2023 to represent the initial unit production cost of the Eagle
Downs project.

⁴⁹⁴ DBCT Management, sub. 26, appendix 2, table 3.1, p. 17.

⁴⁹⁵ DBCT Management, sub. 1, appendix 12, pp. 773–775.

• For the Codrilla project, forecast production volume data are from 2025, and the forecast production volume stabilises in 2027. Therefore, the QCA considered forecast production costs per tonne in 2027 to represent the initial unit production cost of the Codrilla project.

DBCT Management's submission provides unit production cost forecasts until 2037, that is, for at most 17 years from 2021. Since a mine's economic life is typically about 30 years, unit production cost estimates for the three-decade period is required.

Generally, unit costs of operating a coal mine increase over time (the deeper a mine is operated at, the higher is the cost, all else being equal). From DBCT Management's submission:

- forecast unit production cost of existing coal mines in Queensland that produce predominantly metallurgical coal is:
 - \$95.1 per tonne in 2021 (average cost based on 24 coal mines)⁴⁹⁶
 - \$106.4 per tonne in 2030 (average cost based on 21 coal mines), which is approximately
 12 per cent higher than the cost in 2021 and approximates to an increase of 0.7 per cent
 per year for the 16-year period between 2021 and 2037
- forecast unit production costs in 2037 of the 12 mine projects is, on average, higher by 1.1
 per cent per annum compared to the initial unit production costs of those new mine
 projects.

Accordingly, to estimate unit production costs for the three-decade period, the initial production cost per tonne of mining projects in DBCT Management's submission was increased by 1 per cent per annum (year on year).

The QCA also examined the cost profile of new mining projects relative to that of existing mines. The QCA considered forecast production costs per tonne data of existing mines in 2021 (data of 24 existing mines) and calculated the three quartiles to form four cost quartile groups. A plot of initial production costs per tonne of new mining projects against the cost quartile (Figure 12) shows:

- the majority of the new mine projects (10) are in the first quartile group
- two projects are in the third quartile group.

This would show that new mine projects predominantly have lower production costs than existing mines.

⁴⁹⁶ The QCA did not consider production cost estimates of Cook, because the data plot shows that its production cost estimate of \$187 per tonne is an outlier.

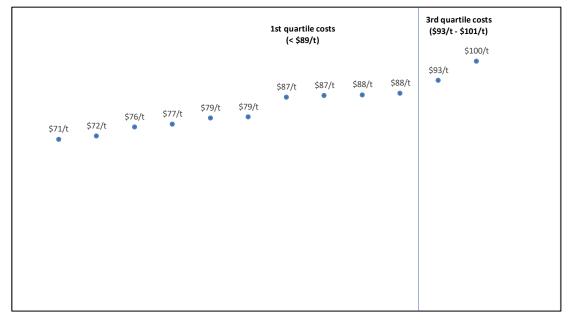


Figure 12 Initial production costs per tonne of new mine projects relative to existing mines

Source: QCA analysis based on data in DBCT Management's June 2018 submission (sub. 10).

Mine capital costs

Mine capital costs data are not provided in DBCT Management's submission, so the QCA estimated these costs based on two sources of information.

The first source is a report prepared by National Energy Resources Australia (NERA report) for the Australian Government Department of Industry, Innovation and Science in 2016, which states that capital costs for coal mine projects in Australia averaged US\$7.2 per tonne. 497 This cost estimate is equivalent to A\$9.4 per tonne, applying the assumption of an exchange rate of US\$1 = A\$1.3, as noted previously.

The second source is the Queensland Government Department of State Development, Manufacturing, Infrastructure and Planning, which published the following information on two of the projects listed in Table 18:

- Winchester South project—investment of \$1 billion for an annual coal production of up to 8 million tonnes for approximately 30 years⁴⁹⁸
- Olive Downs project—investment of \$1 billion for an annual coal production of up to 15 million tonnes.⁴⁹⁹

Capital costs comprise two components—return of capital (economic depreciation) and return on capital. The return of capital was estimated based on a 30-year economic life for a coal mine project, which is consistent with the economic life stated for the Winchester South project. A

⁴⁹⁷ NERA, Coal Industry Competitiveness Assessment, Report on the Framework, Baseline Score, Insights and Opportunities, 2016, p. 14.

⁴⁹⁸ Department of State Development, Manufacturing, Infrastructure and Planning, Winchester South Project, Queensland Government, viewed 5 August 2019, https://www.statedevelopment.qld.gov.au/assessments-and-approvals/winchester-south-project.html.

⁴⁹⁹ Department of State Development, Manufacturing, Infrastructure and Planning, Olive Downs Project, Queensland Government, viewed 5 August 2019, https://www.statedevelopment.qld.gov.au/assessments-and-approvals/olive-downs-project.html.

return on capital estimate of 10 per cent was considered, which is based on the financial performance in 2017 of the top 40 global mining companies by market capitalisation. 500

For a one billion dollar coal project, this corresponds to a capital cost estimate of about \$133 million per year. Applying the forecast production rates for the two projects, the capital cost per tonne estimates are:

- \$8.9 per tonne for Olive Downs
- \$16.7 per tonne for Winchester South (which is greater than that for Olive Downs because of lower estimated production volume).

The capital cost estimate of A\$9.4 per tonne reported in the NERA report is within the range estimated for the two projects.

For this exercise, the QCA considered a simple average of the three capital cost estimates—that is, an estimate of \$11.6 per tonne, which is kept unchanged throughout the three-decade period.

Cost of supply chain

Cost of supply chain relates to the following supply chain elements:

- below-rail
- above-rail
- coal handling
- other port and shipping.

The average cost of supply chain estimate to access existing DBCT capacity for a Goonyella mine is \$12.0 per tonne.⁵⁰¹ This estimate includes the current regulated DBCT TIC of \$2.5 per tonne (charged by DBCT Management) and the other coal handling charges at DBCT of \$3.1 per tonne (charged by the terminal operator that is independent of DBCT Management). The residual supply chain cost is about \$6.4 per tonne.

Among the 12 projects considered:

- seven projects are owned by entities that currently are not users of the DBCT service ('new users')502
- four projects are owned by existing DBCT users and of those four projects:
 - Moranbah South is a 50 per cent joint venture project between Anglo American (an existing DBCT user) and Exxaro (not a DBCT user). 503 Anglo American operates mines in the Goonyella system that are not expected to reach the end of their economic life over the next 10 years. 504 Therefore, Anglo American's demand for coal handling service for

⁵⁰⁰ PwC, Mine 2018, Tempting times, p. 14.

⁵⁰¹ Section 2.4.3, Table 5.

⁵⁰² Holders of the projects were identified as new users and existing DBCT users based on information reported in DBCT Management, sub. 38, appendix 2, pp. 17–19 and sub. 26, appendix 4.

⁵⁰³ Anglo American, Operations and projects, viewed 23 August 2019 (https://australia.angloamerican.com/operations-and-projects)

⁵⁰⁴ For instance, Anglo American's Moranbah North mine that commenced operations in 1998 has a further remaining life of 24 years from 2018. Anglo American, Moranbah Grosvenor Complex, Socio Economic Assessment Toolbox Report 2019–21, 2019, https://australia.angloamerican.com/~/media/Files/A/Anglo-American-Australia-V3/document/reports/AngloAmerican_Moranbah%20Grosvenor%20Complex%20Report_web%20ready.pdf.

the Moranbah South project would be in the nature of increased access, so it is categorised as a 'new user'

- the three projects other than Moranbah South are owned by existing DBCT users (two by Peabody and one by Fitzroy), which operate mines that are likely to reach the end of their economic life over the next 10 years, so they are expected to benefit from their existing user agreements ('existing users')⁵⁰⁵
- one project is owned by BMA, which may access the BMA-owned HPCT, so may be unaffected by a declaration of the DBCT service.

Existing user agreements (based on the access undertaking SAAs) effectively provide a mechanism such that the access charge would be cost-reflective in a future with and without declaration. Therefore, for this analysis, the QCA considered the current cost of supply chain estimate of \$12.0 per tonne for projects owned by existing users in a future with and without declaration, and kept it unchanged throughout the three-decade period.

Furthermore, in a future with declaration, new users seeking to negotiate access to the DBCT service would expect access charges to be cost-reflective over the economic life of a mine (Table 17). Therefore, for this analysis, the QCA considered the current cost of supply chain estimate of \$12.0 per tonne for projects owned by new users in a future with declaration and kept it unchanged throughout the three-decade period.

However, in a future without declaration, new users would expect a TIC that is no greater than \$3 per tonne more than the floor TIC for the existing terminal—that is, up to \$3 above the \$2.5 per tonne current regulated TIC. This is equivalent to a TIC of no more than \$5.5 per tonne. Therefore, for the purpose of this analysis, the QCA assumed that new users would expect a cost of supply chain of up to \$15.0 per tonne until 2030 (decade of 2020s), as DBCT Management's \$3 per tonne price difference cap commitment is until 2030 (Table 17).

The issue is the access price new users would expect beyond 2030 in a future without declaration, that is, in the decade of the 2030s and 2040s. Since a mine's economic life typically is about 30 years, an investor seeking to develop a tenement into a mining operation will need to factor in the risk associated with the TIC it may pay beyond 2030.

A best case scenario for a new user would be that the DBCT TIC continues to be set as per the \$3 per tonne price difference cap (i.e. no more than \$5.5 per tonne), so that new users may expect to incur a cost of supply chain of up to \$15.0 per tonne throughout the three-decade period.

A worst case scenario for a new user would be that the DBCT TIC is set to reflect the cost of accessing the next available terminal. If so, a coal mine investor may consider that:

AAPT and RG Tanna are unlikely to provide a substitute service and would unlikely have spare capacity. WICET is also unlikely to provide a substitute service but has available capacity. Therefore, a coal mine investor may expect that, beyond 2030, in the worst case scenario the DBCT TIC may be set such that the supply chain cost of accessing DBCT is equivalent to the supply chain cost of accessing WICET ('WICET-equivalent TIC')

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⁵⁰⁵ For example, the Carborough Downs mine operated by Fitzroy has an expected mine of 10 years from 2016. Davies, E, 'Fitzroy Australia Resources: Bright Ideas', Australian Mining Review, Features section: Companies, 20 December 2018, http://australianminingreview.com.au/fitzroy-australia-resources-bright-ideas/. Based on DBCT Management, sub. 10, p. 61, the QCA understands that Peabody's Coppabella mine's economic life is expected to expire in 2023.

⁵⁰⁶ Section 2.4.1.

• the cost of accessing WICET would depend on the location of a mine project. As per information available to the QCA, the supply chain cost of accessing WICET for a mine located in the Goonyella system is estimated at \$25.8 per tonne. A new user seeking to develop a mine project within the Hay Point catchment may therefore expect to incur a supply chain cost of about \$25.8 per tonne beyond 2030, in the worst case scenario. This level of supply chain cost is equivalent to a DBCT TIC of approximately \$16.3 per tonne.

Coal profit margin estimates for new projects in a future with and without declaration

The QCA estimated profit margins (per tonne) of the coal mine projects as the difference between the forecast coal price per tonne and the cost per tonne of producing and delivering coal to DBCT, which comprises mine operating and capital costs, and cost of supply chain of accessing DBCT.

Base scenario

Initially, profit margins (per tonne) were estimated in a scenario ('base scenario') where:

- coal price remains at the initial forecast level as summarised in Table 19 for the threedecade period
- mine operating costs increase, on average, by 1 per cent per annum (year on year) for the three-decade period
- capital cost estimate remains unchanged at \$11.6 per tonne
- supply chain cost estimate of accessing DBCT depends on whether the future being considered is
 - a future with declaration—supply chain cost is at the current level of \$12.0 per tonne for existing users as well as new users and remains unchanged for the three-decade period
 - a future without declaration—supply chain cost for existing users is \$12.0 per tonne, and for new users
 - under the best case scenario, it is \$15.0 per tonne which remains unchanged for the three-decade period
 - under the worst case scenario, it is \$15.0 per tonne until 2030 (decade of 2020s), and \$25.8 per tonne beyond 2030 to reflect a WICET-equivalent TIC.

Through this approach, the QCA obtained estimates of the annual profit margin per tonne for each mine project over the three decades. For each decade, a simple average of the annual profit margin estimates was calculated to estimate the average profit margins of the coal mine projects. These are presented in Figure 13 and Appendix I.

corresponding average supply chain cost of \$25.8 per tonne was considered in estimating mine profit margins.

⁵⁰⁷ From section 2.4.3 the average supply chain cost of accessing WICET is at least \$25.2 per tonne comprising, among other things, a below-rail cost estimate based on contract volumes of \$4.6 per tonne. Other likely estimates of below-rail cost are \$5.4 per tonne when maximum allowable revenue is spread over the underlying forecast volumes, and \$5.7 per tonne when below-rail cost is estimated from Oaky Creek (the furthest mine south on the Goonyella system) to the Port of Gladstone based on Aurizon Network's UT5 reference tariffs. Each of these estimates would underestimate the below-rail cost for a mine in the Goonyella system to access WICET, because the below-rail cost on the Goonyella system is not captured—that would depend on the exact location of a mine. Also, the below-rail cost estimate is based on the UT5 data, which is lower than an estimate based on the UT5 2019 revised DAAU data. The QCA considered the average of these below-rail cost estimates, and the

For each mine project, a comparison of average profit margin estimates in a future with and a future without declaration would show the effect of the DBCT TIC that may apply in the two future scenarios, all other parameters remaining unchanged. The average profit margin estimates in the base scenario show that:

- in a future with declaration, the average profit margin estimate of one project (Hillalong), owned by a new user, would be negative in the 2040s
- in a future without declaration
 - if the DBCT TIC is levied as per the \$3 per tonne price difference cap throughout the
 economic life of a mine, the average profit margin estimate of three projects owned by
 new users would be negative in the 2040s
 - if, beyond 2030, the DBCT TIC reflects the supply chain cost of accessing WICET, the average profit margin estimate of four projects owned by new users would be negative in the 2030s and 2040s (Figure 13).

Alternative scenarios

The base scenario assumes that mine operating costs increase, on average, by 1 per cent per annum. Typically, a coal miner would seek to control mine operating costs to mitigate anticipated losses, so long as it is able to retain the benefit of cost control measures. Therefore, the QCA considered an alternative scenario where mine operating costs increase, on average, by 0.5 per cent each year rather than by 1 per cent, with all other parameters remaining unchanged from the base scenario ('cost control scenario'). This assumption would be consistent with a scenario where export prices are expected to remain flat or decline, and coal miners seek to limit their operating costs—the part of the profit margin that is within the control of a coal miner.

The average profit margin estimates in the cost control scenario show that:

- in a future with declaration, the average profit margin estimate of all the mine projects considered here would be positive throughout the three-decade period
- in a future without declaration
 - if the DBCT TIC is levied as per the \$3 per tonne price difference cap throughout the
 economic life of a mine, the outcome is the same as in a future with declaration—that is,
 the average profit margin estimate of all the mine projects considered here would be
 positive throughout the three-decade period
 - despite cost control, the average profit margin estimate of four mine projects would be negative in the 2040s when, beyond 2030, the DBCT TIC reflects the supply chain cost of accessing WICET (Figure 13).

The base scenario assumes the coal price remains at the initial forecast level (as in Table 19) throughout the three-decade period. The QCA considered an alternative scenario where coal prices are higher by 5 per cent than the initial forecast level considered in the base scenario and remain at this higher level throughout the three-decade period ('higher coal price scenario'). All other parameters remain unchanged from the base scenario.

The average profit margin estimates in the higher coal price scenario show that:

• in a future with declaration, the average profit margin estimate of all the mine projects considered here would be positive throughout the three-decade period

in a future without declaration

- if the DBCT TIC is levied as per the \$3 per tonne price difference cap throughout the
 economic life of a mine, the outcome is the same as in a future with declaration—that is,
 the average profit margin estimate of all the mine projects considered here would be
 positive throughout the three-decade period
- despite the higher coal price assumption, the average profit margin estimate of four mine projects would be negative in the 2040s when, beyond 2030, the DBCT TIC reflects the supply chain cost of accessing WICET (Figure 13).

Conclusion: Profit margin estimates of new mining projects

Criterion (a) requires the QCA to form a positive view that declaration would promote a material increase in competition in the development stage tenements market. Among other things, it requires the QCA to be satisfied that a future without declaration would have a detrimental impact on the ability of new users to develop some tenements, relative to those developed by existing users and compared to if tenements were developed in a future with declaration.

The analysis shows that if the TIC was set as per the \$3 per tonne price difference cap throughout the economic life of a mine, the average profit margin estimates for some projects owned by new users are negative in one scenario and positive in the other two scenarios. A similar pattern is observed for estimates in a future with declaration—that is, the average profit margin estimate for one project is negative in one scenario and positive in the other two scenarios. In other words, the analysis does not provide a consistent evidence to suggest that if the TIC was set as per the \$3 per tonne price difference cap over the economic life of a mine, it would necessarily affect the economic viability of projects developed by new users, compared to if those tenements were developed in a future with declaration. Hence, the effect of a future with declaration and a future without declaration (based on the \$3 per tonne price difference cap over the economic life of a mine) on the ability of new users to develop mining projects is likely to be similar.

On the other hand, if beyond 2030, the DBCT TIC reflected the supply chain cost of accessing WICET, the average profit margin estimates of four mine projects owned by new users are negative in all three assumed price—cost scenarios. Therefore, a WICET-equivalent TIC beyond 2030 would be expected to have a detrimental effect on the economic viability of those four projects, compared to if they were developed in a future with declaration, all other considerations remaining unchanged.

Three of those four projects are estimated to be in the first cost quartile group. However, the forecast coal prices associated with these four projects are lower than that of other projects (Table 19), so their profit margin estimates are more sensitive to supply chain costs.

As discussed, the QCA considers that the 'materiality' threshold in criterion (a) requires the QCA to be satisfied that the TIC new users would be subject to in a future without declaration would necessarily be at a level to have a detrimental effect. Therefore, the QCA examined whether a WICET-equivalent TIC beyond 2030 would be in DBCT Management's economic interests in the absence of market-related constraints and whether other constraints—contractual and regulatory—would affect DBCT Management's pricing conduct beyond 2030. 508

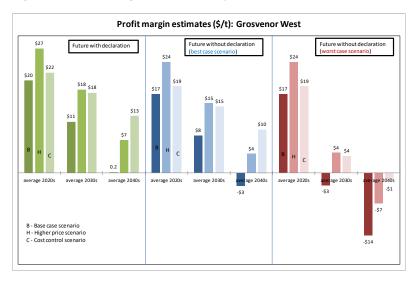
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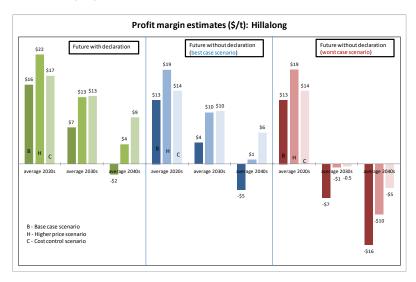
⁵⁰⁸ See 'DBCT Management's incentives without declaration' in section 4.4.1.

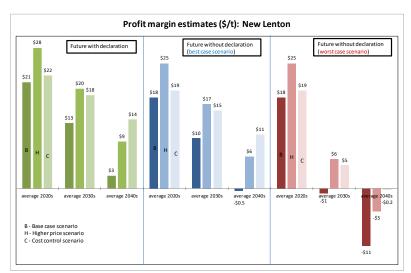
Queensland Competition Authority

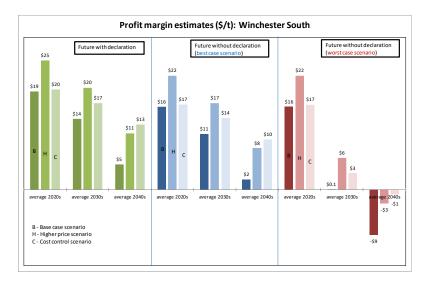
Coal tenements market

Figure 13 Profit margin estimates (\$ per tonne) over mine economic life for new mine projects in a future with and without declaration









Expansion capacity pricing and other permutations of TIC without declaration

DBCT Management said that new users would obtain access to expansion terminal components, which would most likely be priced on a differential basis. Hence, its view is that new users would face a similar TIC with and without declaration. 509

However, the DBCT User Group and New Hope said that with declaration, new users would pay the same TIC as existing users, because existing terminal capacity will become available and the cost of terminal expansions are likely to be socialised. On the contrary, their view was that without declaration, new users would pay 'at least' \$3 per tonne more than existing users due to uncertainty of the hypothetical QCA price (floor TIC) and information asymmetry being greater for new users.⁵¹⁰

Although DBCT capacity is currently fully contracted, some mines operated by existing users are expected to reach the end of their economic life, so there is the potential for redistribution of existing terminal capacity. There is also potential for expanding DBCT capacity. Therefore, potential DBCT users or existing users seeking additional terminal capacity could access existing terminal capacity, or expansion capacity, which may be priced on a socialised or differentiated basis.

If new users obtained access to existing terminal capacity, the preceding analysis shows that even if those users were subject to a TIC of \$3 per tonne more than existing users and compared to a future with declaration, there is no conclusive evidence of a detrimental impact on the ability of those users to develop tenements.

If new users obtained access to expansion capacity, DBCT Management argued that potential DBCT users would pay a differential TIC that would also apply in a future with declaration. In a future without declaration, whether the costs of an expansion are socialised or differentiated would be subject to arbitration. The arbitrator will make that assessment based on the factors listed in DBCT Management's access framework, which are broadly similar to those listed in the 2017 access undertaking. ⁵¹¹ A key difference is that under the 2017 access undertaking, the assessment is done by the QCA and under the deed poll/access framework, the assessment will be done by an arbitrator. It is not subject to DBCT Management's discretion.

If expansion costs are differentially priced, the TIC new users would be subject to may be more than \$3 per tonne above the TIC that existing users would face. However, DBCT Management's deed poll and access framework provide that if an expansion is differentially priced, the TIC would be based on the approach that would apply under a QCA-administered pricing regime. It is not subject to DBCT Management's discretion. Therefore, if an expansion is differentially priced, potential DBCT users would expect to face a broadly similar level of TIC in a future with and without declaration. So, in this circumstance, the effect on new users' ability to develop tenements would unlikely be materially different in a future without declaration compared to a future with declaration, all other things remaining unchanged.

Another circumstance when potential DBCT users may be subject to a TIC reflecting a price difference cap of greater than \$3 per tonne relative to existing users is when the costs of an expensive expansion are socialised. In this case, the floor TIC for new users might be higher and consequently the ceiling TIC would be the new floor TIC plus \$3 per tonne. In this circumstance, DBCT Management could potentially earn up to the difference between the new floor TIC and

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⁵⁰⁹ DBCT Management, sub. 58, pp. 10–11, paras 36, 44.

⁵¹⁰ DBCT User Group, sub. 60, p. 5; New Hope, sub. 59, p. 5.

⁵¹¹ DBCT Management, sub. 26, p. 57.

the old floor TIC plus \$3 per tonne and new users may pay more than \$3 per tonne above existing users. However, as noted, the determination of whether the costs of an expansion are socialised or differentiated, and if socialised, the level of the new floor TIC would be established by an arbitrator. It is not subject to DBCT Management's discretion. Therefore, based on the information before it, the QCA is not satisfied that this event would necessarily occur, and if it occurred, whether the consequent TIC would necessarily be at a level to have a detrimental impact on the ability of new users to develop tenements in a future without declaration.

The permutations above have been noted by stakeholders for the term of the access framework, which is until 2030. A more fundamental issue relates to the pricing arrangement that would apply upon the expiry of DBCT Management's access framework in 2030. Arguably, DBCT Management's pricing behaviour beyond 2030 may give rise to potential hold-up concerns over the economic life of a mine, which may affect investment decisions in the development stage tenements market by new users within the term of the access framework.

DBCT Management's incentives without declaration

As a commercial entity, DBCT Management has an incentive to maximise profits.

The QCA's view is that the coal handing service at DBCT is an essential service for moving coal from rail to ships for mines located in the Goonyella system, and that DBCT is the least-cost provider to meet the total foreseeable demand. The QCA also considers that DBCT Management would not be constrained from exercising its market power by the availability of substitute facilities, by the countervailing power of users (particularly potential DBCT users) in the absence of the access framework, and by the threat of a new facility being built. Furthermore, unlike the Port of Newcastle in the PNO declaration matter, DBCT is capacity-constrained, as foreseeable demand is likely to exceed existing DBCT capacity. This means the issue of whether DBCT Management would have an incentive to contract spare capacity does not arise.

Also, although DBCT Management is not vertically integrated, it is a monopolist service provider and would have an incentive to maximise profits by charging more, even if this reduces volumes.

The preceding analysis, based on the information available to the QCA and the assumptions set out above, shows that four mine projects by new users would potentially be unviable if, beyond 2030, the DBCT TIC reflected the supply chain cost of accessing WICET. An issue to examine is whether that level of TIC would be in DBCT Management's economic interests—that is, whether an expected gain in revenue from a higher TIC would outweigh expected loss in revenue from the potentially unviable mine projects. The analysis in this section does not consider the constraints—deed poll/access framework arrangement and the threat of declaration—that may apply to DBCT Management. These constraints are considered separately later.

The QCA estimated access revenue corresponding to the new mine projects in a future without declaration in:

- the best case scenario, assuming all projects would proceed and
 - for existing users, the DBCT TIC is at its current level of \$2.5 per tonne
 - for new users, the DBCT TIC is subject to a cap of \$3 per tonne more than what existing users would pay; that is, new users would expect a TIC of no more than \$5.5 per tonne throughout the three decade period
- the worst case scenario, assuming the four potentially unviable projects would not proceed
 and

- for new users, the TIC is subject to the \$3 per tonne price difference cap until 2030 (that is a TIC of at most \$5.5 per tonne until 2030) and beyond 2030, the DBCT TIC reflects the supply chain cost of accessing WICET (that is a TIC of about \$16.3 per tonne)
- for existing users, the TIC is at its current level of about \$2.5 per tonne.

Under these assumptions, Table 20 identifies the relevant TIC that may apply to a mine project in a future without declaration.

Table 20 TIC assumption for new projects in a future without declaration

Project	Holder	Cost quartile group	User type	TIC under best case scenario (\$ per tonne)		TIC under worst case scenario (\$ per tonne)			
				2020s	2030s	2040s	2020s	2030s	2040s
Eagle Downs	Aquila/ South32	First	New	\$5.5		\$5.5	\$16.3		
Moranbah South	Anglo/ Exarro	Third	New	\$5.5		\$5.5	\$16.3		
Talwood	Aquila	First	New	\$5.5		\$5.5	\$16.3		
Vermont East	Jellinbah Group	First	New	\$5.5		\$5.5	\$16.3		
Grosvenor West	Carabella (Wealth)	Third	New	\$5.5		Potentially unviable			
Hillalong	Shandong	First	New		\$5.5		Potentially unviable		viable
New Lenton	New Hope/ Aquila	First	New		\$5.5		Potentially unviable		
Winchester South	Whitehaven Coal	First	New		\$5.5		Potentially unviable		
Codrilla	Peabody	First	Existing	\$2.5		\$2.5			
Ironbark No. 1	Fitzroy	First	Existing	\$2.5		\$2.5			
Olive Downs North	Peabody	First	Existing	\$2.5 \$2.5					
Red Hill	ВМА	First	Existing (HPCT)	May access the BMA-owned HPCT, so not considered for estimating DBCT Management's access revenue					

Source: QCA analysis.

Access revenue is estimated as a product of the relevant TIC that is assumed to apply to a project and the corresponding annual production volume forecast of the projects reported in DBCT Management's June 2018 submission. The annual production volume forecasts of the projects are reported to be stable throughout the three-decade period; so, the estimated access revenue in a future without declaration would be influenced by the underlying TIC that may apply. Since the QCA's focus is to assess the effect on access revenue if a different TIC applied beyond 2030, the QCA estimated an average of the annual access revenues during each of the three decades of the 2020s, 2030s and 2040s—which basically gave three series of revenue, one for each decade.

The estimates show that under the:

- best case scenario (i.e. when the DBCT TIC is set as per the \$3 per tonne price difference cap throughout the three-decade period), the access revenue estimate is about \$239 million (yearly average) during each of the three decades
- worst case scenario (i.e. when beyond 2030 the DBCT TIC is assumed to be set to reflect the supply chain cost of accessing WICET and the four potentially unviable projects do not proceed), the access revenue estimate is
 - about \$159 million (yearly average) in the 2020s, which is lower than \$239 million under the best case scenario due to the effect of excluding the four potentially unviable projects
 - about \$433 million in the 2030s and 2040s, which is greater than \$239 million under the
 best case scenario due to the effect of the TIC level of \$16.3 per tonne, despite excluding
 the four potentially unviable projects (Figure 14).

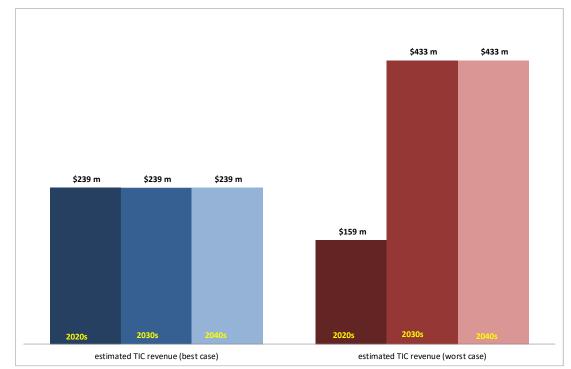


Figure 14 Access revenue estimates without declaration (best and worst case scenarios)

Source: QCA analysis.

This shows an estimated loss in access revenue in the 2020s of an average of \$80 million per annum under the worst case scenario relative to the best case scenario. However, there is an estimated gain in access revenue in each of 2030s and 2040s of an average of about \$195 million under the worst case scenario relative to the best case scenario.

For any discount rate, the present value estimate of the three series of revenue under the worst case scenario is greater than under the best case scenario. Assuming the costs of providing the service are the same under the two scenarios⁵¹², a WICET-equivalent TIC beyond 2030 would

⁵¹² The costs of providing the service would be the same if in both scenarios access is to the existing terminal (noting there is the possibility of redistribution of existing terminal capacity). To the extent that access is to an expansion component, the costs of providing the service under the scenario where all projects are potentially viable would

maximise DBCT Management's profits and would seem to be in DBCT Management's economic interests in the absence of market-related constraints.

A WICET-equivalent TIC level reflects a price difference cap of about \$14 per tonne, compared to the \$3 per tonne price difference cap in DBCT Management's access framework. An issue to examine is whether beyond 2030 a TIC that reflects a price difference cap of greater than \$3 per tonne and up to \$14 per tonne would be in DBCT Management's economic interests.

Another way to consider this issue is to suppose that a miner is considering whether to develop a tenement when faced with a TIC that reflects a price difference cap of up to \$3 per tonne. Since the effect of this level of TIC on the viability of mining projects is not conclusive, the relevant miner may consider controlling its costs to mitigate any anticipated loss and make a project economically viable, if the TIC was set as per the \$3 per tonne price difference cap. The issue this miner would need to consider is whether it would be able to retain the benefits of any further cost control/saving measures or whether DBCT Management would seek to further increase the TIC to expropriate the additional benefit arising from any further cost control/saving measures.

To examine this aspect, the QCA considered coal price and cost parameters as assumed under the base case scenario, that is, where the coal price remains unchanged at the initial forecast level and unit production cost increases by 1 per cent per annum.

If the DBCT TIC was set as per the \$3 per tonne price difference cap throughout the three-decade period, the average profit margin of three projects would be negative in the decade of the 2040s (Figure 13). However, if unit production costs increased by about 0.8 per cent per annum (rather than the 1 per cent per annum assumed under the base case scenario), the average profit margin of all projects would be positive in the three-decade period. As noted, a coal miner could seek to control its costs to mitigate anticipated loss and make a project viable even if the TIC was set as per the \$3 per tonne price difference cap. The question arises whether a coal miner could expect to retain the benefits of any further cost control/saving measures, or whether DBCT Management would have an incentive to secure additional rents beyond the \$3 per tonne price difference cap.

The QCA examined the effect on access revenue corresponding to the new projects analysed here, assuming the DBCT TIC reflected price difference caps ranging from \$3 to \$14 per tonne.

A discount rate of 5.82 per cent, which is the approved weighted average cost of capital (WACC) in DBCT Management's 2017 access undertaking, was applied to calculate the present value estimate of the three-period revenue series corresponding to each price difference cap. 513

The analysis shows (Figure 15) that if the DBCT TIC:

 throughout the three decades was set at the existing regulatory level of \$2.5 per tonne (i.e. at zero price difference cap), the present value estimate of the three-period revenue series is \$320 million

likely be greater than the scenario where some projects are potentially unviable. This is because the scenario where all projects are potentially viable would mean higher demand for coal handling service compared to when some projects are potentially unviable. Higher demand would require further expansion of the terminal, and so, more cost would be incurred in meeting demand when all projects are viable. Higher cost and lower revenue under the scenario where all projects are viable would make that scenario less profitable than the scenario where some projects are potentially unviable, which reinforces the conclusion.

⁵¹³ The results and conclusion are unchanged for a discount rate of 7.46 per cent (DBCT Management's proposed WACC in the 2017 DAU matter).

- throughout the three decades reflected the \$3 per tonne price difference cap (i.e. a ceiling TIC of \$5.5 per tonne), the present value estimate of the three-period revenue series is \$640 million
- during the 2020s reflected the \$3 per tonne price difference cap and beyond 2030 reflected
 a price difference cap of greater than \$3 and up to \$14 per tonne, the present value
 estimate of the three period revenue series at each dollar increment in price difference cap
 is greater than if TIC reflected a \$3 per tonne price difference cap throughout the threedecade period (Figure 15).

In other words, a TIC based on a price difference cap of greater than \$3 per tonne beyond 2030 would, despite some projects becoming potentially unviable, yield an access revenue estimate that would be greater than that associated with a TIC based on a price difference cap of \$3 per tonne throughout the three-decade period. Therefore, price difference cap greater than \$3 per tonne beyond 2030 would be in DBCT Management's economic interests.

DBCT Management said that it included the \$3 per tonne price difference cap in its executed deed poll to address concerns identified in the QCA's draft recommendation about the effect of asymmetric terms and conditions of access between new and existing users on the environment for competition in the coal tenements market.⁵¹⁴

The preceding analysis based on the assumptions set out above shows that, beyond 2030, a price difference cap of greater than \$3 per tonne would be in DBCT Management's economic interests. For instance, if an incremental increase in the price difference cap is considered, the analysis shows (Figure 15) that:

- it would be in DBCT Management's interest if beyond 2030, the TIC was set to reflect a price difference cap of \$5 per tonne (i.e. a ceiling TIC of \$7.5 per tonne) rather than \$3 per tonne. Despite one project becoming potentially unviable, the present value estimate of the three-period revenue series in this case (\$713 million) is greater than that associated under \$3 per tonne price difference cap (\$640 million)
- if beyond 2030, the TIC was set to reflect a price difference cap level of \$7 per tonne (i.e. a ceiling TIC of \$9.5 per tonne), despite one more project becoming potentially unviable, the present value estimate of the revenue series in this case (\$756 million) is greater than that associated with a \$5 price difference cap (\$713 million). Therefore, beyond 2030, a \$7 price difference cap rather than a \$5 price difference cap would yield greater access revenue
- if beyond 2030, the TIC is set to reflect a price difference cap of \$9 per tonne (i.e. a ceiling TIC of \$11.5 per tonne), two more projects would potentially be unviable and the present value of the revenue series (\$689 million) would be less than that associated with a \$7 per tonne price difference cap (\$756 million). That is, the revenue loss from those two potentially unviable projects would outweigh the additional revenue earned from a higher TIC on the projects that would remain potentially viable
- however, instead of a price difference cap of \$9 per tonne, if beyond 2030 the TIC is set to reflect a price difference cap of \$11 and above (i.e. a TIC of \$13.5 per tonne or greater), the additional revenue earned from a higher TIC on the projects that would remain potentially viable would more than offset the revenue loss from the four potentially unviable projects. The present value estimate of the revenue series in this case (\$777 million) is greater than that associated with a \$7 price difference cap (\$756 million) (Figure 15).

⁵¹⁴ DBCT Management, sub. 26, p. 43, paras 184–189.

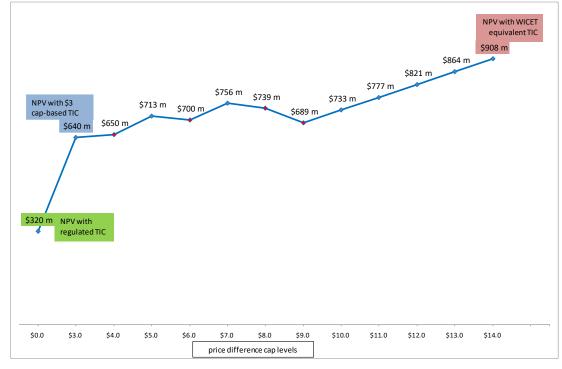


Figure 15 Present value of revenue series by level of price difference caps

Source: QCA analysis.

In other words, although DBCT Management is not vertically integrated, the analysis based on the assumptions set out above shows that it would be in DBCT Management's economic interests if beyond 2030 the TIC reflected a price difference cap that was greater than \$3 per tonne, even if that level of TIC made some projects by new users potentially unviable, all other considerations remaining unchanged.

Notwithstanding this analysis, it is relevant to examine whether a coal miner that is seeking to develop a tenement in the absence of declaration would have the confidence that DBCT Management would necessarily be able to set the TIC at this level if other constraints—contractual and regulatory—were to apply to DBCT Management. The QCA considered DBCT Management's strategic conduct in a future without declaration.

DBCT Management's strategic conduct without declaration

The analysis, based on the available information and the assumptions set out above, shows that four mine projects owned by new users would potentially be unviable if the DBCT TIC, after the 2020 access framework expires in 2030, was set at a level such that it would transfer all rents associated with those projects to DBCT Management.

Hence, for the market for development stage tenements to be workably competitive in a future without declaration, relevant coal mine investors would need to have the confidence that the DBCT TIC would not be set in this manner beyond 2030.

Therefore, in a future without declaration and during the term of the current form of access framework (that is, during the 2020s), miners would need to form a view of DBCT Management's conduct beyond 2030. Their decision as to whether to develop tenements into mining operations will be influenced by their expectations of DBCT Management's likely pricing behaviour beyond 2030, all other considerations remaining unchanged (node 1 in Figure 16).

Assuming the deed poll/access framework arrangement proceeds as submitted by DBCT Management, at some point towards the expiry of the access framework, DBCT Management will need to consider what comes next.

DBCT Management will have three potential options:

- (a) Voluntarily submit an access undertaking ('no rent above the regulated cost of capital').
- (b) Continue to price broadly in the same manner as over the life of the current form of access framework—that is, secure a share of available rents but not materially affect new users' ability to develop tenements relative to existing users and compared to a future with declaration ('a more favourable rent distribution').
- (c) Put in place a pricing mechanism that would transfer all available rents to DBCT Management ('inefficient level of rent extraction') (node 2 in Figure 16).

Voluntarily submit an access undertaking (no rent above the regulated cost of capital)

Under this option, DBCT Management could voluntarily submit an access undertaking under either Part 5 of the QCA Act (e.g. under the PSA as submitted by the DBCT User Group⁵¹⁵), or Part IIIA of the *Competition and Consumer Act 2010* (Cth) (CCA) for approval. This option would mean not continuing with the deed poll/access framework arrangements.

If an undertaking is approved and implemented, DBCT Management would likely expect to earn no rent above the regulated cost of capital and would expect to transfer back to miners the rent it had secured under the access framework. This is because under a regulator-approved access arrangement, DBCT Management's pricing would be constrained to a TIC determined by the regulator. If so, this option would produce an outcome for DBCT Management that would be inferior to its revealed preference to extract some rents (above the regulated cost of capital) and would be inconsistent with its incentives to maximise profits. Therefore, the QCA considers the miner would not expect DBCT Management to adopt this approach.

Continue to price as per the deed poll/access framework (a more favourable rent distribution)

Under this option, DBCT Management could continue to price broadly in the same manner as under the current form of access framework—that is, secure a share of available rents but not materially affect new users' ability to develop tenements relative to existing users and compared to a future with declaration.

Given the evidence before the QCA, both DBCT Management and the miner could reasonably be expected to assume that such a pricing approach would be unlikely to have a detrimental impact on new users' ability to develop tenements into mining operations. It would therefore be unlikely that declaration would promote a material increase in competition in the development stage tenements market in the period beyond 2030. In other words, under this pricing approach, DBCT Management could be expected to avoid declaration at that time, given that any one access criterion needs to be not satisfied in order to not declare a service.

If DBCT Management adopted this approach, its expected revenue would likely be greater than that under the 'no rent above the regulated cost of capital' approach (Figure 15). So, DBCT Management would be expected to adopt this approach over the 'no rent above the regulated cost of capital' approach.

⁵¹⁵ Section 3.3.3 considers whether DBCT Management's lease arrangement with the state government (the PSA) would constrain DBCT Management's exercise of market power in a future without declaration.

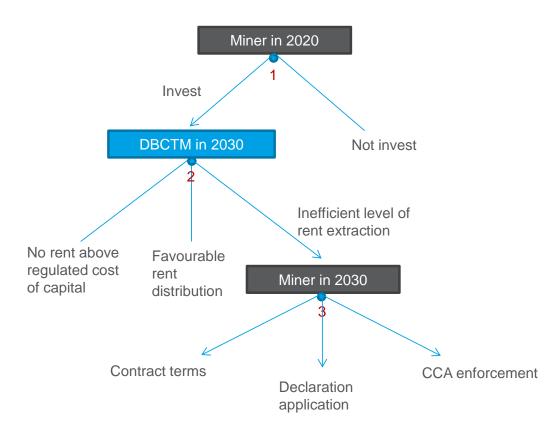
Nevertheless, given DBCT Management has an incentive to maximise profits, the QCA assessed whether DBCT Management could be expected to adopt the 'more favourable rent distribution' approach over an alternative approach of seeking an 'inefficient level of rent extraction'.

Price to secure all available rents (inefficient level of rent extraction)

Under this option, DBCT Management could price in such a way that it would transfer to DBCT Management all rents associated with some projects (as demonstrated in Figure 15). As the data analysis shows under this form of pricing approach, four projects by new users would potentially be unviable; that is, the relevant miners would expect negative rents over a part of the economic life of their mine project. ⁵¹⁶ If this approach was adopted, the relevant miner would consider the options it would have at that time; that is, the constraints that may apply to DBCT Management in the period beyond 2030 that may mitigate the miner's risk of hold-up. The miner would have three potential options (Figure 16):

- Seek protection under its access agreement with DBCT Management (contract terms).
- Seek enforcement action under s. 46 of the CCA.
- Apply for declaration of the DBCT service (node 3 in Figure 16).

Figure 16 Miner and DBCT Management strategic conduct in a future without declaration



⁵¹⁶ Negative rents to the miner could be due to a number of factors. For instance, there is likely to be asymmetric information about costs, and DBCT Management in seeking to secure the maximum available rent may be overly optimistic about the miner's production costs and therefore about the extent of available rents. Also, bargaining is not perfect, as there are differences in, for example, discount rates and attitudes towards risks. This could lead to an access price that may be too high for the miner. Alternatively, negative rents could represent the lost opportunity to the miner of the benefits it would have retained, for example, due to any cost saving measure but for DBCT Management securing those benefits in the form of higher access price.

It is relevant to distinguish between node 1 and node 3 in Figure 16.

At node 1, the miner, particularly the one with projects that would become potentially unviable, is considering whether to develop a tenement into a mining operation during the term of the access framework (i.e. during the 2020s), all other considerations remaining unchanged.

At node 3, the miner is assumed to have made that decision and entered into an access agreement with DBCT Management. At that time, the miner is considering its options to mitigate the hold-up risk by seeking to prevent DBCT Management from securing all rents associated with its project.

As discussed below, the QCA's view is that contractual remedies would be available to a miner at node 3 that may prevent DBCT Management from seeking to extract an inefficient level of rent. Additionally, DBCT Management's actions in the present declaration review process—namely, executing a deed poll inclusive of pricing constraints that the QCA considers would be unlikely to have a detrimental impact on the economic viability of coal mine projects by new users, compared to a future with declaration—demonstrate that the threat of declaration would constrain DBCT Management's behaviour at node 2. Therefore, the QCA does not consider that DBCT Management would necessarily be able to set the TIC at a level to extract an inefficient level of rents beyond the term of the access framework.

Contract terms

DBCT Management's March 2019 deed poll implements an access framework that includes the access framework SAA. Although the access framework expires in 2030, the access framework SAA, once executed during the term of the access framework, will be a contract between the miner and DBCT Management enforceable on its own terms. Therefore, the QCA's view is that the miner would expect the access framework SAA to be a reasonable guide of the contract terms that would apply in a future without declaration.

Among other things, the access framework SAA provides for the periodic review of the access charge (TIC) at five-year intervals, and includes an arbitration mechanism for determination of the TIC. The agreement provides that pricing arbitration must be conducted in accordance with the access framework implemented under the March 2019 deed poll.

Since the framework expires in 2030, pricing arbitration until that time would be subject to the \$3 per tonne price difference cap set out in the deed poll and the access framework.

However, the pricing approach that would govern the setting of the TIC in an arbitration of a price review dispute beyond 2030 would appear to depend on DBCT Management's action at that time and the operation of the deed poll. For instance:

- DBCT Management may not renew the framework or may put in place a different deed poll
 and access framework after its expiry. In those cases, pricing arbitration based on the terms
 of the access framework may continue to apply.
- Alternatively, DBCT Management could put in place an amended version of the access framework which may potentially include changes to secure additional rents.

Given that DBCT Management has an incentive to maximise profits, the QCA has considered whether it may seek to amend the access framework to secure additional rents beyond 2030. However, whether DBCT Management would be able to conduct itself in this manner would depend on whether the amendments:

- could override the \$3 per tonne price difference cap that is hard-coded in the deed poll
- would satisfy the requirements set out in the deed poll that they:

- promote the framework objective (which is the same as the object of Part 5 of the QCA Act)
- are appropriate having regard to the other mandatory considerations set out in the deed poll, which are similar to the factors set out in s. 138(2) of the QCA Act.⁵¹⁷

To the extent that a DBCT user considers the amendments would not satisfy these requirements, it would be open for the user to contest the proposed change by initiating court proceedings as set out in the deed poll.

The QCA's view is that although there is uncertainty about the pricing approach that may apply beyond 2030, remedial mechanisms would be available to the DBCT user under the terms of the access framework SAA and the executed deed poll. Thus, it is not evident to the QCA that beyond 2030, DBCT Management would necessarily be able to impose a price to extract an inefficient level of rents from access holders who execute an agreement under the access framework—that is, impose an access charge such that new users would expect zero or negative rents over the remaining life of their mine project beyond 2030.

CCA enforcement (section 46 of the CCA)

The miner may consider enforcement action under s. 46 of the CCA to prevent DBCT Management from securing all available rents associated with its projects once investments are sunk.

However, s. 46 is applicable to conduct that has the purpose, or is likely to have the effect, of substantially lessening competition in the market in which the relevant firm (or a related body corporate) has market power, or any other market in which it supplies or acquires goods or services. This requirement may be satisfied in the case of a refusal to deal by a firm that is vertically integrated into a dependent market. Since DBCT Management does not operate in a dependent market, s. 46 may not restrain DBCT Management's pricing behaviour.

Furthermore, s. 46 of the CCA has as its object the prohibition of specific conduct that substantially lessens competition; for example, conduct that might be described as 'exclusionary'. It is not evident that s. 46 would or could be used to obtain redress given the difficulties in demonstrating that a particular price is excessive.

Additionally, the threshold for satisfying criterion (a) (i.e. promoting a 'material' increase in competition) is different to the threshold for engaging s. 46 (i.e. a 'substantial' lessening of competition). When Part IIIA of the CCA was amended to add the word 'material' to criterion (a), it was viewed as a lower threshold than 'substantial'.⁵¹⁸

Therefore, the QCA's view is that it is likely the miner may not consider a threat of regulatory action under s. 46 of the CCA would constrain DBCT Management from securing all available rents beyond 2030 once investments are sunk.

Threat of declaration: statutory avenues

There are two statutory avenues available to the miner for seeking declaration of the DBCT service:

- declaration under Part 5 of the QCA Act
- declaration under Part IIIA of the CCA (node 4 in Figure 17).

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⁵¹⁷ DBCT Management, sub. 26, appendix 9, cl. 8.

⁵¹⁸ For example, Productivity Commission, *Review of the Gas Access Regime*, inquiry report no. 31, 2004, p. 223.

At this point in time (i.e. beyond 2030), when the miner would seek declaration of the DBCT service, it would have executed an access agreement with DBCT Management under the access framework. Therefore, the miner would consider the statutory avenue that would allow it to change an aspect of its then existing access to the service, even if the underlying contract for that access was executed when the service was not declared.

Declaration under the QCA Act

If the DBCT service was declared under the QCA Act, the miner could give an access dispute notice to the QCA. Relevantly, the access dispute provision in s. 112 of the QCA Act states:

Giving dispute notice

- (1) This section applies if—
 - an access provider and access seeker can not agree on an aspect of access to a declared service; and
 - (b) there is no access agreement between the access provider and access seeker relating to the service.
- (2) Either the access provider or access seeker may notify the authority that an access dispute exists.
- (3) For subsection (1), there is no access agreement between an access provider and access seeker relating to a declared service if the aspect about access to the service about which the access provider and access seeker can not agree is increased access to the service

Since access dispute provisions in the QCA Act do not apply in respect of an existing access agreement, the miner may not expect to obtain remedies from a future declaration under the QCA Act.⁵¹⁹

Nevertheless, an approach the miner may consider would be to apply for declaration under the QCA Act. If the service is declared, the miner could seek a new access agreement under the access terms governed by the QCA Act. If DBCT is expected to have spare capacity and there is no queue of access applications, the miner could effectively continue using the access rights obtained under the access framework, but on terms governed by the QCA Act.

However, DBCT is capacity-constrained and is expected to remain so for the foreseeable future. Consequently, if the miner considered seeking a new access agreement under the access terms governed by the QCA Act, it would likely expect to join the queue of access applications and would face uncertainty about whether and when it would obtain access on terms governed by the QCA Act. Until then, the miner would be exposed to a risk of transfer of additional rents to DBCT Management from an agreement executed under the access framework.

Therefore, there are doubts over whether, beyond 2030, the miner would rely on declaration under the QCA Act for obtaining remedies for its then existing access to the service.

Declaration under the CCA

If the DBCT service was declared under the CCA, the miner could seek arbitration by the ACCC. Relevantly:

⁵¹⁹ This understanding of the QCA Act is consistent with the provisions in the SAAs approved by the QCA for access to the DBCT service. Those agreements provide for arbitration of a dispute under an executed agreement by an arbitrator other than the QCA, although parties may agree to refer any dispute in connection with an agreement to the QCA for resolution. See clause 15 in the 2017 access undertaking SAA.

- Section 44S of the CCA says that a dispute may be notified if a 'third party' and a provider are
 unable to agree about 'one or more aspects of access'. A 'third party' is defined is s. 44B as a
 'person who wants access to a service or who wants a change to some aspect of the person's
 existing access to the service'. This suggests that an access dispute could arise if an access
 holder wanted to change some aspect of its existing access terms. Only if an access
 undertaking is applicable is an access dispute prohibited.
- Section 44W(1) prevents the ACCC from making a determination that would deprive a
 person of a 'protected contractual right'. However, that is a right under a contract made
 before 30 March 1995, whereas the contracts being considered here would have been made
 after 8 September 2020. This means that the ACCC would not be prevented from making a
 determination to vary the terms of a contract executed under the access framework.
- Section 44Y(1)(d) gives the ACCC the power to decide that access should continue to be governed by the existing contract. This indicates that an access holder with an existing contract could give a dispute notice to the ACCC.

Accordingly, a miner could consider declaration under the CCA for obtaining remedies for its then existing access to the DBCT service, if DBCT Management sought to extract an inefficient level of rents. In that circumstance, an access holder could apply for declaration of the DBCT service, and if the service was declared, the access holder could notify an access dispute under the CCA. It would then be up to the ACCC to decide whether to allow the existing contract to apply or to modify the terms of access. In the circumstance where the DBCT TIC was set to extract an inefficient level of rents such that it would potentially affect the economic viability of some coal mine operations by new users, it would be reasonable to assume that an arbitration outcome would be favourable to the relevant miners. In other words, declaration of the DBCT service under the CCA (and the consequent ACCC arbitration) would likely be in the miner's interest and not in DBCT Management's interest.

Timing and cost of declaration process

The CCA includes provisions such that access terms determined by the ACCC for a declared service could apply from the date the service is declared and not before. ⁵²¹

Arguably, the miner may be exposed to a transfer of additional rents to DBCT Management between the time the access framework expires and the date the DBCT service is declared under the CCA.

The DBCT User Group and New Hope said that significant time and cost are involved in seeking declaration and that any future threat of declaration will not be credible in constraining DBCT Management's exercise of market power.⁵²²

For instance, New Hope said:

[A]ccess seekers are often not as well-resourced as existing users or DBCT Management itself, those access seekers would be bearing the higher price of access and less advantageous terms whilst also spending significant financial resources on a potential declaration process. The cost

⁵²⁰ The QCA notes that the ACCC generally applies a building blocks methodology to arbitrate on access price disputes, and has sought to put in place a cost-reflective price in an access dispute. ACCC, *Part IIIA access undertaking guidelines: Submitting, varying or withdrawing an access undertaking under Part IIIA of the Competition and Consumer Act 2010*, August 2016, p. 22, https://www.accc.gov.au/system/files/ACCC%20-%20Part%20IIIA%20access%20undertaking%20guidelines%20-%20August%202016.pdf.

⁵²¹ Section 44ZO of the CCA provides for backdating of the ACCC's determination.

⁵²² DBCT User Group, sub. 60, p. 4.

of economic reports and analysis and external counsel to make submissions on a process run by the QCA is already significant for access seekers – let alone where that access seeker is also expected to write exhaustive initial submissions setting out the case for declaration.⁵²³

The QCA's view is that any person can apply to the NCC for declaration under the CCA at any time to have the DBCT service declared if it is not already declared. This would commence the process for the NCC's consideration of the application. Similar to the process set out in the QCA Act, the NCC will recommend to the relevant Minister whether or not to declare the service and the Minister must form a view independently.

The QCA notes that DBCT Management's executed deed poll provides the following notice:

At least 12 months before the tenth anniversary of the Commencement Date, DBCT Management will publish the following on its website:

- notice of its intention to renew, or not renew, the operation of the Framework for a further term; and
- (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).⁵²⁴

Therefore, the miner could avoid being exposed for a period between the expiry of the access framework and the declaration date by applying for declaration at least 12 months before the expiry of the access framework. The QCA notes the following timelines set out in the CCA for consideration of a declaration application:

- Section 44GA provides that the NCC must make a recommendation to the Minister within 180 days from the application date, excluding the consultation period. Nevertheless, the NCC could extend this period
- Section 44H provides a period of 60 days for the Minister to make a decision following the NCC's recommendation
- Section 44K provides that within 21 days of the Minister's decision, a party can apply to the Tribunal for a review of the decision
- Section 44ZZOA sets out the timeline for Tribunal decisions, which are similar to those provided for the NCC's recommendation.

In the event the consideration of a declaration application under the CCA takes longer than 12 months, arguably the miner could be exposed to a transfer of additional rents between the expiration of the access framework and the declaration date. Nevertheless, the QCA's view is that this period of exposure to additional rents will be short in the economic life of a mine (about 30 years), and as such it is unlikely to affect investment decisions by miners.

The QCA's view is that if a miner is willing and able to make a long-term investment in developing a mine and faces a number of risks in developing a tenement into a mining operation, the argument that such miners would be unable to bear the cost of a declaration process is not convincing.

Given the long-term nature of mining investment, the long-term gains from declaration (rents over regulated cost of capital transferred back to miners) would likely outweigh any associated short-term costs (from excessive pricing and declaration process costs). In other words, the

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⁵²³ New Hope, sub. 59, p. 6.

⁵²⁴ DBCT Management, sub. 26, appendix 9, cl. 5, p. 4.

expected returns from mining investment and the potential loss of those returns due to excessive pricing may justify a declaration application.

The permutation of options available to a miner in the period 2020 to 2030 are summarised in Figure 17.

Miner in 2020 Invest DBCTM in 2030 Not invest Inefficient level of rent extraction No rent above Favourable regulated cost rent Miner in 2030 of capital distribution Declaration application CCA enforcement Contract terms CCA **QCAAct** NCC Declare Not Declare ACCC arbitration

Figure 17 Miner and DBCT Management strategic conduct in a future without declaration

Threat of declaration for the DBCT service

The QCA's view based on the data analysis is that DBCT Management's pricing approach over the term of its access framework would be unlikely to have a detrimental effect on the economic viability of coal mine projects that may be developed by new users in the Hay Point catchment, compared to a future with declaration.

The QCA notes that DBCT Management committed to put a cap on any access charge it imposes during the term of the access framework, such that it could avoid the DBCT service being declared. DBCT Management said:

The introduction of the \$3.00 cap comprehensively addresses the QCA's key concern, by ensuring that the access charges paid by new users are within the \$3.50 materiality threshold (which the QCA has already concluded would not appear to be material) of the QCA determined charges for the existing terminal.⁵²⁵

⁵²⁵ DBCT Management, sub. 26, p. 6, para. 13.

DBCT Management also stated that at the expiry of its access framework, its preference would be to take an action so that it could continue to avoid declaration:

Naturally, if DBCTM chose not to renew the Framework before its expiration it would be at risk of being declared. As such, DBCTM considers it highly likely that it will renew the term of the Framework, beyond 2030.

The only circumstances where DBCTM would not renew the Framework would be if it was clear to the QCA that there were sufficient constraints without the Framework such that declaration would not promote a material increase in competition in a dependent market, even without the Framework.

If DBCTM did not renew the Framework and the QCA found that DBCTM was not constrained by other factors, access seekers would be able to successfully apply for declaration, and access charges post-2030 would be determined by the QCA [footnote: Assuming the other declaration criteria were also satisfied].⁵²⁶

The access criteria in the CCA are worded similarly to the QCA Act. The exception is criterion (c), which requires consideration with respect to national significance rather than state significance.

As the current review process for the DBCT service demonstrates, DBCT Management's deed poll and access framework are a relevant matter in the assessment of criteria (a) and (d), which requires consideration of the terms and conditions of access in a future with and without declaration.

As the preceding analysis shows, based on the assumptions made in that analysis, the profit margins of four projects by new users are more sensitive to supply chain costs; hence, they would become potentially unviable if beyond 2030 the DBCT TIC was set to secure all available rents associated with those projects. A similar analysis that may be undertaken at the expiry of the access framework, may show that an 'inefficient level of rent extraction' would likely have a detrimental impact on new users' ability to develop tenements, relative to existing users. The QCA considers this to be a reasonable assumption, as to do otherwise, would be to speculate that the future circumstances will be different.

In other words, if the DBCT TIC was set to extract an inefficient level of rents beyond 2030, it would expose DBCT Management to the risk of declaration. The risk of declaration is a risk that would see DBCT Management lose the ability to secure rents above a regulated cost of capital, which may prevent DBCT Management from engaging in such conduct.

Criterion (a) requires the QCA to be satisfied that declaration would promote a material increase in competition in a dependent market. In other words, if based on the evidence before the QCA, the QCA cannot form a positive view that declaration would promote a material increase in competition in a dependent market, then this criterion is not satisfied. In that respect, as long as it can be demonstrated that the threat of declaration would constrain DBCT Management's ability to exercise market power, it would be a relevant factor in the QCA's assessment of criterion (a) for the DBCT service.

Stakeholders submitted opposing views on whether the threat of declaration would constrain DBCT Management from exercising market power.

DBCT Management said the \$3 per tonne price difference cap it put in place and the other amendments it made following the draft recommendation demonstrate that declaration is a real threat for DBCT Management.

⁵²⁶ DBCT Management, sub. 38, p. 18, paras 72–74.

If the QCA concludes that criterion (a) is not satisfied, the binding commitments DBCT Management has made to comply with the Access Framework are likely to be the key determinant. As such, DBCT Management is abundantly aware that if it does not strictly abide by these commitments, both to the letter of the law and in spirit, then it will likely be re-declared. DBCT Management therefore has every incentive to ensure it diligently conducts itself in accordance with the Framework.⁵²⁷

However, other stakeholders disagreed.⁵²⁸ The DBCT User Group argued that DBCT Management's actions following the draft recommendation do not in any way show that the threat of declaration will be a constraint on DBCT Management's exercise of market power. The DBCT User Group stated:

DBCTM's response to the Draft Decision was evidently contrived in an attempt to avoid declaration being continued. For a profit maximising monopolist that is a rational response in the face of the highly credible threat of declaration that currently exists where the Draft Decision recommends declaration and (subject to the Minister agreeing with the QCA's analysis) the Minister has a right (without any further cost or material time delay) to declare the DBCT service. DBCTM would know in that scenario that seeking revocation in the future would also be more difficult without a fundamental change in circumstances. In other words, it is the very fact of an existing declaration which gives rise to this review and is constraining DBCTM's behaviour.⁵²⁹

In the DBCT User Group's view, any future threat of declaration will not be credible in constraining DBCT Management's exercise of market power, because there is significant time and cost involved in seeking declaration.⁵³⁰ The QCA does not find this argument persuasive.

The DBCT User Group argued that a future access seeker would also need to have sufficient certainty as to the regulated pricing levels that will be achieved, in order to consider the costs and benefits of seeking declaration. The QCA does not find this argument persuasive, because even under declaration, stakeholders would not have certainty over regulated price levels nor indeed many other business input costs. Although the QCA has applied a building blocks methodology to set reference tariffs, the parameters are subject to the QCA's views based on the facts and circumstances at the relevant time. Nevertheless, an access seeker would expect rents above the regulated cost of capital transferred back to the miner in a future with declaration. Given the long-term nature of mining investment, the long-term gains from declaration (i.e. rents transferred back to miners) would likely outweigh any associated short-term costs (from excessive pricing and declaration process costs), making applying for declaration a credible option for users, if they face unreasonable terms.

The DBCT User Group said it is very difficult to imagine a scenario where anyone would consider there to be good prospects of declaration, noting that a future user may expect declaration of the DBCT service only if DBCT Management engages in excessive pricing and does not implement a new access framework when confronted with a declaration application.⁵³³ This argument relies on DBCT Management not implementing an access framework that effectively constrains it in future.

⁵²⁷ DBCT Management, sub. 58, p. 3, para. 11.

⁵²⁸ DBCT User Group, sub. 60; New Hope, sub. 59.

⁵²⁹ DBCT User Group, sub. 60, p. 4.

⁵³⁰ DBCT User Group, sub. 60, pp. 4, 7–12.

⁵³¹ DBCT User Group, sub. 60, p. 13.

⁵³² Moreover, the QCA Act does not prescribe that a reference tariff must be approved for a regulated entity.

⁵³³ DBCT User Group, sub. 60, p. 13.

On the one hand, the DBCT User Group has argued that DBCT Management's actions following the draft recommendation do not demonstrate the effectiveness of the threat of declaration. However, on the other hand, the DBCT User Group has argued that there would be a good prospect of future declaration only if DBCT Management engages in excessive pricing and does not implement a new access framework.⁵³⁴ The two statements by the DBCT User Group appear inconsistent. In particular, the latter statement would suggest that pricing in the current form of DBCT Management's access framework is not considered to be excessive enough to materially impact on the ability of new users to develop tenements relative to existing users, and compared to a future with declaration. Since that pricing arrangement has been put in place when DBCT Management is facing a threat of declaration (i.e. now), it would follow that a future threat of declaration may constrain DBCT Management in the same way it is being constrained now. In other words, it would be in DBCT Management's interest to implement an access framework substantially in the same form as the one it has submitted, which constrains its ability on pricing, and enables it to secure a share of available rents that would not necessarily affect new users' ability to develop tenements relative to existing users and compared to a future with declaration.

The DBCT User Group argued that the impact on a single stakeholder is not sufficient on its own to demonstrate the impact on competitive conditions 'in the market'. The QCA's view is that where an efficient player is prevented from gaining access to significant infrastructure, it would be 'material' in respect of criterion (a). The QCA also notes that firms have applied for declaration in the past when faced with terms they considered were not reasonable (e.g. Glencore in the *PNO declaration* matter⁵³⁷), and it is not evident that the same would not occur in future.

The DBCT User Group also argued that declaration and any arbitrated price or reference tariff will not come with retrospective application.⁵³⁸ The QCA considers that the CCA includes provisions such that access terms determined by the ACCC for a declared service could apply from the date the service is declared and not before.⁵³⁹ Users could also apply for declaration in advance of the expiry of any existing arrangements that constrain DBCT Management, to avoid any lag.

The DBCT User Group's argument is that seeking declaration is not a viable strategy for a potential acquirer of tenements who would not be able to put in a bid to acquire tenements because of the future higher charges they will face from an unregulated DBCT Management. The DBCT User Group noted that exploration and development tenements are inherently speculative, and said that it is not certain such tenements could be developed. DBCT Management's counter-argument is that the uncertainty about whether the service would be

⁵³⁴ DBCT User Group, sub. 60, pp. 4, 7, 12, 13.

⁵³⁵ DBCT User Group, sub. 60, p. 13.

⁵³⁶ As noted previously, the federal government incorporated the word 'material' instead of 'substantial' in criterion (a) in the CCA, as the government's view was that the term 'substantial' may exclude situations where a small supplier is prevented from gaining access to nationally significant infrastructure.

⁵³⁷ To date, applications for a declaration of 48 services have been made since Part IIIA of the CCA was enacted. NCC, *Inquiry into the National Access Regime*, November 2012, pp. 11–17, provides a list of declaration applications for 46 services till 2011. Beyond 2011, the NCC's website lists declaration applications for two more services—Tiger Airways' application for declaration of the domestic terminal service at terminal 2 at Sydney Airport (in 2014), and Glencore's application for declaration of shipping channel services at the Port of Newcastle (in 2015). See NCC, *Past Applications*, http://ncc.gov.au/applications-past/past_applications.

⁵³⁸ DBCT User Group, sub. 60, pp. 4, 7, 12.

 $^{^{\}rm 539}$ Section 44ZO of the CCA provides for backdating of the ACCC's determination.

⁵⁴⁰ DBCT User Group, sub. 60, p. 14.

declared beyond 2020 has not affected participation by non-coal miners in the coal exploration and development tenements market.⁵⁴¹

The QCA's view is that exploration and development stage tenements are in separate markets. In particular, exploration stage tenements are speculative and at that stage there is no certainty about whether there is economically exploitable coal deposit to justify developing the tenement into a mining operation. The QCA's view is that the uncertainty about whether a meaningful resource would be available for exploitation is fundamental and far greater than any uncertainty about the terms and conditions of access. Therefore, the terms of access are unlikely to be a key consideration for participation in exploration stage tenements market, which is also demonstrated by participation of a number of firms that do not carry out coal operations (Figure 6).

On the contrary, development stage tenements are held/acquired by firms that are predominantly users (existing or potential) of coal handling services in the Hay Point catchment who acquire coal tenements to develop them into a mining operation. Given the long-term nature of the investment decision, a potential acquirer of development tenements would consider the access terms under DBCT Management's deed poll and the various constraints that would apply to DBCT Management if it were to exercise market power, including the threat of declaration.

Conclusion: Threat of declaration for the DBCT service

The QCA does not consider that, on its own, the threat of declaration would constrain DBCT Management from exercising market power. However, the response of DBCT Management to the present threat of declaration shows that it is a relevant consideration that should be taken into account in assessing whether criterion (a) is satisfied.

DBCT Management has executed a deed poll in which it commits to comply with an access framework for the term. Importantly, the deed poll hard-codes a price difference cap—that is, the TIC will be no more than \$3 per tonne higher than the price that would apply for the existing terminal under a QCA-administered pricing regime.

The QCA's view is that DBCT Management's pricing approach over the term of its access framework would be unlikely to have a detrimental effect on the economic viability of coal mine projects that may be developed by new users in the Hay Point catchment relative to existing users, and compared to a future with declaration.

The fact that DBCT Management has elected to execute this form of a deed poll with pricing constraints that it cannot amend is an indicator that the threat of declaration is a factor impacting upon DBCT Management's conduct.

The QCA considers that DBCT Management's actions in the current declaration review process demonstrate that the threat of declaration does constrain DBCT Management from exercising market power that may otherwise materially impact on the ability of new users to develop tenements relative to existing users, and would do so in the future. Accordingly, the QCA is not satisfied that, in a future without declaration, DBCT Management would necessarily be able to extract an inefficient level of rents beyond the term of the access framework.

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⁵⁴¹ DBCT Management, sub. 58, appendix 2, pp. 10–12.

Other arguments on the impact on competition

The DBCT User Group's view was that a \$3 per tonne price difference cap above the efficient regulated level will have an adverse impact on the competitive environment in the coal tenements market, compared to the state of competition with declaration.⁵⁴² The DBCT User Group's argument, supported by its consultants, PwC and Castalia, is as follows:

- The relevant market is that for the acquisition of tenements, and not for the development of tenements.
- The relevant aspect to consider is the difference the \$3 per tonne additional charge would make to the profit margin of coal exploration and development projects. The proportion the \$3 per tonne charge forms of the costs of production or the coal sales price is not an appropriate consideration.
- New entrants would factor in the \$3 per tonne differential in evaluating the price for coal tenements they would be prepared to pay where the price is the residual value after discounting forecast future costs and revenues.
- That difference in access charge will have a direct impact on the purchase price existing
 users and future users will be willing to pay or to bid in a tender process, which will
 materially impact the likelihood of future users entering the market and will distort
 competition for the acquisition of tenements.⁵⁴³

The QCA's view is that it is possible that the prospect of paying a higher charge (at most \$3 per tonne higher) than an existing user may lessen the value of a tenement to a potential DBCT user, all other things being equal. However, this does not necessarily mean that the absence of declaration would materially impact on the ability of new users to develop tenements into mining operations. As long as mining projects are expected to remain profitable, it is not evident that there would be a material difference in the investment decisions of potential DBCT users with or without declaration. The higher charge may merely have the effect of redistributing the economic surplus generated within a supply chain.

The NCC expressed a similar view in the PNO declaration revocation matter:

[While] higher charges for the Service in a future without declaration may reduce the expected net present value of a mining project to which a tenement relates, this does not mean it would reduce the ability of individual miners to compete against each other for that tenement on their merits.⁵⁴⁴

Indeed, the QCA's analysis shows that a DBCT TIC of up to \$3 per tonne above the current DBCT TIC would be unlikely to have a detrimental impact on the economic viability of mining projects by new users. All other things being equal, the profit margin estimates of those projects would likely be lower in a future without declaration than in a future with declaration, but that would represent a transfer of economic rents.

The DBCT User Group's consultant, PwC, assessed the impact of the \$3 per tonne price difference cap on the valuation of 12 pre-production stage projects—seven of those projects overlap with those analysed by the QCA. PwC argued that a TIC reflecting the \$3 per tonne price difference cap would reduce the valuation of the projects to new users relative to existing users,

⁵⁴³ DBCT User Group, sub. 46, pp. 94–98.

⁵⁴² DBCT User Group, sub. 46, pp. 59–60.

⁵⁴⁴ NCC, Revocation of the declaration of the shipping channel service at the Port of Newcastle, Recommendation, July 2019, para. 7.331.

including two projects that would have a negative valuation if undertaken by new users.⁵⁴⁵ The DBCT User Group had submitted a similar analysis by PwC in its April 2019 submission, which examined five projects.⁵⁴⁶

However, PwC's methodology and data underpinning the analyses have not been provided, so the QCA is unable to examine its conclusion.

Of the two projects with negative valuation, one is a BHP project.⁵⁴⁷ This project may access the BMA-owned HPCT, so may be unaffected by a declaration of the DBCT service.

Additionally, from PwC's previous April 2019 analysis, the other project with a negative valuation estimate after including the effect of the additional \$3 per tonne is a thermal coal mine project. However, as discussed above, thermal coal tenements are not in the same market as the metallurgical coal tenements predominantly found in the Hay Point catchment. Hence, the effect identified by PwC would not be representative of the relevant coal tenements in the Hay Point catchment.

Furthermore, PwC's conclusion seems inconsistent with the other information reported in its submission. For instance, PwC's report shows per tonne operating margin estimates of the 12 projects. PwC's report does not define operating margins, and the QCA assumes it refers to coal profit margins. Operating margins of the 12 projects considered by PwC are positive throughout the period considered by PwC, with the minimum margin being about \$25 per tonne and the average margin about \$50 per tonne. If so, an additional \$3 per tonne will reduce those margins, but the margins would still remain positive—so those projects would be expected to be economically viable. Therefore, it is unclear what assumptions and methodology PwC used to derive valuation of coal tenement projects from operating margins such that the two projects with operating margins of about \$50 per tonne (in 2035) and about \$100 per tonne (in 2030) have a negative valuation estimate as a result of an additional \$3 per tonne TIC.

For these reasons, the QCA does not consider the DBCT User Group's argument and PwC's conclusion convincing.

Operation of the deed poll and environment for competition

Stakeholders raised a number of issues with DBCT Management's deed poll and access framework—that is, the possibility of intended beneficiaries disclaiming or not complying with the deed poll and access framework, and various operational and implementation issues.⁵⁵⁰ It is relevant to consider these issues to form a view on the environment for competition in a future with and without declaration (see also section 3.3.6).

Disclaimer or non-compliance

On the issue of disclaimer or non-compliance, the QCA considers that DBCT Management's deed poll is an appropriate part of the counterfactual.

The QCA considers that a prospective user who disclaims the benefits of the deed poll or refuses to comply with the access framework would have the option of seeking declaration of the DBCT service in order to obtain access on terms it deems acceptable. However, the QCA's view is that such an action would not meet the requirement of criterion (a). This is because

⁵⁴⁵ DBCT User Group, sub. 60, schedule 1—PwC report.

⁵⁴⁶ DBCT User Group, sub. 46, schedule 2—PwC report, pp. 34–36.

⁵⁴⁷ Due to a confidentiality claim, the QCA has not revealed the identity of this project.

⁵⁴⁸ DBCT User Group, sub. 46, p. 97.

⁵⁴⁹ DBCT User Group, sub. 60, schedule 1—PwC report, Figure 2, p. 10.

⁵⁵⁰ DBCT User Group, sub. 60; New Hope, sub. 59.

criterion (a) requires the QCA or the NCC (and subsequently relevant Ministers) to consider the access environment in a future with and without declaration to assess the relative effect on competitive conditions in dependent markets. This requires consideration of the terms on which access would be available in a future without declaration—namely, the deed poll and access framework terms. The QCA does not consider it would be appropriate to disregard the available terms on the basis that one or more access seekers choose to reject them. On the contrary, if the deed poll and access framework do not have a material impact on the ability of new users to develop tenements relative to existing users, and compared to a future with declaration, declaring the service because users reject those terms would lead to a perverse outcome that would not satisfy the requirements of criterion (a).⁵⁵¹

Amendment of the access framework

The QCA's view is that access arrangements can be amended, whether the service is declared or not. In a future without declaration, DBCT Management would have the ability to make amendments to the access framework in accordance with the deed poll. However, an important consideration for the QCA is that the pricing provision of 'no more than \$3 per tonne above the floor TIC for the existing terminal' is hard-coded in the deed poll. This provision will constrain DBCT Management from making amendments to secure additional rents during the term of the access framework. While a range of non-price terms in the access framework may be modified, the QCA considers there are mitigating factors that would constrain DBCT Management from modifying the access framework in a manner that would have a material impact on the ability of new users to develop tenements.

Determination of the floor TIC

The DBCT User Group and New Hope said that the floor TIC or hypothetical QCA price would be akin to a range, and DBCT Management would have the incentives to seek to price at the top of the range. This comment would seem to relate to a TIC based on a building blocks methodology. Since stakeholders may have different opinions on the parameter values, it seems the argument is that DBCT Management may have the incentive to propose the values that produce a higher TIC. However, even under declaration, DBCT Management may have an incentive to propose values that produce a higher TIC. Nevertheless, those values are subject to the QCA's assessment when the QCA approves a reference tariff. Likewise, in a future without declaration, the QCA considers that in a negotiation and arbitration process under the access framework, each party would have an incentive to advance arguments about the 'TIC that would apply under a QCA-administered pricing regime' that are in their commercial interests. Ultimately, the TIC would be determined by an independent arbitrator in the event of a dispute, and it is not subject to DBCT Management's discretion. Therefore, DBCT Management's ability to secure a higher TIC will be constrained by the view of the independent arbitrator.

The DBCT User Group said that the price difference cap is not legally enforceable due to the impossibility of defining the floor price with precision.⁵⁵³ As noted, the floor TIC would be subject to the view of the independent arbitrator. The QCA accepts that there may be limitations on the ability of a covenantee to enforce the pricing covenant in the deed poll – or at least a perception that it will be difficult to obtain relief from a court. However, a 'TIC of no more than \$3 per tonne above floor TIC' is also included in the access framework in the pricing methodology to be applied by an arbitrator in the event of a dispute. The QCA considers that

⁵⁵¹ These matters are also considered in section 3.3.6.

⁵⁵² DBCT User Group, sub. 60, p. 20; New Hope, sub. 59, p. 4.

⁵⁵³ DBCT User Group, sub. 60, p. 20.

the ability to refer a dispute to arbitration under the access framework would be a key mechanism to enforce this pricing constraint, and a determination by the arbitrator would be enforceable in court.

Enforcing compliance

The DBCT User Group said that compliance with the deed poll and access framework terms could be enforced only through litigation whereas under declaration compliance with an access undertaking is monitored and enforced by an independent regulator.⁵⁵⁴ The QCA understands that aspects of DBCT Management's access framework SAA rely on the provisions in the access framework implemented under the March 2019 deed poll. Therefore, to the extent DBCT Management's non-compliance with the access framework affects the operation of an executed user agreement, it would be open to DBCT users to contest that non-compliance through the mechanisms set out in their agreement.⁵⁵⁵ Additionally, if DBCT Management were to amend the access framework, it would be open to DBCT users to contest the amendments by initiating court proceeding under the terms of the deed poll.⁵⁵⁶ Users could also apply for declaration of the DBCT service. If so, whether a DBCT user would be subject to the amended terms would depend on the outcome of a court proceeding or DBCT Management's actions when faced with a threat of declaration.

Conclusion: Operation of the deed poll

The QCA considers that new users would likely face a greater degree of uncertainty and a less favourable access environment, relative to that faced by existing users due to aspects of the way the deed poll would operate, compared to access under declaration. However, the hard-coding of the framework objective and the \$3 per tonne price difference cap in the deed poll (which cannot be amended or revoked for the term); the ability of new users' to seek enforcement of access obligations by court or expert/arbitrator; and the threat of declaration evident from DBCT Management's response to the present threat of declaration are factors that would likely constrain DBCT Management's conduct in a future without declaration.

Hence, given the evidence before the QCA, the QCA does not consider that these operational issues would necessarily have a material impact on the ability of new users to develop tenements into mining operations relative to those developed by existing users and compared to if tenements were developed in a future with declaration.

Conclusion: Environment for competition with and without declaration

DBCT Management's access framework, in combination with DBCT Management's executed deed poll provides that the TIC that DBCT Management will impose in the absence of declaration cannot be more than \$3 per tonne above that which would be imposed under a QCA-administered pricing regime for the existing terminal.

The QCA's view is that this pricing arrangement, if continued over the economic life of a mine, would not materially impact on the ability of new users to develop tenements relative to existing users and compared to a future with declaration. In other words, while such a price is higher than what would be expected in a future with declaration, given the evidence before the QCA (i.e. the QCA's own analysis and the information submitted by stakeholders), it is unlikely

⁵⁵⁴ DBCT User Group, sub. 60, p. 20.

⁵⁵⁵ Clause 15 of the standard form of access agreement in DBCT Management's access framework and cl. 16 of the access framework set out the dispute resolution provisions.

⁵⁵⁶ DBCT Management, sub. 26, appendix 9, cls. 8.5 and 8.6.

to have a detrimental impact on new miners' ability to make long-term investment decisions in developing tenements into mining operations.

Additionally, under DBCT Management's deed poll/access framework, the pricing approach for an expansion component would be subject to arbitration. The arbitrator will make that assessment based on the factors listed in DBCT Management's access framework, which are broadly similar to those listed in the 2017 access undertaking. Additionally, if the arbitrator determines that expansion costs are differentially priced, the relevant charge would be based on the approach that would apply under a QCA-administered pricing regime. Hence, the QCA is not satisfied that the effect on the ability of new users to develop tenements would necessarily be materially different than in a future with declaration.

However, the access framework, including the constraint of a \$3 per tonne price difference cap, expires in 10 years (i.e. in 2030) whereas economic life of a coal mine typically lasts longer (about 30 years).

There is therefore a threshold issue of what will be the pricing arrangements beyond this point, and whether those arrangements would materially impact on the ability of new users to develop tenements on their own merits.

It is not evident that DBCT Management would voluntarily submit an access undertaking under the QCA Act or the CCA in 2030, as this would lead to a reduction in rents DBCT Management receives. Rather:

- Given DBCT Management has chosen to constrain its pricing conduct over the next 10 years, expressly in order to avoid declaration, DBCT Management could retain the existing form of pricing arrangement (or some variation of it) such that competitive conditions in the development stage tenements market would unlikely be materially different in a future with and without declaration.
- Alternatively, given DBCT Management has an incentive to maximise profits, it could attempt to put in place a form of pricing arrangement beyond 2030 that transfers additional rents to DBCT Management that would potentially create a risk of hold up for new users relative to existing users and compared to a future with declaration.

A prospective user's view during the access framework period of what DBCT Management will do at and beyond 2030 will have an impact on the miner's decision to invest during the access framework period.

The QCA's view is that remedial mechanisms will be available to a DBCT user, should there be an additional transfer of rents beyond 2030. For instance:

- The user agreement executed under DBCT Management's access framework will be a
 contract enforceable on its own terms. Hence, if DBCT Management sought to secure
 additional rents under an executed contract, a potential DBCT user could seek arbitration or
 commence court proceedings. The QCA's view is that there are various possible pricing
 scenarios that may apply and it is not evident that DBCT Management would necessarily be
 able to price to extract an inefficient level of rents beyond the term of the access
 framework.
- Both DBCT Management and a prospective user will realise that if DBCT Management sought
 to maximise its rents beyond 2030 such that it would materially impact on the ability of new
 users to develop tenements relative to existing users, and compared to a future with
 declaration, the user has the option to apply for declaration under the CCA. It is reasonable
 to consider the threat of declaration as credible for DBCT Management given its actions in

the present declaration review process. A declaration could see DBCT Management earning no rents above the regulated cost of capital.

The QCA acknowledges that the outcome of an arbitration, a court proceeding or declaration application cannot be predicted with certainty. Nevertheless, the QCA's view is that the deed poll, combined with the operation of user agreements made under the access framework, and the threat of declaration in future would constrain DBCT Management from seeking to extract an inefficient level of rents in the absence of declaration, given the risks of those mechanisms to DBCT Management.

It is also reasonable for both the user and DBCT Management to form the view that if the pricing arrangements in the access framework continue, the risk of a future declaration may be low. This is because the QCA has found (in this review) that while a \$3 per tonne price difference cap leads to rent transfers from terminal users to DBCT Management, if continued over the economic life of a mine, it would be unlikely to have a material impact on the ability of new users to develop tenements into mining operations. Therefore, it is likely that DBCT Management may act in a manner consistent with its executed deed poll and the access framework in the period beyond 2030.

Accordingly, given the evidence before the QCA, the QCA does not consider that access terms and conditions for the DBCT service, in a future without declaration, would necessarily have a material impact on the ability of new users to develop tenements relative to existing users, and compared to a future with declaration. Hence, the QCA is not satisfied that access (or increased access) as a result of declaration would promote a material increase in competition in the market for development stage tenements.

4.4.2 Market for exploration stage tenements

This section:

- defines the market by reference to its product and geographic dimensions;
- considers if the market is already workably competitive, and considers the environment for competition in the market in a future with and without declaration in order to form a view on whether access (or increased access) to the service as a result of declaration would promote a material increase in competition in the market.

Geographic and product dimensions of the market

Exploration stage tenements encapsulate the right to carry out resource exploration to determine the quantity and quality of coal present (discussed in section 4.4). At this stage, the extent and value of the coal deposit have not been proven; therefore, the primary risk in this market is to define an economic resource. Hence, at this stage, it is not feasible to make a distinction between metallurgical coal and thermal coal exploration tenements.

The QCA also considers that exploration stage tenements for coal and other minerals are unlikely to be close substitutes. Among the reasons are that they may require separate experience and equipment to explore and extract, and buyers seeking coal tenements are likely to be distinct from those seeking tenements for other forms of minerals.

In respect of the geographic scope, an argument of DBCT Management is that the Queensland Government, which runs tenders for coal exploration permits, does not tender on the basis of a Hay Point catchment area or the DBCT service being declared. Accordingly, DBCT Management's view of the geographic dimension of the coal tenements market was that it cannot be defined

as narrowly as the Hay Point catchment. This argument makes sense for the purposes of assessing the supply side aspect of the market dimension.

On the demand side, it is relevant to examine whether tenement seekers would consider investing in exploration stage coal tenements at different locations.

The buyers of exploration stage tenements typically are both coal miners and firms that do not carry out mining operations (discussed in section 4.4 and Figure 6).

The QCA's view is that since rights associated with exploration stage coal tenements are speculative in nature, the level of risks faced by investors would generally be similar across all regions. Nevertheless, an already established infrastructure is likely to encourage investment in exploration stage coal tenements. For instance, the central Queensland region has a well-established infrastructure of rail network and coal handling ports, and witnesses considerable investment activity in exploration stage coal tenements. In contrast, the Surat Basin catchment is constrained by limited rail infrastructure to a port and not much investment activity has occurred in this catchment.

Given supply-side and demand-side considerations, the geographic dimension of the exploration stage market would be at least as wide as the central Queensland region. Hence, for the purpose of this final recommendation, the QCA has considered the geographic dimension of the exploration stage tenements market as the central Queensland region. The QCA's view is that if declaration of the DBCT service would be unlikely to promote a material increase in competition in a narrowly defined exploration stage tenements market, then it would be unlikely to promote a material increase in competition in a more broadly defined market.

Environment for competition with and without declaration

The QCA's view is that the market for exploration stage coal tenements in the central Queensland region is workably competitive because of the following, among other things:

- First, as noted in section 4.4 and Figure 6 with respect to the Hay Point catchment (which is a
 more narrow geographic dimension of the market), exploration permits for coal are held by
 a large number of companies, which comprise coal miners as well as firms that do not carry
 out coal mining operations. The large number of tenement holders suggests that the holding
 of tenements is not concentrated.
- Second, the nature of activity undertaken in this market would encourage participation by
 firms that may specialise in exploration activity and generally have a low capital base
 (relative to that required for a coal mining operation). This is demonstrated by the
 participation of a large number of firms that do not carry out coal operations (Figure 6). In
 other words, the entry condition in this market would be relatively easy compared to the
 market where tenements are developed into mining operations.
- Third, the Queensland Government grants exploration tenement areas through a
 competitive tender. The QCA's view is that the state has countervailing power in the market
 for exploration licences, as it can design the tender process to counter a reduction in
 competition. Therefore, competitive tendering would enable greater competition amongst
 potential investors seeking to acquire exploration stage coal tenements in central
 Queensland.

Having formed the view that the market is already workably competitive, the QCA has considered whether declaration of the DBCT service would promote a material increase in competition in this market.

The QCA's view is that declaration of the DBCT service is unlikely to have a material impact on the environment for competition in the market for exploration stage tenements for the following reasons:

- The factors that make this market workably competitive (e.g. competitive tendering, lower capital requirement and established rail and port infrastructure) would exist in a future with or without declaration of the DBCT service.
- Terms of access to infrastructure are unlikely to be a key consideration for participation in this market, which is demonstrated by the participation of non-coal miners in this market.
 Additionally, the tenements transactions database submitted by DBCT Management shows that uncertainty about future declaration has not affected participation in this market.
- To the extent a potential user is seeking to explore a tenement area to establish the quantity
 and quality of coal, the uncertainty about whether a meaningful resource would be available
 for exploitation is fundamental and far greater than any uncertainty about the terms and
 conditions of access.

Conclusion: Market for exploration stage tenements

The QCA's view is that the market for exploration stage tenements in the central Queensland region is already workably competitive and the QCA is not satisfied that declaration of the DBCT service would promote a material increase in competition in this market.

4.4.3 Market for operating mines

This section:

- defines the market by reference to its product and geographic dimensions;
- considers if the market is already workably competitive, and considers the environment for competition in the market in a future with and without declaration in order to form a view on whether access (or increased access) to the service as a result of declaration would promote a material increase in competition in the market.

Geographic and product dimensions of the market

This is the market for the supply and acquisition of existing coal mines (discussed in section 4.4). The suppliers in this market are existing miners who may seek to sell a distressed asset. The buyers would be existing miners or potential miners who would seek to buy an operational asset relative to acquiring development stage tenements which, among other things, have a longer gestation period before the project is operational.

This market would characterise lower risk relative to the other two functionally distinct coal tenements markets. This is because, for instance, relevant permits would already be in place for an operational mine, the type of coal produced would be known and production volumes and operating costs could be estimated with a higher level of certainty relative to tenements that are yet to be developed into a mining operation.

The QCA's view is that mines producing predominantly metallurgical coal and those producing thermal coal would be in separate product markets, given their different end uses and different returns and risk profile over the economic life of a coal mine. Since the DBCT service is supplied in the Hay Point catchment, where the prevalent type of coal is metallurgical coal, the product dimension is the market for coal mines that predominantly produce metallurgical coal.

For the purpose of this final recommendation, the QCA has considered the geographic dimension of the market as the Hay Point catchment. The QCA's view is that if declaration of the

DBCT service would be unlikely to promote a material increase in competition in a narrowly defined market for operating mines, then it would be unlikely to promote a material increase in competition in a more broadly defined market.

Therefore, the market dimension the QCA has considered for the purpose of criterion (a) is the market for coal mines that predominantly produce metallurgical coal in the Hay Point catchment.

Environment for competition with and without declaration

The QCA's view is that this market is workably competitive, based on the following, among other things:

- The entry condition in the market is easy relative to developing a tenement into mining operation as all approvals and infrastructure contracts would be in place for an operating mine, and there would already be an established mining infrastructure.
- The information available to the QCA shows that there has been exit of miners, with a consequent sale of their mines to other existing miners or new coal miners. For instance, mines in the Hay Point catchment have been purchased by entities that previously did not carry out mining operations (e.g. Fitzroy's purchase of Carborough Downs mine from Vale, and Stanmore Coal's purchase of Isaac Plains mine from Vale/Sumitomo) as well as by existing coal miners (e.g. Glencore's purchase of Hail Creek mine from Rio Tinto). These instances of exit and entry associated with the sale and purchase of operating mines in the Hay Point catchment would indicate the market is workably competitive.
- The sale of a mine operated by an existing DBCT user may represent a change of control of the user (for example, acquisition of a miner) or a mine sale transaction that may be associated with a permanent transfer of underlying terminal capacity rights to the purchaser (for example, a seller of a mine may include in the transaction transfer of capacity rights at DBCT on permanent basis to make the sale attractive). In such circumstances, the access undertaking SAAs require DBCT Management to act reasonably in consenting to a transfer of capacity rights. In particular, the QCA understands new users that have acquired access to DBCT capacity on a permanent basis from an existing user in the context of a mine sale transaction, have been able to do so on the terms and conditions of the relevant existing user's agreement. Hence, the access environment has operated in a manner to not frustrate the sale and purchase of operating mines.

Having formed the view that the market is already workably competitive, the QCA has considered whether declaration of the DBCT service would promote a material increase in competition in this market.

The QCA's view is that declaration of the DBCT service is unlikely to have a material impact on competition in the market for predominantly metallurgical coal mines in the Hay Point catchment.

First, the factors that contribute to making this market workably competitive (e.g. all approvals and relevant contracts in place, and existing established mining infrastructure) would exist in a future with or without declaration of the DBCT service.

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⁵⁵⁷ Clause 12 in the 2017 access undertaking SAA governs permanent assignment of capacity rights and change of control in the user.

Second, existing DBCT users would be able to exit and sell their mining operation and other existing users or new users would be able to acquire those mines and access DBCT capacity on the same terms as the seller (as an existing user). This is because since existing user agreements (based on the access undertaking SAAs) are evergreen in nature, the requirement in those agreements that DBCT Management act reasonably in relation to change of control and permanent capacity assignments would apply in a future with or without declaration. Additionally, the QCA understands that if a new user's purchase of a mine from an existing user was in the nature of a change of control or a permanent assignment of capacity rights, the new user would be able to use the underlying capacity rights of the existing user on the same terms. Therefore, declaration of the DBCT service would unlikely add anything material to the sale and purchase of operating mines by existing users or new users.

Third, it may be argued that new users that commence mining operations in the absence of declaration would face an exit barrier if they were to sell their mine in future. This is because the terms of new user's underlying capacity rights under DBCT Management's deed poll and access framework may be considered unfavourable relative to existing users, that they may not be able to sell their mine. However, this argument would not be compelling. This is because the QCA's view is that a future with DBCT Management's deed poll and access framework would be unlikely to have a detrimental effect on the economic viability of coal mine projects that may be developed by new users in the Hay Point catchment. It follows that if new coal miners' ability to commence mining operations would unlikely be materially affected under the terms of DBCT Management's deed poll and access framework, it is difficult to presume that there would not be another coal miner willing to purchase those mines and continue to access DBCT on similar access terms. In this respect, the QCA notes the standard form of agreement in DBCT Management's access framework requires it to act reasonably when consenting to a change of control or permanent assignment of capacity, which is substantially the same as the provision in the 2017 access undertaking SAA.

Taking into account these considerations, the QCA is not satisfied that declaration would add anything material to the competitive conditions in the market for operating mines.

Conclusion: Market for operating mines

The QCA's view is that the market for mines that predominantly produce metallurgical coal in the Hay Point catchment is already workably competitive and the QCA is not satisfied that declaration of the DBCT service would promote a material increase in competition in this market.

5 COAL EXPORT MARKET

5.1 Stakeholder submissions

Stakeholders pointed out that Australia primarily exports two main categories of coal:

- coking (or metallurgical) coal, which is used for steel manufacturing
- thermal coal, which is used for electricity generation.⁵⁵⁸

Stakeholders argued that thermal and metallurgical coal are not demand-side substitutes, for steel mills cannot acquire thermal coal to produce steel. They are typically not supply-side substitutes either, for most thermal mines cannot produce metallurgical coal. Therefore, they are in different product markets, which stakeholders said was also demonstrated by the difference in price between the two coal types in export markets.⁵⁵⁹ The DBCT User Group also said that end-product markets are functionally separate from tenements markets.⁵⁶⁰

DBCT Management observed that the majority of coal from Australia was exported to countries in Asia, who also imported coal from other places. DBCT Management noted that in the *PNO declaration revocation* matter, the NCC considered that the geographic scope of the coal export market extended at least beyond Australia and into the Asia-Pacific region. Therefore, DBCT Management's view was that the geographic dimension of the coal export market is likely to be at least the Asia-Pacific region.⁵⁶¹

DBCT Management argued that access as a result of declaration would not promote a material increase in competition in the coal export markets because, among other things:

- coal markets are already effectively competitive, with a large number of participants and coal prices that are set by reference to international spot prices
- terminal charges at DBCT are a very small proportion (2 to 3 per cent) of the price of metallurgical coal
- DBCT Management's access framework would ensure no difference in the volume of coal exported without declaration compared to with declaration.⁵⁶²

DBCT Management claimed that since access as a result of declaration would not promote a material increase in competition in the coal export markets, there would be no flow-on effects in any related markets.⁵⁶³

The DBCT User Group observed that declaration may promote a material increase in competition in coal markets, including the metallurgical coal market, but did not provide supporting material.⁵⁶⁴

⁵⁶¹ DBCT Management, sub. 1, appendix 9, pp. 29–30.

⁵⁵⁸ DBCT Management, sub. 1, appendix 9, p. 24; DBCT User Group, sub. 3, p. 51.

⁵⁵⁹ DBCT Management, sub. 1, appendix 9, pp. 29–30; DBCT User Group, sub. 3, p. 51.

⁵⁶⁰ DBCT User Group, sub. 30, pp. 57–58.

⁵⁶² DBCT Management, sub. 1, pp. 76–79, sub. 13, pp. 83, 96, sub. 26, appendix A, p. 13.

⁵⁶³ DBCT Management, sub. 1, pp. 57, 74, 79.

⁵⁶⁴ DBCT User Group, sub. 3, p. 40.

5.2 QCA analysis

5.2.1 The market

The QCA considers that the coal export market is separate from the market for the DBCT service and is a relevant dependent market for the purpose of this review.

The DBCT User Group argued that the metallurgical coal export market was most relevant to the declaration review, as the vast majority of coal exported from DBCT is metallurgical coal. ⁵⁶⁵ According to data submitted by the DBCT User Group, about 72 per cent of coal exports from DBCT in 2017 were metallurgical coal. ⁵⁶⁶ DBCT Management's 2019 Master Plan indicates that metallurgical coal accounts for 82 per cent of coal throughput at DBCT. DBCT Management also indicates that its master planning primarily focuses on metallurgical coal demand and development, as this is the dominant resource within DBCT's catchment area. ⁵⁶⁷ Thus, metallurgical coal accounts for a significant proportion of DBCT's throughput and this is expected to continue to be the case.

The QCA's view is that metallurgical coal and thermal coal are in separate product markets because of their different uses.

As DBCT predominantly handles metallurgical coal, this assessment has focused on this product dimension. By comparison, the NCC's assessment in the *PNO declaration revocation* matter focuses on thermal coal.⁵⁶⁸

The QCA also considers that coal tenement markets are functionally separate from coal export markets (section 4.2).

The majority of coal shipped through DBCT is exported to countries in Asia. The geographic scope of the coal export market is therefore likely to extend at least beyond Australia and into the Asia-Pacific region. However, as this is not decisive for this assessment, the QCA has not sought to define the geographic boundary further.

5.2.2 Environment for competition with and without declaration

DBCT Management referred to the NCC's observations in the *PNO declaration* matter and analysis by its consultant HoustonKemp, and said:

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.⁵⁶⁹

Based on its analysis of data published by the Department of Natural Resources, Mines and Energy, DBCT Management also argued:

There are many firms [15] operating coking coal mines in Queensland ... BMA has the highest share of production [36 per cent], but supply is not particularly concentrated. These companies operate 32 mines across Queensland (though not all are active), which exported approximately

⁵⁶⁵ DBCT User Group, sub. 3, p. 51.

⁵⁶⁶ DBCT User Group, sub. 3, pp. 59 and 74 (DBCT User Group submitted that 46.26 mt of metallurgical coal exports in 2017 were from DBCT, which handled total coal throughput of 64 mt in 2017).

⁵⁶⁷ DBCT Management, *DBCT Master Plan 2019*, p. 27.

⁵⁶⁸ National Competition Council, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, recommendation, 22 July 2019, pp. 119–120.

⁵⁶⁹ DBCT Management, sub. 1, p. 76, para. 352.

149 Mt of coking coal in 2016–17, representing approximately 47 per cent of worldwide coking coal exports.⁵⁷⁰

No stakeholder contested DBCT Management's view, which would suggest that the seaborne metallurgical coal market is already effectively competitive, with a large number of participants and prices set by reference to international spot prices. This also seems consistent with the views of market analysts.⁵⁷¹

Nevertheless, the QCA has considered the effect of access as a result of declaration on the environment for competition in the seaborne metallurgical coal market. In order to assess that, a starting point is to consider the share of throughput at DBCT in that market.

The DBCT User Group submitted that metallurgical coal throughput handled at DBCT accounted for about 16 per cent of world trade in seaborne metallurgical coal in 2017 (i.e. 46.2 mt out of 297 mt), which is material.⁵⁷² According to DBCT Management, the terminal caters for around 21 per cent of world metallurgical seaborne coal exports.⁵⁷³

Notably, this coal throughput at DBCT is primarily associated with existing user agreements, which, as discussed previously, will provide an effective constraint on DBCT Management's exercise of market power up to the volumes specified in those agreements. Therefore, the QCA's view is that, all things being equal, coal throughput under existing user agreements would unlikely be affected in the absence of declaration. To that extent, the competitive conditions in metallurgical coal exports with declaration would be no better than they would be without declaration.

Coal volumes over and above existing user agreements would be subject to the terms of the access framework SAA. Based on the analysis of the coal tenements market, the QCA's view is that although that volume will be subject to higher access charges, that level of charge would be unlikely to have a detrimental impact on the ability of new users to develop tenements into mines and, hence, the export of additional volume under the terms of the deed poll/access framework, compared to access with declaration.

Conclusion: coal export market

Based on the evidence before it, the QCA is not satisfied that declaration would promote a material increase in competition in the metallurgical coal export market.

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⁵⁷⁰ DBCT Management, sub. 1, appendix 9, pp. 27–28.

⁵⁷¹ See S&P Global Platts, *Benchmarks give way: How global met coal markets are changing with the adoption of spot price indexes*, Metals special report, April 2018, viewed 1 November 2018, https://platts.com/IM.Platts.Content/InsightAnalysis/IndustrySolutionPapers/sr-global-met-coal-benchmarks-give-way042018.pdf.

⁵⁷² DBCT User Group, sub. 3, p. 74. As a reference, Australia accounts for about 60% of world trade in seaborne metallurgical coal—Resource Management International, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, pp. 12–13.

⁵⁷³ DBCT Management, About the Terminal, https://www.dbctm.com.au/our-terminal/overview/.

6 COAL HAULAGE SERVICES MARKET (ABOVE-RAIL SERVICES)

Stakeholder submissions 6.1

Both DBCT Management and the DBCT User Group presented consistent views that rail transport is the only practicable way to move significant amounts of coal to port terminals, and customers are unlikely to substitute rail haulage for other modes of transport. DBCT Management and the DBCT User Group also said that there are three rail operators—Aurizon Operations, BMA Rail and Pacific National—that provide coal haulage services in central Queensland, noting that BMA Rail only provides haulage services to BMA-related mines for export through HPCT.574

However, DBCT Management and the DBCT User Group disagreed on the specific product and geographic dimensions of the market.

On the one hand, DBCT Management identified that there was a separate market for 'coal haulage services' and analysed the effect of declaration on competition in the central Queensland coal haulage services market. Yet, on the other hand, DBCT Management argued that there was a Queensland bulk rail haulage market on the basis that train operators may easily switch between providing haulage for coal and haulage for a range of other bulk commodities. DBCT Management noted that Aurizon Operations, Pacific National and BHP (BMA Rail) can and do operate across the Goonyella coal rail system in addition to other rail systems in Queensland and other states. 575

The DBCT User Group disagreed that there is a Queensland bulk rail haulage market, which would otherwise mean that rail haulage on the Mount Isa Line (bulk minerals), North Coast Line (intermodal) and West Moreton system (coal) are in the same market as coal haulage in central Queensland.⁵⁷⁶ The DBCT User Group argued:

- Different wagons are used in central Queensland and the trains that operate in central Queensland are different to those used in other parts of the broader Queensland rail network (for example, coal trains operating in the West Moreton network are much shorter and axle loads applicable for trains in central Queensland are different to those in other regions⁵⁷⁷).
- Given other regions in Queensland are geographically distant, a haulage provider could not enter a new region without significant investment in new maintenance and provisioning facilities, and for that reason a coal rail haulage supplier in a region cannot simply switch to providing services in a different coal haulage region.
- The buyers in those regions/rail networks are different.⁵⁷⁸

The DBCT User Group argued that at the widest geographic level there is a central Queensland coal region rail haulage market, noting that even within that region there are differences in

⁵⁷⁴ DBCT Management, sub. 1, p. 80 and appendix 9, pp. 33–34; DBCT User Group, sub. 3, pp. 50, 86.

⁵⁷⁵ DBCT Management, sub. 1, p. 80 and appendix 9, pp. 33–34.

⁵⁷⁶ DBCT User Group, sub. 15, p. 56.

⁵⁷⁷ For instance, the maximum axle load applicable in the Goonyella system is 26.5 tonnes, and in the Mount Isa system it is 20 tonnes—Aurizon Network, Goonyella System Information Pack, March 2017, p. 9 and Queensland Rail, Mount Isa System Information Pack, October 2016, p. 12.

⁵⁷⁸ DBCT User Group, sub. 3, p. 50, sub. 15, p. 56.

substitutability, as electric locomotives can only operate on the Goonyella and Blackwater systems.⁵⁷⁹

Stakeholders presented opposing views on the effect of declaration on the environment for competition in the coal haulage market.

The DBCT User Group and Pacific National said that declaration would promote a material increase in competition in the central Queensland coal region rail haulage market by improving the environment for new entry. They argued that certainty of pricing allows users to enter long-term haulage contracts, which are critical to facilitating new entry. For example, to invest in rollingstock with a useful life of over 20 years, a haulage provider would prefer to underwrite much of that initial investment with long-term contracts. However, they considered that the uncertainty and adverse impact on pricing that will arise under the access framework will make it very difficult for future users of the DBCT service to sponsor new entry by a haulage provider. 580

Pacific National said that declaration had provided important structural and behavioural constraints, and transparency and certainty, which have supported growth of competition in dependent markets, including rail haulage. Pacific National also considered that the deed poll and access framework is insufficient to constrain DBCT Management's conduct in relation to the terminal regulations and non-discrimination provisions and that, without regulatory oversight, it may have an incentive to amend or remove these protections. It said this could impose additional supply chain costs on coal haulage operators.⁵⁸¹

On the other hand, DBCT Management argued that access as a result of declaration would not promote a material increase in competition in the coal haulage services market in central Queensland:

- The TIC under the access framework will be set such that the coal volumes handled at DBCT
 are the same with or without declaration. Since there will be no difference in volume
 shipped through DBCT in the future with or without declaration, the same coal haulage
 services will be required with or without declaration. Therefore, the structure and conduct
 of firms in the coal haulage services market would not be affected by declaration.
- DBCT Management's access framework addresses concerns raised by the DBCT User Group and Pacific National about lack of certainty in a future without declaration on matters relevant for rail haulage operators. That is, the access framework provides certainty, among other things, that DBCT Management will not become vertically integrated with a supply chain business, and DBCT Management will work collaboratively with other supply chain participants to improve supply chain efficiency.⁵⁸²

6.2 QCA analysis

6.2.1 The market

The coal haulage market is functionally separate from the market for the coal handling service at DBCT. Coal haulage (above-rail) operators transport coal from mine to port and are a distinct

⁵⁷⁹ DBCT User Group, sub. 15, p. 56.

⁵⁸⁰ DBCT User Group, sub. 3, pp. 86–87, sub. 15, pp. 80–81; Pacific National, sub. 9, p. 12.

⁵⁸¹ Pacific National, sub. 37, p. 19, sub. 57, pp. 1–3.

⁵⁸² DBCT Management, sub. 1, p. 80, sub. 26, appendix 2, p. 13.

upstream market in the coal supply chain that uses the coal handling service at DBCT. The QCA therefore considers coal haulage to be a relevant and separate dependent market.

Competition has emerged in this market since declaration of the below-rail service for third party access, with the above-rail market now consisting of three haulage providers—incumbent (Aurizon Network-related) Aurizon Operations, and third party operators Pacific National and BMA Rail. Of the third party operators, Pacific National competes with Aurizon Operations to service mines in the CQCN, with BMA Rail exclusively providing haulage services to its own related mines.

Pacific National's entry into the above-rail haulage market provided competition for haulage services on the CQCN. While Aurizon Operations has maintained its dominant position in terms of market share (currently around 70 per cent), Pacific National's current market share is double the level it was in 2013.⁵⁸³

Identifying strong substitutes, both actual and potential, is relevant to defining the boundaries of a market by reference to its product and geographic dimensions.

A starting point is to consider the narrowest product and geographic dimension of the market—that is, coal haulage services in the Goonyella coal system—and assess if there is likely to be strong substitution on the demand and supply side across product and geographic dimensions.

In respect of the product dimension, that means asking if coal miners as buyers of coal haulage services would switch to demanding haulage services for other bulk commodities in response to a small but significant non-transitory increase in price (SSNIP) by a monopolist supplier of coal haulage services. Given that coal miners demand haulage services for transporting coal from their mine to port, haulage services for other commodities are of no use to them. Furthermore, on the supply side, it is unlikely that rail haulage providers for other bulk commodities would be able to switch to providing coal haulage services in the Goonyella coal system, for the reasons outlined by the DBCT User Group. Therefore, the QCA is satisfied that the product dimension of the market is coal haulage services, and not the wider bulk rail haulage services.

DBCT Management based its geographic dimension analysis on the argument that Aurizon Operations, Pacific National and BMA Rail can and do operate across the Goonyella coal system in addition to other rail systems in Queensland and other states. However, in establishing the geographic boundary of a market, it is relevant to consider whether customers are able to source coal haulage services outside the initial geographic area to make a SSNIP unprofitable (see Part C, Chapter 2).

The coal miners' interest is in the rail lines that connect their mine (origin) to the port (destination). These rail lines could both originate and terminate within any given system or they could traverse different systems. Based on the physical location of a mine in the Goonyella coal system, the point of origin will always remain in the Goonyella coal system. While coal miners could switch their destination by transporting coal through a different system, both cost and non-cost factors would prevent coal miners in the Goonyella coal system from switching their destination. In particular, given the significant cost difference between the Goonyella coal supply chain and other coal supply chains—in the order of 30 to 111 per cent⁵⁸⁴—it is highly unlikely coal miners in the Goonyella coal system would switch to other coal systems/regions in response to a SSNIP to meet their coal transportation needs. Indeed, the evidence is that mines

⁵⁸³ QRC, sub. 7, p. 18.

⁵⁸⁴ See section 2.4.3, Table 5.

in the Goonyella system predominantly use the Hay Point terminals. So, from the demand side, the geographic dimension of the market would likely be the Goonyella system.

However, on the supply side, above-rail haulage operators can (and do) operate on all of the CQCN systems, which are also largely interconnected. To the extent that haulage operators operate on a CQCN basis and are able to redeploy rollingstock from one coal system to another, it would indicate that the geographic dimension is CQCN-wide.

Accordingly, the QCA considers that the geographic dimension of the above-rail haulage market could be as narrow as the Goonyella system or could be CQCN-wide. Relevantly, the QCA's view on the effect of declaration on competition in the above-rail haulage market would be unaffected by which aspect of geographic dimension is considered (see below).

6.2.2 Environment for competition with and without declaration

The DBCT User Group raised concerns that the absence of declaration of the DBCT service will adversely affect the entry conditions for haulage providers in the coal haulage market in the central Queensland region. However, the QCA does not find this argument compelling, for the following reasons:

- It is access to the below-rail service provided by Aurizon Network on reasonable terms as a
 result of declaration that is fundamental to improving the entry conditions, and thereby, the
 environment for competition in the coal haulage services market. This is because declaration
 would constrain Aurizon Network from favouring its related rail haulage provider (Aurizon
 Operations) and denying third parties access to the below-rail service (see Part A).
- The volume of capacity contracted under existing user agreements would not be affected by
 access terms that would apply in a future without declaration as long as existing users
 continue to utilise their capacity rights. Considering that rail haulage contracts are typically
 renewed every 10 years (so coal miners have the option to switch haulage providers), a
 potential rail haulage provider could seek to enter the market to compete for a share of
 volumes covered by existing user agreements at DBCT.
- About 23 mtpa of coal handling throughput at DBCT relates to mines that are expected to reach the end of their economic life over the next 10 years (see Part C, Chapter 4). Existing users would be able to use existing terminal rights to ship coal from another mine in their portfolio, and so there would likely be both pricing and access certainty in relation to DBCT capacity for new mining operations by existing users.⁵⁸⁵ Therefore, the QCA has no compelling reason to believe that this expected volume would not be able to facilitate new entry in the coal haulage services market.
- Coal volumes over and above existing user agreements would be subject to the terms of the
 access framework SAA. Based on the analysis of the coal tenements market, the QCA's view
 is that, although that volume will be subject to higher access charges, that level of charge
 would be unlikely to have a detrimental impact on the ability of new users to develop
 tenements into mines. To that extent, in a future without declaration, the entry condition in
 the coal haulage market would be unlikely to be different from that in a future with
 declaration.

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⁵⁸⁵ The ability of existing users to use those rights for another mine in their portfolio would also depend on whether they can procure the necessary below-rail access. Whether the DBCT service is declared or not does not affect that outcome.

Pacific National considered that the deed poll and access framework is insufficient to constrain DBCT Management's conduct in relation to the terminal regulations and non-discrimination provisions. The DBCT terminal is one part of the coal supply chain, and so the operation of the terminal, in particular its interface with rail operations, has the potential to impact other parts of the supply chain. The terminal regulations are the procedures governing the operation of the terminal.

The QCA notes that the provisions relating to the terminal regulations in the access framework, including procedures to amend them, are based on those set out in the 2017 access undertaking (with the QCA's role in determining objections about DBCT Management's approval or rejection of amendments proposed by the operator replaced by an independent expert). Therefore, the situation in regard to terminal regulations is broadly similar both with and without declaration (with the exception of the replacement of the QCA's role with an independent expert).

DBCT Management does have an ability to amend the terms of the access framework (other than the price difference cap, which is hard-coded in the deed poll), including potentially the provisions governing the terminal regulations and non-discrimination. However, the QCA considers that as DBCT Management does not have a related supply chain business, it would not have an incentive to implement changes to these provisions or to the terminal regulations in a way that would unfairly favour a particular party. Moreover, the QCA considers that both DBCT Management and the terminal operator—which is an independent user-owned entity—would have an aligned incentive to manage access to the terminal in a way that promotes efficient use of the infrastructure.

Conclusion: coal haulage services market

The QCA is not satisfied that declaration would promote a material increase in competition in the coal haulage services market in the Goonyella system. This conclusion is unlikely to be affected by whether the geographic boundary of the coal haulage services is considered as the Goonyella system or as the wider central Queensland coal region.

7 DBCT SECONDARY CAPACITY TRADING MARKET

Under the terms of the access undertaking SAAs, capacity transfers or assignments require DBCT Management's consent, and the acquirer of the capacity is required to hold a user agreement with DBCT Management.⁵⁸⁶

7.1 Stakeholder submissions

The DBCT User Group said that there are two distinct markets in which capacity at DBCT could be acquired, namely:

- the primary market, which is the market for the service for the purposes of criterion (b), in which:
 - the only supplier is DBCT Management
 - acquirers are access seekers for long-term capacity contracts (i.e. coal producers seeking coal terminal access to support a new or expanded mine)
- the DBCT secondary capacity trading market, in which:
 - suppliers are existing access holders at DBCT with surplus contracted capacity compared to what they need
 - acquirers are typically existing access holders seeking short-term capacity to supplement their existing contracted positions, to manage production volatility.⁵⁸⁷

The DBCT User Group said that capacity in the secondary market is traded in one of the following ways:

- An existing access holder assigns (or transfers) all or part of the capacity rights held under a DBCT user agreement to another existing access holder for a certain period.
- An existing access holder continues to hold the rights under the user agreement but allows a third party to ship coal through DBCT by utilising the existing access holder's capacity entitlements at DBCT.⁵⁸⁸

The DBCT User Group argued that the secondary market and the primary market are distinct and the capacity rights acquired in those markets are not close substitutes because of:

- different lengths of term—the primary market involves provision of services under a longterm contract on take or pay terms, whereas the secondary market typically involves shortterm transfers
- different demand driver and participants—demand in the secondary market is principally
 driven by miners having insufficient contracted capacity to meet production volatility,
 whereas demand in the primary market is principally driven by the development of a new
 mining project; therefore, in the primary market the miner concerned requires long-term
 infrastructure access and is willing to assume long-term take or pay commitments to secure
 access

⁵⁸⁸ DBCT User Group, sub. 3, pp. 48–49.

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⁵⁸⁶ See for instance, 2017 access undertaking, cl. 5.3; 2017 access undertaking SAA, cl. 12.2.

⁵⁸⁷ DBCT User Group, sub. 3, pp. 48–49.

 different pricing—pricing in the secondary market can vary from the charges applicable in the primary market (i.e. the TIC). This is because an existing access holder is subject to take or pay charges for unused contracted capacity and any payment by an acquirer for use of that surplus capacity would reduce that take or pay liability.⁵⁸⁹

The DBCT User Group said that coal miners can trade capacity in the secondary market directly with each other or through BPC. 590

Stakeholders presented opposing views on the effect of declaration on the environment for competition in the DBCT secondary capacity trading market.

The DBCT User Group argued that in the absence of declaration, DBCT Management would be incentivised to refuse consent to trade unless that trade was done through BPC.

In subsequent submissions, the DBCT User Group noted DBCT Management's proposal to cease the operations of BPC (as part of a separate regulatory process⁵⁹¹), but argued that, without declaration, the protections against anti-competitive impacts of future vertical integration would be removed.⁵⁹²

However, DBCT Management argued that declaration would not promote a material increase in competition in the DBCT secondary trading market for the following reasons:

- The standard user agreement limits DBCT Management's ability to refuse to consent to a
 capacity transfer, as DBCT Management must consent to a transfer unless DBCT
 Management (acting reasonably) is satisfied that the assignor is in material breach of the
 agreement or the assignee is not of good financial standing; and DBCT Management's refusal
 to consent to a transfer is subject to binding dispute resolution.
- Most capacity transfers were direct trades between users rather than through BPC.⁵⁹³ Given the minimal use of BPC's services in capacity transfers, DBCT Management had proposed closing that trading business. Therefore, any concerns about the anti-competitive effects of DBCT Management being vertically integrated with the trading business would not arise. Additionally, concerns about future integration in a scenario of no declaration will be addressed through ring-fencing provisions in the access framework and provisions of the CCA that prohibit arrangements that have an anti-competitive effect in a market.
- Secondary trading is a derivative market to the coal export markets. Given DBCT
 Management's argument that declaration would not promote a material increase in
 competition in the coal export markets, there would be no flow-on effects in any related
 markets—including the DBCT secondary capacity trading market.⁵⁹⁴

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⁵⁸⁹ DBCT User Group, sub. 3, p. 49, sub. 46, schedule 6, p.10.

⁵⁹⁰ DBCT User Group, sub. 3, pp. 48–49. BPC ceased trading of capacity at DBCT on 1 September 2018 (see QCA, *DBCTM's Trading SCB DAAU*, final decision, September 2018, approving amendments to the 2017 access undertaking to reflect the cessation of BPC's trading of capacity at DBCT).

⁵⁹¹ DBCT Management, *DBCT 2017 AU—Trading SCB DAAU*, June 2018.

⁵⁹² DBCT User Group, sub. 3, p. 86, sub. 15, p. 57, sub. 30, p. 70.

⁵⁹³ DBCT Management's June 2018 Trading SCB DAAU shows that about 87 per cent of secondary capacity transfer transactions from July 2015 to June 2018 were direct trades between coal miners.

⁵⁹⁴ DBCT Management, sub. 13, pp. 91–93, sub. 26, appendix 2, p. 13.

7.2 QCA analysis

7.2.1 The market

The QCA Act provides for the user of a declared service to transfer all or part of the user's interest in an access agreement subject to certain conditions (s. 106). Pursuant to that provision, the SAAs that have been approved by the QCA give a user (or the DBCT access holder) the right to transfer its contracted access rights to a third party on a permanent or temporary basis; and permit another user or third party to ship coal through DBCT using those access rights.⁵⁹⁵

The ability of users to transfer capacity (or the right to ship) at DBCT creates scope for a secondary market to develop, which involves the trading of existing surplus capacity between users. Indeed, a market has been established by existing users of the DBCT service who elect to use the existing provisions in their user agreements to facilitate swaps, transfers and assignment of access and shipping rights with other users. The QCA therefore considers the DBCT secondary capacity trading market to be a relevant and separate market.

Although the DBCT User Group said that capacity transfers are typically for a short term, DBCT Management's submission in a separate regulatory process shows that since July 2015 there have also been long-term as well as permanent capacity transfers. Data submitted by DBCT Management shows that since July 2015, 23 capacity transfer transactions accounting for about 88 mtpa of capacity took place, and of that:

- 15 transactions for about 18.5 mtpa were capacity transfers for a time period of up to one year (such transfers can be categorised as short-term)
- 2 transactions for about 18.3 mtpa were capacity transfers for a time period of six to ten years (such transfers can be categorised as long-term)
- 6 transactions for about 51.5 mtpa were permanent capacity transfers.

The QCA considers that the description of the secondary capacity trading market provided by the DBCT User Group—that is, a market where acquirers seek capacity to manage production volatility—would apply to capacity transfers for a period of up to one year.

On the other hand, the driver of long-term and permanent capacity transfers is unlikely to be the need to manage production volatility, given the long-term nature of terminal access involved in such capacity transfers. In this respect, the QCA notes the DBCT User Group said that permanent assignment of capacity rights occurred when a mine was sold. 597

Given the different demand drivers and different duration of capacity transfers, the QCA considers acquirers (buyers) as well as suppliers in the market for short-term capacity transfers are unlikely to switch to the market for long-term or permanent capacity transfers in response to a SSNIP and vice versa. Therefore, the two markets are likely to be different.

Therefore, it is more appropriate to regard short-term capacity transfers as being in the DBCT secondary capacity trading market. However, permanent or long-term capacity transfers are more likely to be in the primary market—that is, the market for the service—which is also the

⁵⁹⁵ See 2017 access undertaking SAA, cl. 12.

⁵⁹⁶ DBCT Management, *DBCT 2017 Access Undertaking—Trading SCB DAAU*, June 2018, p. 3.

⁵⁹⁷ DBCT User Group, sub. 3, pp. 41, 48. DBCT User Group noted that Stanmore's acquisition of Isaac Plains mine (which was on care and maintenance at the time of acquisition) from Vale/Sumitomo in July 2015 included the transfer of DBCT capacity rights.

DBCT User Group's view. These transfers would be relevant when assessing the impact on competition in the market for operating mines.⁵⁹⁸

The QCA considers the DBCT secondary capacity trading market is currently workably competitive. As noted above, there has historically been a considerable volume of trade in DBCT secondary capacity amongst a range of buyers and sellers. This has been facilitated by declaration. The QCA Act provides for transfers of a user's interests under an access agreement; also, the terms of the access undertaking SAAs have provided a process for transfers and constraints, including recourse to arbitration, to prevent unreasonable frustration of transfers by DBCT Management.

7.2.2 Environment for competition with and without declaration

The QCA considers that a fundamental aspect in analysing the effect of declaration on the environment for competition in the DBCT secondary capacity trading market is to ask whether coal miners can continue to trade capacity directly with each other in the absence of declaration, or whether DBCT Management would be able to frustrate direct trading of capacity between users. As noted above, this market is for short-term capacity transfers of up to one year, typically between existing users, in order to manage production volatility.

Users' ability to transfer capacity at DBCT is facilitated by the assignment provisions in existing user agreements (based on the access undertaking SAAs).

Where a seller and acquirer of capacity reach an agreement to assign capacity, existing user agreements provide that:⁵⁹⁹

- Parties request consent from DBCT Management, which is not to be unreasonably withheld.
- Parties enter into a deed to assign capacity by which DBCT Management and the assignee agree to be bound by the terms, conditions and obligations of the assignor's agreement or assignee's user agreement (as DBCT Management, acting reasonably, determines).
- There is a binding dispute resolution if users do not agree with DBCT Management's refusal to consent to a transfer.

Clause 12.3(d) of the 2017 access undertaking SAA provides:

Without limitation to clause 15, an Access Holder or an Access Seeker may refer to the QCA as a dispute under this Undertaking:

- (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;
- (C) any failure by DBCT Management in assessing or responding to a request for transfer in a timely manner.

Therefore, transfers of capacity in the secondary market would reflect the terms of existing user agreements (as outlined above). These arrangements for capacity transfers in existing user agreements would continue to apply for existing users in a future with and without declaration. Should similar provisions facilitating capacity transfers continue to be included in access agreements in a future with declaration (consistent with the provision in s. 106 of the QCA Act

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⁵⁹⁸ DBCT User Group, sub. 3, p. 48. See also section 4.4.3.

⁵⁹⁹ DBCT 2017 access undertaking SAA, cl. 12, schedule 6.

allowing for transfer of rights under an access agreement)⁶⁰⁰, then new users would also have the ability to trade capacity in the secondary market.

The view of DBCT User Group's legal adviser (Allens) regarding a user's ability to refer a dispute to the QCA in the absence of declaration was:

The user agreements will continue to operate without these clauses [referring to clauses 11.3(d), 12.3(d) and 15.6 in a user agreement] — in particular clause 15.3 effectively provides for arbitration (where agreed) or litigation as an ultimate means to resolve disputes if they cannot be resolved by agreement.⁶⁰¹

Allens' conclusion was that the absence of declaration will not result in any of the user agreements being frustrated. 602

Without declaration, there would no longer be any statutory right for a user of the service to transfer its interest under an access agreement (s. 106). However, the provisions of the access framework SAA, which would apply in a future without declaration, are substantially the same as the provisions of the access undertaking SAA in regard to the process for assignment of capacity. Secondary trading of capacity could therefore continue to occur for new users without declaration.

Given the above, the QCA considers that users would be able to continue to trade directly with each other, and DBCT Management would be constrained from unreasonably frustrating direct trading of capacity between users both with and without declaration. Further, DBCT Management's Trading SCB ceased operations in September 2018, removing any concerns about potential exercise of market power by DBCT Management to favour a related business in this market.⁶⁰⁴

In a future without declaration, a new user would enter into an access agreement on access framework terms. As discussed in section 3.3.6, this will likely result in a TIC up to approximately \$3 per tonne more than the TIC paid by an existing user under its user agreement. As a result, there may be capacity available for trading in the secondary capacity market that reflects different underlying terms (that is, capacity under existing user agreements and capacity under access framework SAAs). However, given that trades in the secondary capacity market are likely to be of a short-term nature (reflecting mine production issues) and the inability of DBCT Management to unreasonably frustrate transfers, the QCA does not consider this would have a material impact on the secondary capacity trading market compared to a future with declaration.

The QCA notes that any asymmetry between terms of access for existing and new users in relation to longer-term or permanent capacity transfers is best considered in the context of the coal tenements market (section 4.4).

⁶⁰³ The access framework SAA also includes recourse to arbitration if DBCT Management refuses consent to a transfer, fails to agree reasonable terms or fails to respond to a transfer request in a timely manner. However, such a dispute is referred to commercial arbitration under cl. 15 of the SAA rather than to the QCA (cl. 12.3(d)).

⁶⁰⁰ Section 106 of the QCA Act provides that a user of a declared service under an access agreement may transfer all or part of the user's interest in the agreement, subject to, among other things, an approved access undertaking.

⁶⁰¹ DBCT User Group, sub. 3, schedule 1, p. 6.

⁶⁰² DBCT User Group, sub. 3, schedule 1, p. 6.

⁶⁰⁴ The QCA approved the DBCTM's Trading SCB DAAU in September 2018.

Conclusion: DBCT secondary capacity trading market

The DBCT secondary capacity trading market is typically about short-term capacity transfers between users who could continue to trade capacity directly with each other in a future without declaration, and DBCT Management would be unable to unreasonably frustrate such transactions. Therefore, the QCA is not satisfied that declaration would promote a material increase in competition in the DBCT secondary capacity trading market.

8 RAIL ACCESS MARKET (BELOW-RAIL SERVICES)

8.1 Stakeholder submissions

DBCT Management said that declaration of the DBCT service would have no impact on the structure of the below-rail services market or the conduct of Aurizon Network in a way that enhances the competitive process. Further, it said that declaration will not impact the coal export market and so would also not have flow-on effects for infrastructure markets, and volumes shipped will be the same with and without declaration. The DBCT User Group identified the rail access market as one in which competition may be promoted, but did not provide supporting material. 606

8.2 QCA analysis

Below-rail services in the Goonyella system are provided by Aurizon Network, which is also the subject of a separate declaration review. Aurizon Network is the sole provider of below-rail services and does not face competition. The QCA's view is that this market structure is unlikely to change in future, regardless of whether the DBCT service is declared or not. Hence, the QCA does not consider that declaration of the DBCT service would promote a material increase in competition in the below-rail services market.

⁶⁰⁵ DBCT Management, sub. 1, p. 80.

⁶⁰⁶ DBCT User Group, sub. 3, p. 40.

9 OTHER MARKETS

Stakeholder submissions 9.1

DBCT Management said that, given that declaration will not result in any change in the volume of coal exported, it would also not promote a material increase in competition in the markets for specialist mining services, port services and the shipping services. 607 The DBCT User Group identified a series of mining input markets in which competition may be promoted, but did not provide supporting material. 608

QCA analysis 9.2

A number of other dependent markets were identified in stakeholder submissions—port services (e.g. pilotage and towage services); coal shipping services; and various mining inputs and services markets (such as geological and drilling services, construction services, mining safety services, and mining technology services).

The QCA's view is that these other markets are derivative of:

- the coal exports market (e.g. activity in the port services market and the coal shipping services market would occur in connection with, or derive from, the activity of coal exports);
- the coal tenements market (e.g. activity in the mining inputs and services markets would occur in connection with, or derive from, the activity of exploration of coal tenements and development of coal tenements into mining operations).

Accordingly, the analysis of whether declaration would promote a material increase in competition in these derivative markets would rely on the conclusion in respect of the coal exports market and the coal tenements markets (i.e. the market for exploration stage tenements, the market for development stage tenements and the market for operating mines). This logic of competition analysis in derivative markets being related to the conclusion in respect of other markets was also applied by the NCC and the Tribunal in the PNO declaration and PNO declaration revocation matters. 609

The QCA's conclusion in respect of the coal exports market and the coal tenements market is that access (or increased access) as a result of declaration would not promote a material increase in competition in those markets. Hence, the QCA's view is that declaration of the DBCT service would unlikely produce any flow-through effects in the derivative markets.

Therefore, the QCA does not consider that declaration of the DBCT service would promote a material increase in competition in these other markets.

⁶⁰⁷ DBCT Management, sub. 1, pp. 79-81.

⁶⁰⁸ DBCT User Group, sub. 3, p. 40.

⁶⁰⁹ NCC, Revocation of the declaration of the shipping channel service at the Port of Newcastle, recommendation, 22 July 2019, paras 7.391–7.392; Australian Competition Tribunal, Application by Glencore Coal Pty Ltd [2016] ACompT 6 (31 May 2016) [139].

10 CRITERION (C)—STATE SIGNIFICANCE

10.1 Introduction

Section 76(2)(c) of the QCA Act is expressed as follows:

that the facility for the service is significant, having regard to its size or its importance to the Queensland economy

Stakeholders made limited submissions on this criterion (Table 21).

Table 21 Summary of key positions—s. 76(2)(c) of the QCA Act

Criterion (c)				
Issue	DBCT Management	Other stakeholders	QCA final recommendation	
Size or importance to the Queensland economy	No submissions in respect of criterion (c)	Criterion (c) is satisfied	Criterion (c) is satisfied See section 10.2	

10.2 Size and importance to the Queensland economy

10.2.1 Stakeholder submissions

DBCT Management did not comment on criterion (c).610

Both Peabody and the DBCT User Group said that DBCT satisfied criterion (c). Peabody said 'there can be little debate that DBCT is economically significant'. Likewise, the DBCT User Group said it 'considers it is clear that the facility for the Service (i.e. DBCT) is significant, having regard to its size or its importance to the Queensland economy'.

10.2.2 QCA analysis

The QCA considers that DBCT is significant, having regard to its size and its importance to the Queensland economy.

Size

DBCT is located on approximately 214 hectares of strategic port land and 160 hectares of offshore sea-bed lease. The key components of the terminal are the three rail receiving stations, a stockyard (covering nearly 67 hectares), and four offshore wharves, all connected by a series of conveyor systems. The site stretches for more than 2.38 km from the rail in-loading stations to the shore-side jetty head, with the wharves a further 3.8 km offshore.⁶¹³

Moreover, the nameplate capacity at DBCT is 85 mtpa, making it Queensland's largest standalone coal export terminal. 614 In comparison, the nameplate capacities of other Queensland coal export terminals are: 615

⁶¹⁰ DBCT Management, sub. 1, p. 87; sub. 13, p. 4.

⁶¹¹ Peabody, sub. 2, p. 12. See also Peabody, sub. 25, p. 7.

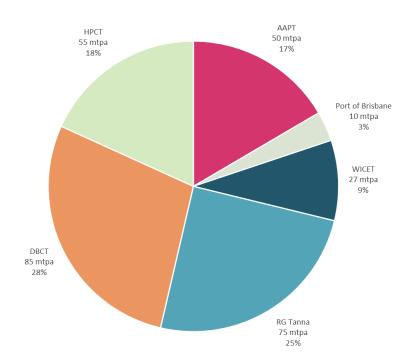
⁶¹² DBCT User Group, sub. 3, p. 6.

⁶¹³ DBCT Management, *Master Plan 2018*, pp. 12–13; Dalrymple Bay Coal Terminal Pty Ltd, What we do, http://www.dbct.com.au/what-we-do.

⁶¹⁴ DBCT Management, Master Plan 2018, p. 13. See also Peabody, sub. 2, p. 12; DBCT User Group, sub. 3, p. 89.

- RG Tanna Coal Terminal (RG Tanna)—75 mtpa⁶¹⁶
- Hay Point Coal Terminal (HPCT)—55 mtpa
- Adani Abbott Point Terminal (AAPT)—50 mtpa
- Wiggins Island Coal Export Terminal (WICET)—27 mtpa
- Port of Brisbane—10 mtpa.

Figure 18 Coal export capacity of Queensland's ports



The QCA considers that DBCT is of state significance based on its physical size and capacity.

Importance to the Queensland economy

Contribution to coal exports

DBCT makes a substantial contribution to the Queensland economy in facilitating coal exports. DBCT Management noted:

DBCT is a critical component in the Bowen Basin export coal supply chain and caters for around 7% of total global seaborne coal exports and 21% of world metallurgical seaborne coal exports.⁶¹⁷

In 2017–18, approximately 222 mtpa of coal was exported from Queensland, including 159.7 mtpa of metallurgical coal and 61.4 mtpa of thermal coal.⁶¹⁸

⁶¹⁵ Department of Transport and Main Roads (DTMR), Coal transport infrastructure development, Queensland Government, 2017, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Coal-transport-infrastructure-development.

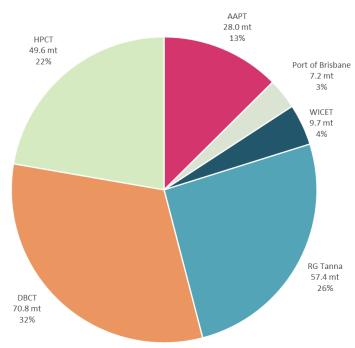
⁶¹⁶ See also Department of Transport and Main Roads, *Master plan: Priority Port of Gladstone*, appendix A, Queensland Government, 2018, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Ports/Sustainable-port-development-and-operation/Master-planning-for-priority-ports/Master-planning-for-the-priority-Port-of-Gladstone.

⁶¹⁷ DBCT Management, Our Terminal—Overview, http://www.dbctm.com.au/our-terminal/overview.

In 2017–18, DBCT exported approximately 70.8 mtpa of coal, constituting 32 per cent of all of Queensland's coal exports for that period. In comparison, other Queensland ports' coal export volumes in 2017–18 were: 820

- RG Tanna—57.4 mtpa
- HPCT—49.6 mtpa
- AAPT—28.0 mtpa
- WICET—9.7 mtpa
- Port of Brisbane—7.2 mtpa.

Figure 19 Queensland's total coal exports by port, 2017–18



Coal exports constituted 72.7 per cent of total Queensland exports by commodity in 2017–18, of which DBCT handled 32 per cent.⁶²¹

⁶¹⁸ Queensland Government, Coal Industry Review Tables, Total coal exports by coal type, Coal industry review tables 2017–2018 spreadsheet, https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/6a4b92fc-b277-40d2-af6c-26ea14cad6f6.

⁶¹⁹ DTMR, Trade Statistics for Queensland Ports: Throughput statistics for the five years ending 30 June 2018, Queensland Government, 2019, https://www.tmr.qld.gov.au/-/media/busind/Transport-sectors/Ports/Trade-statistics/2017-18/trade-statistics-for-qld-ports-2017-18.pdf?la=en.

⁶²⁰ DTMR, *Trade Statistics for Queensland Ports*: *Throughput statistics for the five years ending 30 June 2018*, Queensland Government, 2019.

⁶²¹ DTMR, *Trade Statistics for Queensland Ports, Throughput statistics for the five years ending 30 June 2018,* Queensland Government, 2019. See also Peabody, sub. 2, p. 12; DBCT User Group, sub. 3, p. 93.

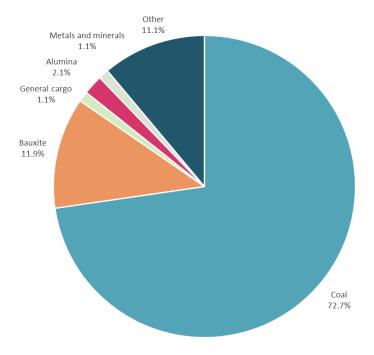


Figure 20 Queensland total exports by commodity, 2017–18

Source: Adapted from Department of Transport and Main Roads, Trade Statistics for Queensland Ports, 2018, p.36.

Other considerations

Coal exports are a vital economic driver in Queensland. The coal industry contributed \$3.8 billion in total royalties to the State of Queensland in 2017–18, of which the contribution by coal exported through DBCT was approximately \$1.2 billion.⁶²²

The terminal operator of DBCT employs approximately 350 workers⁶²³, and access to the facility supports thousands more jobs in the local coal industry. The Queensland Resources Council estimated that approximately 7,700 workers are directly employed in the coal industry in the Mackay region.⁶²⁴ Further, DBCT services around 26 mines on the Goonyella system, including some of Queensland's largest metallurgical coal producers.⁶²⁵ Aurizon Network notes that the Goonyella system provides the largest amount of railings in the central Queensland coal network.⁶²⁶ As Queensland's largest common-user coal export terminal, DBCT is a critical component in the Goonyella coal chain, and an integral part of the economy in the greater Mackay region.

The coal industry is a major contributor to the Queensland economy. Given the substantial volumes and values of coal exports handled by DBCT annually, the QCA considers that DBCT is significant, having regard to its importance to the Queensland economy.⁶²⁷

625 QCA, DBCT Management's 2015 draft access undertaking, final decision, p. 1.

⁶²² Queensland Resources Council, What is Queensland's coal industry worth to Queensland, 2017–2018 financial year, https://www.qrc.org.au/wp-content/uploads/2018/11/2018_Coal_Contributions.pdf.

⁶²³ Peabody, sub. 2, p. 12; DBCT User Group, sub. 3, p. 93.

⁶²⁴ QRC, sub. 7, schedule 2.

⁶²⁶ Aurizon Network, Network Development Plan 2016–17, p. 8.

⁶²⁷ In making this recommendation, the QCA also notes the lack of submissions to the contrary—no submissions were received that indicated DBCT was not significant or did not satisfy criterion (c).

10.3 Conclusion on criterion (c)

Given DBCT's physical size and capacity, as well as its contribution to Queensland's coal exports, royalties and employment, the QCA concludes that the facility for the coal handling service at DBCT satisfies criterion (c).

11 CRITERION (D)—PROMOTE THE PUBLIC INTEREST

11.1 Introduction

Section 76(2)(d) of the QCA Act is expressed 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 the public interest

Section 76(5) of the QCA Act further states:

In considering the access criterion mentioned in subsection (2)(d), the authority and the Minister must have regard to the following matters –

- (a) if the facility for the service extends outside Queensland 628
 - (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 to 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.

The key matters in respect of s. 76(2)(d) for the coal handling service provided by DBCT are summarised in Table 22.

Table 22 Summary of key positions—s. 76(2)(d) of the QCA Act

Criterion (d)					
Issue	DBCT Management	Other stakeholders	QCA final recommendation		
That access on reasonable terms and conditions as a result of a declaration of the service would promote the public interest	Declaration of the service will not promote the public interest	Declaration of the service will promote the public interest	Criterion (d) is not satisfied for the DBCT service		
The effect that declaring the service would have on investment in facilities	Declaration will reduce DBCT Management's incentives to invest in the terminal	Declaration will not deter investment in DBCT. It will promote investment in rail network and haulage facilities	The QCA is not satisfied that declaration would affect DBCT Management's incentives to invest in DBCT. It is also not satisfied that declaration would promote increased investment in rail network and haulage facilities See section 11.3		
The effect that declaring the service	Declaration will not impact investment in	Declaration will facilitate investment in	Declaration is unlikely to promote increased investment		

⁶²⁸ As the DBCT facility does not extend outside Queensland, the QCA has not considered s. 76(5)(a) any further.

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Criterion (d)				
would have on investment in markets that depend on access to the service	dependent markets	coal projects	in any dependent market See section 11.4	
Administrative and compliance costs incurred by the service provider	Declaration materially increases its administrative and compliance costs	DBCT Management's administrative and compliance costs are not material in the context of the service and are borne by users	The administrative and compliance costs incurred by DBCT Management as a result of declaration would not be materially different compared to the costs it would incur in a future without declaration See section 11.5	
Any other relevant matters	There are other reasons why declaration will not promote the public interest, including on efficiency grounds	Declaration will promote the public interest in various ways, such as through wider economic benefits and environmental benefits	The QCA has not identified any other relevant factors that suggest that access (or increased access) to the service as a result of declaration would promote the public interest See section 11.6	

11.2 Approach to criterion (d)

Criterion (d) requires satisfaction of a positive test—that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration would promote the public interest. This chapter addresses each of the matters the QCA is required to have regard to under s. 76(5) of the QCA Act, as well as other matters the QCA considers relevant⁶²⁹ to the assessment of criterion (d).

In assessing whether criterion (d) is met in accordance with the QCA Act, the QCA is required to determine whether, on balance, declaration is likely to generate overall gains to the community (compared to the counterfactual of no declaration). This in turn requires consideration of the likely behaviour of market participants in a future with and without declaration, which is highly uncertain. A degree of judgment must therefore be applied in making this assessment, having regard to the information that stakeholders presented.

11.2.1 Stakeholder submissions

DBCT Management expressed a number of concerns with the QCA's approach to assessing criterion (d) in the draft recommendation, stating that it did not consider that the QCA's approach has satisfied the amended test under the legislation, which requires:

- for the QCA to be positively satisfied that declaration promotes the public interest (as opposed to the previous test, which was that it would 'not be contrary' to the public interest)
- the application of the 'with and without' test in assessing the effect of declaration (not access); the relevant benefits and costs are those that result from declaration

⁶²⁹ Section 76(5)(d) of the QCA Act.

 for the QCA to have regard to the administrative and compliance costs of declaration to the service provider.⁶³⁰

DBCT Management considered that the QCA has done little more than replicate its criterion (a) analysis and argued that even if criterion (a) were satisfied, the benefit from increased competition is trivial. Instead, 'the benefits from declaration must be shown to result in sufficiently meaningful economic benefits to overcome the inevitable costs and frictions of regulation'.⁶³¹

The DBCT User Group submitted that DBCT Management's arguments in relation to criterion (d) are largely derived from its criterion (a) arguments 'and therefore suffer from the same flaws'.⁶³² It also highlighted that unlike for criterion (a) there is no materiality threshold in criterion (d). It stated that it would be an error of law to apply such a threshold and that 'the materiality of benefits arising from declaration are only relevant to the extent the QCA is satisfied that they are outweighed by the costs or public detriments arising from declaration'.⁶³³

The DBCT User Group also referred to the High Court's judgement in *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal (Pilbara* decision), which concluded that 'the expression "public interest" imports a discretionary value judgment to be made by reference to undefined factual matters' and the matters that may be considered are wide.⁶³⁴

11.2.2 QCA analysis

The amended criterion (d) test requires an assessment of whether the public interest is likely to be promoted, or whether declaration is 'likely to generate overall gains to the community.'635 This requires the decision-maker to have regard to all relevant benefits and costs, which can encompass a wide range of matters, as highlighted in the context of the High Court's *Pilbara* decision. The QCA considers that there is no materiality threshold in this assessment. Instead, the QCA must be satisfied that the benefits of declaration outweigh the costs. However, there are inherent challenges in undertaking a robust quantitative assessment.

In undertaking its assessment of criterion (d), the QCA acknowledges that a finding on criterion (a) does not automatically result in the same finding in relation to criterion (d). A proper assessment requires the QCA to weigh the costs and benefits of declaration and assess whether, on balance, declaration would promote the public interest. In doing so, the QCA has considered those matters it is required to have regard to under s. 76(5). These matters include investment impacts and the costs of regulation to the service provider as well as any other matters the QCA considers to be relevant to the assessment.

The QCA has undertaken its assessment having regard to the future 'with and without' declaration. In this case, the relevant counterfactual (or the future without declaration) includes DBCT Management's executed deed poll and access framework.

Quantification of benefits and costs

The lack of quantification of the benefits and costs in assessing whether criterion (d) is met in the draft recommendation was criticised. The QCA has made its assessment based on the

⁶³⁰ DBCT Management, sub. 26, p. 81, para. 404.

⁶³¹ DBCT Management, sub. 26, p. 83, para. 412.

⁶³² DBCT User Group, sub. 46, p. 102.

⁶³³ DBCT User Group, sub. 46, p. 104.

⁶³⁴ DBCT User Group, sub. 46, p. 103.

⁶³⁵ Competition and Consumer Amendment (Competition Policy Review) Bill 2017, explanatory memorandum, para. 12.37; Productivity Commission, National Access Regime, inquiry report no. 66, October 2013.

information available to it. For example, DBCT Management provided the QCA with an estimate of its forecast costs under declaration, but despite being critical of the QCA's application of the 'with and without' test, it did not provide any information on the costs that it would incur in the absence of declaration under its access framework.

As noted above, criterion (d), along with criterion (a), requires a forward-looking assessment of two states of the world—one with declaration and one without—including an assessment of how market participants will behave under different conditions. Even though predicting possible outcomes in a world with declaration has the benefit of experience, it remains an inherently uncertain task.

The QCA notes the High Court judgement in the *Pilbara* decision, which mentioned applying a 'discretionary value judgement'. The Tribunal had noted similar challenges in its review of the application made in response to the Treasurer's 2006 decision not to declare that facility, which was subsequently appealed to the High Court. In its conclusions on (the then) criterion (f) (the public interest criterion), the Tribunal stated:

While many factors for and against a declaration and access will be discussed, their impact will, in most cases, be difficult, if not impossible, to quantify ... In part the difficulty of quantification arises because many of the alleged costs and benefits of access are esoteric or qualitative in nature. Another reason is that many of the alleged costs and benefits depend upon the occurrence of future events which are necessarily uncertain. Hence, the cost-benefit analysis that the Tribunal performs will not be purely quantitative, and will have significant qualitative aspects.⁶³⁶

While the *Pilbara* decision involved the application of the former public interest criterion (regarding an assessment of whether access (or increased access) would not be contrary to the public interest), these findings remain relevant to the assessment under the current positive test.

The Productivity Commission considered the application of an explicit cost—benefit assessment when it made its original recommendations to reframe the public interest criterion under the National Access Regime to a positive test (which was mirrored by the revised criterion in the QCA Act). While the Productivity Commission saw this as potentially compelling:

[i]n practice, explicit cost—benefit assessments are unlikely to provide a sound basis for declaration decisions. As the Tribunal acknowledged in its initial consideration of the Pilbara rail case, 'many of the alleged costs and benefits of access are esoteric or qualitative in nature [while others] depend upon the occurrence of future events which are necessarily uncertain' (para. 1169). Consequently, the Tribunal considered that criterion (f) did 'not require a precise quantifiable cost—benefit analysis', but could instead provide 'some order of magnitude value' to the costs and benefits of access (para. 1305). Such order-of-magnitude approaches may be regarded as reasonable in cases where the net impacts of access are unambiguous. However, at least some decisions would require contentious judgment calls.⁶³⁷

It considered that a more formal cost–benefit framework could cast this criterion 'in the same "technical" light' as criteria (a) and (b), and hence make it more open to review. The Productivity Commission saw this as increasing the unpredictability in the application of Part IIIA, and added:

⁶³⁷ Productivity Commission, *National Access Regime*, inquiry report no. 66, 25 October 2013, p. 177.

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⁶³⁶ In the matter of Fortescue Metals Group Limited [2010] ACompT 2 at [1169].

⁶³⁸ Productivity Commission, National Access Regime, inquiry report no. 66, 25 October 2013, p. 177.

Given the contestable nature of many of the costs and benefits that must be considered, a high level of judgment will always be required in public interest assessments.⁶³⁹

It therefore rejected this option in favour of the affirmative test, which has subsequently underpinned the current criterion in the CCA, which as noted above, resulted in the same amendments to the public interest criterion in the QCA Act.

Indeed, while desirable, if the standard of quantitative evidence required by DBCT Management was applied to past decision-makers who have had to make an assessment of the public interest under this provision in Commonwealth law (in its current positive or previous negative form), the QCA questions whether any would have met that standard.

Ultimately, however, based on the information that is available, this assessment must largely remain qualitative. In this respect, the QCA notes that the NCC's assessment of criterion (d) in its final recommendation on the Port of Newcastle declaration revocation matter was similarly qualitative in nature.⁶⁴⁰

Other matters relevant to the approach to criterion (d)

Other matters relevant to the approach to criterion (d) are outlined in Table 23 below.

Table 23 Other specific issues

Stakeholder comment	QCA view	
The intent of the Part 5 access regime is to prevent the misuse of market power by vertically integrated monopolies. 641	The object of Part 5 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'. The service must be assessed on its own merits, based on the criteria contained in the QCA Act. While a vertically integrated business may be seen as having greater incentive to misuse market power, the incentive and ability to do this is not dependent on vertical integration. A vertically separated business could still misuse its market power, for example by restricting output, to extract monopoly rents in a way that impacts competition, and therefore investment, in dependent markets.	
If the QCA was to adopt a different position to the NCC's Preliminary Views on the Port of Newcastle, this would be contrary to the public interest. 642	The QCA must assess the service on its own merits against the criteria contained in the QCA Act, having regard to the information before it. Whilst consideration of the NCC's position (and others) may be relevant, it is not determinative.	
If an undeclared DBCT were to harm competition, it could be redeclared, which would limit the harm to a negligible amount. 643	With the current declaration of the facility due to expire, the QCA is required to assess whether it would satisfy the access criteria in the QCA Act.	

⁶³⁹ Productivity Commission, National Access Regime, inquiry report no. 66, 25 October 2013, p. 177.

⁶⁴⁰ National Competition Council, *Revocation of the Declaration of the Shipping Channel Service at the Port of Newcastle: Recommendation*, 22 July 2019.

⁶⁴¹ DBCT Management, sub. 38, p. 82, para. 413.

⁶⁴² DBCT Management, sub. 38, p. 79, para. 389.3.

⁶⁴³ DBCT Management. sub. 38, p. 78, para. 387.6.

11.3 Investment in facilities

The QCA has considered investment in DBCT as well as other facilities that may be affected by declaration of the service. In considering the impact on investment in other facilities, the QCA has assessed investment in rail infrastructure (network and haulage facilities). Investment in mine infrastructure is considered as part of investment in markets that depend on access to the service (section 11.4).

11.3.1 Stakeholder submissions

DBCT Management submitted that declaration will reduce its incentives to invest in the terminal. It argued that as demand that triggers capacity expansions only occurs when global coal demand is strong, risk is asymmetrically allocated to the infrastructure investor, given that access contracts have shorter terms than the life of the investment.⁶⁴⁴ DBCT Management said the rate of return set by the QCA in this context is below the 'market-based' return.

DBCT Management also argued that declaration distorts the 'inter-terminal pattern of investment' because it causes the terminal to be materially disadvantaged in attracting investment capital, compared to unregulated terminals. It stated that it is exposed to regulatory risk in the absence of merits review.⁶⁴⁵

DBCT Management highlighted that expansions commissioned since 2002 have been slow and the additional processes imposed by regulation will significantly delay future expansions. It estimated that an expansion process completed without a dispute will take 4.12 years, while disputes will extend the timeframe to 5.81 years. ⁶⁴⁶ It also pointed to its expansion history and highlighted that all commitments made to invest up to the current terminal capacity were made before the 2006 access undertaking took effect. ⁶⁴⁷

The DBCT User Group stated that declaration has not provided any material disincentive for DBCT Management to invest and cited a number of reasons for this, including the 52 per cent increase in terminal capacity since approval of the 2006 access undertaking. DBCT Management disputed the DBCT User Group's argument, stating that this 'conflates correlation with causation' and that no evidence has been provided to show that investment would not have occurred in the absence of declaration. DBCT Management also stated that it is 'primarily the demand for capacity that determines expansion requirements'.

The DBCT User Group supported the QCA's draft recommendation in relation to investment in the facility, including that there was no evidence to support the view that declaration will reduce DBCT Management's future investment incentives.⁶⁵¹ It submitted that there is no realistic risk of asset stranding, particularly given the terminal's exposure to metallurgical coal.⁶⁵²

The DBCT User Group did not consider that the 'theoretical risk' of regulatory error discourages investment, arguing that:

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⁶⁴⁴ DBCT Management, sub. 1, p. 101, para. 465.

⁶⁴⁵ DBCT Management, sub. 1, p. 102, para. 469; sub 38, pp. 86–87, paras 435–441.

⁶⁴⁶ DBCT Management, sub. 1, appendix 15.

⁶⁴⁷ DBCT Management, sub. 13, p. 101; sub. 38, p. 87, para. 440.

⁶⁴⁸ DBCT User Group, sub. 3, p. 96.

⁶⁴⁹ DBCT Management, sub. 13, p. 10, para. 459.

⁶⁵⁰ DBCT Management, sub. 13, p.101, para. 460.

⁶⁵¹ DBCT User Group, sub. 30, p. 79.

⁶⁵² DBCT User Group, sub. 30, p. 79.

- To the extent such error exists, it is just as likely to favour as disadvantage the regulated entity (that is, this is expected to 'even out' over a long period of time).
- There are significant protections in the QCA Act, including the unqualified right of the service provider to submit amendments.
- There are significant protections in the QCA's current practices, including the frequency of, and manner in which, these reviews are undertaken.⁶⁵³

It further submitted that the distortion of investment incentives is more likely to occur where an individual arbitrator was left to determine individual pricing disputes.⁶⁵⁴

The DBCT User Group also said there is no guarantee that expansions would be completed more quickly in the absence of declaration. It submitted that issues identified by DBCT Management as delaying expansion reflect the wording of the access undertaking in relation to the expansion process and that DBCT Management could seek to amend these terms. It argued that declaration reduces DBCT Management's risk profile for expansions, including via the revenue cap. These protections do not exist in the same manner for unregulated terminals; the DBCT User Group said the circumstances which exist in relation to WICET demonstrate why declaration is likely to be positive for investment.

DBCT Management refuted the DBCT User Group's suggestion that regulatory error could also work in DBCT Management's favour, referring to statements by regulatory, policy and judicial bodies regarding the 'chilling' effect of declaration on investment incentives.⁶⁵⁷

In terms of other facilities, the DBCT User Group argued that investment in rail access and haulage can partly be attributed to declaration because Goonyella transports the highest volumes of the coal systems.⁶⁵⁸ DBCT Management responded that this fails to acknowledge that the GAPE and WIRP rail expansions provide access to unregulated terminals and Aurizon Network's investment was underpinned by access charges that were higher than what was provided for under the regulatory regime.⁶⁵⁹

Pacific National submitted that declaration of DBCT, along with the CQCN and Queensland Rail network, will facilitate and promote efficient investment in rail freight services.⁶⁶⁰

11.3.2 QCA analysis

The QCA is not satisfied that declaring the service provided by DBCT would have a net positive impact on the incentives to invest in facilities. Specifically, access as a result of declaration of the DBCT service would be unlikely to promote efficient entry in the coal tenements market, such that efficient investment in mining operations would not be materially affected, compared to without declaration (see section 11.4). That, in turn, would mean that there is unlikely to be an impact on the incentives to invest in the coal supply chain more generally. In forming this view, the QCA notes its conclusion in the context of criterion (a) that DBCT Management's price cap arrangements in the deed poll and access framework provide some constraint on DBCT Management's ability to exercise market power in coal tenements markets.

⁶⁵³ DBCT User Group, sub. 30, p. 80.

⁶⁵⁴ DBCT User Group, sub. 46, p. 110.

⁶⁵⁵ DBCT User Group, sub. 30, p. 81.

⁶⁵⁶ DBCT User Group, sub. 30, p. 82.

⁶⁵⁷ DBCT Management, sub. 38, p. 86, para. 438.

⁶⁵⁸ DBCT User Group, sub. 3, p. 97.

⁶⁵⁹ DBCT Management, sub. 13, p. 108.

⁶⁶⁰ Pacific National, sub. 9, p. 13.

Investment in DBCT

The QCA's view is that declaration would be unlikely to affect DBCT Management's incentives to invest in DBCT. Specific matters are considered below.

Asset stranding

The QCA assessed DBCT Management's exposure to asset stranding risk in its final decision on DBCT Management's 2015 draft access undertaking⁶⁶¹ and concluded that the risk of asset stranding was low. The QCA considers that the factors that led to that decision remain relevant now and there is no evidence to suggest that the risk of asset stranding has increased, particularly over the declaration period under consideration (but also beyond that period). These factors include:

- Long-term demand fundamentals for metallurgical coal are broadly positive, despite
 volatility in the seaborne coal market resulting in fluctuations in demand over the shorter
 term. There is no current evidence to suggest that a structural decline in the long-term
 demand for metallurgical coal is likely.
- Coal producers in the market in which DBCT's coal handling service is provided are in a strong competitive position, many of whom are positioned at the lower end of the global cost curve. Most of the users at DBCT export high-quality metallurgical coal.
- Estimates of the medium- to long-term supply of coal in DBCT's market by the QCA's consultant in that review, Resource Management International, support an expected life of the terminal of at least 35 years as at 2020.⁶⁶²

Moreover, DBCT Management's contention of asset stranding risk appears incongruent with its own arguments, made in the context of criterion (b) about the level of total foreseeable demand in the market in which it operates (section 2.6).

Competition is not a source of stranding risk for DBCT Management, as it is not currently exposed to close substitution within its own market. Competition from other ports is also not considered a competitive constraint (see Part C, Chapters 2 and 3), given the economic and practical barriers to switching.

If the risk of asset stranding were to increase materially in a future with declaration, the QCA Act framework does not preclude DBCT Management from applying to the QCA to approve mechanisms such as accelerated depreciation, which would enable it to recover its capital over a shorter timeframe.

Consideration of regulatory error

DBCT Management highlighted the risk of regulatory error in the absence of merits review as undermining its incentives to invest.

The QCA acknowledges the possibility of regulatory error by a regulator. In this respect, it notes the views of the Productivity Commission that:

[g]iven that regulators are unable to set optimal access prices (prices that would maximise overall economic efficiency) with precision, there is scope for regulatory error in the setting of access terms and conditions.⁶⁶³

⁶⁶¹ QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016.

⁶⁶² QCA, DBCT Management's 2015 draft access undertaking, final decision, November 2016, p. 126.

⁶⁶³ Productivity Commission, National Access Regime, inquiry report no. 66, 25 October 2013, p. 103.

Declaration of the DBCT service would mean access regulation pursuant to Part 5 of the QCA Act. Part 5 follows a negotiate—arbitrate model in which the primary responsibility is on the access provider and access seeker to negotiate on price and non-price terms. The Productivity Commission talked about the advantages of negotiation:

Negotiated outcomes resolving the terms and conditions of access are preferable to regulated outcomes because the parties to a dispute will know more about their claims and the costs and benefits of gaining or providing access than a regulator could. Negotiation can thus limit the potential for regulatory error.⁶⁶⁴

It is not always possible for a regulated entity and access seekers to successfully negotiate regulated access. In this context, Part 5 provides for the development of an access undertaking to guide how access is to be provided. The QCA considers that the approval and operation of access undertakings, unless properly implemented, has the potential to lead to regulatory error, which could impact on investment incentives. The QCA also notes the absence of merits review under the QCA Act.

That said, Part 5 provides controls on the QCA's approval of access undertakings and requires it to have regard to a range of factors that essentially seek to balance the rights of the regulated entity, access holders and access seekers. In particular, the QCA Act imposes obligations on the QCA when approving access undertakings, including to:

- consult on any draft access undertaking (s. 138(3)(c))⁶⁶⁵
- consider any submissions received within the timeframe for submissions (s. 138(3)(d))
- have regard to the legitimate business interests of the regulated entity (s. 138(2)(b))
- have regard to the pricing principles, namely that the price should generate expected revenue for the service that is at least enough to meet the efficient costs for providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved (ss. 138(2)(g), 168A(a)).

The QCA also typically releases draft decisions, consultation papers and, where appropriate, engages in a cross-submissions process that allows parties to comment on the submissions of other parties. The QCA notes that the comprehensive nature of this consultation process helps to mitigate against the risk of regulatory error. Moreover, the regulated entity can seek an amendment of an approved access undertaking at any time (s. 142).

Notwithstanding this, the QCA acknowledges that there is still scope for regulatory error to occur, which could potentially impact DBCT Management's incentives to invest in the terminal. However, it is not evident that the risk of such error will have a material negative impact on these incentives. 666 The NCC has previously expressed similar sentiments:

The Council cautions against placing too much weight on arguments that access regulation or the prospect of such regulation discourages efficient investment and consequently threatens

⁶⁶⁴ Productivity Commission, *National Access Regime*, inquiry report no. 66, 25 October 2013, p. 115.

⁶⁶⁵ Moreover, the QCA's general practice to date has been to prepare and release for public comment, draft decisions on draft access undertakings. This practice, if continued during the declaration period under consideration, would go over and beyond the consultation requirements in the QCA Act.

⁶⁶⁶ For instance, DBCT Management has made decisions to approve non-expansion capital expenditure (NECAP) expenditure since 2006.

benefits from investment that might flow to Australia. Despite such concerns being raised, the Council is not aware of any evidence that bears directly on this issue.⁶⁶⁷

The QCA considers that there are a range of other factors that impact more heavily upon DBCT Management's investment decisions. For instance, DBCT Management stated that it is 'primarily the demand for capacity that determines expansion requirements'. Indeed, DBCT Management's 2019 Master Plan notes its obligation under the Port Services Agreement (PSA) to accommodate anticipated future demand and that to satisfy this demand, further expansions of the terminal would be required. The plan also outlines expansion options. Generation for the QCA considers that the risk of regulatory error is unlikely to significantly impact investment incentives at DBCT, compared to without declaration.

Investment delays

DBCT Management said that declaration (and hence regulation) has delayed expansions, and is likely to continue to delay them. It cited a comparison by BHP Billiton of an 8 mtpa expansion at DBCT that took five years from planning until implementation, and a 28 mtpa expansion at the (unregulated) Port of Gladstone that took between two and a half and three years. 669

As DBCT Management acknowledged, a number of factors led to the delay at DBCT.⁶⁷⁰ This also coincided with the review and approval of the first access undertaking for the terminal, which culminated in a 48 basis point uplift in the weighted average cost of capital to compensate for the risks associated with the expansion and the uncertain long-term demand outlook prevailing at the time.

Ultimately, there is no evidence that declaration would result in an increased likelihood of investment delays compared to a future without declaration, as the risk of disputes and delays will remain. As such, the QCA is not satisfied that investment at DBCT will be impacted by declaration.

Inter-terminal competition and investment

The QCA considers that declaration would be unlikely to distort the inter-terminal pattern of investment. The QCA's view is that DBCT Management is not exposed to competitive constraint from other terminals, and evidence has not been provided to demonstrate that the inter-terminal pattern of investment can or would be distorted. It is also not evident that as the only regulated terminal, DBCT is at a comparative disadvantage in being able to attract capital to fund investments.

Ultimately, expansion requirements will primarily be driven by the demand for capacity. If there is sufficient demand to support an expansion, the QCA must, under the QCA Act, have regard to DBCT Management's interests, including its interests in recovering its efficient costs and receiving an appropriate return on its investment (for example ss. 138(2)(b), (g) and (h)).

Moreover, in a future with declaration, it is open for DBCT Management to propose to the QCA to include, during the declaration period, processes in an access undertaking that allow DBCT Management to gain approval for its efficient costs in a timely manner.⁶⁷¹

⁶⁶⁹ DBCT Management, sub. 1, pp. 104–105, para. 479.

⁶⁶⁷ National Competition Council, submission to the Productivity Commission, *The National Access Regime*, 8 February 2013, pp. 7–8.

⁶⁶⁸ DBCT Management, Master Plan 2019, p. 5.

⁶⁷⁰ DBCT Management, sub. 1, pp. 104–105, para. 479.

⁶⁷¹ For instance, refer to the expansion approval processes in the 2006 and 2010 access undertakings.

In conclusion, there is an absence of evidence to support the view that declaration will reduce DBCT Management's future incentives to invest.

Investment in rail network and haulage infrastructure

The DBCT User Group said that investment in rail access and haulage can partly be attributed to declaration.

The QCA notes that in an integrated supply chain, it is essential that investment in capacity is aligned. As the QCA is not satisfied that declaration would promote an increase in efficient investment in markets that depend on access to the service (section 11.4), it considers that declaration is unlikely to affect demand for terminal capacity, compared to a future without declaration. It follows that declaration of the DBCT service is unlikely to promote investment in the corresponding rail network and haulage infrastructure compared to a future without declaration.

11.4 Investment in markets that depend on access to the service

11.4.1 Stakeholder submissions

The DBCT User Group submitted that the current protections in DBCT's access regime facilitate investment in coal mine projects by:

- reducing barriers to entry (particularly for smaller or newer producers)
- creating certainty and transparency
- allowing the contracting of access by new, expanding or reopened mines.⁶⁷²

The DBCT User Group argued that access price increases of the type that will occur in the absence of declaration will reduce incentives for coal producers to invest in the Hay Point catchment relative to coal projects elsewhere. It stated that there is an incentive for DBCT Management to materially increase prices (even if this is at the cost of some marginal volume) and DBCT Management can maintain volumes in a number of ways, 'some at great detriment to incentives to invest for new entrants'.⁶⁷³

In a report prepared for the DBCT User Group, Castalia concluded that the adverse impact will be in the market for coal tenements.

It is likely that any current holders of coal tenements in the DBCT catchment that do not have current contracts with DBCT will be unlikely to proceed with mine development and that these mines will not be developed regardless of their economic viability, or position on the cost curve, as they will not be bankable.⁶⁷⁴

Further arguments and analysis of the potential impact of price increases at DBCT, which can extend beyond investment incentives, follow in section 11.6.

Additionally, the DBCT User Group argued that the public benefit in giving coal producers an incentive to invest exceeds the public benefit in providing that incentive to DBCT Management, because of the wider economic benefits that would accrue.⁶⁷⁵

⁶⁷² DBCT User Group, sub. 3, pp. 96–97.

⁶⁷³ DBCT User Group, sub. 15, p. 87.

⁶⁷⁴ DBCT User Group, sub. 15, schedule 3, p. 6.

⁶⁷⁵ DBCT User Group, sub. 15, p. 88.

DBCT Management argued the opposite because of the 'materiality of the terminal infrastructure charge (TIC) as a proportion of total input costs for mining compared with the materiality of the TIC from the perspective of investing in DBCT. '676 DBCT Management considered that coal producers still face uncertainty with declaration, which will impact their own investment decisions, given they operate in 'a global, highly volatile and competitive commodity market'.677

The DBCT User Group said that declaration will promote investment in the market for coal tenements, pointing to the sizeable coal reserves remaining in the Hay Point catchment.⁶⁷⁸

DBCT Management argued that the QCA has defined the coal tenements market so narrowly, such that even if a new entrant could obtain access, the benefits would be insubstantial, to the point of being irrelevant.⁶⁷⁹ In its view, the QCA's assessment has 'grossly overstated' the effect of declaration on investment incentives and fails to appropriately apply the 'with and without' test.⁶⁸⁰

DBCT Management considered the effect of declaration on investment incentives is largely irrelevant to existing users who have evergreen contracts for 98 per cent of contracted capacity, and are able to roll-over existing terms.⁶⁸¹ It argued that new entrants are likely to be unable to secure capacity to the existing terminal even if the service continues to be declared, with the main opportunities arising when existing users no longer require capacity that is currently contracted via evergreen contracts. It estimated that over the declaration period, incumbent users' demand for coal tenements to replace capacity allocated to mines that will reach the end of their economic life during the period is both minimal and staggered, with the most significant incumbent demand for a mine that is reaching the end of its economic life in 2028.⁶⁸²

DBCT Management said that where such capacity becomes available, the access framework in any case preserves the certainty that access can be secured on reasonable terms, preventing DBCT Management from charging new users a price more than \$3 per tonne above what the QCA would determine for the existing terminal component.⁶⁸³ In this regard, it stated that even if capacity was available and was sufficiently material to be of relevance to the public interest, the certainty that its access framework would provide to new and existing users in regard to the continued provision of access on reasonable terms and conditions (including the price cap), will result in 'no material difference in the opportunities and environment for competition and investment with or without declaration'.⁶⁸⁴

DBCT Management further argued that access charges are not determinative where a new entrant is looking to commit to invest in the coal tenements market⁶⁸⁵, stating that the DBCT User Group has failed to provide any evidence that declaration is a significant factor in mine development decisions.⁶⁸⁶

⁶⁷⁶ DBCT Management, sub. 13, p. 100, para. 455.

⁶⁷⁷ DBCT Management, sub. 1, p. 105, para. 482.

⁶⁷⁸ DBCT User Group, sub. 30, p. 82.

⁶⁷⁹ DBCT Management, sub. 26, p. 83, para. 413.

⁶⁸⁰ DBCT Management, sub. 26, p. 87, para. 436.

⁶⁸¹ DBCT Management, sub. 26, p. 87, para. 436.1.

⁶⁸² DBCT Management, sub. 26, pp. 85–86, paras 425–31.

⁶⁸³ DBCT Management, sub. 26, pp. 88–89, para. 441.

⁶⁸⁴ DBCT Management, sub. 26, p. 84, para. 417.

⁶⁸⁵ DBCT Management, sub. 26, p. 89, para. 444.

⁶⁸⁶ DBCT Management, sub. 38, p. 87, para. 441.

The DBCT User Group disagreed that this issue is largely irrelevant to existing users, asserting that this assumes that their participation in the coal tenements market will be limited to investments that replace their current portfolio's utilisation of contracted capacity. It is possible that existing users will need to contract for additional capacity and will therefore face the same issues as future users.⁶⁸⁷

The DBCT User Group disaggregated the Wood Mackenzie forecast into demand from existing and future users (and from operating and future projects), showing that even after existing users seek to convert contracted access rights for operating mines to new projects, 'a material proportion of future demand is attributable to non-existing users'.⁶⁸⁸ It also referred to the report by the ILC on DBCT's capacity estimates⁶⁸⁹ as supporting the view that existing terminal capacity can meet additional demand.⁶⁹⁰ It also stated that DBCT Management's claim that new entrants would be unable to obtain access is not consistent with its own actions, including commercial discussions with access seekers regarding expansions and master plans contemplating expansions to provide up to 136 mtpa of capacity.⁶⁹¹

The DBCT User Group also considered that DBCT Management's analysis assumes that the demand for capacity for new coal tenements arises on the date when existing contracted capacity becomes available. It stated that in reality, investments in coal tenements are made years in advance of contracting for capacity, noting that as coal tenements are speculative investments, existing users would be incentivised to acquire multiple tenements to replace existing projects. It therefore argued that the number of transactions that could be impacted is not trivial. ⁶⁹²

The DBCT User Group also rejected DBCT Management's claims that access charges are not determinative in decisions to invest in coal tenements, arguing that charges impact profit margins and value that investors attribute to the coal tenements.⁶⁹³ It contrasted the circumstances in relation to the NCC's consideration of the Port of Newcastle in this regard. It argued that this impact would still exist even with the \$3 price cap, citing a report by PwC that has sought to assess the impact on valuations of a \$3 per tonne increase in port charges.⁶⁹⁴ It further submitted that there is no need to precisely quantify the flow-on benefits from declaration as only 'one additional project would need to proceed that would not be likely to have proceeded in the absence of the declaration for those benefits to be clearly material'.⁶⁹⁵

The DBCT User Group responded to DBCT Management's argument that it is strongly incentivised to maximise utilisation, as it is not vertically integrated and has no ability or incentive to deter entry. The DBCT User Group pointed out that DBCT Management's incentive is to maximise profits, not utilisation, and in any case it is not exposed to material demand risk, given the amount of capacity that is contracted under evergreen contracts. The defendance of the contracted of the contract of t

⁶⁸⁷ DBCT User Group, sub. 46, p. 108.

⁶⁸⁸ DBCT User Group, sub. 46, p. 106.

⁶⁸⁹ Integrated Logistics Company Pty Ltd, *DBCT Capacity Estimates*, 19 October 2018, https://www.qca.org.au/wp-content/uploads/2019/05/34266_ILC-DBCT-Capacity-Estimates-1.pdf.

⁶⁹⁰ DBCT User Group, sub. 46, p. 106.

⁶⁹¹ DBCT User Group, sub. 46, p. 105.

⁶⁹² DBCT User Group, sub. 46. p. 107.

⁶⁹³ DBCT User Group, sub. 46, p. 109.

⁶⁹⁴ DBCT User Group, sub. 46, schedule 2.

⁶⁹⁵ DBCT User Group, sub. 46, p. 110.

⁶⁹⁶ DBCT Management, sub. 26, p. 89, para. 445.

⁶⁹⁷ DBCT User Group, sub. 46, p. 109.

11.4.2 QCA analysis

The impact of declaration on investment in dependent markets depends, in part, on the extent to which declaration impacts competition in those markets, as the perceived ability to effectively compete in the market will underpin investment incentives and investor confidence.

In this context, the QCA notes that in assessing the effect that declaration would have on investment in markets that depend on access to the service, it is not confined to considering only those markets in which declaration would promote a material increase in competition. As discussed above, there is no materiality threshold in criterion (d) and as such, a finding that declaration would not promote a material increase in competition in any dependent markets does not preclude a conclusion that declaration would positively impact investment in markets that depend on access to the service. The QCA must consider the likely environment for investment in these markets with and without declaration and determine whether on that basis, declaration would promote the public interest. In saying this, in making its assessment of criterion (d), the QCA is relying on the same evidence and arguments that are used to inform its assessment of criterion (a).

The QCA's conclusion on criterion (a) (Part C, Chapter 3) is that declaration of the service would not promote a material increase in competition in any dependent market. Most significantly, the QCA's assessment relates to the market for coal tenements in the Hay Point region.

The conclusion in respect of the coal tenements market reflects the QCA's assessment of criterion (a)—that is, access terms and conditions in the absence of declaration would be unlikely to have a detrimental impact on the ability of new users to develop coal tenements into mining operations, relative to the scenario with declaration. Hence, potential DBCT users would not face a material disadvantage over access terms and conditions compared with existing users in the coal tenements market and compared to with declaration.

The QCA has considered the evidence and analysis that informed its assessment of criterion (a). While there is no materiality threshold applying to its assessment of criterion (d), there is no compelling evidence to support the view that declaration would positively impact investment in the coal tenements market, compared to a future with DBCT Management's deed poll and access framework. The QCA therefore considers that declaration is unlikely to promote efficient investment in this market and would not promote the public interest.

The QCA notes that this conclusion differs from the conclusion it formed in its draft recommendation. This reflects the QCA's view on the effect of DBCT Management's actions following the release of the draft recommendation, namely to execute its deed poll and access framework and put in place a \$3 price difference cap that would provide some constraint on its ability to exercise market power.

Examples of other markets that depend on access to the service include the coal haulage services market, the DBCT secondary capacity trading market, the rail access market and other markets such as the port services market and the coal shipping services market. The QCA notes that in assessing criterion (a), it concluded that declaration would not promote a material increase in competition in these markets. The QCA has considered the evidence and analysis that informed its assessment of criterion (a). While there is no materiality threshold applying to its assessment of criterion (d), it is not evident to the QCA that declaration would promote investment in these markets compared to a future with DBCT Management's deed poll and access framework, and therefore declaration would not promote the public interest.

11.5 Administrative and compliance costs incurred by the provider of the service

11.5.1 Stakeholder submissions

DBCT Management submitted that significant administrative and compliance costs are associated with declaration. It estimated costs of \$46.7 million in real terms for the period from 2015 to 2022⁶⁹⁸ and forecast costs over a 10-year period (if the service was declared) of \$58 million.⁶⁹⁹ It submitted that the majority of these costs would be avoided if the service was not declared. It also questioned the relevance of compliance costs for access seekers (noting that this could only be considered under s. 76(5)(d)), although it said that to the extent that compliance costs are considered as a countervailing benefit, they must be subject to scrutiny.

DBCT Management was critical of the QCA's assessment of costs in its draft recommendation, stating that the QCA's basis for 'dismissing' these costs, in light of the statutory requirement to have regard to these costs, is not clear.⁷⁰⁰ It stated that the QCA's 'fleeting' consideration 'is unsatisfactory and does violence to the Legislature's clear intent for decision-makers to consider regulatory costs under criterion (d) with the introduction of this specific mandatory factor'.⁷⁰¹ It maintained that these costs are not faced by other comparable ports in the region and are substantial even when compared to other regulated businesses.⁷⁰²

It also argued that even if these costs are borne by users, they are economic costs that will impact the profitability of supply chain participants. Regardless of the incidence of these costs, they are 'significant' social costs, which are in the public interest. ⁷⁰³

The DBCT User Group submitted that the administrative and compliance costs incurred by DBCT Management should not be a concern, given they are passed through to users. In any case, the DBCT User Group considers that these costs are immaterial 'in the context of infrastructure of this scale and services of the volume provided'.⁷⁰⁴ It stated:

[T]he fact that the DBCT User Group pays the QCA levy (the QCA's costs), pays its own costs of participating in the regulatory process and also pays much of DBCTM's costs through the corporate overhead allowance in the TIC, and remains in favour of declaration is strong evidence of the gains of declaration outweighing those costs.⁷⁰⁵

The DBCT User Group considered DBCT Management's administrative and compliance costs are not sufficiently material to have an impact on the public interest.⁷⁰⁶ It reiterated that users are effectively meeting these costs and are willing to continue to do so, as they consider that 'they are outweighed by the clear benefits of declaration'.⁷⁰⁷ Peabody supported this view.⁷⁰⁸

⁶⁹⁸ DBCT Management, sub. 1, p. 106, para. 487.

⁶⁹⁹ DBCT Management, sub. 1, p. 107, para. 489.

⁷⁰⁰ DBCT Management, sub. 26, p. 90, para. 453.

⁷⁰¹ DBCT Management, sub. 26, p. 91, para. 455.

⁷⁰² DBCT Management, sub. 26, p. 91, para. 456.

⁷⁰³ DBCT Management, sub. 26, p. 91, para. 457.

⁷⁰⁴ DBCT User Group, sub. 3, p. 101.

⁷⁰⁵ DBCT User Group, sub. 15, p. 94.

⁷⁰⁶ DBCT User Group, sub. 30, p. 83.

⁷⁰⁷ DBCT User Group, sub. 30, p. 83.

⁷⁰⁸ Peabody, sub. 25, p. 7.

Despite highlighting that this is still a cost to society (regardless of incidence), DBCT Management did not consider it plausible that users would support bearing these costs for the purpose of protecting future competitors.⁷⁰⁹

Peabody submitted that DBCT Management has overstated the administrative and compliance costs of the current regime, relative to the likely alternative. Peabody referred to the experience under Australia's telecommunications negotiate—arbitrate access regime before the ACCC started setting the benchmark terms and conditions of access from 2009; notably, '157 access disputes were notified in the 12 years following the introduction of the access regime'.⁷¹⁰ In this context, Peabody said:

DBCTM cannot point to costs associated with regulation, without properly considering the counterfactual – which would be an environment of heightened uncertainty and disputation between individual producers and DBCTM. In other sectors, such as telecommunications, this model has been seen to be a failure and substantially less efficient and effective than regulation.⁷¹¹

The DBCT User Group also questioned how DBCT Management could envisage that its access framework would provide substantial cost savings if it is intended to replicate the outcomes of the existing regulatory framework.⁷¹² It said that given the access framework will rely on private arbitration 'and the only recourse in relation to the Deed Poll being litigation via the courts', these costs are likely to be substantial.⁷¹³

The DBCT User Group commented on the coordination costs associated with managing multiple users. It acknowledged that these costs will be incurred regardless of declaration, but said that they are likely to increase in the absence of declaration, 'as some of the structures that come with regulation (such as the Terminal Regulations), which provide consistent rules to minimise coordination and opportunity costs, may not continue following declaration ceasing.'⁷¹⁴ DBCT Management disagreed with this, stating that 'each of these structures will continue to exist as demonstrated by the Access Framework to apply in the absence of declaration'.⁷¹⁵ Subsequently, the DBCT User Group agreed that there are unlikely to be material differences with and without declaration, although it considered that declaration has produced additional processes and protocols that reduce coordination costs, including queuing, access negotiation processes and expansion studies and planning.⁷¹⁶

11.5.2 QCA analysis

The QCA considers that the administrative and compliance costs that would be incurred by DBCT Management as a result of declaration would not be materially different compared to the costs incurred in a future without declaration. Specifically, in a future without declaration, it is not clear that the costs associated with DBCT Management's access framework, which 'mirrors in all material respects'⁷¹⁷ the provisions of the 2017 access undertaking approved by the QCA, would be dissimilar to those incurred under declaration.

Three main categories of these administrative and compliance costs are:

⁷¹¹ Peabody, sub. 12, p. 11.

⁷⁰⁹ DBCT Management, sub. 38, p. 86, para. 434.

⁷¹⁰ Peabody, sub. 12, p. 11.

⁷¹² DBCT User Group, sub. 46, p. 111.

⁷¹³ DBCT User Group, sub. 46, p. 111.

⁷¹⁴ DBCT User Group, sub. 3, p. 69.

⁷¹⁵ DBCT Management, sub. 13, p. 53, para. 266.

⁷¹⁶ DCBT User Group, sub. 30, p. 84.

⁷¹⁷ DBCT Management, sub. 38, p. 12, para. 41.

- costs incurred by DBCT Management in complying with the regulatory regime
- coordination costs incurred by DBCT Management in dealing with multiple users as a result of declaration
- costs incurred by the QCA in administering the regulatory regime and passed onto the service provider (the QCA levy).⁷¹⁸

Costs incurred by DBCT Management in complying with the regulatory regime

DBCT Management said that the majority of the compliance costs—which it forecast at \$58 million over the 10-year declaration period—would be avoided if the service was not declared. While questions have been raised by the QCA and stakeholders as to the costs it could still be expected to incur in the absence of declaration, an estimate of these costs has not been provided.

Under DBCT Management's current 2017 access undertaking, the QCA approves an efficient allowance for these costs as part of DBCT Management's operating expenditure allowance. As is the case with the QCA levy, these costs are ultimately borne by users, not by DBCT Management.⁷¹⁹

DBCT Management has argued that even if these costs are borne by users, this is still a cost to society and hence is relevant to the public interest. The QCA notes that DBCT Management has previously questioned the relevance of compliance costs borne by access seekers (and that if considered this would need to be under s. 76(5)(d)). In this context, it also stated that:

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 \dots^{720}

Even though DBCT Management refers to costs borne by access seekers, there is no reason why this is not equally relevant to existing access holders or users.

There are two main issues that need to be considered here. The first is the question of incidence. The second is the application of the 'with and without' test. Each of these is discussed further below.

Incidence

The QCA notes the position that has been taken by the NCC in considering administrative and compliance costs:

Costs to a service provider that can be compensated for through access charges are unlikely to be relevant to the assessment of the public interest.⁷²¹

In reviewing the NCC's final views on the revocation application for the channel services at the Port of Newcastle, the QCA notes that the NCC's focus was on the costs of negotiating and arbitrating disputes⁷²², which also reflects that under the National Access Regime, the ACCC's

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⁷¹⁸ The QCA has also had regard to coordination costs in the context of criterion (b), as per the requirements of s. 76(4).

⁷¹⁹ In the absence of contrary information, the QCA considers that the pass-through arrangements in the existing access undertaking provide a guide as to the treatment of these costs in a future with declaration.

⁷²⁰ DBCT Management, sub. 1, p. 107, para. 490.3.

⁷²¹ National Competition Council, *Declaration of Services: A guide to declaration of services under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, Melbourne, 2018, pp. 44–45, para. 6.17.

⁷²² National Competition Council, *Revocation of the Declaration of the Shipping Channel Service at the Port of Newcastle: Recommendation*, 22 July 2019, pp. 163–64.

role is primarily one of arbitrator. However, the NCC's previous comments on the treatment of costs that are compensated via access charges remain relevant.

Criterion (d) refers to costs 'incurred' rather than 'borne' by the service provider. To the extent that this test is intended to have regard to the service provider's legitimate business interests, its focus would be on those costs that are borne by the service provider. DBCT Management seemed to suggest this stating that 'compliance costs in this context usually refer to the direct regulatory costs of declaration borne by the infrastructure service provider'. This would exclude consideration of costs that are passed through to users.

In any event, the QCA has had regard to the costs 'incurred' by DBCT Management, but in doing so has also noted the extent to which DBCT Management bears these costs.

DBCT Management has not submitted any specific evidence to demonstrate that it has consistently incurred regulatory administration and compliance costs in excess of its approved allowance (which may not be able to be passed through to users) or could be expected to do so over the declaration period under consideration. Moreover, the QCA notes it is open for DBCT Management to submit a draft access undertaking (or draft amending access undertaking) to the QCA for approval, which includes measures to reduce its costs of compliance.

In any case, consideration can still be given to the implications of users bearing the incidence of these costs as a relevant matter under s. 76(5)(d), which is addressed separately below. Either way, the QCA has had regard to DBCT Management's administrative and compliance costs as part of its assessment of criterion (d).

The 'with and without' test

The QCA considers that criterion (d) needs to be assessed having regard to the environment that is likely to arise with and without declaration. This means that in assessing the impact of declaration on administrative and compliance costs, regard needs to be given to the costs that will still be incurred in the absence of declaration, and hence, to whether the net costs incurred under declaration would be higher.

As DBCT Management's access framework is untested, the QCA cannot accept DBCT Management's claim that its administrative and compliance costs under its access framework would be minimal. As stated previously, the QCA expects that these costs will range from ongoing administration and compliance costs to costs incurred in dealing with access disputes, including arbitration. DBCT Management has submitted that its access framework 'mirrors' the provisions of the access undertaking currently approved by the QCA.⁷²⁴ It is therefore difficult to envisage how DBCT Management's administrative and compliance costs under its access framework would be minimal, while the costs associated with its access undertaking (under declaration) are forecast to be \$58 million over 10 years.

The costs of arbitration under the access framework have the potential to be significant. The QCA refers to the observations by stakeholders regarding the pricing disputes that have occurred under the (unregulated) AAPT access regime.

No evidence has been provided by stakeholders to enable the QCA to assess the likely magnitude of these arbitration costs. Otherwise, quantifying these costs is difficult, as it would require a forecast of the likely number, duration and scope of access disputes. However, these challenges do not mean that the QCA should dismiss them or can assume that they would be

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⁷²³ DBCT Management, sub. 1, p. 107, para. 490.3.

⁷²⁴ DBCT Management, sub. 38, p. 11, para. 37.

immaterial. Instead, the QCA considers it reasonable to assume that disputes would occur under the regime; and the costs incurred in resolving these disputes have the potential to be significant.

In conclusion, the QCA cannot form the view that the costs that would be incurred by DBCT Management in complying with the regulatory regime under declaration would outweigh the costs that it would still incur in the absence of declaration under its access framework.

Coordination costs from dealing with multiple users

DBCT Management has a long-established history as a common-user terminal. If the service was not declared, it would still remain an open-access, common-user terminal governed by the terms of existing user agreements, and by DBCT Management's access framework. As noted above, DBCT Management submitted that this access framework mirrors its current approved access undertaking.

Stakeholders acknowledged that these costs associated with DBCT remaining an open access facility will continue to be incurred in the absence of declaration. No evidence has been provided to suggest that these costs will be higher or lower under declaration. To the extent that the access framework does purport to offer similar arrangements to those contained in the current approved access undertaking, it is reasonable to conclude that the coordination costs under each would be similar.

In conclusion, the QCA does not consider that there is likely to be any material difference in coordination costs incurred by DBCT Management under declaration, compared to the costs that it would still incur in managing a common-user terminal if the service provided by DBCT was not declared.

The QCA levy

DBCT Management recovers the QCA levy from users under a straight pass-through arrangement as part of its operating expenditure allowance.

As acknowledged by DBCT Management, the QCA levy 'is only a small subset of the administrative and compliance costs of regulation'. As the full amount of this levy is passed through to users, the incidence of this cost is borne by users, rather than by DBCT Management. It is therefore not a cost that is borne by the service provider. However, irrespective of incidence, it is a cost to the economy.

To the extent that the QCA levy is relevant to an assessment of the administrative and compliance costs incurred by the service provider under declaration, the QCA notes that the levy amounts only to a 'small subset' of these costs, such that it is unlikely to create a consequential difference in the overall costs of declaration, compared to those it would incur in a future without declaration.

⁷²⁵ DBCT Management, sub. 13, p. 110.

11.6 Other relevant matters

11.6.1 Changes in access charges and the redistribution of economic rents

Stakeholder submissions

DBCT Management argued that the commercial environment will constrain its ability to exert market power irrespective of declaration, and listed nine factors. These include competitive constraints imposed by other terminals in Queensland, the mutual dependence between parties that incentivise reaching agreement, the constraints imposed by the access framework, countervailing user power, the threat of regulation and the constraints imposed under the PSA. DBCT Management also argued that changes in access prices will have no net impact on the public interest, given it will only result in a redistribution of the producer and consumer surplus.

DBCT Management subsequently submitted a revised access framework and deed poll that it has executed. It saw this as providing certainty that new users will be able to secure access on reasonable terms and included a cap on the terminal infrastructure charge, which it said will prevent it from charging new users a price more than \$3 per tonne above what the QCA would determine for the existing terminal component.⁷²⁷

The DBCT User Group previously rejected the effectiveness of the constraints argued by DBCT Management. The DBCT User Group said that the transfer of economic rents is not neutral, particularly where they do not apply equally to all supply chain participants, as this would distort investment decisions. As noted above, the DBCT User Group considered that this would be of particular detriment to new entrants. It stated that the countervailing power argument does not apply to smaller users and also requires there to be a credible threat of switching to an alternative terminal.⁷²⁸ It questioned the effectiveness of the PSA as a constraint, stating that DBCT Management has not pointed to any specific provisions that would provide this.

The DBCT User Group presented AAPT as a case study.⁷²⁹ It contended that issues have continually arisen in pricing reviews and a key factor is that the decision-maker (or arbitrator) is not the same each time. It also argued that some parties are still in arbitration while others have reached confidential price settlements, resulting in differential pricing. As some aspects of pricing in the AAPT agreements refer to QCA determinations, there is a concern that these provisions will no longer be effective. In response to the QCA's draft recommendation, the DBCT User Group noted its 'surprise' that the QCA did not consider this to be a relevant matter in assessing the public interest, 'given the serious potential disruption to the Newlands/Abbot Point coal supply chain'.⁷³⁰

DBCT Management responded that issues at AAPT were eventually settled to users' satisfaction and that arbitration was only required for two out of seven users. It also noted that 'users have not sought declaration of the terminal'.⁷³¹ Overall, DBCT Management considered that the DBCT User Group's arguments had not adequately taken account of the commercial environment in the absence of declaration, including its access framework.

⁷²⁶ DBCT Management, sub. 1, pp. 93–94, para. 424.

⁷²⁷ DCBT Management, sub. 26, pp. 88–89, paras 441–442.

⁷²⁸ DBCT User Group, sub. 15, p. 89.

⁷²⁹ DBCT User Group, sub. 3, p. 103.

⁷³⁰ DBCT User Group, sub. 30, p. 84.

⁷³¹ DBCT Management, sub. 13, p. 111.

The DBCT User Group (who submitted advice from Allens)⁷³², along with Glencore⁷³³, rejected DBCT Management's access framework as a relevant counterfactual in assessing the environment with and without declaration.

QCA analysis

The QCA considers that the relevant issue in assessing whether changes in access prices with and without declaration would affect promotion of the public interest is not redistribution of economic rents per se, but the potential impact that declaring the service could have on investment in dependent markets (see section 11.4.2).

In this context, the QCA concludes that the absence of declaration and any resultant changes in access charges would be unlikely to create a materially uneven playing field between existing users and potential entrants in the market for coal tenements in the Hay Point catchment region, compared to a future with declaration. Therefore, declaration would be unlikely to promote increased investment in mining operations, compared to without declaration (section 11.4.2). A key consideration in the QCA's assessment is the pricing constraint introduced by DBCT Management in its executed deed poll post release of the QCA's draft recommendation. Further, it is not evident to the QCA that declaration would promote investment in any other markets considered, compared to a future without declaration (section 11.4.2). Given this, the QCA considers that changes in access prices as a result of declaration would not impact investment in dependent markets and therefore, declaration would not promote the public interest.

Separately, the QCA considers the AAPT case is only relevant to the extent that uncertainty regarding the ability to secure terminal access could distort competition in dependent markets.⁷³⁴ The QCA does not consider the fact that AAPT agreements refer to QCA determinations as being a matter of relevance to this review. The provisions of those agreements remain a commercial issue for the terminal owner and stakeholders. The fact that provisions of these agreements were tied to the outcome of a completely external and independent process, being the QCA's determinations of the access charges to apply at DBCT, is a risk that should be borne by the parties to those agreements and cannot have any bearing on the QCA's recommendations in relation to the declaration of the DBCT service.

The QCA has considered the argument that the redistribution of economic rents may impact the coal royalties that are received by the state in section 11.6.4 below.

11.6.2 Costs incurred by access seekers and holders

Stakeholder submissions

The DBCT User Group and Peabody have highlighted the costs that will be incurred by users (and potential users) of the facility if the service provided by DBCT is not declared. The QCA is of the view that this is a relevant matter that can be considered under s. 76(5)(d).

DBCT Management said that any reduction in compliance costs borne by access seekers and holders under declaration would not be sufficiently material to promote the public interest.⁷³⁵

⁷³² DBCT User Group, sub. 46, schedule 7.

⁷³³ Glencore, sub. 41, p. 13, para. 3.3.

⁷³⁴ Although insufficient evidence has been presented in respect of AAPT to enable the conclusion that this has in fact occurred.

⁷³⁵ DBCT Management, sub. 30, p. 92, para. 462.

The DBCT User Group did not agree with this.⁷³⁶ It cited the most recent access undertaking process as providing a path for quick resolution via the availability of standard access terms and conditions unless parties agree otherwise. It stated that a number of DBCT User Group members had confirmed that 'the expenditure on DBCT regulatory matters is significantly less than has occurred in respect of Abbot Point price reviews since privatisation of that terminal'.⁷³⁷ The types of costs include:

- the costs associated with negotiating bilateral agreements (that are more likely to have different terms)
- the costs involved in arbitrating disputes
- the costs of court proceedings to enforce the contractual deed poll.⁷³⁸ These costs will also be incurred by access seekers, who could end up in lengthy and protracted negotiations.

The DBCT User Group highlights that these disputes with individual users could also occur multiple times. Particularly for more 'junior' access seekers, this could give rise to considerably higher costs, relative to the joint sharing of these costs via a regulatory process. Reference was again made to the costs that have been incurred in relation to disputes at AAPT 'where resource users have effectively been required to engage multiple law firms, economists and barristers to protect their position'.⁷³⁹

DBCT Management rejected the argument that the resolution of issues is less onerous under declaration than commercial negotiation, citing the difficulties in resolving issues with Aurizon Network's access undertaking.⁷⁴⁰ DBCT Management said that the DBCT User Group failed to acknowledge the broader costs of regulation, including productive, allocative and dynamic inefficiencies.⁷⁴¹

QCA analysis

The QCA considers that there is insufficient evidence to support a conclusion that any reductions in compliance costs borne by access seekers and holders as a result of declaration would be material enough to promote the public interest.

Compliance costs directly incurred by access seekers and holders

The QCA considers individual access seekers, along with access holders, could incur additional costs if the service is not declared, compared to access under declaration.

The QCA notes the arguments submitted regarding the pricing disputes that have occurred at AAPT, although no specific data on costs has been provided. At the same time, the QCA is also cautious in drawing direct parallels given potential differences between DBCT Management's access framework and the arrangements in place at AAPT.

However, the fact that parties may incur higher costs on an individual basis, in the absence of declaration, is not in itself sufficient to enable the conclusion that declaration would promote the public interest. The negotiation of bilateral agreements, which could result in a dispute that leads to arbitration, is a common feature of competitive commercial markets. The overarching concern is whether DBCT Management could misuse its market power in these negotiations to

⁷³⁷ DBCT User Group, sub. 30, p. 85.

⁷³⁶ DBCT User Group, sub. 30, p. 84.

⁷³⁸ DBCT User Group, sub. 15, p. 102.

⁷³⁹ DBCT User Group, sub. 46, p. 111.

⁷⁴⁰ DBCT Management, sub. 13, p. 110.

⁷⁴¹ DBCT Management, sub. 13, p. 104, para. 478.

prevent or hinder access and hence distort competition in a dependent market/s. This is a matter for criterion (a), although to the extent that preventing or delaying access reduces the economic benefits of coal development and export, this is a matter for the public interest. This is considered in section 11.6.4.

Declaration will not avoid compliance costs for access seekers and holders, although it is likely to reduce these costs, given the potential existence of reference tariffs under declaration that could facilitate negotiations and minimise the scope for disputes and the independent regulator's role in monitoring and enforcing compliance. The question in this context is whether reducing these costs is a material benefit that would promote the public interest. The likely quantum and burden of these costs are unknown.

DBCT Management's administrative and compliance costs passed through via access charges

As noted in section 11.5, to the extent that s. 76(5)(c) limits consideration of DBCT Management's administrative and compliance costs to those costs that it bears directly, it may also be relevant to consider costs that are passed through to access holders via access charges. If the assessment is made based on incidence, these costs could be considered as part of the costs of declaration that are borne by access holders.

These costs are not incurred separately, and instead form part of the access charge. All other things being equal, if these costs were no longer incurred in the absence of declaration, the access charge should be expected to be reduced by the amount of those costs. It is not evident from the material submitted by DBCT Management that this would be the case. It has only submitted that the costs that it would incur in the absence of declaration are expected to be minimal. If it was true that these costs were immaterial, and the access charges were not reduced by the amount of the cost saving, this would represent a redistribution of rent between access holders and DBCT Management and this particular outcome would not be considered relevant to the public interest. In any case, as discussed in section 11.5, the QCA does not consider that DBCT Management's administrative and compliance costs in the absence of declaration will be minimal.

As summarised previously, existing users have also made it clear that they are willing to bear these costs, because they consider that the costs are outweighed by the benefits of declaration. If users were unwilling or unable to bear these costs, this could be a more important issue from a public interest perspective, particularly if it resulted in a reduction in output or investment. However, there is no evidence to suggest this would be the case (noting that stakeholders are arguing the opposite).

As the QCA has previously concluded, DBCT Management can be expected to continue to incur administrative and compliance costs under its access framework. It is also reasonable to expect that it will continue to reflect these costs in access charges levied under that framework, meaning that users will still ultimately bear the incidence of these costs. However, DBCT Management may be unable to pass on all of its costs relating to disputes and arbitration (which will relate to individual users), particularly if it is unsuccessful.

There is insufficient evidence to enable the QCA to conclude that any reduction of these costs as a result of declaration would be material enough to promote the public interest.

11.6.3 Environmental benefits

Stakeholder submissions

The DBCT User Group argued that declaration will result in environmental benefits that promote the public interest. First, open access under declaration 'will result in a larger single

terminal instead of multiple small terminals, which will be more ecologically sustainable'.⁷⁴² This is seen as particularly important, given the location of the Port of Hay Point within the Great Barrier Reef World Heritage Area. Second, it pointed to the amounts funded by DBCT's approved tariff to cover the costs of remediation at the end of the lease.

DBCT Management countered this, stating that the government is still able to impose environmental restrictions without declaration. It also stated that the DBCT User Group's claim that multiple smaller terminals would have been developed in the absence of declaration has not been substantiated. It highlighted that its remediation obligations exist under the PSA and while it did not consider that the costs of these were relevant, it said that it would be reasonable to assume that they would continue to be met via access charges in the absence of declaration.⁷⁴³

The DBCT User Group did not agree with the QCA's position in its draft recommendation that declaration will not result in environmental benefits. It added that DBCT Management's suggestion that rail haulage would occur over longer distances in the absence of declaration (for industry to meet its demand projections at a lower cost than an expanded DBCT in the absence of declaration) would result in additional adverse environmental and efficiency impacts.⁷⁴⁴

QCA analysis

The QCA considers there is insufficient evidence before it to conclude that if the service was not declared, it would be more likely that multiple smaller terminals would be developed.

This also implies that in the absence of declaration, DBCT Management would have no incentive to expand the terminal. As noted above, there is no evidence to enable the conclusion that investment in the service would not occur if the service was not declared.

The QCA notes the government's ability to impose environmental restrictions irrespective of whether the service is declared. The QCA also notes the *Sustainable Ports Development Act 2015* (Qld), the purpose of which is to 'provide for the protection of the Great Barrier Reef World Heritage Area through managing port-related development in and adjacent to the area. This legislation controls new terminal development, having regard to managing the environmental impact. Further, the QCA notes that impacts on the Great Barrier Reef Marine Park are a matter of national environmental significance under the *Environment and Biodiversity Conservation Act 1999* (Cth), and therefore subject to control by the Commonwealth Environment Minister.

DBCT Management's obligations to remediate the terminal site at the end of the lease also remain, regardless of whether the service is declared.

It is not evident that the environmental and efficiency impacts of having to haul coal over longer distances in the absence of declaration, referred to by the DBCT User Group, are relevant to this assessment. First, whether or not DBCT can service total foreseeable demand in the market at least cost when compared to any two or more facilities is a matter for criterion (b), as addressed in sections 2.2–2.8. Second, in any event the DBCT User Group's claims have not been substantiated such that the QCA is not satisfied that there would be an environmental impact if this did arise.

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⁷⁴² DBCT User Group, sub. 3, p. 98.

⁷⁴³ DBCT Management, sub. 13, p. 108.

⁷⁴⁴ DBCT User Group, sub. 30, p. 85.

⁷⁴⁵ Section 2(1).

11.6.4 Other benefits

Stakeholder submissions

The DBCT User Group cited a range of other benefits that would arise under declaration that would promote the public interest. These included:

- higher government royalties, based on additional coal production and a lower terminal access charge to be deducted from coal royalty calculations
- increased regional development, employment and related and consequential economic contributions
- efficiency benefits and economies of scale
- regulatory certainty—and that the continuation of declaration would be consistent with all expectations
- the prevention of windfall gains—the terminal owners will benefit because the original purchase price paid to acquire the long-term lease reflected ongoing declaration and regulation.⁷⁴⁶

Pacific National, whose submission addressed all three services that are the subject of these declaration reviews, argued that declaration will deliver a range of economic benefits, including providing certainty and predictability of the terms and conditions of access; facilitating and promoting efficient investment in rail freight services, along with coal supply chain infrastructure; and facilitating and promoting the efficient operation of the supply chain, which supports economic growth and employment.⁷⁴⁷

DBCT Management argued that the DBCT User Group has failed to substantiate that the public benefits it has identified have resulted or will result directly from declaration. DBCT Management also refuted the argument that declaration is needed to promote certainty, as this is consistent with what the market expects. DBCT Management said this implies that all facilities that are currently declared should continue to be declared in perpetuity. It submitted that the objective of the criteria is to ensure a rigorous approach is taken to assess the need for declaration of the facilities through time.⁷⁴⁸

DBCT Management rebutted the DBCT User Group's claim of windfall gains, stating that these claims are 'unsubstantiated and largely irrelevant'⁷⁴⁹ and in any case, the analysis needs to be forward-looking.

In terms of efficiency benefits, DBCT Management argued that consideration needs to be given to productive, allocative and dynamic efficiency.⁷⁵⁰ While DBCT Management only touched on these forms of efficiency briefly, it stated that inefficiencies would arise under declaration in all three areas:

⁷⁴⁸ DBCT Management, sub. 13, p. 109.

⁷⁴⁶ DBCT User Group, sub. 3, pp. 98–101; sub. 46, pp. 111–112.

⁷⁴⁷ Pacific National, sub. 9, pp. 13–14.

⁷⁴⁹ DBCT Management, sub. 13, p. 109.

⁷⁵⁰ DBCT Management, sub. 13, p. 104, para. 478.

- productive inefficiency—'including extra resources involved in administering and complying with the undertaking compared with the resources required to deal with contractual arrangements resulting from freely-negotiated contracts'751
- allocative inefficiency—which arises as a result of uniform pricing
- dynamic inefficiency—including reducing incentives to invest in economically efficient practices if there is regulatory error in assessing prices.

In response to the QCA's draft recommendation, DBCT Management stated that proper consideration has not been given to the flow-on effects of investment (i.e. royalties, regional economic development) and whether they are material, and dependent on declaration, under the 'with and without' test. 752 In the absence of 'reasonably probative' evidence, DBCT Management said these benefits can be given no weight.

QCA analysis

The QCA has had regard to the effect of declaration on a range of other relevant matters and considers that there is a lack of evidence to suggest that these factors would promote the public interest. Specifically, it is not clear to the QCA that any efficiency or other benefits are able to be attributed to declaration.

Wider economic benefits

The DBCT User Group submitted that as declaration would (in its view) promote investment in the Hay Point catchment coal tenements, it would also promote the public interest through increased coal royalties, increased regional development, increased employment and related and consequential economic contributions.

The QCA concluded that declaration would not promote a material increase in competition in dependent markets (Part C, Chapters 4-9). Given this, the QCA considers that there is a lack of evidence to suggest that the absence of declaration would result in reduced incentives for efficient investment in dependent markets. It follows that declaration is unlikely to impact the extent to which any wider economic benefits flowing from the presence of competition in these dependent markets, such as increased government royalties, regional development, employment and economic contributions would be realised. Specifically, it is not evident to the QCA that declaration would promote exploration and development of the state's coal resources. Given this, the QCA considers it is unlikely that the flow-on benefits from these types of activities would be affected by declaration.

Further, even if port charges increased in a future without declaration such that royalty payments decreased (where coal export terminal costs are a permitted freight-related deduction⁷⁵³), it is presumable that revenue accrued by DBCT Management would increase. As noted by the NCC in its final recommendation on the revocation of the Port of Newcastle, a transfer of surplus from entities operating under one impost regime to those operating under a different impost regime does not of itself, affect the public interest.⁷⁵⁴

⁷⁵² DBCT Management, sub. 38, p. 88, para. 443.

⁷⁵¹ DBCT Management, sub. 13, p. 104, para. 478.

⁷⁵³ Queensland Treasury, Royalty Ruling MRA001.2 Determination of coal royalty, Queensland Government, updated 1 July 2019, para. 23, https://s3.treasury.qld.gov.au/files/mra001-2.pdf.

⁷⁵⁴ National Competition Council, Revocation of the Declaration of the Shipping Channel Service at the Port of Newcastle: Recommendation, 22 July 2019, p. 166, para. 10.88.

In any event, it is not clear to the QCA that the maximisation of royalty revenue of the state is a matter relevant to the assessment of public interest. In *Australia Pacific LNG Pty Limited & Ors v The Treasurer & Ors*⁷⁵⁵, consideration of the royalty outcomes for the State by the Minister (in determining the valuation methodology for feedstock petroleum) was deemed to be an irrelevant consideration.⁷⁵⁶ Given this, the QCA considers that declaration is unlikely to lead to any wider economic benefits relevant to its assessment of criterion (d). The QCA concurs with the NCC and the Queensland Supreme Court.

Efficiency benefits

Stakeholders' arguments about the efficiency benefits are relevant to the assessment of criterion (d).

In terms of the three forms of economic efficiency, the QCA's comments are as follows:

- Productive efficiency: As concluded above, the QCA does not consider that the difference in the administrative and compliance costs arising under declaration, compared to the costs that would be incurred under DBCT Management's access framework, would be sufficiently material to have an impact on the public interest. The QCA considers it reasonable to assume that disputes would occur under the access framework and the costs incurred in resolving these disputes have the potential to be significant. The absence of a reference tariff for new access seekers⁷⁵⁷ also has the potential to increase negotiation costs for potential entrants. However, costs arising from disputes are not precluded by the presence of declaration. The QCA notes that the relative magnitudes of these costs in either scenario is unclear. Given this, the QCA does not consider that declaration would necessarily lead to productive inefficiency, compared to without declaration.
- Allocative efficiency: DBCT Management submits that allocative inefficiency can arise where mines with different cost bases are subject to a uniform price. The QCA considers that without declaration, new users would expect a TIC higher than that under declaration, given the floor TIC in DBCT Management's deed poll is akin to the TIC under declaration. In other words, although a uniform TIC may apply under declaration, that TIC would be lower than that which would apply without declaration. To that extent, the effect on allocative efficiency under declaration (due to a uniform price) would unlikely be materially different than without declaration (due to a higher overall TIC which may vary between users subject to the \$3 price difference cap). The QCA's view is also that DBCT Management's deed poll and access framework would be unlikely to materially affect the ability of new users to develop tenements into mining operations, compared to under declaration. To that extent, the effect on allocative efficiency without declaration would be unlikely to be materially different than with declaration. Further, the QCA notes that capacity at DBCT is already largely allocated under existing evergreen contracts such that allocative efficiency gains would be unlikely to be materially affected with declaration, compared to without. On balance, the QCA does not consider that declaration would have a positive effect on allocative efficiency.
- Dynamic efficiency: The QCA has concluded that declaration is unlikely to materially enhance
 the incentives to invest in the market for coal tenements. In terms of investment in
 economically efficient practices that would improve supply chain efficiency, DBCT

⁷⁵⁵ [2019] QSC 124 [198]-[214].

⁷⁵⁶ The QCA does however note an appeal of this judgement is currently pending.

⁷⁵⁷ The QCA notes that it may not include a reference tariff as part of approved access undertaking.

Management's 2017 access undertaking retains its commitment to use its best endeavours to engage with other supply chain participants to develop and implement mechanisms that would improve supply chain efficiency (cl. 14.1). It is noted that DBCT Management has retained this mechanism in its access framework (cl. 13.1).

The QCA therefore considers that, on balance, there is a lack of evidence to conclude that declaration would positively promote the public interest in terms of productive, allocative and dynamic efficiency.

Regulatory certainty

The QCA does not see merit in the DBCT User Group's argument that DBCT was privatised based on an expectation that terminal services would always be regulated. The QCA notes this is inconsistent with the intent of the declaration provisions—any decision by the Minister to declare a service 'must state the expiry date of the declaration' (s. 84(4)). Indeed, if there was an expectation that terminal services would always be regulated, the QCA Act would not provide for this review of declarations under s. 87A.

This in turn reflects an understanding that these facilities operate in a dynamic market environment and that the factors that impact the decision to declare a service are likely to change through time. Prior to the expiry of a declaration, it is clearly intended under Part 5 of the QCA Act that the service be assessed against the access criteria on its own merits. As stated above, while the history of access to the service under declaration is relevant to this assessment, it ultimately needs to be forward-looking. The QCA considers that neither the access regime under Part 5 of the QCA Act, nor the regime under Part IIIA of the CCA, intends for the declaration of services to continue in perpetuity.

The QCA therefore does not consider that the service should be declared because the continuation of declaration is expected by all stakeholders.

Windfall gains

The QCA does not consider that if the service is not declared, DBCT's owners will benefit from a 'windfall gain'. Apart from the absence of any evidence surrounding its contention that the price paid for the long-term lease of the terminal reflected ongoing regulation and declaration, the OCA is not satisfied that this is a relevant consideration.

11.7 Conclusion on criterion (d)

The QCA's view is that declaration is unlikely to have a positive impact on investment in dependent markets, compared to without declaration.

The QCA is not satisfied that declaration would affect DBCT Management's incentives to invest in the terminal. Additionally, declaration is unlikely to have a positive impact on the incentives to invest in the rail network and haulage facilities that service the terminal.

The administrative and compliance costs incurred by DBCT Management as a result of declaration are not considered excessive relative to those that may be incurred in the absence of declaration, such as to have an impact on the public interest.

The QCA has not identified any other factors that it considers would have a material impact (either positive or negative) on the promotion of the public interest. This is after having regard to the likely access environment with and without declaration.

Having weighed all of the costs and benefits, the QCA considers there is insufficient evidence to conclude that declaration would have an overall net positive effect on the public interest. As

such, the QCA is not satisfied that access (or increased access) to the service provided by DBCT, on reasonable terms and conditions, as a result of declaration would promote the public interest.

APPENDIX A—DBCT COST ESTIMATION

Background

This appendix sets out the method used to estimate the cost for mines in the Goonyella system (the relevant market for the purposes of assessing criterion (b) for the DBCT service) of exporting coal through DBCT, as well as other terminals connected to the central Queensland coal network (CQCN), which are AAPT, RG Tanna and WICET.⁷⁵⁸

The costs that were estimated relate to the following supply chain elements:

- below-rail
- above-rail
- coal handling
- other port and shipping.

The costs estimates are expressed as 'cost per tonne of coal' (unit cost) and, where relevant, total cost per annum, so that they can easily be compared.

This assessment largely focuses on estimating a unit cost, based on the cost and contracted capacity of the relevant network/terminal.

The QCA's cost estimation is based primarily on publicly available data.⁷⁵⁹ For consistency with the analysis presented in the QCA's draft recommendation, the QCA's cost estimates are expressed in 2017–18 dollars.

Average supply chain costs

Below-rail cost

 Below-rail cost relates to the cost of using Aurizon Network's below-rail infrastructure for coal haulage.

- Below-rail cost per tonne of coal hauled to a terminal varies according to the exact location of a mine, as some elements of the below-rail reference tariff are distance-based. The further a mine is away from a terminal, the greater the below-rail cost per tonne (all other things being equal). However, for the present analysis, the QCA has attempted to estimate the average below-rail cost per tonne across all mines regardless of their location.
- This exercise requires estimating the average below-rail cost for mines in the Goonyella system of
 using the Goonyella system as well as another coal system (e.g. Blackwater) for exporting coal through
 other terminals (e.g. WICET or RG Tanna)—that is, estimating the below-rail cost for using multiple
 coal systems. One option is to use the cross-system services data. However, cross-system traffic is

⁷⁵⁹ The QCA uses DBCT's tariff model from the DBCT 2017 access undertaking to estimate the coal handling charge associated with an expansion of the DBCT facility.

⁷⁵⁸ BMA's HPCT has been excluded, as it is not an open-access terminal. See Appendix B.

typically low⁷⁶⁰, and therefore such data may not be a good indicator of the average cost for mines in the Goonyella system of using other coal systems.

- An alternative approach is to consider the average below-rail cost for the origin (mines) and
 destination (port terminal) within a given system ('within system' cost). In taking this approach, the
 QCA expects that the below-rail costs incurred by a mine in the Goonyella system to export coal
 through an alternative terminal will fall between a lower and an upper bound estimate:
 - The lower bound estimate is based solely on the 'within system' costs associated with the destination system. The lower bound estimate assumes that Goonyella mines incur no below-rail cost for traversing the Goonyella system to export coal through an alternative terminal, which is unrealistic. For example, if the 'within system' average below-rail cost for mines in the Blackwater system to access RG Tanna/WICET is \$4.63 per tonne, mines in the Goonyella system seeking to export coal through RG Tanna/WICET will incur \$4.63 per tonne (on average) for using the Blackwater system (excluding the below-rail cost of using the Goonyella system). Additionally, given the location of mines in the Goonyella system, they are likely to incur costs above the average 'within system' below-rail cost given their location.
 - The upper bound estimate is based on the 'within system' costs associated with both the Goonyella system and destination system. For instance, suppose the 'within system' average below-rail cost in the Goonyella system is \$2.11 per tonne. Adding this unit cost (\$2.11 per tonne) to the \$4.63 per tonne cost yields \$6.74 per tonne for mines in the Goonyella system seeking to export coal through a terminal connected to the Blackwater system. This upper bound estimate assumes that Goonyella mines would incur, on average, the same below-rail cost for using the Goonyella system, regardless of whether they export coal through DBCT or an alternative terminal. This assumption is unrealistic; for example, for mines to the south on the Goonyella system, the distance traversed on the Goonyella system to export coal through RG Tanna/WICET would be less than the distance traversed on the Goonyella system to haul coal through DBCT, which would affect the below-rail cost. Additionally, as outlined below, some reference tariff components are not incurred by cross-system services.
 - Thus, the QCA expects that the below-rail costs incurred by a mine in the Goonyella system that exports coal through an alternative terminal will be above the lower bound estimate, with the actual cost also depending on the location of the relevant mine in the Goonyella system.
- Accordingly, in addition to estimating the within system below-rail cost (on average) for mines in the Goonyella system to export coal through DBCT, the within system below-rail cost (on average) has also been estimated for exporting coal through:
 - the Blackwater system to RG Tanna/WICET
 - the Goonyella to Abbot Point (GAP) system to AAPT.

⁷⁶⁰ For example, as per Aurizon Network's 2017–18 revenue cap submission, revenue from cross-system services was approximately 5 per cent of revenue from within system services (Aurizon Network, *FY2018 Revenue Adjustment Amounts—Explanatory Memorandum*, September 2018, p. 13).

⁷⁶¹ For instance, for Lake Vermont mine, distance traversed on the Goonyella system to DBCT is approximately 232.57 km (the sum of the distance from Hay Point to Coppabella junction of 145.55 km and Coppabella junction to Lake Vermont of 87.02 km); whereas distance traversed on the Goonyella system to WICET/RG Tanna is approximately 62.56 km (the distance from Lake Vermont to the boundary point on the Goonyella system towards the Blackwater system). Data have been sourced from Aurizon Network, *Goonyella System*, summary sheet, version 7.0, March 2017.

To the extent that the additional fees that a user would pay for accessing WICET or the GAP system have not been considered in this calculation, the lower bound estimate of the below-rail cost of accessing the relevant terminals is an underestimation.

- The within system below-rail cost has been approximated by Aurizon Network's maximum allowable revenue (MAR) for each coal system, on the presumption that MAR represents the below-rail cost of traversing a given coal system.
- In the draft recommendation, the QCA estimated the MAR for each system from the revenue associated with Aurizon Network's AT2-4 reference tariff components. Following the draft recommendation, Aurizon Network's 2017 access undertaking was approved by the QCA and is now in force. The 2017 access undertaking is based on approved MAR estimates for the regulatory period (2017–18 to 2020–21). In this final recommendation, the QCA has used Aurizon Network's 2017 access undertaking MAR estimates to calculate the below-rail cost of traversing a given coal system. The QCA notes that adopting the 2017 access undertaking MAR estimates provides for a more recent estimate of the relevant below-rail costs and does not rely on reference tariff and volume forecast assumptions.⁷⁶²
- To calculate the lower and upper bound estimates for each rail system, data from the QCA's 2017 draft
 access undertaking final decision⁷⁶³ were used to calculate the below-rail cost per tonne averaged over
 the four year regulatory period.⁷⁶⁴ The committed capacity of the below-rail systems was estimated
 based on Aurizon Network's *Baseline Capacity Assessment Report*.⁷⁶⁵ The lower bound and upper
 bound estimates of the averaged below-rail costs are reported in Table A.1.

Table A.1 Below-rail cost per tonne estimates for mines in the Goonyella system (\$ per tonne)

Cost components	DBCT	AAPT (GAPE)	RG Tanna	WICET
4-year average (2017–18 to 2020–21)	\$2.11			
Lower bound		\$2.48	\$4.63	\$4.63
Upper bound		\$4.60	\$6.74	\$6.74

• To the extent other coal systems require capacity upgrades to accommodate coal traffic from mines in the Goonyella system, the lower and upper bound estimates in Table A.1 are an underestimation.

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⁷⁶² The QCA notes below-rail access charges are subject to various periodic adjustments (for example, revenue-cap true-ups and annual volume forecast resets), as well as approved allowable revenues through draft amending access undertakings. For instance, the QCA approved the UT5 DAAU in December 2019, which has implications for the reference tariffs applied in each of the below rail systems. These recent amendments have not been considered as part of this assessment.

⁷⁶³ QCA, Aurizon Network's 2017 draft access undertaking, decision, appendix C, December 2018.

⁷⁶⁴ Given that nominal MAR estimates are publicly reported, the QCA has adjusted the annual MAR estimates by CPI to obtain the average below-rail cost per tonne in 2018 dollars. While different escalation factors are applied to different costs, for the purpose of comparing the different below-rail systems' costs, a consistent approach for adjusting the MAR estimates has been applied for each of the rail systems.

⁷⁶⁵ Aurizon Network, 2016 *Baseline Capacity Assessment Report*, public release, 2016, https://www.qca.org.au/wp-content/uploads/2019/05/31466_AN_BCAR-1.pdf.

Box A.1: GHD's submission in relation to the QCA's approach

DBCT Management's consultant, GHD, considered that perceived errors in the QCA's approach for determining the lower and upper bound estimates of below-rail average costs result in the average supply chain costs for a Goonyella mine accessing RG Tanna being overstated. Specifically, GHD considered that the QCA should have adopted the relevant contracted gross tonne kilometres and tonnes to estimate the below-rail average cost for each coal system—instead of actual gross tonne kilometres and tonnes.⁷⁶⁶

As outlined above, the QCA has updated its below-rail cost estimate based on the approved Aurizon Network MAR estimates for the 2017 access undertaking. An average of the below-rail costs is presented for each system's committed contracted capacity.

While the costs underpinning Aurizon Network's MAR estimates are based on forecast throughput for the regulatory period, the cost estimates reflect the underlying assumption for the QCA's total foreseeable demand assessment—that throughput will be below contract capacity. In particular, where utilisation is below 90 per cent of contracted capacity, the QCA notes that this will underestimate the below-rail cost estimates of the rail systems.⁷⁶⁷

GHD also considered that the QCA's cost derivation does not correctly apply Aurizon Network's pricing of 'cross system train services' in the approved 2017 access undertaking. Specifically, GHD submitted that:

- the QCA's upper bound estimate for below-rail costs for a Goonyella mine using the Blackwater system is overstated as it incorrectly includes the AT2 tariff component for the Goonyella system⁷⁶⁸
- the QCA's upper bound estimate for below-rail costs for a Goonyella mine using an alternative system is overstated as it incorrectly includes the AT4 tariff component for the destination system.^{769,770}

The individual tariff components are estimated by Aurizon Network to recover the MAR for that system, based on forecast volume estimates. The tariff components allocate the extent to which the estimated MAR is to be recovered from different users. The extent to which a tariff adjustment will correspond to a change in the 'within system' cost estimates for a particular train service is unclear. Therefore, it is not simply the case that these tariff components are able to be taken away from Aurizon Network's MAR estimates outlined above.

In any case, the QCA notes that the below-rail costs incurred by a mine in the Goonyella system to export coal through an alternative terminal will be above the lower-bound estimates.

Above-rail cost

⁷⁶⁷ In this respect, the cost estimates are based on the following utilisation rates: Goonyella 94%; Blackwater 86%; and GAPE 35%. Therefore, the Blackwater and GAPE estimates will underestimate the below-rail costs associated with these lines.

⁷⁶⁸ GHD submitted that a Goonyella mine that accesses capacity at the Port of Gladstone is exempt from paying this AT2 tariff component because it does not use the Coppabella to Hay Point Junction constrained corridor to undertake this journey.

⁷⁶⁹ GHD submitted that the AT4 tariff applies only in the origin system—Aurizon Network's 2019 access undertaking, cl. 2.3(a)(iv), p. 360.

⁷⁷⁰ DBCT Management, sub. 26, appendix 7, pp. 13–18; DBCT Management, sub. 38, appendix 8, pp. 3–5.

⁷⁶⁶ DBCT Management, sub. 26, appendix 7.

Unlike below-rail cost data, data on above-rail cost are not publicly available. Nevertheless, the following principles were considered that will affect the expected level of above-rail cost in a coal system relative to the Goonyella system:

- Above-rail cost is affected by distance—the longer the distance, the greater the cost, due to, for
 example, more fuel consumption and variable maintenance cost of rolling stock, all other things being
 equal. Since data on the fixed—variable split of above-rail cost is not available, the following
 assessment is based on the assumption that half of the above-rail cost varies with distance, while the
 other half does not.
- The focus here is on assessing the above-rail cost that mines in the Goonyella system would expect to incur for using the Goonyella system to export coal through DBCT relative to the cost of using another coal system to export coal through another terminal. A way to assess the relative cost difference is by identifying the relative difference in haulage distance for the furthest mine north as well as south on the Goonyella system to DBCT and to another terminal on the next closest system. This calculation has been done in the following manner:
 - The furthest mine south on the Goonyella system is Oaky Creek. The approximate distance from Oaky Creek to DBCT is 298.45 km.⁷⁷¹ The approximate distance from Oaky Creek to Port of Gladstone (for accessing RG Tanna or WICET) through the Blackwater system is 383.54 km.⁷⁷² Therefore, the distance from Oaky Creek to RG Tanna/WICET is about 29 per cent more than the distance from Oaky Creek to DBCT. This means that the variable part of above-rail cost from Oaky Creek to RG Tanna/WICET would be about 29 per cent more than the variable above-rail cost to DBCT. Applying the assumption of a 50/50 fixed–variable split of above-rail cost in the Goonyella system implies that if above-rail cost from Oaky Creek to DBCT was \$1 per tonne, the above-rail cost to RG Tanna/WICET would be about \$1.14—that is, **14 per cent more**.⁷⁷³
 - The further a mine in the Goonyella system is away from the boundary of the Goonyella and Blackwater systems, the smaller the distance to DBCT, whereas the distance to RG Tanna/WICET will be greater. To that extent, the distance differential factor of 14 per cent is a lower bound estimate.
 - Similarly, the furthest mine north on the Goonyella system is North Goonyella and the approximate distance from North Goonyella to DBCT is 217.22 km.⁷⁷⁴ The approximate distance from North Goonyella to AAPT is 242.746 km.⁷⁷⁵ Therefore, the distance from North Goonyella to AAPT is about 12 per cent more than the distance from North Goonyella to DBCT. Applying the assumption of a 50/50 fixed–variable split of above-rail cost in the Goonyella system means that if above-rail cost from North Goonyella to DBCT was \$1 per tonne, the above-rail cost to AAPT would be about \$1.06—that is, 6 per cent more.

⁷⁷⁴ Data are from Aurizon Network, *Goonyella System*, summary sheet, version 7.0, March 2017.

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⁷⁷¹ Distance from Oaky Creek to DBCT is the sum of the distance from Hay Point to Coppabella junction (145.551 km) and Coppabella junction to Oaky Creek (152.9 km). Data are from Aurizon Network, *Goonyella System*, summary sheet, version 7.0, March 2017.

⁷⁷² Distance from Oaky Creek to Port of Gladstone is the sum of the distance from Rocklands to Gladstone (632.97 minus 529.0 km), Burngrove to Rocklands (202.36km), Gregory to Burngrove (65.86) and Gregory to the boundary junction on the Goonyella system (77.209 minus 65.86 km). Data are from Aurizon Network, Blackwater System, summary sheet, version 7.0, March 2017.

⁷⁷³ That is, (0.5*\$1) *plus* (0.5*\$1*1.29).

⁷⁷⁵ The distance from North Goonyella to AAPT is the sum of the distance from Abbot Point to Collinsville (98 km), Collinsville to Newlands (77 km) and Newlands Junction to North Goonyella (67.746 km). Data are from Aurizon Network, *Newlands System*, summary sheet, version 7.0, March 2017.

- The further a mine in the Goonyella system is away from the boundary of the Goonyella/GAP system, the smaller the distance to DBCT, whereas the distance to AAPT will be greater. To that extent, the distance differential factor of 6 per cent is a lower bound estimate.
- Above-rail cost is also affected by the nominal train payload of a train service (i.e. the coal volume per train service). The payload of a reference train service where the destination system is:
 - the Goonyella system is 10,236 tonnes
 - the Blackwater system is 8,369 tonnes
 - the Newlands system is 7,635 tonnes.⁷⁷⁶
- The difference in the train payload between the Goonyella and Blackwater systems means that a reference train service on the Goonyella system hauls about 22 per cent more coal than a reference train service on the Blackwater system. In other words, to haul on the Blackwater system matching coal volume that is hauled on the Goonyella system, a mine in the Goonyella system will require about 22 per cent more train services to traverse through the Blackwater system than what is required on the Goonyella system. This means that above-rail cost on the Blackwater system would be at least 22 per cent greater than that on the Goonyella system, all things being equal.⁷⁷⁷
- Similarly, the difference in the train payload between the Goonyella and GAP/Newlands systems
 means that a reference train service on the Goonyella system hauls about 34 per cent more coal than
 a reference train service on the GAP/Newlands system. This means that above-rail cost on the
 GAP/Newlands system would be at least 34 per cent greater than that on the Goonyella system, all
 things being equal.
- Every additional train service run on the Blackwater or GAP/Newlands system will also have a higher variable above-rail cost due to the distance-related factor, which will further increase the above-rail cost in those systems relative to the Goonyella system.⁷⁷⁸

To summarise, for mines located in the Goonyella system, the above-rail cost on the:

- Blackwater system would be at least 14 per cent more due to the distance-related factor, at least 22 per cent more due to the requirement to run more train services to match coal volume hauled in Goonyella system, and at least 3 per cent more because every additional train service would have a higher variable cost due to travelling greater distance—that is, at least 39 per cent more.
- GAP system would be at least 6 per cent more due to the distance-related factor, at least 34 per cent
 more due to the requirement to run more train services to match coal volume hauled in Goonyella
 system, and at least 2 per cent more as every additional train service would have a higher variable cost
 due to travelling greater distance—that is, at least 41 per cent more.

As noted, data on above-rail cost are not publicly available. However, a regulatory submission by Aurizon Network in 2017 reported that, on average, coal haulage cost (combined below-rail and above-rail) on the

the payload difference between the Goonyella system and another coal system is an underestimation.

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⁷⁷⁶ Aurizon Network, 2017 Access Undertaking, schedule F.

⁷⁷⁷ In this instance, a train service that traverses through the Blackwater system would be originating in the Goonyella system. It would mean that a given train path on the Goonyella system would be used to haul 22 per cent less payload. In other words, the below-rail cost of a train service on the Goonyella system would be recovered from lower volume per train service, with the effect that below-rail cost per tonne on Goonyella system would be higher when coal is hauled through the Blackwater system than when coal is hauled within the Goonyella system (all other things being equal). The QCA has not modelled this cost effect. To that extent the estimated cost to reflect

⁷⁷⁸ This phenomenon would be akin to the interaction of distance-related factor and payload factor.

Goonyella system is about \$6.32 per tonne.⁷⁷⁹ In the absence of any alternative data and noting that stakeholders (in that regulatory process) did not object to Aurizon Network's cost estimate, for this assessment, the QCA has used \$6.32 per tonne as the haulage cost estimate on the Goonyella system.

Therefore, if mines in the Goonyella system incurred, on average, a below-rail cost of \$2.11 per tonne to export coal through DBCT (datum in Table A.1), the above-rail cost on the Goonyella system would be \$6.32 minus \$2.11—that is, \$4.21 per tonne. As discussed, above-rail cost would be at least 39 per cent more on the Blackwater system for exporting through RG Tanna/WICET—that is, at least \$5.88 per tonne and at least 41 per cent more on the GAP system for exporting through AAPT—that is, at least \$5.97 per

These above-rail cost data are reported in Table A.2 below.

Table A.2 Above-rail cost per tonne estimate for mines in the Goonyella system (\$ per tonne)

Cost components	DBCT	AAPT (GAPE)	RG Tanna	WICET
Above-rail cost (4-year average: 2017–18 to 2020-21); lower bound estimate for accessing other terminals	\$4.21	\$5.97	\$5.88	\$5.88

Coal handling cost

Coal handling costs comprise the terminal infrastructure charge (TIC) and terminal operating costs (i.e. fixed handling charge and variable handling charge).

- DBCT—for 2019–20, the TIC is \$2.51 per tonne, the fixed handling charge is \$1.39 per tonne and the variable handling charge is \$1.78 per tonne, which gives a combined handling cost of \$5.68 per tonne (\$5.59 per tonne in 2017–18 dollars). 780 The QCA has updated the coal handling charges for DBCT based on the most recent information posted on DBCT Management's website. This represents an 11 per cent increase in charges from the equivalent 2017–18 charge. Relevantly, the QCA has not been able to obtain updated cost estimates for the other terminals. To the extent that the charges at the alternative terminals have also increased in recent years, the charges outlined below for the alternative terminals could be considered conservative.
- AAPT—the TIC was initially estimated from revenue and volume data reported in 2015 report by FIIG Securities Ltd. 781 That TIC was escalated by CPI to derive a TIC estimate of \$5.52 per tonne for 2017— 18. A fixed handling charge of around \$1.20 per tonne and a variable handling charge of \$0.30 per tonne for 2017–18 are from data reported in submissions made by parties to the Supreme Court of Queensland. 782 This yields a combined handling cost of \$7.01 per tonne.

⁷⁸² Adani Abbot Point Terminal Pty Limited, *Statement of Claim*, submission to Supreme Court of Queensland, number \$9440/2017, 5 December 2017, p. 5, para. 15; QCoal Group, Notice of intention to defend, submission to Supreme Court of Queensland, number 9440/2017, 28 February 2018, p. 20, para. 36. See Queensland Courts, File

⁷⁷⁹ Aurizon Network, 2017 Electric Traction Draft Amending Access Undertaking, supplementary submission, November 2017, p. 12, https://www.qca.org.au/wp-content/uploads/2019/06/32387 aurizon-network-s-2017electric-traction-daau-submission.pdf. The cost estimate for using diesel trains to haul coal on the Goonyella system is \$6.32 per tonne. The corresponding cost of using electric trains on the Goonyella system was reported as \$6.26 per tonne. Although coal haulage on the Goonyella system is largely by electric trains, for this assessment, the cost reported for diesel traction has been used because (i) diesel trains (not electric trains) can operate on all CQCN systems and (ii) the reported costs of diesel and electric traction on the Goonyella system are not materially

⁷⁸⁰ Data on coal handling charges has been rounded to two decimals for presentation purpose. Data are from DBCT Management, Terminal Access Charges, viewed October 2019, https://www.dbctm.com.au/our-terminal/terminalaccess-charges/.

⁷⁸¹ FIIG, Adani Abbot Point Terminal Pty Ltd (AAPT), 2015.

- RG Tanna—the coal handling charge of \$5.18 per tonne for 2017–18 was estimated based on information reported by Reuters.⁷⁸³ Handling charge information was reported for 2015–16, which was escalated by CPI to derive an estimate for 2017–18.
- WICET—the coal handling charge has variously been reported as \$14.16 per tonne for 2015–16, which rose to \$21.83 in 2016–17 and to \$25 per tonne in 2017–18.⁷⁸⁴ The rising coal handling charge at WICET has been associated with three out of the eight original WICET partners—Cockatoo Coal, Bandanna Energy and Caledon Coal—having gone into administration. As a result, WICET has unallocated surplus capacity of 11.5 mtpa, with 15.5 mtpa of capacity being allocated to the remaining partners.⁷⁸⁵ Since the handling charge at WICET is based on a cost recovery basis, an increase in allocated capacity beyond 15.5 mtpa would likely decrease the handling charge from the current level of \$25 per tonne, all other things remaining unchanged. In the event that allocated capacity at WICET should go up to 27 mtpa, the handling charge could decline to the level when WICET's capacity was fully allocated, which is estimated at \$14.16 per tonne in 2015–16 dollars or \$14.67 in 2017–18 dollars. Since this assessment focuses on what coal handling charge mines in Goonyella would expect to pay if they accessed WICET, the handling charge they may expect to pay is at least \$14.67 per tonne, which is the coal handling charge estimate at WICET used for this assessment.

Other port and shipping costs

Other costs include harbour dues and wharfage charges. As per data reported on NQBP's website, these charges appear to be immaterial. Therefore, a notional amount of 5 cents per tonne across all terminals has been considered for this assessment.

Average cost of exporting coal for mines in the Goonyella system

The cost estimates for mines in the Goonyella system are presented in Table A.3.

summary: Supreme and District Court, viewed 5 April 2018,

http://apps.courts.qld.gov.au/esearching/FileDetails.aspx?Location=BRISB&Court=SUPRE&Filenumber=9440/17.

⁷⁸³ S Paul, 'Glencore, partners in Australian port face heavy cost of boom era bet', *Reuters*, 17 March 2016, https://www.reuters.com/article/us-australia-coal-idUSKCN0WJ0IV.

⁷⁸⁴ Australia's Mining Monthly, 'WICET reported to be in court over unpaid dividends', 1 August 2018, viewed 5 November 2018, https://www.miningmonthly.com/logistics/international-coal-news/1343630/wicet-reported-to-be-in-court-over-unpaid-dividends; T Annett, 'Miner makes cash offer as \$3.9bn WICET debt continues to bite', The Observer, 24 September 2017, viewed 5 November 2018, https://www.gladstoneobserver.com.au/news/miner-makes-cash-offer-as-39bn-wicet-debt-continue/3227097/; P Duran, P & J Regan, 'Glencore-led Australia coal port eyes \$3 billion debt rejig: sources', Reuters, 6 October 2017, viewed 25 September 2018, https://www.reuters.com/article/us-glencore-coal-australia/glencore-led-australian-coal-port-eyes-3-billion-debt-rejig-sources-idUSKBN1CB0I2.

⁷⁸⁵ WICET, Access, viewed 5 November 2018, http://www.wicet.com.au/irm/content/access1.aspx?RID=379.

⁷⁸⁶ For example, harbour dues at AAPT are about 17 cents per tonne and at DBCT are about 8 cents per tonne. See North Queensland Bulk Ports Corporation, Trade/Fees and Charges, viewed 12 September 2019, https://nqbp.com.au/trade/fees-and-charges.

Table A.3 Average supply chain cost to Goonyella system users of accessing alternative coal terminals (\$ per tonne)

Cost components	DBCT	AAPT (GAPE)	RG Tanna	WICET
Below-rail cost (4-year average data), lower bound estimate for accessing other terminals	\$2.11	\$2.48	\$4.63	\$4.63
Above-rail cost, lower bound estimate for accessing other terminals	\$4.21	\$5.97	\$5.88	\$5.88
Coal handling cost	\$5.59	\$7.01	\$5.18	\$14.67
Other port and shipping costs	\$0.05	\$0.05	\$0.05	\$0.05
Supply chain cost	\$11.96	at least \$15.52	at least \$15.73	at least \$25.22
Cost difference relative to accessing DBCT	-	at least \$3.56 (30%)	at least \$3.77 (32%)	at least \$13.26 (111%)

Note: Numbers in the above table may not sum due to rounding.

Conclusion

As discussed above, the estimated below- and above-rail costs associated with accessing alternative terminals are underestimates; for instance, they do not include the cost that Goonyella system users would incur on the Goonyella system before their coal is hauled through another system to access alternative terminals. Hence, the cost difference reported in Table A.3 is extremely conservative. Even on an extremely conservative basis, the average supply chain cost for a mine in the Goonyella system to access DBCT is substantially cheaper than that for accessing other terminals—a cost difference of 30 to 111 per cent.

Cost estimation associated with expanding capacity at DBCT

QCA analysis

The QCA considers that Zone 4 and 8X expansion projects would be required for DBCT to meet total foreseeable demand in the market (see Table A.4).

Table A.4 Expansion options available to DBCT

DBCT expansion	Incremental capacity (mtpa)	Resultant terminal capacity (mtpa)		
Zone 4	4	89		
8X Phase 1	4.5	93.5		
8X Phase 2	8.5	102		

Source: DBCT Management, sub. 1, appendix 10, p. 40.

On various occasions, DBCT Management has published an estimate of capital costs for these expansion projects (Table A.5).

Table A.5 Capital cost estimates for relevant expansion projects published by DBCT Management⁷⁸⁷

Expansion project	2016 Master Planª (\$m, June 2018 dollars)	2018 Master Plan ^b (\$m, June 2018 dollars)	DBCT Management, sub. 1° (\$m, June 2018 dollars)	DBCT Management, sub. 1 ^d (\$m, June 2018 dollars)
Zone 4	374.3	374.3	374.2	497.5
8X Phase 1	210.2	210.2	168.2	234.9
8X Phase 2	525.6	525.6	497.2	727.5

a DBCT Management, Master Plan 2016, pp. 53, 66. Costs originally reported in June 2015 dollars, so have been escalated to June 2018 dollars for 2017–18.

d DBCT Management, sub. 1, appendix 10, pp. 40, 67. HoustonKemp considered these capital cost estimates in its least cost analysis for the period 2021 to 2030. Although not evident, it seems these costs are in June 2021 dollars, so have been deescalated to June 2018 dollars for 2017–18.

There is a significant discrepancy in the cost estimates reported in DBCT Management's submission (fourth column in Table A.5) and those considered by DBCT Management's consultant HoustonKemp for its least cost analysis (last column in Table A.5)—in the order of 33 to 46 per cent. Although HoustonKemp cited DBCT Management's 2018 Master Plan as the source for its capital cost estimates, the reason for the higher cost estimates used by HoustonKemp is not evident. Nonetheless, for this assessment, the cost estimates used by HoustonKemp (the higher capital cost estimates) have been considered and the QCA has not sought to comment on the prudency of those estimates.

To calculate an estimate of the TIC with Zone 4 and 8X expansions, the 2017–18 capital cost estimates (the last column in Table A.5) were included in the DBCT's tariff model from the DBCT 2017 access undertaking process. The two expansion projects were assumed as being completed in 2018–19 to assess the effect on this TIC. A 36 year asset life was assumed—expiry is therefore in 2053–54—consistent with the terminal's economic life as assessed in the DBCT 2017 access undertaking. Additionally, noting the equivalent terminal capacity that is provided from the Zone 4 and 8X expansions of DBCT is 102 mtpa, the resulting annual revenue requirement (ARR) estimate was spread over 102 mt. All other parameters remaining unchanged, the 2018–19 ARR increased by around \$98 million (\$96 million in 2017–18 dollars). The 2018-19 estimated TIC increased by around 31 cents from \$2.60 per tonne to around \$2.91 per tonne (Table A.6).

b DBCT Management, Master Plan 2018, pp. 53, 62. Costs originally reported in June 2015 dollars, so have been escalated to June 2018 dollars for 2017–18.

c DBCT Management, sub. 1, appendix 11, p. 145. Costs originally reported in June 2015 dollars, so have been escalated to June 2018 dollars for 2017–18. In this submission, DBCT Management deducted an allowance of \$25.3 million (June 2015 dollars) for replacing ST1 from the estimate of the 8X Phase 1 expansion, as this was expected to be completed as part of the NECAP program, which would explain partially the difference in the cost estimate as against those reported in the two Master Plans.

⁷⁸⁷ DBCT Management's 2019 Master Plan also provided an estimate of capital costs for the Zone 4 and 8X expansion projects. While the 2019 Master Plan outlines lower cost estimates for these expansion projects, the QCA has not relied on these estimates as they relate to a reconfigured expansion pathway, and not the expansion pathway referred to by DBCT Management in its submissions on the declaration review.

Table A.6 DBCT TIC without and with Zone 4 and 8X expansion projects
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	2017–18° (without expansion)	2018–19 ^b (without expansion)	2018–19 ^c (with expansion projects)
ARR (\$m)	198.1	199.6	297.27
Reference tonnage (mt)	78.7	76.9	102
TIC (\$ per tonne)	2.52	2.60	2.91

a QCA, DBCT Management 2016–17 NECAP, decision, 13 July 2017.

On the effect of DBCT expansion costs on the coal handling charge, DBCT Management's 2018 Master Plan states:

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.⁷⁸⁸

Assuming the handling charge fixed and the handling charge variable remain unchanged, the combined handling cost at DBCT with Zone 4 and 8X expansions would be around \$5.99 per tonne for 2017–18 (using CPI to de-escalate the \$2.91 per tonne estimated TIC with expansion to obtain a 2017–18 dollar estimated TIC of \$2.87 per tonne).

As per Aurizon Network's 2016–17 Network Development Plan (NDP), the DBCT Zone 4 and 8X expansion projects will require expanding the capacity of the Goonyella system to accommodate the higher tonnage. ⁷⁸⁹ The NDP identifies various expansion options for the Goonyella system: ⁷⁹⁰

- infrastructure-based expansions (cost estimate: \$845 million)
- operational change to improve headway (cost estimate: \$145 million)
- investment to accommodate longer trains (cost estimate: \$830 million)
- investment to increase maximum train axle load from 26.5 tonnes to 30 tonnes (cost estimate: \$1145 million).

For this assessment, the option that has a higher cost estimate and for which any associated above-rail cost estimate is readily available, has been considered. The option to increase the train axle load on Goonyella system would also require upgrading the train fleet; however, information on such above-rail upgrade costs are not available. Therefore, this option has not been considered, rather the next higher cost estimate of \$845 million associated with infrastructure based expansion has been considered.

Assuming the cost estimate for infrastructure-based expansions is for 2016–17, it was escalated by CPI to \$859.5 million in June 2018 dollars for 2017–18. Assuming a 20-year asset life and 5.7 per cent regulated WACC approved for the 2017 access undertaking, gives a return on and of capital component of about \$91.96 million. Assuming other allowable revenue parameters remain unchanged, this amount could be an estimate of the additional revenue to Aurizon Network from undertaking those expansions to accommodate total coal tonnage of 157 mtpa (i.e. 102 mtpa to DBCT to meet the foreseeable demand,

⁷⁸⁹ Aurizon Network, *Network Development Plan 2016–17*, p. 41.

b QCA, DBCTM 2018–19 RAB roll-forward, reference tonnage, NECAP 2018 and TIC, decision, 21 June 2018; QCA, DBCT Management's applications under section 5.4(k)(5) and Schedule C, Part A, section 4(e)(1) of the 2017 AU, decision, 19 July 2018.

c QCA calculation as discussed above.

⁷⁸⁸ DBCT Management, *Master Plan 2018*, p. 62.

⁷⁹⁰ The QCA has not sought to comment on the prudency of those estimates.

and 55 mtpa to HPCT, assuming HPCT is fully utilised⁷⁹¹). To estimate the resulting average below-rail cost on the Goonyella system, the following steps were followed:

- The 4-year averaged annual revenue amount for Goonyella system was scaled up, to reflect increased operating and maintenance expenditures associated with higher volumes, noting the 2017 access undertaking MAR estimate is associated with contracted volumes of 139 mt. Operating and maintenance expenditure components were scaled up, on a pro rata basis, which is an additional amount of about \$16 million (in 2017–18 dollars). The revenue amount for a contracted volume of 157 mt with scaled-up operating and maintenance components (i.e. the volume associated with existing Goonyella capacity) is \$309.9 million in 2017–18 dollars (assuming these two expenditure components vary with tonnage).
- The \$91.96 million additional revenue estimate for Goonyella expansions was added to the scaled-up revenue amount for Goonyella system, which gave a revenue estimate of \$401.9 million.
- The resulting revenue estimate of \$401.9 million was divided by the volume of 157 mtpa, which yielded a below-rail cost estimate of \$2.56 per tonne.

Table A.7 summarises the average supply chain cost of exporting coal for mines in the Goonyella system to DBCT and other terminals with the coal handling cost at DBCT and the below-rail cost of using the Goonyella system updated to reflect the expansion costs, and the other cost estimates remaining unchanged from Table A.3.

Table A.7 Average supply chain cost to Goonyella system users of accessing alternative coal terminals with Goonyella and DBCT expansions (\$ per tonne)

Cost components	DBCT	AAPT (GAPE)	RG Tanna	WICET
Below-rail cost, lower bound estimating for accessing other terminals	\$2.56	\$2.48	\$4.63	\$4.63
Above-rail cost, lower bound estimate for accessing other terminals	\$4.21	\$5.97	\$5.88	\$5.88
Coal handling cost	\$5.99	\$7.01	\$5.18	\$14.67
Other port and shipping costs	\$0.05	\$0.05	\$0.05	\$0.05
Supply chain cost	\$12.80	at least \$15.52	at least \$15.73	at least \$25.22
Cost difference relative to accessing DBCT	-	at least \$2.72 (21%)	at least \$2.93 (23%)	at least \$12.42 (97%)

Note: Numbers in the above table may not sum due to rounding.

Conclusion

The supply chain cost, on average, for mines in the Goonyella system of exporting coal through other terminals relative to exporting through DBCT remains significantly higher by at least 21 per cent to 97 per cent even after expansions in DBCT and the Goonyella system are considered to meet the total foreseeable demand in the DBCT market. Relevantly, as noted above, the below- and above-rail cost estimates for accessing other terminals are a lower bound estimate, so this cost difference estimate is an underestimation.

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⁷⁹¹ As per Aurizon Network's 2016–17 NDP (p. 41), existing Goonyella system capacity is 140 mtpa to the port of Hay Point, which presumably is associated with the existing nameplate capacity at DBCT of 85 mtpa and at HPCT of 55 mtpa. To the extent HPCT was not fully utilised, the resulting spare capacity on Goonyella system would be available to meet foreseeable demand at DBCT, and a Goonyella expansion might not be required. Therefore, an assumption that HPCT is fully utilised makes a Goonyella expansion likely to be undertaken.

Box A.2: GHD's submission in relation to the QCA's approach

GHD reviewed a number of assumptions adopted by the QCA in its analysis underpinning the draft recommendation to show that, in its view, the QCA's estimate of the cost impacts of the expansions are unlikely to be overstated. GHD proposed two alternative approaches for calculating the cost impacts of the expansions:

- In making an adjustment to the below-rail cost estimates (based on tariff components) to obtain a
 contracted capacity unit cost for the expanded Goonyella scenario, GHD adjusted the AT1
 component of pricing to reflect the variable component of Aurizon Network's revenue.
- GHD adopted the lowest reported capital costs associated with the DBCT expansions and calculated the return on capital and return of capital for these expansions—noting that the QCA's approach for estimating the impact of DBCT expansion costs on the TIC is not based on publicly available information.⁷⁹²

In relation to adjusting the below-rail cost estimates to reflect the costs associated with expanding rail capacity in the Goonyella system, the QCA is of the view that the variable component of Aurizon Network's revenue should be adjusted to reflect an increase in tonnage. However, GHD's approach for estimating the impact of DBCT expansion costs on the TIC results in a pro-rata adjustment to around 7 per cent of the below-rail costs—given the revenue associated with the AT1 component for 2016—17 is around 7 per cent of Aurizon Network's total below-rail revenue for the Goonyella system.

In this final recommendation, the QCA has applied an adjustment to the variable cost components—operating and maintenance expenditure. This refined approach is possible given the below-rail cost estimate is based on Aurizon Network's 2017 access undertaking MAR estimates. These variable cost components account for, on average, 42 per cent of the Goonyella below-rail costs across the four year period.

Thus, adopting GHD's assumption—and making an adjustment to only 7 per cent of Aurizon Network's below-rail revenue for the Goonyella system—to calculate the upper bound per unit costs of expanding DBCT, the QCA obtains a lower per unit supply chain cost for accessing an expanded DBCT, all other things being equal.

In relation to the impact of DBCT expansion costs on the TIC, the QCA has also considered GHD's approach for estimating the return of and on capital for the expansion. The QCA obtained a per unit cost for coal handling of \$5.91⁷⁹³, in comparison to the \$5.99 calculated based on the QCA's approach.

As such, the QCA considers that adopting the 'less conservative' assumptions outlined by GHD supports the QCA's position that its cost estimates for below-rail expansions in the Goonyella system and expansions at DBCT are likely to be conservative.

⁷⁹³ Based on the capital costs estimates published by DBCT Management, (sub. 1, appendix 11, p. 145) and reported in fourth column of Table A.5, a 36-year asset life and a WACC of 5.82%.

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⁷⁹² GHD also considered that the QCA's approach is inconsistent with the approach adopted to estimate the costs associated with the Aurizon Network expansions (i.e. not estimating the return on and of capital on the DBCT expansions, based on the currently approved WACC and an assumed remaining useful life).

Estimating the cost of meeting total foreseeable demand

QCA analysis

In order to estimate the costs associated with meeting total foreseeable demand, it is necessary to differentiate between the fixed (or capital) and variable (or operating) costs of the facilities that may be able to satisfy total foreseeable demand.

Such disaggregated information is not publicly available for many of the port terminals. Thus, in order to differentiate between capital and operating costs of the different facilities, the QCA has made the following assumptions:

- For DBCT and AAPT, where the TIC and coal handling charges are known (as outlined above):
 - The QCA assumes that the revenue associated with the TIC (i.e. \$2.47 per tonne for DBCT and \$5.52 per tonne for AAPT) represents the fixed cost components that are incurred regardless of volume shipped—these components represents 44 per cent of costs for DBCT without an expansion; 48 per cent of costs for the DBCT expansion; and 79 per cent of costs for AAPT.
 - The QCA assumes that the remaining revenue associated with the handling charge variable (HCV) and the handling charge fixed (HCF) represents those costs that are variable with volume shipped.⁷⁹⁴
- For RG Tanna and WICET, where a breakdown of charges is not known:
 - The QCA assumes a breakdown of 50 per cent of the revenue associated with the overall terminal charges represent fixed terminal costs, with the remaining 50 per cent representing costs that are variable with volume shipped. As reported in Table A.3, overall terminal charges are \$5.18 per tonne for RG Tanna and \$14.67 per tonne for WICET. Applying the 50 per cent assumption, the corresponding capital costs are \$2.59 per tonne for RG Tanna and \$7.33 per tonne for WICET.
 - The QCA considers that this assumption may be conservative, given the fixed/variable cost breakdown observed for DBCT and AAPT.

All other supply chain costs, apart from terminal costs, are assumed to be variable with contracted tonnes, as reported in Table A.3. The QCA notes other supply chain cost components will entail significant capital costs. Such an assumption reflects the fact that other markets, outside of the relevant market, also utilise the below-rail and shipping infrastructure.⁷⁹⁵

⁷⁹⁵ There may be merit in considering the total fixed capital costs of the supply chain and not simply the costs apportioned to users in the relevant market. However, the QCA notes that taking such an approach for estimating supply chain costs would be unrealistic, given the configuration of the below-rail and shipping infrastructure and associated costs would be significantly different if it were to only service the relevant market. If such an approach were able to be adopted, this would significantly increase the supply chain costs of accessing the alternative terminals, given the high cost and sunk nature of the relevant infrastructure. For instance, mines that access AAPT would incur the costs associated with GAPE and Newlands below-rail infrastructure.

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⁷⁹⁴ Noting that the HCF represents fixed handing costs, the QCA considers that these estimates may underestimate the proportion of terminal costs that are considered to be fixed costs that are incurred regardless of volume shipped.

The QCA's assessment involves comparing the costs of DBCT (with an expansion) with the costs of DBCT (without an expansion) and another facility to meet total foreseeable demand. Given the average supply chain cost for a mine in the Goonyella system to access DBCT without an expansion is substantially cheaper than accessing other terminals, it is assumed that the first 85 mtpa of demand will be met by DBCT's existing facility. As such, the costs of DBCT, without an expansion, meeting the first 85 mtpa are incurred in all scenarios, and thus cancel each other out.

In considering the equivalent terminal capacity that is provided from the Zone 4 and 8X expansions of DBCT (i.e. 102 mtpa), the QCA estimates that a DBCT expansion provides this level of capacity at less cost than the other terminals—at least 29 per cent cheaper than RG Tanna; at least 38 per cent cheaper than AAPT; and at least 55 per cent cheaper than WICET. Table A.8 outlines the QCA's estimated supply chain cost of an expanded DBCT meeting total foreseeable demand with a combination of an unexpanded DBCT and the alternative facilities.

Table A.8 Supply chain cost of meeting total foreseeable demand in the market (\$ per annum)

Relevant terminal costs	Fixed costs per annum	Variable costs per annum	Total	Difference relative to DBCT expansion
DBCT existing (85 mtpa)	\$210m ^a	\$807m ^b	\$1,017m	N/A
DBCT expanded (+17 mtpa)	\$96m ^c	\$227m ^d	\$323m	-
AAPT (+17 mtpa)	\$276mª	\$170m ^e	\$446m	\$122m (+38%)
RG Tanna (+17 mtpa)	\$194mª	\$223me	\$418m	\$94m (+29%)
WICET (+17 mtpa)	\$198m²	\$304me	\$502m	\$179m (+55%)

a These figures are calculated by multiplying the costs of the capital components with the coal handling capacity provided at each terminal. Also see Tables 12 and 13.

Conclusion

As discussed above, the QCA has considered conservative cost estimates of DBCT and Goonyella system expansions that are available, without seeking to comment on the prudency of those expansion costs. Additionally, the approach to estimating the below-rail costs using Goonyella expansion costs, which would apply to Goonyella system users seeking to access DBCT, is likely to overestimate those costs. Despite this, the QCA estimates that a DBCT expansion, by way of Zone 4 and 8X expansions (i.e. to 102).

b This figure is calculated by multiplying the costs of the variable components associated with accessing DBCT reported in Table A.3 (i.e. the \$11.96 per tonne supply chain cost minus the \$2.47 per tonne existing DBCT TIC) with the existing DBCT capacity of 85mtpa.

c This figure is the cost of expanding DBCT by additional 17mtpa in June 2018 dollars as discussed above.

d This figure reflects (i) the estimated Goonyella rail expansion costs (i.e. infrastructure expansion and additional operating and maintenance expenditure) of \$108m that was divided by the incremental contracted tonnes (18 mtpa) using the expanded rail infrastructure. The resulting per unit incremental rail expansion cost was multiplied by 17 mtpa for accessing DBCT which gave an estimate of \$102m, and (ii) the other variable cost components (\$4.21/t above-rail cost, \$3.12/t other coal handling charges and \$0.05/t other port charges in Table A.3) multiplied by 17 mtpa, which gave an estimate of \$125m.

e These figures are calculated by multiplying the costs of the variable components associated with accessing the respective terminals presented in Table A.3 with the additional 17 mtpa of coal handling capacity required. For AAPT, the variable cost components are \$2.48/t below-rail cost, \$5.97/t above-rail cost, \$1.50/t other coal handling charges and \$0.05/t other port charges. For RG Tanna and WICET, they are \$4.63/t below-rail cost, \$5.88/t above-rail cost, \$0.05/t other port charges and 50 per cent of overall terminal charges reported in Table A.3.

mtpa) provides the equivalent capacity at less cost compared to the existing DBCT facility and another terminal.

APPENDIX B—RELEVANCE OF HAY POINT COAL TERMINAL

The QCA considers that HPCT is not a sufficiently strong substitute to place it in the market in which DBCT operates. However, to the extent that BMA's demand for coal handling operations exceeds HPCT's capacity, additional demand for port handling services may be considered to be in the market.

Background

HPCT provides a coal handling service that is similar to the service provided by DBCT, but which forms part of BMA's vertically integrated operations in that coal is transported from BMA's mines⁷⁹⁶ along the Goonyella system on BMA's own above-rail coal transportation system (BMA Rail) to HPCT.

BMA does not provide contracted coal terminal services to any party other than BMA. However, BMC's South Walker and Poitrel mines ship coal through HPCT pursuant to an arrangement between BMA and BMC.⁷⁹⁷ BHP has interests in BMA and BMC of 50 per cent and 80 per cent respectively.

Availability of HPCT

The QCA has canvassed the general principles relevant to market definition in Overview—Chapter 2.

Given both HPCT and DBCT are located at the same port, matters that may be relevant to determining whether the coal handling services provided at terminals in other coal systems are in the same market as the DBCT service (e.g. above-rail costs and below-rail access), do not apply in considering whether the service provided at HPCT is in the same market as the DBCT service.

DBCT Management considered that DBCT is a close substitute for HPCT, noting that the same integrated rail network links mines to each of DBCT and HPCT. 798 DBCT Management said:

[T]he 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.⁷⁹⁹

The difficulty with this proposition is that it leaves unanswered the question of whether HPCT is capable of meeting any part of the total foreseeable demand in the market over the period for which the service would be declared and at least cost compared to any two or more facilities. If HPCT operates in a different market, then it would, logically, be unable to satisfy any part of demand in the market in which DBCT operates.

The QCA considers that defining the market is a necessary precondition to determining total foreseeable demand and to identifying the facilities capable of meeting that demand. This necessarily involves assessing substitution possibilities for the services provided at DBCT.⁸⁰⁰ The extent to which another facility (such as HPCT) would constrain DBCT Management in the absence of regulation is directly related to assessing whether HPCT operates in the same market as DBCT.

The question, in this particular case, is whether the coal handling service that BMA provides to itself (and related entities) at HPCT is a sufficiently close substitute for the coal handling service provided at DBCT.

⁷⁹⁸ DBCT Management, sub. 1, p. 33, para. 156 and p. 34, paras 165–67.

⁷⁹⁶ BMA's mines are Caval Ridge, Peak Downs, Goonyella/Riverside, Broadmeadow, Saraji, Daunia and Blackwater.

⁷⁹⁷ BHP, sub. 18, pp. 2, 4.

⁷⁹⁹ DBCT Management, sub. 1, p. 34, para. 165.

⁸⁰⁰ Queensland Competition Authority Act 1997 (Qld), s. 71.

The possibility of substitution between a vertically integrated and a vertically separated service was discussed by the Tribunal in *Re Fortescue Metals Group Limited*. 801 The Tribunal stated:

[1038] Accepting there is a separate functional market, the question that then arises is: Should the inhouse producer be included in that market? The in-house producer should be included in the dependent market if a hypothetical monopolist of vertically separated supply could not profitably increase its price. This is frequently the case with end products, where consumers do not consider whether firms are vertically integrated or not when making their consumption choices. The same analysis may also apply in upstream input markets. If a vertically separated supplier of an input increases its price, the increase is likely to be passed through to consumers of the end product. The in-house producer may help to defeat the price increase by selling the input to vertically separated suppliers or, alternatively, it may continue to supply it in-house but increase its production of both the input and the end product. In that way, the inhouse producers will either directly (by selling) or indirectly (by increasing in-house supply) constrain the behaviour of vertically separated sellers in the upstream market.

[1039] There is another way in which the vertically integrated producer can be treated. It can be excluded from the market but taken into account when analysing competition in the market because it acts as a constraint on market participants. The better view is that if the vertically integrated producer responds directly or indirectly to a price increase, it should be included in the market because it is in competition (whether directly or indirectly) with the other firms in the market.802

The QCA considers that in determining whether HPCT provides a coal handling service in the same market as DBCT, the threshold question remains whether there would be substitution between the terminals in response to a suitable price incentive. In other words, if there was a small but significant and nontransitory change in the DBCT terminal infrastructure charge, would DBCT users switch from or to the coal handling service at HPCT, or would HPCT otherwise respond in some other way that may help defeat the price increase? The material before the QCA indicates that this would be unlikely to occur, because BMA does not operate HPCT as a common-user facility and, in the QCA's assessment, it is not likely to do so.

To date, DBCT has been an open access user terminal, whereas HPCT has not. Indeed, DBCT Management had said previously that the absence of alternatives for users of DBCT was a reason for declaration of the terminal.

DBCT was declared for third party access back in 2001 as part of the restructuring process leading up to the long-term lease of the Terminal by the Queensland Government. This was seen as addressing the concerns of industry regarding the potential for the privatised entity to misuse its market power in the negotiation and provision of access to third parties. At that time the Central Queensland Coal Network (CQCN) operated as four clearly separate systems and export coal producers had limited (and in many cases no) alternative choice of port.803

The QCA understands that BMA has not provided open access to other users in the past, even when there has been excess demand at DBCT (for instance before the DBCT 7X expansions, which increased DBCT's nameplate capacity from 60 mtpa to 85 mtpa). The question for the QCA is whether this would be likely to change over the period for which the DBCT service might be declared. The answer to this question is informed, to a significant extent, by the incentives likely to be faced by BMA to do so.

Are commercial decisions about the operation of HPCT relevant?

DBCT Management argued that BMA's commercial decisions were irrelevant to assessing whether HPCT operated in the same market as DBCT.804

^{801 [2010]} ACompT 2 at [1038]-[1039].

⁸⁰² Re Fortescue Metals Group Limited [2010] ACompT 2 at [1038]–[1039].

⁸⁰³ DBCT Management, 2016 DAU Submission, 9 October 2015, p. 7, https://www.qca.org.au/wpcontent/uploads/2019/05/29056 2015-DBCTM-DAU-Submission-redacted-version-for-publication-1.pdf.

⁸⁰⁴ DBCT Management, sub. 13, p. 30, para. 138.

There is nothing preventing BMA from permitting third parties in addition to BMC from accessing HPCT. The operating regime could change at any time – BMA could choose to allow access to users other than itself and $BMC.^{805}$

While this may be true, it does not provide a complete answer to the question before the QCA. It would be open for the QCA to find that there is the possibility of substitution between the two facilities if the lack of third party access to HPCT reflected nothing more than BMA's approach to commercial dealings with third party access seekers. Clearly, there would be the potential for this approach to change in response to price incentives, even if no access was currently offered.

However, this does not appear to be a situation where access to HPCT is temporarily dormant due to commercial decisions by BMA. HPCT has always been operated as part of a vertically integrated supply chain, in which third party access has played no part. To open the terminal to third party access would involve a significant change by BMA in the mode of operating the terminal. The question for the QCA is whether there is any likelihood that market conditions or commercial considerations can be expected to prompt such a change in the foreseeable future.

Lack of incentives on BMA to allow common-user access.

The QCA does not consider that BMA will face incentives to allow common-user access to its terminal in the foreseeable future. There are several reasons for this conclusion.

Firstly, the QCA understands that HPCT is currently operating at, or near, full capacity.⁸⁰⁶ As such, the QCA is not aware that there is spare capacity that could be provided on a common-user basis without BMA investing in an expansion of the terminal. BMA has given no indication that it has any plans to do this.

Secondly, the QCA considers that there are incentives for HPCT to continue to be operated in the manner it has in the past, as it enables BMA to:

- efficiently coordinate its mining operations, above-rail operations on the Goonyella system (including those operated by BMA Rail), and the coal handling service at HPCT so as to eliminate or reduce interface inefficiencies between those functions
- maximise flexibility and responsiveness in identifying and implementing capital improvements and capacity expansions at HPCT
- maximise operational simplicity, and flexibility at HPCT.⁸⁰⁷

BHP submitted that it is committed to fully utilising HPCT for BMA and BMC mines, noting:

- BMA is committed to operating HPCT as part of a flexible and efficient supply chain from mine to port.
- Maximising capacity utilisation at the HPCT delivers BMA the lowest per-unit operating costs at HPCT.
- BMA is able to utilise dedicated stockpiles at HPCT to blend product from its multiple mines—to uplift
 quality and ensure consistency of coals sold and maximise the flexibility with which it can respond to
 any disruption.⁸⁰⁸

Relevantly, BHP also indicated that:

BMA anticipates that it will continue to utilise all of the capacity of the HPCT for its own operations, and those of BMC where it is efficient to do so. In the interests of preserving ... efficiencies ... BMA does not anticipate offering services at the HPCT to third parties.⁸⁰⁹

⁸⁰⁵ DBCT Management, sub. 13, p. 30, para. 139.

⁸⁰⁶ DBCT User Group, sub. 3, p. 30. Likewise, BHP said that HPCT is 'efficiently fully utilised' (BHP, sub. 18, p. 5).

⁸⁰⁷ BHP, sub. 18, p. 4.

⁸⁰⁸ BHP, sub. 42, p. 2.

Use of HPCT and DBCT by BMA and BMC

DBCT Management submitted that there are a number of BMA and BMC mines that utilise both HPCT and DBCT. It therefore perceives DBCT to be a close substitute to HPCT. DBCT Management said it follows that their entire foreseeable demand must logically be in the same market as the market in which the DBCT service is supplied.⁸¹⁰

Additionally, DBCT Management said that the QCA's emphasis on whether HPCT is a substitute for non-BMA/BMC mines does not give sufficient regard to the demand side of the market and is irrelevant to the indisputable fact that DBCT is a substitute for BMA and BMC mines that are permitted to use HPCT.⁸¹¹

The fact that BMA and BMC use DBCT as well as HPCT does not by itself demonstrate that there is strong substitution between the two services. It appears that BMA's use of DBCT is driven by capacity constraints at HPCT, rather than by a choice to substitute between the two facilities in response to price or cost incentives. BHP said that its use of DBCT as well as HPCT 'is not evidence of "switching" between the coal handling services provided by the DBCT and HPCT' but rather, 'it reflects the fact HPCT is fully efficiently utilised'.⁸¹²

BHP outlined the following circumstances in which it will seek to acquire capacity at DBCT:

- to manage capacity limitations at HPCT
- to make up lost sale tonnages following system disruptions where HPCT is fully utilised
- to meet customers' requirements to blend with other Goonyella system producers' coal
- to manage inventory positions at mine operations.⁸¹³

BHP said that arrangements to have access to capacity at DBCT are used to complement the capacity at HPCT—not as a substitute for HPCT.⁸¹⁴

Where BMA or BMC require additional capacity beyond the capacity of HPCT, the QCA would expect them to seek access to DBCT. However, the QCA would not expect BMA or BMC to switch from HPCT to DBCT (potentially leaving HPCT underutilised) in response to price or cost incentives. Indeed, despite expansion at HPCT being expensive, HPCT was expanded to accommodate increased demand from BMA mines. BMA mines did not seek access to DBCT capacity, which would have been relatively cheaper. This would indicate that accessing HPCT would be more valuable to BMA mines than accessing DBCT.⁸¹⁵

DBCT Management considered that the QCA fails to take into account the relevant consideration that if there is spare capacity at HPCT, the cost to BMA of using it is very low. 816 This is consistent with the view that the QCA would not expect BMA or BMC to switch from HPCT to DBCT in response to price incentives to the extent that there is available capacity at HPCT. In any case, BHP reports that HPCT is fully efficiently utilised. 817

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809 BHP, sub. 18, p. 4.
810 DBCT Management, sub. 26, p. 19, para. 77.
811 DBCT Management, sub. 26, p. 20, para. 80.
812 BHP, sub. 27, p. 2.
813 BHP, sub. 42, p. 2.
814 BHP, sub. 42, p. 3.
815 Refer to Morgans & CIMB Securities (Australia), Special Report: Wiggins Island Coal Export Terminal, 6 May 2014, figure 2, http://www.wicet.com.au/irm/PDF/1017/2014MorgansResearchNote. See also the Bechtel website, https://www.bechtel.com/projects/hay-point-expansion-stage-3/.
816 DBCT Management, sub. 26, p. 20, para. 82.
817 BHP, sub. 27, para. 3.1.
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The QCA's position when defining the market for the relevant service is to exclude HPCT. However, to the extent that BMA demand exceeds HPCT capacity, this may be considered to be in the market.

It is relevant to distinguish between mines that hold contract entitlements at DBCT and mines that use DBCT without a contract entitlement (presumably accessing the contract entitlements of another party).

DBCT Management noted:

- BMC's South Walker and Poitrel mines hold contracts at DBCT.
- BMA's Goonyella/Riverside/Broadmeadows complex of mines, Peak Downs, Saraji and Caval Ridge either export or have exported from DBCT.⁸¹⁸

DBCT Management submitted that BMA and BMC mines switch their utilisation of DBCT and HPCT at will—depending on blending needs and to maximise throughput. DBCT Management considered that this is contrary to BHP's submission that switching costs associated with take or pay commitments would deter BMC from moving its volumes to HPCT—given that BMC coordinates its utilisation of HPCT and DBCT with BMA so that its contract capacity at DBCT is utilised by either's mines.⁸¹⁹

The QCA considers it is appropriate to include the contract entitlements held by BMC mines at DBCT as part of the market for DBCT's coal handling service. Mines that can access the BMC contract entitlements (whether it is a BMC mine or a mine of another entity) are necessarily part of the market for the purposes of assessing total foreseeable demand (but only up to the level of the contract entitlements at DBCT). To include the demand that is presently satisfied by HPCT would artificially inflate the estimate of total foreseeable demand (the calculation of which is ultimately central to criterion (b)).

The evidence provided by DBCT Management does not suggest that these mines, as a collective, are likely to switch terminal capacity beyond existing contractual entitlements. The QCA does not consider that commercial arrangements that coordinate utilisation of HPCT and DBCT between related entities—within the bounds of overarching contractual arrangements—are indicative that BMA or BMC will switch from HPCT to DBCT in response to a small but significant and non-transitory change in the DBCT TIC. Moreover, DBCT Management has not demonstrated that the use by BMA mines of DBCT indicates the coal handling service at HPCT is a close substitute for the DBCT service.

Access to HPCT

The QCA's conclusion about whether HPCT is in the relevant market rests on whether HPCT will be available for third party access, rather than on the physical nature of the service offering at HPCT or its geographic location.

The purpose of third party access is to provide an avenue through which third parties may seek access to infrastructure services owned and operated by others. ⁸²⁰ In this context, it may raise the question why the QCA would find that HPCT does not constrain DBCT Management because of the manner in which BMA elects to operate the terminal. However, the QCA's review is focused on whether the coal handling service at DBCT, not HPCT, satisfies the access criteria. In undertaking this review, a relevant factor in applying criterion (b) is whether the service provided by HPCT is in the same market as that provided by DBCT. The QCA has addressed this question by using principles of market definition that have been widely applied in the past.

It may be that if HPCT was available on an open-access basis, the likelihood that HPCT would be in the same market in which DBCT operates would be stronger. However, the QCA's task is not to decide

⁸¹⁸ DBCT Management, sub. 1, p. 32.

⁸¹⁹ DBCT Management, sub. 26, p. 20, paras 83–84.

⁸²⁰ Productivity Commission, National Access Regime, inquiry report no. 66, 2013, p. 45.

whether there should be access to HPCT, but rather to consider and make those findings about HPCT that are necessary in order to determine whether the access criteria are satisfied in respect of the DBCT service.

What if HPCT were declared?

A related question is whether the above analysis and the QCA's conclusions would change if the service provided at HPCT was presently declared under Part IIIA of the CCA or Part 5 of the QCA Act. The QCA has no view on whether HPCT would satisfy the criteria for declaration under either Act. Rather, the QCA has considered this question on the assumption that the service provided at HPCT was in fact declared (either at the time a declaration of the DBCT service took effect or subsequently).

In Sydney Airport Corporation v Australian Competition Tribunal, the Full Federal Court observed that obtaining access to a service under Part IIIA is a 'two stage' process, in which access arrangements are considered only after a service is declared.⁸²¹ The Full Court stated:

> Whilst Part IIIA is entitled "Access to Services", the two stage approach, if engaged, does not necessarily lead to access or increased access to the service for anyone.822

In other words, declaration of the HPCT service would not of itself guarantee a third party access. This is significant, as it is understood that HPCT is currently operating at, or near, full capacity. The existing capacity of HPCT is likely to remain part of the vertically integrated supply chain operated by BMA, even in the event of the declaration of HPCT. Therefore, even if declared, the existing capacity of HPCT would not be offered to users in the same market as the coal handling service offered at DBCT.

Declaration of HPCT could, however, result in a third party access seeker obtaining a right to require it to be expanded, with such additional capacity to be offered to access seekers.⁸²³ However, this would mean successfully negotiating with BMA to expand the capacity of the terminal (or pursuing an access dispute with BMA to require expansion) at a cost and in a timeframe that would make this a viable alternative to DBCT.

The QCA understands that, to date, expansions of HPCT on a per unit basis have been more costly than expansions of DBCT.824 Higher expansion costs, together with the steps that would be involved in procuring an expansion of HPCT, suggest the HPCT service, even if declared, is unlikely to constrain DBCT Management in respect of an undeclared DBCT service over the declaration period under consideration.

^{821 [2006]} FCAFC 146 at [30].

⁸²² Sydney Airport Corporation v Australian Competition Tribunal [2006] FCAFC 146 at [83].

⁸²³ CCA, s. 44V(2A); QCA Act, s. 119(4).

⁸²⁴ See Morgans & CIMB Securities (Australia), Special Report: Wiggins Island Coal Export Terminal, 6 May 2014, p. 2.

APPENDIX C—APPROACH TO TOTAL FORESEEABLE DEMAND

This appendix outlines the QCA's approach to assessing total foreseeable demand, including its analysis of the independent forecasts provided by DBCT Management and the DBCT User Group, and its consideration of stakeholders' views on the appropriate approach. This includes DBCT Management's assertion that the access queue at DBCT represents evidence of demand for the service. Based on this approach, the QCA's final reconciliation of the total foreseeable demand forecasts is presented in Appendix D.

Approach to assessing total foreseeable demand

DBCT Management and the DBCT User Group each submitted total foreseeable demand forecasts based on the advice of their consultants. The proposed forecasts diverge significantly, driven in part by assumptions made about the timing and production profile of development projects, including whether it is considered likely that they will proceed during the declaration period under consideration at all.

The difference in forecasts at least partly reflects the significant uncertainty associated with forecasting future demand over this timeframe, with the progression of new developments, as well as the production profile of existing mines highly dependent on conditions in the export coal market. Indeed, the assessment of total foreseeable demand hinges on this outlook, which is extremely difficult—if not impossible—to predict with any certainty over the declaration period under consideration.

While the assessment of criterion (b) requires the QCA to assess whether the DBCT facility could meet total foreseeable demand over the declaration period, the QCA is also conscious that in reconciling disparate production forecasts and different views on individual development projects, this should not lead to a search for false precision.

The QCA notes that there are potential issues with the assumptions that have been applied in developing both sets of forecasts provided (not all of which are fully transparent). Given this, in reconciling total foreseeable demand, the QCA has reviewed both sets of estimates in the context of publicly available information and formed its own view of likely demand from this information.

QCA analysis

Independent forecasts of total foreseeable demand provided by stakeholders

DBCT Management sought to estimate total foreseeable demand in the market on a throughput and contract entitlement basis. The DBCT User Group focused on throughput demand for the services at DBCT.^{825,826} These estimates are outlined below on a throughput basis (Table C.1).

⁸²⁵ DBCT User Group, sub. 15, p. 42; sub. 30, p. 41.

⁸²⁶ The DBCT User Group also presented total foreseeable demand estimates on a contracted capacity basis; however, this was for comparative purposes. The DBCT User Group is of the view that throughput is the appropriate measure of demand. See DBCT User Group, sub. 30, p. 9.

Table C.1 Estimates of total foreseeable throughput demand (mtpa)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
DBCT Management	150.9	156.1	164.8	172.7	182.4	186.7	179.0	181.9	181.6	182.1
DBCT User Group	74.5	74.9	71.9	73.9	78.2	82.5	79.2	83.8	83.1	80.2

Sources: DBCT Management, sub. 1, p. 44, para. 212; DBCT User Group, sub. 30, p. 41.

A part of the difference in demand forecasts relates to differences in the market definition.

For instance, DBCT Management considered that all mines that would 'prefer' to utilise DBCT on the basis of cost are in the relevant market, and non-price considerations should be disregarded. DBCT Management also considered that mines (and the resulting volumes) that use HPCT are in the relevant market, as HPCT is adjacent to DBCT.

In contrast, the DBCT User Group focused on demand at DBCT, while disregarding broader demand in the Goonyella system that is presently serviced, or may in the future be serviced, by other terminals.

Other differences between DBCT Management's estimates and those of the DBCT User Group relate to:

- differences in mine forecasts
- different views on the probability of new developments commencing, the dates of commencement and the production profile over the foreseeable demand period.

DBCT User Group's estimates

In its draft recommendation, the QCA raised concerns with the DBCT User Group's estimates, including:

- difficulties in reconciling the various foreseeable demand estimates of the DBCT User Group
- a lack of detail, as individual mine forecasts were not presented on a year-by-year basis
- limited visibility of the nature of the adjustments that the DBCT User Group made to the Wood Mackenzie forecasts
- a lack of clarity on the interrelationship between mine throughput and contract entitlements. It was
 not apparent whether the DBCT User Group's conclusion that peak foreseeable demand was below
 the existing capacity of DBCT adequately considered that throughput capacity is typically below
 contract entitlements.

The DBCT User Group subsequently sought to address these concerns by:

- providing a mine-by-mine build-up of the demand forecast that underlies Wood Mackenzie's aggregate forecast and a description of the assumptions made in compiling the demand forecast⁸²⁷
- clarifying that the DBCT User Group considers the appropriate measure of demand is foreseeable throughput.⁸²⁸

The QCA acknowledges this provides additional clarity around the total foreseeable demand estimates provided by the DBCT User Group and addresses certain of the QCA's concerns, such that it is appropriate

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⁸²⁷ DBCT User Group, sub. 30, p. 39.

⁸²⁸ DBCT User Group, sub. 30, p. 9.

to give further consideration to these figures.⁸²⁹ Despite this, the QCA has identified potential issues with the DBCT User Group's March 2019 Wood Mackenzie forecasts.

For example, Wood Mackenzie noted that the outlook provided is a base case view of expected DBCT throughput based on a range of factors including available DBCT capacity during the forecast window and a view on individual mine export allocations between ports. BBCT Management submitted that in its experience, Wood Mackenzie takes a central Queensland—wide approach to its forecasts and predicts which terminals those mines are likely to use to export their coal, filling 'their understanding of available capacity first before requiring an expansion of capacity at a terminal'. To the extent that this proposition is correct, it is unclear to the QCA whether Wood Mackenzie has forecasted demand in the Goonyella system or in a different area.

The QCA notes that the DBCT User Group's estimates do not incorporate some projects that, in the QCA's view, appear likely to come into production during the 10-year period from 2021 and 2030⁸³²; the reasons for this are unclear.

DBCT Management and the DBCT User Group also differ in their views of mine output and the expected timing of new developments. Glencore Coal said:

It is also relevant to note that Wood Mackenzie's base case assumes significant volume from uncertain future projects, particularly between 2025 and 2030. Thus, the Wood Mackenzie base case forecasts are not conservatively low but there are downside and upside risks to the forecasts as discussed in the Wood Mackenzie report.⁸³³

The DBCT User Group said that it considers that the Wood Mackenzie forecast is not a conservative forecast, as it assumes significant volume from uncertain future projects.⁸³⁴

DBCT Management's estimates

HoustonKemp provided a detailed methodology to demonstrate how those mines and projects included in its total foreseeable demand estimates were identified.⁸³⁵ Despite this, some of HoustonKemp's estimates are difficult to reconcile with the AME estimates provided in a separate report⁸³⁶ (upon which HoustonKemp based its estimates⁸³⁷).

The AME report was also provided to DBCT Management in May 2018. As outlined by AME, every operation is 'reviewed and updated on a quarterly basis to include the latest reported production and cost updates' sage sting that the May 2018 data may have been superseded by more recent data.

On balance, DBCT Management's estimates of mine output and the expected timing of new projects are less conservative than those of the DBCT User Group. As such, DBCT Management's estimates of total

⁸²⁹ The QCA notes that in developing the draft recommendation, more reliance was placed on DBCT Management's forecast as it was (at the relevant time) the only stakeholder that was transparent in providing mine-specific forecasts on a year-by-year basis.

⁸³⁰ DBCT User Group, sub. 30, schedule 1, p. 6.

⁸³¹ DBCT Management, sub. 38, p. 66, paras 321–24.

⁸³² See Appendix D for further information. Mines not included by the DBCT User Group in total foreseeable demand estimates include Gregory Crinum, Dysart East and Ironbark No. 1.

⁸³³ Glencore Coal, sub. 43, annexure A, p. 10.

⁸³⁴ DBCT User Group, sub. 30, p. 42.

⁸³⁵ DBCT Management, sub. 10, appendix 10, pp. 60-70.

⁸³⁶ For example, the HoustonKemp forecasts for Capcoal, Eagle Downs, Talwood, Clermont, Coppabella, Foxleigh, Isaac Plains and Blair Athol mines differ from those figures reported in the AME report provided by DBCT Management. See DBCT Management, sub. 10, appendix 10, pp. 61–62 (table A1.1) and appendix 12, pp. 18–19 (figures 14, 15 and 16).

⁸³⁷ DBCT Management, sub. 13, p. 32, para. 151.

⁸³⁸ DBCT Management, sub. 1, appendix 12, p. 23.

foreseeable demand can be generally regarded as subsuming demand estimates provided by the DBCT User Group.

Potential for overestimation

The QCA's view is that the HoustonKemp and AME data may also overstate demand, given its assumptions on rail capacity and timing of new developments.

Assumed rail capacity

The QCA considers it reasonable to assume that rail capacity will be gradually upgraded over the period the market operates in response to changes in demand.

However, HoustonKemp assumed that rail capacity will automatically be increased to meet changes in total foreseeable demand, and hence is not relevant to the analysis. DBCT Management explained that in its view, it is inappropriate to confine demand by the capacity of the rail system.⁸³⁹ The QCA considers that this otherwise tends to overestimate total foreseeable demand, as clearly miners are unlikely to develop tenements (and correspondingly demand additional coal handling services) if there is a lack of certainty about corresponding rail capacity in the Goonyella system. Relevantly, DBCT Management acknowledged the uncertainty about rail expansions in the context of expanding the terminal:

An expansion to 102Mtpa will also require rail track improvements. 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.840

Moreover, it is not clear that HoustonKemp addressed the impact of any potential lag in upgrading rail capacity to accommodate changes in total foreseeable demand. Aurizon Network's 2016-17 Network Development Plan indicates that the capacity of the Goonyella system is 140 mtpa. 841,842 In contrast, HoustonKemp indicated total foreseeable demand of 150.9 mtpa (throughput demand) and 167.7 mtpa (contract demand) in 2021 (including HPCT tonnage). The QCA considers it unlikely that Goonyella rail capacity will be upgraded by 27.7 mtpa by 2021 (i.e. from 140 mtpa to 167.7 mtpa). While demand estimates need not be confined by the current capacity of the rail system, the QCA considers that an assumption that rail capacity is upgraded gradually is more appropriate, having regard to the potential expansion scenarios and timeframes indicated in Aurizon Network's Network Development Plan.

More broadly, the QCA notes HoustonKemp's projections for coal handling demand at the Port of Hay Point differ from (and exceed) Aurizon Network's Network Development Plan (which considers growth scenarios for alignment between rail capacity on the Goonyella system and DBCT port expansion).⁸⁴³ Clearly, additional demand for coal handling services—that is, beyond that served by a 140 mtpa Goonyella rail capacity—can only eventuate to the extent that there is supporting rail capacity, which is aligned with port requirements.

In this context, the QCA considers that the HoustonKemp demand estimates may represent an overestimation of the demand for coal handling services in as much as rail system capacity may lag mine development thereby constraining surplus demand, albeit for short periods of time.

⁸³⁹ DBCT Management, sub. 38, p. 70, para. 340.

⁸⁴⁰ DBCT Management sub. 1, p. 39, para. 195.

⁸⁴¹ Aurizon Network, 2016–17 Network Development Plan, p. 41.

⁸⁴² Aurizon Network's 2018 Network Development Plan does not provide any updates regarding total rail capacity of the Goonyella system.

⁸⁴³ For instance, Aurizon Network's 2016–17 Network Development Plan (table 18) provides a scenario for the Goonyella system to be upgraded to 171 mtpa by 2023. However, HoustonKemp forecasts demand for coal handing capacity at the Port of Hay Point of 183 mtpa in this year (DBCT Management, sub. 1, p. 44, para. 212).

Early project commencements

The HoustonKemp data, based on AME estimates, also appear to take an optimistic view of project commencement, and the probable timing of these projects. For example, AME forecasted production from New Lenton mine from 2019, which has not as yet eventuated. AME also included Moranbah South in its foreseeable demand estimate from 2021, whereas Wood Mackenzie (for the DBCT User Group) considered that demand from this mine will only materialise in 2034. The QCA acknowledges that while AME's timing could be seen as optimistic, it is not evident that it is more reasonable to conclude that it will be another 13 years before this mine is in production (at least in the absence of a more detailed explanation underpinning this view).

DBCT Management said Moranbah South should be included in total foreseeable demand.⁸⁴⁵ It included 'a series of correspondence between Anglo American and DBCT Management concerning various access applications'⁸⁴⁶ to support this. Anglo American submitted that the QCA should not accept that the mere existence of access applications (in the absence of context and analysis) should result in their inclusion in foreseeable demand.⁸⁴⁷ Further, Anglo American commented in April 2019 that 'no timing is available for when the project may move to production'.⁸⁴⁸ The QCA does not consider that Anglo American's position indicates that any commitment has been made to commence development and construction at the current time, and it is not evident that production will commence from 2021. Indeed, Anglo American has separately described Moranbah South as a 'longer-term option currently in early concept stage'.⁸⁴⁹

Additional commentary following the QCA's draft recommendation

Stakeholders made additional comments following the draft recommendation, including:

- DBCT Management's evidence of contract capacity and the access queue at DBCT
- DBCT User Group and DBCT Management's respective proposed adjustments to the preliminary foreseeable demand estimates provided in the QCA's draft recommendation.

Evidence of DBCT's contracted capacity and access queue

DBCT Management provided evidence of DBCT's contracted capacity and the access queue (Table C.2). It submitted that any measure of total foreseeable demand in the market must be higher than DBCT's contracted capacity and the access queue.⁸⁵⁰

Table C.2 DBCT contracted capacity and access queue (mtpa)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Including contract renewals	116.90	118.60	119.17	135.17	140.17	140.17	140.17	140.17	130.27	115.77
Including mine life adjustments	116.90	118.60	119.17	135.17	136.17	133.67	133.67	130.87	108.97	94.47

⁸⁴⁴ DBCT Management, sub. 10, appendix 12, figure 15; New Hope Group, *New Lenton*, https://www.newhopegroup.com.au/content/projects/development/lenton.

⁸⁴⁵ DBCT Management, sub. 26, p. 10, para. 23.3.

⁸⁴⁶ Anglo American, sub. 44, p. 4.

⁸⁴⁷ Anglo American, sub. 44, p. 4.

⁸⁴⁸ Anglo American, sub. 44, pp. 4–5.

Anglo American, Moranbah Grosvenor Complex Socio-Economic Assessment Toolbox Report 2019–2021, 2019, p. 13, https://australia.angloamerican.com/~/media/Files/A/Anglo-American-Australia-V3/document/reports/AngloAmerican Moranbah%20Grosvenor%20Complex%20Report web%20ready.pdf

⁸⁵⁰ DBCT Management, sub. 26, p. 34, para. 138.

Source: DBCT Management, sub. 26, appendix 3, pp. 4–6 (tables B and D).

DBCT Management submitted that while contracted capacity and the access queue at DBCT do not reflect total foreseeable demand in the market, they provide 'incontrovertible evidence' of foreseeable demand for the DBCT service.⁸⁵¹

In this context, DBCT Management asserted that the access queue gives rise to rights and imposes obligations on both DBCT Management and access seekers and, as such, must be treated as a component of total foreseeable demand in the market. Str. It explained that the queuing provisions were reformed in the 2017 access undertaking process with a view to ensuring the queue was representative of actual demand and said that its recent removal of access seekers from the queue tested the validity of access applications. DBCT Management therefore concluded that any measure of total foreseeable demand in the market must be higher than DBCT's contracted capacity and the access queue.

Other stakeholders, including the DBCT User Group, pointed to both the way the queue operates and historical analysis of the extent to which the queue has been converted into aggregate demand, in support of the view that the access queue cannot be considered a reliable estimate of demand.⁸⁵⁴

QCA's consideration of stakeholder views

The QCA considers that the relevance of the access queue is informed by the way in which it operates in a commercial context

The QCA's view is that, despite tightening of queuing provisions and the recent 'clean-up process' undertaken by DBCT Management in late 2018 (whereby access seekers who had not signed access agreements were removed from the queue), the queue does not necessarily reflect current demand for the services at DBCT—because of the nature of the access queue and the way it operates.

Tightening of queuing provisions

The DBCT User Group pointed to evidence that the access queue has not historically converted to additional aggregate demand. Its consultant, PwC, explained that:

In both 2009 and 2016, this demand aspiration represented by the access queue has failed to materialise, suggesting the queue is not a reliable indicator of future demand.⁸⁵⁵

DBCT Management observed that this was 'exactly the issue that was dealt with in the 2017 AU process'.⁸⁵⁶ In that process, the provisions were revised to require access seekers and renewing access holders to provide evidence of coal reserves and mine plans in access applications. Additionally, reforms were made to allow DBCT Management to reject an application if it is not accompanied with the required information and the access seeker cannot demonstrate that access rights will be used within five years from date of lodgement.⁸⁵⁷

The QCA notes DBCT Management's view that the tightening of provisions was undertaken with a view to ensuring that the access queue is a 'bona fide reflection of the demand for access' at DBCT. In late 2018, DBCT Management removed 12 access seekers from the queue (with volumes of 59.4 mt); four access seekers have disputed this removal.⁸⁵⁸ DBCT Management said these disputes demonstrate that the

⁸⁵¹ DBCT Management, sub. 26, p. 34, para. 138.

⁸⁵² DBCT Management, sub. 38, p. 60, para. 300.

⁸⁵³ DBCT Management, sub. 26, p. 34, paras 138–39.

⁸⁵⁴ DBCT User Group, sub. 46, p. 11.

⁸⁵⁵ DBCT User Group, sub. 46, schedule 2, p. 16.

⁸⁵⁶ DBCT Management, sub. 38, p. 61, para. 304.

⁸⁵⁷ DBCT Management, sub. 38, p. 61. See also cl. 5.3(d)(2) of the 2017 access undertaking.

⁸⁵⁸ DBCT Management, sub. 38, p. 65, paras 314–15.

queue is valued by users.⁸⁵⁹ The lack of disputes from the other eight removed access seekers may, however, suggest that the queue was potentially inflated by these access seekers for a significant period.

DBCT Management pointed to the notifying access seeker process in late 2018 and the subsequent removal of access seekers who did not submit a signed access agreement for available capacity from the access queue as evidence that the queue had been tested and now consisted only of genuine demand.⁸⁶⁰

The QCA accepts that when access seekers are removed from the queue via this process, the queue, at that point in time, is likely a better representation of the participants who wish to contract capacity at DBCT. However, since this clean-up process was implemented in late 2018, two of the removed applicants have made new applications. Additionally, new access seekers have joined the queue. Bet By accepting new access seekers and allowing removed access seekers to re-join the queue, it is possible that the effects of this 'clean-up' of the queue may be eroded.

Nature of the queue and its operation

The QCA considers that despite tightening of provisions and some increased certainty around those participants who will contract capacity at DBCT—due to the removal of access seekers who do not wish to commit to capacity from the queue—the nature of the queue and the way it operates suggest that the volumes and timing reported in the queue are not accurate so as to represent a reliable estimate of demand at DBCT.

The QCA considers that the non-binding nature of access applications in the access queue means the queue cannot be relied upon as an accurate estimate of demand. The 2017 access undertaking provisions outline that in a notifying access seeker process⁸⁶², access seekers in the queue may provide signed access agreements for a 'lower tonnage, shorter term or earlier date of commencement' than requested in their access application, which DBCT Management can then choose to execute.⁸⁶³ The QCA considers that this ability to contract for a revised tonnage, term or date of commencement encourages access seekers to strategically provide more optimistic tonnage requests than if they were obligated to contract for those volumes.

Additionally, DBCT Management's ability to allow a revision of information in an access application if it 'would not substantially alter the nature of the access rights sought'864 may impact on the accuracy of access applications. Anglo American said that producers will provide optimistic assessments of their potential projects, as there is no downside for access seekers in submitting applications that require later revisions as information becomes more reliable.⁸⁶⁵ The DBCT User Group also noted that access seekers

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⁸⁵⁹ DBCT Management, sub. 38, p. 65, para. 316.

⁸⁶⁰ DBCT Management, sub. 26, p. 34, para. 139.

⁸⁶¹ DBCT Management, sub. 38, p. 63, figure 11.

who is first in the queue. An access seeker who is not first in the queue (the notifying access seeker) may give notice to DBCT that it is seeking access at a date that is at least six months earlier than the date for commencement of access seekers that are ahead of the notifying access seeker (the notified access seekers) and allow three months for each notified access seeker to deliver two signed copies on the earliest date for commencement. DBCT Management. DBCT Management then gives priority to those notified access seekers that are seeking access on the earliest date for commencement.

⁸⁶³ DBCT 2017 access undertaking, cls. 5.4 (e)(3), (e)(5)(A).

⁸⁶⁴ See the DBCT 2017 access undertaking, cls. 5.2 (g)–(h).

⁸⁶⁵ Anglo American, sub. 44, pp. 1–2, 4–5.

are strongly incentivised to seek access at the earliest possible time due to their ability to postpone the application, but no ability to bring it forward while maintaining the same level of priority.⁸⁶⁶

The QCA notes that information requirements for access applications were tightened in the 2017 access undertaking process in order to provide 'reasonable evidence of an applicant's bona fides'.867 However, while the QCA considers that these information requirements may operate to limit the extent to which volumes in the queue are overinflated, it is not evident that they will prevent it entirely. A lack of independent auditing to ensure the validity of information provided in access applications, combined with the discretion DBCT Management has in reviewing access applications, could further contribute to the inaccuracy of access applications.

The QCA considers that while users are required to provide information to justify the volumes and start dates of their projects, and must use their best endeavours to ensure information is accurate⁸⁶⁸, the access queue does not reflect the most likely development timelines for the projects. This is because users are able to revise these applications and can also contract for a lower tonnage, shorter term or earlier start date than requested in the access applications.⁸⁶⁹ The discretion of DBCT Management to accept these applications and revisions without an independent audit further affects the reliability of these application volumes.

Peabody, BHP, Anglo American and the DBCT User Group submitted that the queue is a 'free' option.⁸⁷⁰ BHP said that given there is no cost, it is economically rational to be in the queue to preserve priority at the time of capacity becoming available.⁸⁷¹

DBCT Management rebutted this, stating that despite no fee being levied and no consequences if users do not convert access requests to take or pay agreements, significant information (including JORC⁸⁷² studies and forecast rail and vessel scheduling requirements) is required for an access application and it understands that users engage external consultants to provide this advice. It considered that when a dispute is lodged about removal from the queue, access seekers are protecting the value of their sunk investments.⁸⁷³

To the extent that DBCT Management's statement that the queue is not a completely 'free' option is correct, the QCA accepts that these costs may discourage access seekers who are unlikely to commit to contract capacity at DBCT. However, the QCA notes that if there are any other reasons for obtaining the information required to submit an access application – for example, to attract capital or comply with environmental approval conditions – this may mean that the costs associated with entering the queue are diluted and the value of being in the queue outweighs the costs associated with joining. Additionally, the lack of consequences or penalties if an access seeker does not convert their access application to a take or pay arrangement in the amount and for the commencement date provided in the application, suggests that the queue is not a reflection of genuine demand for the service.

⁸⁶⁶ DBCT User Group, sub. 46, p. 37.

⁸⁶⁷ DBCT Management, sub. 38, p. 61, para. 302.

⁸⁶⁸ See the DBCT 2017 access undertaking, cl. 5.2.

 $^{^{869}}$ See the DBCT 2017 access undertaking, cls. 5.4(e)(3) and 5.4(j)(4).

⁸⁷⁰ DBCT User Group, sub. 30, p. 38; Anglo American, sub. 44, pp. 1, 4; BHP, sub. 42, p. 3; Peabody, sub. 47, p. 2.

⁸⁷¹ BHP, sub. 42, p. 3.

⁸⁷² JORC refers to the Australian Joint Ore Reserves Committee. The JORC Code provides a mandatory system for the classification of minerals exploration results, mineral resources and ore reserves according to the levels of confidence in geological knowledge and technical and economic considerations in public reports.

⁸⁷³ DBCT Management, sub. 38, p. 63.

Alternate ways of acquiring capacity

The QCA is of the view that the access queue is not a complete reflection of demand for DBCT as there are alternate ways of acquiring capacity at the terminal. For instance, it is open for a miner to seek capacity through alternative means, including through trading for either temporary or permanent assignments from existing users in the secondary market. Data submitted by DBCT Management in June 2018 showed that since July 2015, about 88 mtpa of capacity has been traded in the secondary trading market, including 51.5 mtpa of permanent capacity transfers.⁸⁷⁴

To the extent that obtaining capacity in this way is available for use by potential access seekers, the QCA considers that the queue does not accurately reflect all new demand for the DBCT service.

Conclusion

The QCA does not consider that the access queue at DBCT is a reliable indicator of foreseeable demand for the DBCT service, but is rather a tool used by DBCT Management and access seekers to facilitate access negotiation. As such, the QCA has not relied on queue volumes in reconciling the total foreseeable demand estimates provided.

Stakeholders' proposed adjustments to estimates provided in the draft recommendation

In making its draft recommendation the QCA engaged MMI Advisory (MMI) to review and attempt to reconcile the demand forecasts submitted by DBCT Management and the DBCT User Group. As highlighted, this was not a demand forecast or an independent validation of assumed tonnages. The primary focus of that reconciliation was to use publicly available information to determine whether a mine, or project, should be included in the forecast based on a specified set of decision rules. The starting point for the projected volumes was the profile put forward by HoustonKemp, as at that stage only DBCT Management had submitted mine-by-mine forecasts on a yearly basis.

DBCT Management and the DBCT User Group both undertook an exercise, whereby they accepted the MMI figures and approach generally, and made adjustments where deemed necessary. These changes included adjustments made on the basis of new information not provided prior to the draft recommendation. While both parties asserted that the estimates provided by their respective consultants were still the most appropriate forecasts, they each provided these proposed adjustments to demonstrate that even where MMI's approach was adopted, their respective conclusions on criterion (b) were justified.

DBCT Management also provided another alternative estimate prepared by its consultant HoustonKemp, in which it accepted the QCA's estimates of total foreseeable contract demand in the draft recommendation but updated these figures based on its preferred market definition to demonstrate that criterion (b) could not be satisfied on this basis.

Each of those proposed adjustments is considered below.

DBCT Management's proposed adjustments to total foreseeable demand

Proposed adjustments to MMI's reconciliation

Notwithstanding DBCT Management's view that the AME mine production forecasts used in HoustonKemp's analysis of criterion (b) are 'the most credible and realistic forecasts of demand', DBCT Management also prepared a demand analysis.⁸⁷⁵

⁸⁷⁵ DBCT Management, sub. 26, appendix 4.

⁸⁷⁴ DBCT Management, DBCT 2017 Access Undertaking—Trading SCB DAAU, June 2018, p. 3, https://www.qca.org.au/wp-content/uploads/2019/05/33816_02-Trading-SCB-DAAU-Final_Redacted-1.pdf.

DBCT Management's approach involved adjusting MMI's reconciliation to reflect contracted volumes and access queue applications to produce an alternate demand forecast (Table C.3). In doing so, DBCT Management noted that the mines included in MMI's reconciliation do not, in its view, reflect all the mines in the market in which the DBCT service is provided. DBCT Management concluded that this analysis demonstrates that even on a narrow view of the market and having regard to DBCT's contracted volumes and access queue, DBCT cannot serve total foreseeable demand over the declaration period.

Table C.3 DBCT Management's adjustments to MMI's reconciliation (mtpa)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Adjustments to MMI base case	128.5	131.3	129.3	145.4	150.4	150.4	150.3	150.3	147.0	132.5
Adjustments to MMI high case	128.5	131.3	129.3	145.4	151.4	159.8	170.8	174.5	173.3	159.9

Source: DBCT Management, sub. 26, appendix 4, pp. 2-5 (figures 1 and 2).

In preparing this estimate, DBCT Management also assumed all mines with evergreen contracts at DBCT would renew until at least 2030. DBCT Management justified this approach due to the QCA's preliminary position in the draft recommendation, which was that existing users are likely to perpetually exercise the evergreen renewal right in their existing user agreements in a future without declaration. 876

The QCA's conclusion in the draft recommendation that evergreen renewal rights are likely to be exercised by existing users was made with reference to existing users extending their user agreements at DBCT, rather than mines and projects continuing perpetually. Existing users with expiring mines can renew their agreements to accommodate new projects. In this context, assuming mines or potential projects will continue until at least 2030 creates the potential for double counting and overestimation. This is also inconsistent with DBCT Management's view that the lives of some mines that use DBCT will progressively expire over the period to 2030.⁸⁷⁷

As discussed above, the QCA is of the view that the access queue is not a reliable indicator of demand. As such, the QCA considers it is not appropriate to update mine forecasts with access queue volumes, as they are not a reliable measure of demand. Additionally, by updating some mine forecasts with contracted amounts while also including additional uncontracted throughput demand, potential transfers of capacity in the secondary market are not accounted for and the potential for double counting arises.

Given this, the QCA's view is that it is not appropriate to adopt DBCT Management's foreseeable demand analysis. Despite this, the QCA notes that the demand analysis included some additional mines and projects that were not considered in MMI's reconciliation (because they were also not included in HoustonKemp's original demand forecast). These mines and projects cannot automatically be accepted as source of demand, nor can the production volumes listed in their contracts or access applications be accepted as the most likely production profile without further consideration (given the risk of overestimation). However, there is merit in considering the mines and projects as potential sources of demand when reconciling total foreseeable demand in the market, in the context of publicly available information.

Proposed adjustments to QCA's total foreseeable demand figures

DBCT Management said that where errors in the QCA's market definition were corrected, the total foreseeable demand in the market exceeds the amount that can be supplied by DBCT. To demonstrate this, HoustonKemp presented estimates of demand that were adjusted to account for these perceived

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⁸⁷⁶ DBCT Management, sub. 26, appendix 4, p. 1, para. 2.

⁸⁷⁷ DBCT Management, sub. 26, p. 86, figure 25.

errors, but it otherwise accepted the approach adopted by the QCA in its draft recommendation (Table C.4).⁸⁷⁸ From this, DBCT Management concluded that peak total foreseeable demand in the market over the 10-year declaration period under consideration is approximately 175 mt.⁸⁷⁹

Table C.4 DBCT Management's adjustments based on its preferred market definition

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Adjustments to QCA's estimates	164.67	163.04	163.94	161.17	168.71	174.94	174.94	174.94	174.94	174.94

Source: DBCT Management, sub. 26, appendix 1, p. 23, table 3.2.

The adjustments made by DBCT Management were to include demand from mines currently contracted at other terminals, demand from mines outside the Goonyella system and demand from BMA mines as it considered these sources of demand to be within the market for the purposes of criterion (b).

Demand from mines contracted at other terminals

DBCT Management stated that total foreseeable demand is the total demand arising from customers who are in the market, and the fact that some of these volumes may currently or in the future be served by a facility that is not DBCT is irrelevant to the calculation of total foreseeable demand in the market. As such, DBCT Management included Lake Vermont and Middlemount in its estimates of total foreseeable demand, ignoring the contracts currently being served by other terminals.

The QCA considers that the relevant market for the purposes of criterion (b) is the market for DBCT's coal handling service in the Goonyella system (section 2.4). The QCA's view is that it is appropriate to exclude volumes currently served by other terminals as the customer is subject to a long-term contract, which makes switching to DBCT unviable within the term of that contract (section 2.4.3). As such, the QCA does not consider it is appropriate to include volumes currently contracted at other terminals in total foreseeable demand.⁸⁸⁰

Demand from mines outside the Goonyella system

DBCT Management maintained that, despite being outside the Goonyella system, demand from the Kestrel mine and Teresa project should be in the market, as it is lower cost for those mines to access DBCT.⁸⁸¹

The QCA does not consider that mines outside the Goonyella system are in the market for the purposes of criterion (b) (section 2.4). As such, the QCA maintains its approach from the draft recommendation to exclude mines outside of the Goonyella system.

Demand from BMA mines

DBCT Management submitted that all demand from BMA mines should be included in total foreseeable demand in the market. In response, BHP submitted that neither BMA nor BMC would replace capacity at HPCT with contract capacity at DBCT, but to the extent HPCT is fully utilised, DBCT is preferable to other coal terminals.⁸⁸²

Given this, the QCA considers that the appropriate approach is to exclude demand for HPCT, but only up to its nameplate capacity of 55 mtpa. This means that any demand for HPCT in excess of 55 mtpa will be

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⁸⁷⁸ DBCT Management, sub. 26, appendix 1, p. 20.

⁸⁷⁹ DBCT Management, sub. 26, p. 28.

⁸⁸⁰ The QCA maintains its approach from the draft recommendation, whereby this demand is added back into total foreseeable demand upon expiry of their existing contracts.

⁸⁸¹ DBCT Management, sub. 26, appendix 1, p. 17.

⁸⁸² BHP, sub. 42, p. 3.

included in the estimate of total foreseeable demand (section 2.4). This differs from the QCA's preliminary position in its draft recommendation, whereby all demand for HPCT was excluded from the estimates of total foreseeable demand in the market.

DBCT User Group's proposed adjustments

In addition to providing an updated Wood Mackenzie forecast, the DBCT User Group's consultant, PwC, also provided adjustments to MMI's 'high case'.⁸⁸³ PwC highlighted projects included as part of MMI's 'high case' scenario, which, according to information provided by individual user companies, are either no longer proceeding, not proceeding within the declaration period, or are expected to proceed but at a different start point.⁸⁸⁴ The DBCT User Group outlined the effects that the removal of these projects had on MMI's 'high case' (Table C.5). In doing so, the DBCT User Group adopted the assumption that throughput is 90 per cent of contracted capacity but stated that this was for comparative purposes only.

Table C.5 DBCT User Group's adjustments to MMI's reconciliation

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Adjustments to MMI high case (throughput)	83.7	80.2	80.2	76.2	77.5	77.4	69.5	78.6	85.5	89.7
Adjustments to MMI high case (contract)	93.0	89.1	89.1	84.7	85.1	86.0	77.2	87.3	95.3	99.6

Source: DBCT User Group, sub. 30, schedule 2, p. 33 (appendix B).

The QCA considers it appropriate to conduct its own assessment, rather than adopt the DBCT User Group's revisions without scrutiny. However, it notes that where publicly available information supports the same conclusions put forward by PwC, its forecasts will align with the suggested amendments.

⁸⁸³ DBCT User Group, sub. 30, schedule 2, pp. 22–23.

⁸⁸⁴ DBCT User Group, sub. 30, schedule 2, p. 23.

APPENDIX D—RECONCILIATION OF DEMAND FORECASTS SUBMITTED BY STAKEHOLDERS

This appendix outlines the QCA's reconciliation of the demand forecasts submitted by DBCT Management's consultants (HoustonKemp and AME Consulting (AME)) and the DBCT User Group's consultant (Wood Mackenzie). The QCA has not solely relied on either set of demand forecasts, as there are potential issues with the assumptions that have been applied in developing both sets of forecasts (not all of which are fully transparent). Instead, the QCA has reviewed both set of demand forecasts in the context of publicly available information and formed its own view of the likely profile of total foreseeable demand in the market over the period for which the service would be declared.

Given MMI Advisory's (MMI's) role in undertaking the initial reconciliation of demand forecasts for the QCA's draft recommendation, the QCA has engaged MMI to undertake an independent peer review of the QCA's reconciliation to ensure consistency and accuracy, based on the QCA's specific decision rules outlined further below.

The QCA's reconciliation of demand forecasts involved:

- applying adjustments to demand forecasts to align with the QCA's conclusions on market definition
- reviewing forecasts in the context of publicly available information and making adjustments to reflect the QCA's decision rules (outlined below).

Adjustments based on the QCA's conclusions on the definition of the market

In undertaking this reconciliation, the QCA applied the following adjustments to align with its conclusions on the market definition:

- Exclude demand for Hay Point Coal Terminal (HPCT), but only up to its capacity of 55 mtpa. The QCA
 does not consider that demand from BMA mines that can be serviced by HPCT is in the market, for the
 purposes of criterion (b). The adjustment means that any demand from BMA-affiliated mines in excess
 of 55 mtpa will be included in the estimate of total foreseeable demand.
 - The QCA notes that where there is evidence of consistent and committed use of DBCT (i.e. a long-term contract), as in the case of BMC in relation to its Poitrel and South Walker Creek mines, these production volumes should be included in total foreseeable demand. This is consistent with the draft recommendation.
- Exclude demand from Lake Vermont and Middlemount to the amount of, and for the remaining duration of, their contracts at AAPT. The QCA considers that these volumes are not within the market for the purposes of criterion (b). As such, the QCA has excluded these volumes for the remaining duration of the current contracts. Upon expiration of these contracts, they are assumed to recontract at DBCT. This is consistent with the adjustment made in the draft recommendation.
- Exclude mines outside the Goonyella system (but undertake a reasonableness test in doing so). The
 QCA does not consider mines outside of the Goonyella system to be in the market for the purposes of
 criterion (b). However, the QCA has still assessed whether there is sufficient evidence that those mines
 outside of the system that were included in DBCT Management's forecasts should be considered as
 demand in the relevant market.

Adjustments based on the QCA's review of publicly available information

The QCA considered each consultants' demand forecasts in light of any publicly available information, as well as relevant stakeholder comments. Public information was sourced from company websites (including annual reports, quarterly reports, presentations, media releases, etc.) as well as the media and other industry websites. As in the draft recommendation, regard was also given to typical project development timeframes. As noted by MMI in undertaking its initial reconciliation:

An EIS process can take several years to complete. Once all approvals are obtained it is then necessary to secure final funding before commencing construction (which could take one to two years). A 2010 report by the Queensland Resources Council (QRC) stated that application for a mining lease with native title and an EIS can take between 24 and 36 months. It identifies three main phases for a project:

- 1. The advanced exploration phase, involving exploration and proving up of the target resource this is said to take around five years. It is assumed that this coincides with securing a mining development lease, which lasts five years.
- 2. Securing approvals to move into operations and commissioning this also takes around five years.885
- 3. Commissioning and operations.

In reconciling the forecasts in the context of public information, the QCA applied the following decision rules:

- Where the most recent public information aligns with forecasts provided by either AME or Wood Mackenzie, or the absence of publicly available information does not contradict one of those forecasts⁸⁸⁶, adopt the relevant consultant's forecasts.
- Where the most recent public information concurrently aligns with forecasts from both AME and Wood Mackenzie, retain the original AME forecasts. As the AME forecasts generally subsume the Wood Mackenzie forecasts, this may lessen the risk of underestimation throughput the forecast period. Deferring to Wood Mackenzie forecasts also produces a similar peak forecast amount, such that the QCA's overall conclusion would not be materially changed by adopting Wood Mackenzie's figures.⁸⁸⁷
- Where both consultants' forecasts differ from the most recent public information, make objective
 adjustments only where public information is available, to allow for a reasonable estimate of
 production volumes and/or timing. Any adjustments made without supporting public information
 may be seen as arbitrary.
- Where both consultants' forecasts differ from publicly available data, and information on the
 project's timing is unavailable, exclude these projects from the demand reconciliation. Where
 publicly available information does not support consultants' forecasts, and there is a lack of publicly
 available information in respect of likely timing and tonnages, the QCA considers this demand is too
 uncertain. This is particularly relevant for projects that appear to be dormant (i.e. where there is no

⁸⁸⁶ The main example of this is where (1) a consultant has forecast nil volumes for a project based on a view that the project is not expected to be developed and commissioned during the declaration period; and (2) there is no publicly available information to counter this view (that is, there is no information to indicate if and when development is likely to occur).

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⁸⁸⁵ MMI Advisory, *Reconciliation of DBCT Demand Forecasts Submitted by Stakeholders*, December 2018, p. 2, https://www.qca.org.au/wp-content/uploads/2019/05/34435_MMI-report-DBCT-Criterion-b-2.pdf.

⁸⁸⁷ The QCA assessed the effect of deferring to Wood Mackenzie forecasts rather than AME forecasts in the case of Coppabella, Foxleigh, Moranbah North, Oaky Creek, Poitrel and South Walker Creek. The peak total foreseeable demand figure when deferring to Wood Mackenzie in these cases is 107.0 mtpa in 2026, compared with the 107.1 mtpa in 2026 when deferring to AME. Given the minimal difference in peak total foreseeable demand figures, the QCA has deferred to AME, as this may lessen the risk of underestimation across the declaration period.

information on current status). As these projects may be contingent on an expectation that coal prices will reach a target level, it is difficult to confidently include them in a total foreseeable demand estimate.

For existing mines, if there is no publicly available information, or it does not inform a reasonable
estimate of production volumes and/or timing, retain the original AME forecasts, including where
this differs from the Wood Mackenzie forecasts. As the AME forecasts generally subsume the Wood
Mackenzie forecasts, this may lessen the risk of underestimation throughout the forecast period.
Deferring to the Wood Mackenzie forecasts also produces a similar peak forecast amount.

The reconciliation of total foreseeable demand forecasts by year is presented in Table D.1. A summary of the QCA's assessment of each mine/project is presented in Table D.2.888

⁸⁸⁸ BMA mines were not included in this assessment as there is limited public information available to confirm expected production. Additionally, the DBCT User Group did not provide demand estimates for these mines. As such, the AME forecasts were used (subject to a reasonableness test based on publicly available information).

Table D.1 Reconciliation of total foreseeable demand based on Wood Mackenzie and HoustonKemp/AME forecasts⁸⁸⁹

Mine	Owner	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing mines											
Blair Athol	TerraCom	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.00	0.00	0.00
Capcoal Grasstree	Anglo American	5.50	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capcoal Lake Lindsay	Anglo American	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
Capcoal Aquila	Anglo American	0.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00	0.00	0.00
Carborough Downs	Fitzroy Australia Resources	2.50	2.50	2.50	2.50	2.30	2.00	2.00	1.70	0.00	0.00
Clermont	Glencore	12.50	12.50	12.50	12.50	12.50	12.50	1.50	0.00	0.00	0.00
Coppabella	Peabody	4.00	4.00	4.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00
Foxleigh	QMetco Limited	3.30	3.30	3.30	3.30	3.30	3.30	0.00	0.00	0.00	0.00
Gregory Crinum	Sojitz Mining	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Grosvenor	Anglo American	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

As HoustonKemp's and AME's forecasts did not align for numerous projects, the QCA has assessed the AME forecasts (where applicable) rather than the HoustonKemp figures. This is due to a lack of transparency in relation to HoustonKemp's adjustments. The QCA notes that generally the AME forecasts seem to subsume the HoustonKemp figures such that this approach avoids the potential risk of underestimation.

Mine	Owner	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Hail Creek	Glencore	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Isaac Plains	Stanmore Coal	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Kestrel	Kestrel Coal Resources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Vermont	Jellinbah Group	3.30	3.30	3.30	3.30	3.30	3.30	3.30	6.30	9.30	9.30
Middlemount	Middlemount Coal	0.80	0.80	0.80	0.80	0.80	0.80	2.30	3.80	3.80	3.80
Millennium	Peabody	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Moorvale	Peabody	2.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00
Moranbah North	Anglo American	5.80	5.80	5.80	5.80	5.80	5.80	5.80	5.80	5.80	5.80
North Goonyella	Peabody	0.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Oaky Creek	Glencore	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10
Poitrel	BHP Mitsui Coal	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
South Walker Creek	BHP Mitsui Coal	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
Projects											
Codrilla	Peabody	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mine	Owner	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Denham	Peabody	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dysart East	Bengal Coal Pty Ltd	0.00	0.00	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
Eagle Downs	Aquila & South32	0.00	0.00	0.00	0.00	0.40	1.20	3.70	3.80	3.80	3.90
Grosvenor West	Wealth Mining Ltd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Harrybrandt	Yanzhou	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hillalong	Shandong Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ironbark No. 1	Fitzroy Australia Resources	1.70	2.60	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
Lenton Joint Venture Burton	New Hope	0.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Moorvale South	Peabody	1.00	1.00	1.00	1.00	2.00	3.00	3.00	3.00	2.00	1.00
Moorvale West	Peabody	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Moranbah South	Anglo American	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Olive Downs North	Pembroke Resources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Olive Downs South	Pembroke Resources	0.70	1.50	2.20	2.90	3.70	4.20	4.20	4.20	4.20	4.20
Rockwood	UD Coal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mine	Owner	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Styx	CQ Coal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Talwood	Aquila	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Teresa	United Mining Group	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Valeria	Glencore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vermont East	Pembroke Resources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
West/North Burton	Peabody	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Winchester South	Whitehaven Coal	0.00	0.00	0.00	1.50	3.00	4.50	6.00	6.50	6.50	6.50
Cumulative mine and pro	oject throughput demand	84.20	91.90	93.20	95.40	94.90	96.40	87.60	82.90	83.20	78.30
BMA-affiliated mines an	d projects	•	•	<u>.</u>		·	<u>.</u>	•	•	•	•
Caval Ridge	BHP Mitsui Alliance	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Daunia	BHP Mitsui Alliance	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Goonyella	BHP Mitsui Alliance	17.80	17.80	17.80	17.80	17.80	17.80	17.80	17.80	17.80	17.80
Peak Downs	BHP Mitsui Alliance	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Saraji	BHP Mitsui Alliance	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50

Mine	Owner	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Saraji East	BHP Mitsui Alliance	0.00	0.00	0.00	1.00	2.50	4.00	5.50	7.00	7.00	7.00
Total BMA demand		49.80	49.80	49.80	50.80	52.30	53.80	55.30	56.80	56.80	56.80
HPCT overflow		0.00	0.00	0.00	0.00	0.00	0.00	0.30	1.80	1.80	1.80
Total throughput demand		84.20	91.90	93.20	95.40	94.90	96.40	87.90	84.70	85.00	80.10
Total capacity entitlement demand ^a		93.56	102.11	103.56	106.00	105.44	107.11	97.67	94.11	94.44	89.00

a This figure is calculated on the assumption that throughput is on average 90 per cent of capacity entitlements.

Table D.2 Summary and assessment of commentary surrounding mines and projects

Mine/Project	Comments	Assessment
Existing mines		
Blair Athol	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. In March 2019, TerraCom announced that the marketable reserves of the mine had been upgraded, extending the mine life 8 years on an assumed sales profile of 3 mtpa. ⁸⁹⁰ In the same report, TerraCom stated it is conducting further investigations that could extend the mine life by another one to two years. In July 2019, TerraCom confirmed that the Blair Athol mine was investing in the mine site to deliver on its 3 mtpa sales forecast for FY2020. ⁸⁹¹ Its Annual Report published in October 2019 confirmed its commitment to ramping up production towards 3 mtpa. ⁸⁹²	Include at 3 mtpa for eight years from 2020. Public information is more recent than forecasts provided by stakeholders. TerraCom stated further investigations to extend mine life are being undertaken, but this is currently highly uncertain.
Capcoal	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. HoustonKemp provided a cumulative forecast for the Capcoal mine; its forecasts differed from the AME forecasts. The reason for this variance is unclear. Wood Mackenzie provided a breakdown including German Creek Grasstree, Lake	Include Grasstree mine and Lake Lindsay as per Wood Mackenzie forecasts; however, update Aquila forecasts based on most recent public information. HoustonKemp's forecasts do not align with the

⁸⁹⁰ TerraCom, Further Blair Athol Mine Life Extension, ASX announcement, 20 March 2019, p. 1, http://terracomresources.listedcompany.com/newsroom/20190320_443mlh353s84jx.pdf.

⁸⁹¹ TerraCom, Quarterly report for the quarter ended 30 June 2019, p. 3, http://terracomresources.listedcompany.com/newsroom/20190731_44714j5zcchf66.pdf.

⁸⁹² TerraCom, Annual Report 2019, p. 53, http://terracomresources.listedcompany.com/newsroom/20191018_449mr0hb7zpd3k.pdf.

Mine/Project	Comments	Assessment
	Lindsay and German Creek Aquila. Anglo American outlined that Capcoal includes two underground mines (Grasstree and Aquila) and two open cut mines (Lake Lindsay and Oak Park). See Wood Mackenzie reported that Oak Park closed in 2014. See In 2009, Anglo American announced completion of the Lake Lindsay project with an extension of mine life of 20 years. See Anglo American sought approval to extend the Grasstree mine and provided an indicative mining schedule to 2022. Federal approval for this Grasstree extension project was received in February 2019. See Anglo American approved an extension of Aquila that will operate as an additional extension to the life of the Grasstree mine at 5 mtpa for six years, with first production expected in early 2022.	original AME forecasts and it is unclear whether the Grasstree extension has been accounted for. The Wood Mackenzie forecasts for Grasstree and Lake Lindsay are transparent and align with public information. The Aquila extension was announced following the Wood Mackenzie report and as such, public information should be deferred to.
Carborough Downs	This mine was not considered in the original MMI reconciliation as AME only assumed production until 2019 (in line with the forecast mine life of the previous owner, Vale, although it noted the possibility of an extension ⁸⁹⁸) and therefore the mine was not included in HoustonKemp's forecasts. However, DBCT Management included this mine in its demand analysis following the draft recommendation. ⁸⁹⁹ Vale disposed of its interest to Fitzroy Australia Resources in 2016. Fitzroy Australia Resources stated in 2017 that the mine life was more than 10 years. ⁹⁰⁰ Carborough Downs has previously produced approximately 2 mtpa. ⁹⁰¹	Include Carborough Downs as per Wood Mackenzie forecasts. These forecasts align with public information as to expected mine life and production.

⁸⁹³ Anglo American, *Capcoal*, fact sheet, September 2013, https://australia.angloamerican.com/~/media/Files/A/Anglo-American-Australia-V3/document/factsheets/ang-2291-fs-capcoal-fa-sr.pdf.

⁸⁹⁴ Wood Mackenzie, *Shipper Mine Life Analysis*, 12 October 2015, p. 24, https://www.qca.org.au/wp-content/uploads/2019/05/29121_Attachment-A-Shipper-Mine-Life-Analysis-redacted-version-for-publication-1.pdf.

⁸⁹⁵ Anglo American, *Anglo American CEO announces completion of Lake Lindsay met coal project*, media release, 29 September 2009, https://australia.angloamerican.com/media/press-releases/pr-2009/29-09-09b.

Bepartment of the Environment and Energy, Approval—Grasstree Mine extension project, Australian Government, 5 February 2019, http://epbcnotices.environment.gov.au/_entity/annotation/1546ed1c-f828-e911-9956-005056ba00a8/a71d58ad-4cba-48b6-8dab-f3091fc31cd5?t=1557987594615; Hansen Bailey, Grasstree Extension Project, EPBC Act Environmental Assessment Report, Section 2—Project Description, prepared for Anglo Coal (Capcoal Management Pty Ltd), http://epbcnotices.environment.gov.au/_entity/annotation/68717ba5-1420-e811-886f-005056ba00a8/a71d58ad-4cba-48b6-8dab-f3091fc31cd5?t=1520899200339.

⁸⁹⁷ Anglo American, *New mine approval expands Anglo American's Queensland operations*, media release, 25 July 2019, https://australia.angloamerican.com/media/press-releases/pr-2019/25-07-2019.

⁸⁹⁸ Vale, Carborough Downs, viewed 23 September 2019, http://www.vale.com/australia/en/business/mining/coal/carborough-downs/pages/default.aspx.

⁸⁹⁹ DBCT Management, sub. 26, appendix 4. See also DBCT Management, Maps/Mining locations, viewed 23 September 2019, http://www.dbctm.com.au/coal-chain/maps-mining-locations/.

⁹⁰⁰ Fitzroy Australia Resources, *New life for Bowen Basin coal sites*, media release, 9 December 2017, http://www.fitzroyoz.com/the-news/new-life-for-bowen-basin-coal-sites; Fitzroy Australia Resources, *Fitzroy's Carb Downs experience puts it on the expansion path*, media release, 11 June 2018, http://www.fitzroyoz.com/the-news/fitzroys-carb-downs-experience-puts-it-on-the-expansion-path.

Mine/Project	Comments	Assessment
Clermont	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. HoustonKemp's forecasts differed from the AME forecasts, though the reasons for this are unclear. Glencore's 2017 Resources and Reserves report noted that Clermont's reserves ⁹⁰² supported a nine-year mine life (to end 2026). ⁹⁰³ The 2018 Resources and Reserves report stated that Clermont's reserves had been depleted by 12 mtpa for mining and 1 mtpa due to sterilisation, and that reserves had increased by 1.5 mtpa, supporting a mine life of nine years (to 2027). ⁹⁰⁴	Include Clermont as per Wood Mackenzie forecasts. The 2018 report identifying an increase in reserves of 1.5 mtpa and extension of mine life aligns with Wood Mackenzie forecasts. As the 2018 report was not released at the time of the AME report, that forecast could not take into account the most recent public information.
Coppabella	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. HoustonKemp's forecasts differed from the AME forecasts though the reasons for this are unclear. Wood Mackenzie estimated a similar volume but forecast production until 2032. This is difficult to reconcile. The QCA has not been able to identify a Peabody statement regarding mine life.	Include Coppabella and defer to AME forecasts, due to lack of public information to ascertain mine life.
Foxleigh	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. HoustonKemp's forecasts differed from the AME forecasts though the reasons for this are unclear. Wood Mackenzie assumed closure of Foxleigh from 2020 due to lower margins. QMetco stated that it acquired the mine in 2016 and reports production of approximately 3.2 mt of metallurgical coal, which is transported to DBCT. Its website notes a mine life of greater than 10 years (although it is unclear from what date). 905	Include Foxleigh and defer to AME forecasts due to limited public information. There is limited information to validate the expected life of the operation, other than the statement on QMetco's website. The QCA notes Wood Mackenzie's view. However the QCA has no independent evidence to assume ceased production at this stage.
Gregory Crinum	This mine was not considered in the original MMI reconciliation as HoustonKemp/AME did not include this production. However, DBCT Management included this mine in its demand analysis following the draft recommendation. Wood Mackenzie did not include this mine in its forecasts.	Include Gregory Crinum at 3 mtpa for 20 years. Sojitz has reportedly commenced coking coal production at the mine. With no additional public information and a lack of forecasts from AME and Wood Mackenzie,

⁹⁰¹ Queensland Government, Open Data Portal, Coal industry review statistical tables, Production by individual mines, Coal industry review tables 2017–2018, spreadsheet, viewed 23 September 2019, https://www.data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/1b7fb643-c880-42bf-940b-fc3c582d239d/view/b7fc01e3-e3d2-4678-8025-26373ae64e88.

⁹⁰² Reserve refers to the economically mineable part of a measured and/or indicated mineral resource. See Joint Ore Reserves Committee, *The JORC Code*, 2012 edition, p. 16, para. 29, http://www.jorc.org/docs/JORC code 2012.pdf.

⁹⁰³ Glencore, *Resources & Reserves Report 2017*, as at 31 December 2017, p. 51, https://www.glencore.com/dam/jcr:a2823ab5-5715-463d-83d2-a14ab0c0e8e3/GLEN-2017-Resources-Reserves-Report.pdf.

⁹⁰⁴ Glencore, *Resources & Reserves Report 2018*, as at 31 December 2018, p. 54, https://www.glencore.com/dam/jcr:ae4466b4-7ef4-4407-ae00-6ca55b694028/GLEN 2018 Resources Reserves Report-.pdf.

⁹⁰⁵ QMetco Limited, Company overview, viewed 23 September 2019, www.qmetco.com.au/site/about-us/company-overview; QMetco Limited, Home, viewed 3 October 2019, http://www.qmetco.com.au/site/content/default.aspx.

Mine/Project	Comments	Assessment
	This mine was in care and maintenance, but Sojitz Mining recently purchased it from BMA. Sojitz stated that it planned to recommence shipping in the second half of 2019 ⁹⁰⁶ and annual production would be up to 3 mtpa with an expected life of more than 20 years. ⁹⁰⁷ In April 2019, a DNRME media release stated that production at Gregory Crinum would start later in 2019. ⁹⁰⁸ In October 2019, it was reported that Sojitz had achieved first coking coal production at the mine. ⁹⁰⁹	the company statement regarding maximum annual output has been relied upon, but this volume is a maximum output, and production may therefore be slightly overstated.
Grosvenor	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. AME and Wood Mackenzie's forecasts also align with these volumes. Anglo American lists nameplate capacity of the mine as 7.5 mtpa. 910 The mine's environmental impact statement assessment report cited run of mine (ROM) capacity of 7 mtpa and net exports of 5 mtpa. 911	Include as per AME/Wood Mackenzie forecasts, given that the forecasts align with each other and relevant public information on net exports.
Hail Creek	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. AME and Wood Mackenzie's forecasts also align with these volumes. Glencore assumed responsibility for operational management in 2018 and its website refers to annual production of 9.4 mtpa. 912	Include as per AME/Wood Mackenzie forecasts, given that the forecasts align with each other and relevant public information.
Isaac Plains	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. HoustonKemp's forecasts differed from AME's forecasts though the reasons for this are unclear. Wood Mackenzie forecasts production at Isaac Plains to cease from 2024 and has not included production at Isaac Plains (Underground) in its forecasts (i.e. not before 2035). Mining at Isaac Plains finished in February 2019 and has now moved to the Isaac Plains East area. 913 Stanmore Coal also acquired Wotonga South (now Isaac Downs) in 2018. Stanmore stated it was working towards having	Include at 2.4 mtpa as per public information on maximum saleable/product coal output. Based on statements from Stanmore Coal, the development of Isaac Downs seems highly likely (dependent on approvals). There is limited information on expected timings or production from Isaac Plains Underground

906 Sojitz Corporation, Sojitz completes acquisition of Australia's Gregory Crinum mine, media release, 27 March 2019, https://www.sojitz.com/en/news/2019/03/20190327.php.

⁹⁰⁷ Sojitz Corporation, Sojitz agrees to acquire Gregory Crinum mine, media release, 2018, https://www.sojitzcoalmining.com/gregory-mine.

⁹⁰⁸ A Lynham, *Surat mine expansion a win for regional Qld*, media release, Queensland Government, 30 April 2019, http://statements.qld.gov.au/Statement/2019/4/30/surat-mine-expansion-a-win-for-regional-qld.

⁹⁰⁹ Australia's Mining Monthly, *Sojitz restarts Gregory washplant*, 17 October 2019, https://www.miningmonthly.com/operational-excellence/international-coalnews/1373713/sojitz-restarts-gregory-washplant.

⁹¹⁰ Anglo American, *Moranbah Grosvenor Complex, Socio-Economic Assessment Toolbox Report 2019–2021*, 2019, p. 12, https://australia.angloamerican.com/~/media/Files/A/Anglo-American-Australia-

V3/document/reports/AngloAmerican_Moranbah%20Grosvenor%20Complex%20Report_web%20ready.pdf.

⁹¹¹ Department of Environment and Resource Management, Assessment Report under the Environmental Protection Act 1994, Grosvenor Project proposed by Anglo Coal (Grosvenor) Pty Ltd, Queensland Government, September 2011, p. 2, https://www.qld.gov.au/__data/assets/pdf_file/0021/108363/grosvenor-eis-assessment-report.pdf.

⁹¹²Glencore, Hail Creek Open Cut, fact sheet, https://www.glencore.com.au/en/who-we-are/energy-products/hail-creek/Documents/Hail-Creek-OC-2018-factsheet.pdf.

Mine/Project	Comments	Assessment			
	the EIS for Isaac Downs lodged by the end of 2019. ⁹¹⁴ Stanmore Coal's FY19 results presentation provides an execution timeline for Isaac Downs with approvals expected to be granted in early 2021 (subject to no material objections). ⁹¹⁵	with Stanmore Coal stating a project decision will be deferred until port and coal handling capacity is available (i.e. when mining at Isaac Downs is			
	In its Initial Advice Statement for the EIS, Stanmore estimated mining operations at Isaac Downs would commence from mid-2021 and extend the life of the Isaac Plains complex to 15+ years with ROM production of 3.2 mtpa. It stated that coal from Isaac Plains Mine will be substituted by coal from Isaac Downs. 916 Stanmore advised its investors (in May 2019) that it had secured 2.4 mt of port capacity at DBCT for the Isaac Plains Complex (Isaac Plains, Isaac Plains East and Isaac Downs). It listed a capacity of 3.5 mt ROM (2.4 mt product). 917 Its 2019 Annual Report lists FY20 expected production for the Isaac Plains complex as 2.35 mt product. 918 Stanmore Coal stated that Isaac Plains Underground's bankable feasibility study confirmed its financial viability. The project decision has been deferred until additional port and coal handling capacity is secured or until mining at Isaac Downs is largely completed. 919	completed). Wood Mackenzie does not expect production before 2035; the QCA has limited information and cannot positively conclude production will occur before 2030.			
Kestrel	MMI excluded Kestrel in its original reconciliation, as the mine is within the Blackwater system and there was no evidence to support current or future material redirections of volumes from RG Tanna to DBCT.	Exclude, as it is within the Blackwater system. Additionally, there is no evidence to suggest that any			
	HoustonKemp stated that Kestrel volumes should be included, as DBCT is a viable alternative service for Kestrel. P20 The DBCT User Group said that Kestrel has a rail angle that turns south towards RG Tanna, and to transport coal north to DBCT would require building a northern turning angle. P21 The DBCT User Group stated that Kestrel's previous usage of DBCT was a legacy of Kestrel being managed as part of Rio Tinto's portfolio of mines, for selected sales involving blending with Hail Creek (also owned by Rio Tinto at the time).	volumes will be transported through DBCT. The term of the contract with RG Tanna is not known.			

⁹¹³ Stanmore Coal, Isaac Plains Complex project overview, viewed 23 September 2019, https://stanmorecoal.com.au/project/isaac-plains-complex; Stanmore Coal, *Annual Report* 2019, p. 26, https://www.asx.com.au/asxpdf/20191009/pdf/449b76p0hp8h68.pdf.

⁹¹⁴ Stanmore Coal, *March 2019 quarterly production report*, 9 April 2019, p. 3, https://www.asx.com.au/asxpdf/20190409/pdf/4445393zs97b84.pdf: Stanmore Coal, *Annual Report 2019*, pp. 28–29, https://www.asx.com.au/asxpdf/20191009/pdf/449b76p0hp8h68.pdf.

⁹¹⁵ Stanmore Coal, FY19 Results Presentation, 22 August 2019, p. 9, https://www.asx.com.au/asxpdf/20190822/pdf/447qt3fc7w64cq.pdf. See also Stanmore Coal, Annual Report 2019, p. 5, https://www.asx.com.au/asxpdf/20191009/pdf/449b76p0hp8h68.pdf.

⁹¹⁶ Stanmore IP South Pty Ltd, *Initial Advice Statement, Isaac Downs Project*, May 2019, https://www.qld.gov.au/__data/assets/pdf_file/0022/108373/isaac-downs-project-ias.pdf.

⁹¹⁷ Stanmore Coal, Wilsons Rapid Insights Conference, 30 May 2019, https://www.asx.com.au/asxpdf/20190530/pdf/445gl9kdjlgl14.pdf.

⁹¹⁸ Stanmore Coal, Annual Report 2019, p. 11, https://www.asx.com.au/asxpdf/20191009/pdf/449b76p0hp8h68.pdf.

⁹¹⁹ Stanmore Coal, *Annual Report 2019*, p. 11, https://www.asx.com.au/asxpdf/20191009/pdf/449b76p0hp8h68.pdf.

⁹²⁰ DBCT Management, sub. 26, appendix A, p. 17.

⁹²¹ DBCT User Group, sub. 30, p. 27.

⁹²² DBCT User Group, sub. 30, p. 33.

Mine/Project	Comments	Assessment
	Kestrel Coal Resources (owned by EMR Capital and PT Adaro Energy) acquired Rio Tinto's interest in Kestrel in 2018. Wood Mackenzie noted that Kestrel has previously exported small tonnages through DBCT. Kestrel Coal Resources identified RG Tanna as its contracted coal terminal. ⁹²³	
Lake Vermont	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation; however, it adjusted these volumes to account for Jellinbah's existing contract at AAPT. AME provided production forecasts of 9.3 mtpa across the relevant period but recognised that 6 mtpa is currently allocated to AAPT. 924	Include Lake Vermont as per AME forecasts, as there is limited information to ascertain which consultant's forecasts are more correct.
	The DBCT User Group advised that Lake Vermont is currently contracted at AAPT for 6 mtpa until 30 June 2028. PBCT Management stated that this mine originally approached DBCT for capacity but the terminal was fully contracted at the time. PBC described by the second state of the second	Adjust to account for the contract at AAPT (i.e. deduct 6 mtpa to mid-2028). An assumption has been made that upon the expiry of that contract those tonnages will be recontracted at DBCT.
Middlemount	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation; however, it adjusted these volumes to account for Middlemount's existing contract at AAPT. AME provided production forecasts of 3.8 mtpa across the relevant period, however recognised that 3 mtpa is currently allocated to	Include Middlemount as per AME forecasts, as there is limited information to ascertain which consultant's forecasts are more accurate.
	AAPT. 927 The DBCT User Group advised that Middlemount is currently contracted at AAPT for 3 mtpa until 30 June 2027. 928 DBCT Management stated that this mine originally approached DBCT for capacity but the terminal was fully contracted at the time.	Adjust to account for contract at AAPT (i.e. deduct 3 mtpa to mid-2027). An assumption has been made that upon the expiry of that contract those tonnages will be recontracted at DBCT.
Millennium	MMI did not include this mine in its original reconciliation for the draft recommendation, as HoustonKemp did not include it in its forecasts. However, DBCT Management included this mine in its demand analysis following the draft recommendation. AME forecast production to cease in 2019; Wood Mackenzie did not include any volumes for this mine.	Exclude, as public information suggests that the mine will close in 2019.
	Peabody referred to the expected closure of the mine in 2019. The December 2018 quarterly report indicated that depleted reserves at Millennium will be exhausted in 2019 and referred to a planned closure of the mine in the second half of 2019. The december 2018 quarterly report indicated that depleted reserves at Millennium will be exhausted in 2019 and referred to a planned closure of the mine in the second half of 2019.	

⁹²³ Kestrel Coal, Operations, viewed 23 September 2019, https://kestrelcoal.com/operations/.

⁹²⁴ DBCT Management, sub. 10, appendix 12, pp. 18–19.

⁹²⁵ DBCT User Group, sub. 15, p. 37.

⁹²⁶ DBCT Management, sub. 1, p. 30, para. 141.

⁹²⁷ DBCT Management, sub. 10, appendix 12, pp. 18–19.

⁹²⁸ DBCT User Group, sub. 15, p. 37.

⁹²⁹ Peabody, 2018 Annual Report, p. 69, https://www.peabodyenergy.com/Peabody/media/MediaLibrary/Investor%20Info/Annual%20Reports/2018-Peabody-Annual-Report-02.pdf?ext=.pdf.

Mine/Project	Comments	Assessment
Moorvale	MMI included this mine in its original reconciliation for the draft recommendation based on public information. HoustonKemp did not include this mine in its forecasts, as AME forecast production to cease in 2020. Peabody stated in its December 2018 quarterly report that it is continuing to evaluate opportunities to extend the life of the mine beyond 2025. Peabody announced an extension to the Moorvale mine in October 2019; refer to discussion on Moorvale South below.	Include Moorvale as per Wood Mackenzie forecasts. Peabody's statement about extending the life beyond 2025 supports these forecasts. See Moorvale South below for further discussion relating to the potential mine extension.
Moranbah North	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. Wood Mackenzie estimated a slightly higher throughput figure. Anglo American noted that in 2018, Moranbah North produced 9 mt, which was higher than the previous year's production. 932	Include Moranbah North as per AME forecasts, as public information is limited. It is unclear whether current 2018 production represents a temporary spike or whether it will continue in the long term.
North Goonyella	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. North Goonyella experienced a fire in 2018 and is now executing a recovery plan. Peabody stated in its December 2018 quarterly report that the mine was targeting longwall production of approximately 2 mt in 2020 and was planning a return to normal mining activities in 2020. 933 However, in its September 2019 quarterly report, Peabody stated that after a review and assessment of the mine, it will instead focus on accessing North Goonyella reserves and expects no meaningful volumes for three or more years. Peabody said through its revised approach, the mine has a potential life of several decades. 934	Include North Goonyella as per AME forecasts however excise production for 2021 and 2022 given Peabody's October 2019 statement. ⁹³⁵ It is unclear whether the changes to the mining approach will alter expected yearly production. In the absence of any contrary information, Peabody's previous targets have been retained. Peabody's statement on mine life contemplates production for potentially several decades.
Oaky Creek	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. Wood Mackenzie reported lower production forecasts. Glencore's website states that the Oaky Creek operation includes Oaky No. 1 Mine and Oaky North Mine. Glencore's 2018 Resources and Reserves report stated Oaky Creek's reserves are sufficient to support the	Include as per AME forecasts, as information on expected tonnages is limited.

⁹³⁰ Peabody, *Peabody reports earnings for quarter and year ended December 31, 2018*, media release, 6 February 2019, https://www.peabodyenergy.com/Media-Center/Newsroom.

⁹³¹ Peabody, *Peabody reports earnings for quarter and year ended December 31, 2018*, media release, 6 February 2019, https://www.peabodyenergy.com/Media-Center/Newsroom.

⁹³² Anglo American, *Moranbah Grosvenor Complex Socio-Economic Assessment Toolbox Report 2019–2021*, 2019, p. 12, https://australia.angloamerican.com/~/media/Files/A/Anglo-American-Australia-V3/document/reports/AngloAmerican_Moranbah%20Grosvenor%20Complex%20Report_web%20ready.pdf.

⁹³³ Peabody, *Peabody reports earnings for quarter and year ended December 31, 2018*, media release, 6 February 2019, https://www.peabodyenergy.com/Media-Center/Newsroom.

⁹³⁴ Peabody, *Peabody reports earnings for quarter and year ended September 30 2019*, media release, 29 October 2019, https://www.peabodyenergy.com/Media-Center/Newsroom.

⁹³⁵ The QCA notes that this approach is conservative given that Peabody outlined the possibility of a lack of volumes for three or more years. The QCA has only excised volumes for the minimum expected period of three years to end-2022 (from end-2019).

⁹³⁶ Glencore, Oaky Creek, viewed 23 September 2019, http://www.glencore.com.au/en/who-we-are/energy-products/oaky-creek/Pages/default.aspx.

Mine/Project	Comments	Assessment		
	planned mine life of 15 years. 937 Combined production at Oaky No. 1 and Oaky North was approximately 4 mtpa in 2017–18. 938			
Poitrel	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. Wood Mackenzie forecast slightly lower volumes. This BMC mine is currently contracted at DBCT. 939 Production was approximately 3.7 mtpa in 2017–18.940	Include as per AME forecasts, as information on expected tonnages is limited.		
South Walker Creek	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. Wood Mackenzie forecast volumes broadly aligned with AME's forecasts. This BMC mine is currently contracted at DBCT. 941 The mine produced 6 mtpa in 2017–18 and 5.1 mtpa in 2016–17.942	Include as per AME forecasts, as information on expected tonnages is limited.		
Projects				
Codrilla	MMI did not include this project in the base case due to status and timing uncertainties but included it in the high case in its original reconciliation for the draft recommendation. Wood Mackenzie did not include this project in its forecasts. In December 2018, the Department of Industry, Innovation and Science listed Codrilla as 'feasible'. 943 In March 2019, the DBCT User Group's consultant, PwC stated that it has been advised by the proponent (via the DBCT User Group) that this project is very unlikely to proceed in the declaration period/not proceeding at all. 944	Exclude. The current status of project cannot be confirmed and the timing is too uncertain. PwC stated that it has been advised that this project is either very unlikely to proceed in the declaration period or not proceeding at all.		

⁹³⁷ Glencore, *Resources & Reserves Report 2018*, as at 31 December 2018, p. 53, https://www.glencore.com/dam/jcr:ae4466b4-7ef4-4407-ae00-6ca55b694028/GLEN 2018 Resources Reserves Report-.pdf.

⁹³⁸ Queensland Government, Open Data Portal, Coal industry review statistical tables, Production by individual mines, Coal industry review tables 2017–2018, spreadsheet, viewed 23 September 2019, https://www.data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/1b7fb643-c880-42bf-940b-fc3c582d239d/view/b7fc01e3-e3d2-4678-8025-26373ae64e88.

⁹³⁹ DBCT Management, sub. 13, p. 28, para. 127.1.

⁹⁴⁰ Queensland Government, Open Data Portal, Coal industry review statistical tables, Production by individual mines, Coal industry review tables 2017–2018, spreadsheet, viewed 23 September 2019, https://www.data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/1b7fb643-c880-42bf-940b-fc3c582d239d/view/b7fc01e3-e3d2-4678-8025-26373ae64e88.

⁹⁴¹ DBCT Management, sub. 13, p. 28, para. 127.1.

⁹⁴² Queensland Government, Open Data Portal, Coal industry review statistical tables, Production by individual mines, Coal industry review tables 2017–2018, spreadsheet, viewed 23 September 2019, https://www.data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/1b7fb643-c880-42bf-940b-fc3c582d239d/view/b7fc01e3-e3d2-4678-8025-26373ae64e88.

Mine/Project	Comments	Assessment		
	Peabody has not published information relating to this project's timelines on its website. The EIS process was completed in October 2011. 945 No recent information can be found on this project.			
Denham	MMI did not include this project in the base case due to status and timing uncertainties, but included it in the high case in its original reconciliation for the draft recommendation. Wood Mackenzie did not include this project in its forecasts. The DBCT User Group's consultant, PwC, stated that it had been advised by the proponent (via the DBCT User Group) that this project is very unlikely to proceed in the declaration period/not proceeding at all. 946 This project is also known as the Eaglefield expansion. An EIS was approved in 2011. 947 It was reported that operations at 'Eaglefield' are currently on hold, with equipment parked up onsite from July 2015. 948 No information is available on Peabody's website in relation to the project, its status or development timeframes.	Exclude. The current status of project cannot be confirmed and the timing is too uncertain. PwC stated that it has been advised that this project is either very unlikely to proceed in the declaration period or is not proceeding at all.		
Dysart East	MMI did not include this project in its original reconciliation as HoustonKemp did not include it in its forecasts. However, DBCT Management included this project in its demand analysis following the draft recommendation. Neither AME nor Wood Mackenzie included this project in their forecasts. Bengal Coal's website states that a mining lease to 2039 has been granted (with a production rate of 1.9 mtpa). The website states that 32.32 mt of JORC reserves have been designed and planned to be extracted and a further 80 mt of resources in thinner seams that have not yet been designed and planned for extraction. The project does not require an EIS. In December 2018, the Department of Industry, Innovation and Science described Dysart East's status as 'publicly announced' and estimated its start date as 2023.	Include at 1.9 mtpa from 2023. It appears that the company is committed to developing the project and have obtained a mining lease. There is limited information from the producer on timing; however, 2023 allows for depletion of the ~32 mt of reserves at a rate of 1.9 mtpa in line with the expiry of the mining lease (and aligns with the only publicly available estimated start date).		

⁹⁴³ Department of Industry, Innovation and Science, *Resources and Energy Quarterly—December 2018*, Major Projects Data: Resources and Major Projects List, Office of the Chief Economist, Australian Government, viewed 12 September 2019, https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2019/documents/REQ-December-2018-Major-Projects-Data.xlsx.

⁹⁴⁴ DBCT User Group, sub. 30, schedule 2, p. 23.

⁹⁴⁵ Queensland Government, Codrilla Coal Mine Project, viewed 23 September 2019, https://www.qld.gov.au/environment/pollution/management/eis-process/projects/completed/codrilla-coal-mine-project.

⁹⁴⁶ DBCT User Group, sub. 30, schedule 2, p. 23.

⁹⁴⁷ Queensland Government, Eaglefield expansion project, viewed 23 September 2019, https://www.qld.gov.au/environment/pollution/management/eis-process/projects/completed/eaglefield-expansion-project.

⁹⁴⁸ MiningLink, Eaglefield Opencut Coal Mine, 2019, viewed 23 September 2019, http://mininglink.com.au/site/eaglefield-opencut-coal-mine.

⁹⁴⁹ Bengal Coal Pty Limited, Project, viewed 23 September 2019, https://www.bengalcoal.com/project.

⁹⁵⁰ Queensland Government Statistician's Office, *Bowen and Galilee Basins non-resident population projections, 2018 to 2024,* Queensland Treasury, p. 2, http://www.qgso.qld.gov.au/products/reports/bowen-galilee-basins-non-resident-pop-proj/bowen-galilee-basins-non-resident-pop-proj-2018-2024.pdf.

Mine/Project	Comments	Assessment
Eagle Downs	MMI used the HoustonKemp forecasts in its original reconciliation for the draft recommendation. HoustonKemp's forecasts differed from the AME forecasts, though the reasons for this are unclear. Wood Mackenzie assumed this project would commence production in 2025. The EIS was completed in 2010.952 Construction of the mine is 40 per cent complete and Aquila refers to an average saleable output of 4.5 mtpa.953 In September 2018, South32 completed the acquisition of a 50 per cent interest in the project and assumed operatorship. South32 advised that it has commenced a feasibility study ahead of its investment decision in the December 2020 half year.954	Include Eagle Downs as per Wood Mackenzie forecasts. The AME forecasts seem overoptimistic, given production is expected in 2021 after a December 2020 investment decision. These forecasts also differ from the HoustonKemp forecasts. Wood Mackenzie's forecasts seem more reasonable. This timing would likely allow for the remaining construction required to be completed and any necessary approvals to be obtained.
Grosvenor West	MMI did not include this project in the base case, due to the unknown status and timing uncertainties, but included it in the high case in its original reconciliation for the draft recommendation. Wood Mackenzie did not include this project in its forecasts. Wood Mackenzie said the project is not actively progressing and there is no viable timeline for its development. Wealth Resources stated that resources can support mine operations for up to 20 years. PSS An EIS was not submitted by the due date (18 October 2015) so the terms of reference (TOR) for the EIS have expired. The proponent is therefore required to go back to the draft TOR stage if it wishes to progress. To further information could be found on its status.	Exclude. No public information is available to suggest that the proponent is currently committed to developing Grosvenor West. It is highly unlikely that production would occur by 2021 as forecast by AME, given that approvals have not yet been sought. Wood Mackenzie advised that the project is not actively progressing.
Harrybrandt	MMI did not include this project in the base case, due to uncertain development timeframes, but included it in the high case in its original reconciliation for the draft recommendation.	Exclude as per Wood Mackenzie forecasts. Development timeframes are too uncertain and

⁹⁵¹ Department of Industry, Innovation and Science, *Resources and Energy Quarterly—December 2018*, Major Projects Data: Resources and Major Projects List, Office of the Chief Economist, Australian Government, viewed 12 September 2019, Australian Government,

https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2019/documents/REQ-December-2018-Major-Projects-Data.xlsx.

⁹⁵² Queensland Government, Eagle Downs coal project, viewed 23 September 2019, https://www.qld.gov.au/environment/pollution/management/eis-process/projects/completed/eagle-downs-coal-project.

⁹⁵³ Aquila Resources, Eagle Downs Coking Coal Project, viewed 23 September 2019, https://www.aquilaresources.com.au/projects/eagle-downs-coking-coal-project.

⁹⁵⁴ South32, Quarterly Report, March 2019, p. 3, https://www.south32.net/docs/default-source/exchange-releases/quarterly-report-march-2019.pdf?sfvrsn=85517300_04

⁹⁵⁵ Wealth Resources, Grosvenor West Project, viewed 23 September 2019, https://www.wrgroup.com.au/.

⁹⁵⁶ Queensland Government, Grosvenor West project, viewed 23 September 2019, https://www.qld.gov.au/environment/pollution/management/eis-process/projects/withdrawn-lapsed/grosvenor-west-project.

⁹⁵⁷ Department of Industry, Innovation and Science, *Resources and Energy Quarterly—December 2018*, Major Projects Data: Resources and Major Projects List, Office of the Chief Economist, Australian Government, viewed 12 September 2019, https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2019/documents/REQ-December-2018-Major-Projects-Data.xlsx

Mine/Project	Comments	Assessment
	Wood Mackenzie in its report described it as an early stage exploration project and did not expect that production would begin until after 2035 (if developed). Yanzhou Coal refers to Harrybrandt as an advanced exploration stage project. The development timeframe is unknown. The EIS process has not commenced. No reference was made to the project in Yanzhou's 2017 annual report, which is the most recent publicly available annual report.	there is no public information to support development and production by 2024.
Hillalong	MMI included this project as per the HoustonKemp forecasts in its original reconciliation. Wood Mackenzie did not expect production from this project before 2035. The EIS process was completed in March 2017. The EIS stated that construction is expected to take three years and contemplated transport to DBCT. The December 2018, the Department of Industry, Innovation and Science listed Hillalong as 'feasible'. In its March 2019 report, Wood Mackenzie stated it was still in the process of assessing Hillalong, as it was previously considered highly unlikely. Shandong Energy's website does not show any information in relation to development timeframes or production targets. The process of the	Exclude as per Wood Mackenzie forecasts. It is highly unlikely that this mine will begin production in 2021 as forecast by AME, given construction has not commenced and a mining lease application has not been sought. Shandong Energy has not publicly indicated any development timeframes.
Ironbark No. 1	MMI included this project in its original reconciliation but reduced saleable coal to 2.1 mtpa as per the 2017 mine plan released by Fitzroy Australia Resources. Wood Mackenzie did not forecast production before 2035. This project was formerly known as the Ellensfield Coal Project. The Department of Industry, Innovation and Science listed Ellensfield as 'feasible' in December 2018. Fitzroy Australia Resources stated that production from Ironbark No. 1 is expected in the first quarter of 2020 and the mine would produce up to 6 mtpa ROM coal. A press release by the Queensland Government announcing approval of the mining lease cited a ROM output of up to 6 mtpa. P64	Include as per AME forecasts. Fitzroy Australia Resources appears committed to production by 2020. ROM coal production of 6 mtpa aligns more closely with the AME forecasts than the saleable output listed in the 2017 mine plan.

⁹⁵⁸ Yanzhou Coal, *Coal Industry*, viewed 23 September 2019, http://www.yanzhoucoal.com.cn/en/node_132.htm

⁹⁵⁹ Queensland Government, Hillalong Coal Project, viewed 23 September 2019, https://www.qld.gov.au/environment/pollution/management/eis-process/projects/completed/hillalong-coal-project.

⁹⁶⁰ Department of Industry, Innovation and Science, Resources and Energy Quarterly—December 2018, Major Projects Data: Resources and Major Projects List, Office of the Chief Economist, Australian Government, viewed 12 September 2019, https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2019/documents/REQ-December-2018-Major-Projects-Data.xlsx

⁹⁶¹ Shandong Energy, The Hillalong project area, viewed 23 September 2019, http://www.sdenergy.com.au/.

⁹⁶² Department of Industry, Innovation and Science, *Resources and Energy Quarterly—December 2018*, Major Projects Data: Resources and Major Projects List, Office of the Chief Economist, Australian Government, viewed 12 September 2019, https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2019/documents/REQ-December-2018-Major-Projects-Data.xlsx.

⁹⁶³ Fitzroy Australia Resources, *Ironbark on track to start producing coal by Q1 2020*, news article, 23 September 2018, http://www.fitzroyoz.com/the-news/ironbark-on-track-to-start-producing-coal-by-q1-2020.

⁹⁶⁴ A Lynham, *New mine offers jobs for north Queensland*, media release, Queensland Government, 1 November 2018, http://statements.qld.gov.au/Statement/2018/11/1/new-mine-offers-jobs-for-north-queensland.

Mine/Project	Comments	Assessment	
Lenton JV Burton	This project was previously referred to separately as the New Lenton project and Burton mine (care and maintenance). MMI considered the New Lenton project in its original reconciliation as per HoustonKemp's forecasts but did not include this project in the base case due to uncertainties about the project's status. MMI did not include the Burton mine in its original reconciliation, as it was not included by HoustonKemp. Wood Mackenzie included the Burton mine and New Lenton project in its forecasts separately.	Include at 1.5 mtpa for 16 years from 2022. Public information suggests that New Hope is progressing with development of the existing Burton mine and Lenton project area. AME estimated production from 2019 which has not eventuated. Wood Mackenzie estimated production from 2021, which does not	
	This combined project includes the former Burton mine and neighbouring Lenton project. Burton was acquired in 2017 by the Lenton Joint Venture. New Hope's 2018 annual report stated that this joint operation will develop the Burton mine and Lenton project area.	align with the most recent public information.	
	The EIS for the Lenton project has been suspended. New Hope's 2018 annual report stated that the prefeasibility study was continuing and lease applications and approvals were progressing. In January 2019, New Hope said work was progressing on securing off-site rail and port capacity for the project. A March 2019 news article quoted the New Hope CEO saying that an investment decision would be made in 2019 following securing port and rail approval. It stated that New Hope aims to restart the Burton mine, which was put in care and maintenance while it waits for final approvals for Lenton. 965 In its 2019 annual report, New Hope stated that it was undertaking geological assessment of tenements at the Burton mine and developing plans for recommissioning of infrastructure. In regard to the Lenton project, New Hope said it was progressing an amendment application to the existing environmental authority for the revised Lenton Project. 966		
	New Hope's financial results release for the year ended 31 July 2019 showed that production is planned at 1.5 mtpa for approximately 16 years, with first coal estimated for the calendar year 2022, subject to port and rail access. 967 The environmental authority allows for mining of up to 2 mtpa of coal. 968		
Moorvale South	MMI did not include this project in its original reconciliation, as it was not included in HoustonKemp's forecasts. Wood Mackenzie listed this project as possible and included production from 2021 in its forecasts. In October 2019, Peabody stated that it has approved the Moorvale South extension project, transitioning the mine to an enhanced coking coal profile as early as 2020, and extending the life of the mine through 2029, with optionality for future expansion.	Include as per Wood Mackenzie estimates. These estimates appear to broadly align with Peabody's statement in relation to the project.	
Moorvale West	MMI did not include this project in the base case, due to uncertainties regarding the project's status, but	Exclude. The current status of project cannot be	

⁹⁶⁵ M Burton, 'Coal miner New Hope targets project decision by year-end', *Reuters*, 19 March 2019, https://www.reuters.com/article/us-new-hope-results/coal-miner-new-hope-targets-project-decision-by-year-end-idUSKCN1QZ2NY.

⁹⁶⁶ New Hope, 2019 Annual Report, pp. 6, 12, https://www.newhopegroup.com.au/files/files/Annual%20Report%202019.pdf.

⁹⁶⁷ New Hope, *Financial results release, Full year ended 31 July 2019*, p. 26, https://www.newhopegroup.com.au/files/files/2019%20-%20Financial%20Results%20Release%20presentation.pdf.

⁹⁶⁸ New Hope, sub. 59, p. 4.

Mine/Project	Comments	Assessment	
	included it in the high case in its original reconciliation. Wood Mackenzie did not include this project. There is limited public information available. It is unclear whether this project is intended to operate as an extension to the Moorvale mine. PwC mentioned that the proponent (via the DBCT User Group) has informed it that the project is unlikely to proceed, or it may not proceed at all, in the declaration period.	confirmed and the timing is too uncertain. PwC said that it had been advised that this project is either very unlikely to proceed in the declaration period or may not proceed at all.	
Moranbah South	MMI did not include this project in the base case, due to uncertainties regarding the project's status, but included it in the high case in its original reconciliation for the draft recommendation. Wood Mackenzie forecast production to commence from 2034. In December 2018, the Department of Industry, Innovation and Science listed Moranbah South as 'feasible'. ⁹⁶⁹ PwC assumed a 2029 start date in a 'high case'. Anglo American stated that the production timeframes are yet to be determined. ⁹⁷⁰ Anglo American in its SEAT report for Moranbah North referred to Moranbah South as a 'longer-term option currently in early concept stage'. ⁹⁷¹	Exclude as per Wood Mackenzie forecasts. The development timeframe remains too uncertain. Anglo American's description of a project in 'early concept stage' does not suggest an intention to achieve production by 2021.	
Olive Downs North	MMI included this project as per the HoustonKemp forecasts in its original reconciliation. Pembroke Resources acquired the Olive Downs coal tenements in 2016, including Olive Downs North, Olive Downs South and Willunga. Pembroke has obtained EIS approval for Olive Downs South/Willunga. 972 No mention is made of Olive Downs North. There is limited public information otherwise.	Exclude. There is limited public information to confirm the project's current status and timing. This project does not seem to be included in Pembroke Resources' plan for Olive Downs South/Willunga.	
Olive Downs South/Willunga	MMI did not include this mine in its original reconciliation, as the HoustonKemp forecasts included only Olive Downs North and Vermont East/Willunga. The EIS lists Olive Downs South and Willunga as the projects in question. In May 2019, the EIS process was completed. 973 In October 2019, the Environmental Authority was also received. Pembroke Resources is now awaiting EPBC Act approval and the grant of its mining leases before it commences construction. 974 The EIS	Include as per Wood Mackenzie forecasts. Pembroke Resources has estimated production from 2020. These production forecasts align with the EIS for the project. HoustonKemp/AME did not include forecasts for Olive Downs South.	

⁹⁶⁹ Department of Industry, Innovation and Science, *Resources and Energy Quarterly –December 2018*, Major Projects Data: Resources and Major Projects List, Office of the Chief Economist, Australian Government, viewed 12 September 2019, https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2019/documents/REQ-December-2018-Major-Projects-Data.xlsx

⁹⁷⁰ Anglo American, sub. 44, p. 5.

⁹⁷¹ Anglo American, *Moranbah Grosvenor Complex Socio-Economic Assessment Toolbox Report 2019–2021*, 2019, p. 13, https://australia.angloamerican.com/~/media/Files/A/Anglo-American-Australia-V3/document/reports/AngloAmerican Moranbah%20Grosvenor%20Complex%20Report web%20ready.pdf.

⁹⁷² Department of State Development, Manufacturing, Infrastructure and Planning, Olive Downs project, Queensland Government, viewed 23 September 2019, https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/olive-downs-project.html.

⁹⁷³ Department of State Development, Manufacturing, Infrastructure and Planning, Olive Downs project, Queensland Government, viewed 23 September 2019, https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/olive-downs-project.html.

⁹⁷⁴ Pembroke Resources, *Olive Downs Coking Coal Project receives environmental approval*, media release, 2 October 2019, https://www.pembrokeresources.com.au/media/Olive%20Downs%20EA.pdf.

Mine/Project	Comments	Assessment
	report states that the first stage of the project would produce 4.5 mtpa and would be exported through DBCT. It lists Stage 1 production at 0.8–4.5 mtpa from 2020–2030.975	
Rockwood	MMI did not include this mine in the original reconciliation, as HoustonKemp did not include it. Wood Mackenzie included it in its production forecasts. There have been no updates to UD Coal's information on Rockwood since 2016. UD Coal stated that pending detailed geological investigations, engineering studies may be considered for the project to determine the optimal mining practices for this resource. 976	Exclude. There is limited public information to confirm the project's current status. Development timeframes and production estimates are uncertain.
Styx (Central Queensland Coal)	MMI did not include this mine in its original reconciliation, as HoustonKemp did not include it. DBCT Management included this project in its demand analysis following the draft recommendation. Also known as the Central Queensland Coal Project, this is a joint venture between CQ Coal and Fairway Coal, both wholly owned subsidiaries of Mineralogy Pty Ltd. An EIS initial advice statement was prepared in 2017; an amended EIS and responses to submissions were provided in May 2018. An additional two-year period was requested to respond to key matters raised by the department and other advisory bodies on the amended EIS. The proponent was required submit an updated EIS by June 2020; it has provided a response however the government has advised the proponent to provided further information to adequately respond to key submissions and review the updated EIS. 977 The project is not located within the Goonyella system and requires rail transport using Queensland Rail's North Coast line before entering the Goonyella system to rail to DBCT. No mining lease application has been granted for the project. The most recent company update, in July 2018, stated that the grant of the mining lease would occur in first quarter of 2019. A construction period of six months was contemplated. 978	Exclude, as it is outside the relevant market. Additionally, the development timeframes remain uncertain. The EIS process has not been completed, a mining lease has not been granted and construction has not commenced. The company's intended timeframes have not materialised.
Talwood	MMI did not include this project in the base case, due to uncertainties regarding the project's status, but included it in the high case in its original reconciliation for the draft recommendation. HoustonKemp's forecasts	Exclude. There is limited information to confirm the project status or development timeframes. Aquila Resources has not publicly indicated any intention to

⁹⁷⁵ Department of State Development, Manufacturing, Infrastructure and Planning, *Olive Downs project, Coordinator-General's evaluation report on the environmental impact statement*, May 2019, p. 31, http://eisdocs.dsdip.qld.gov.au/Olive%20Downs/cger/olive-downs-project-coordinator-general-evaluation-report.pdf.

⁹⁷⁶ U&D Coal, Rockwood project overview, viewed 23 September 2019, http://www.udcoal.com.au/default.asp?section_id=21.

⁹⁷⁷ Queensland Government, Proposed Central Queensland Coal Project (Styx Coal Project), viewed 23 September 2019, https://www.qld.gov.au/environment/pollution/management/eis-process/projects/current-projects/styx-coal-project.

⁹⁷⁸ Central Queensland Coal, Central Queensland Coal Project, July 2018, http://cqcoal.com.au/wp-content/uploads/2018/07/20180719-CQC-Project.pdf.

Mine/Project	Comments	Assessment
	differ from AME's forecast; the reasons for this are unclear. According to Aquila's website, the project is in early stage studies with the concept study completed in 2011. There is no evidence that an EIS process has commenced. Enable Advisory announced in 2017 that Aquila was looking for a buyer for this project. 980	commence production.
Teresa	MMI did not include this project in its original reconciliation, as the status of the project is unknown and it is located within the Blackwater system. The EIS lapsed in 2016 and the proponent has not sought to submit a new EIS. There is limited public information. Wood Mackenzie did not include Teresa in its forecasts, saying that it 'currently does not consider the Teresa project to be actively progressing, with no viable timeline for its development. The project is also more likely to use Gladstone Port via the Blackwater rail network due to its location'.981	Exclude. It is within the Blackwater system boundary. The status of the project is unknown and there is limited information regarding development timeframes or expected production.
Valeria	MMI did not include this project in its original reconciliation, as it was not included in the HoustonKemp forecasts. Wood Mackenzie included it as a probable project and as such, it has been considered. Glencore acquired this development project from Rio Tinto in 2018.982 Its website explains that it is assessing the potential for Valeria to be developed to replace Clermont, and will continue to assess the project's timing against the global coal market and its portfolio. Two mining lease applications have been submitted for Valeria South Coal. Glencore stated that it is proposing to develop a project with an average production rate of 2.3 mtpa over 7 years.983 According to its 2018 Resources and Reserves report, there is no mine plan for this project.984 An EIS process is yet to be undertaken.	Exclude. AME and DBCT Management did not include this project. It is unclear how the forecasts from Wood Mackenzie align with Glencore's stated production rate. Production may commence following the closure of Clermont mine; however, Glencore stated that this is dependent on the global coal market and its portfolio. Public information suggests this project is in its early stages (e.g. no mine plan), such that the development timeframe is uncertain and dependent on planning/approvals.
Vermont East	MMI initially included this project in its original reconciliation in conjunction with Willunga. Vermont East is included separately by Wood Mackenzie. As an EIS for Olive Downs South/Willunga was announced, Vermont	Exclude. There is limited information and the project's status is unknown.

⁹⁷⁹ Aquila Resources, Talwood Coking Coal Project, viewed 23 September 2019, https://www.aquilaresources.com.au/projects/talwood-coking-coal-project.

⁹⁸⁰ Enable Advisory, Aquila's Talwood on the market, viewed 23 September 2019, http://enableadvisory.com/2017/08/07/aquilas-talwood-market/.

 $^{^{\}rm 981}$ DBCT User Group, sub. 30, schedule 1, p. 8.

⁹⁸² Rio Tinto, *Rio Tinto agrees sale of Hail Creek and Valeria to Glencore for \$1.7 billion*, media release, 20 March 2018, http://www.riotinto.com/media/media-releases-237_24838.aspx.

⁹⁸³ Glencore, Valeria, viewed 23 September 2019, http://www.glencore.com.au/en/who-we-are/energy-products/valeria/Pages/default.aspx.

⁹⁸⁴ Glencore, *Resources & Reserves Report 2018*, as at 31 December 2018, p. 54, https://www.glencore.com/dam/jcr:ae4466b4-7ef4-4407-ae00-6ca55b694028/GLEN_2018_Resources_Reserves_Report-.pdf.

Mine/Project	Comments	Assessment
	East has been considered separately. There is limited public information in relation to this project. No EIS has been commenced, Vermont East is not included in the EIS application in relation to the Olive Downs complex. 985	
West/North Burton	MMI did not include this project in its base case for the original reconciliation, as the project status and timeframes were uncertain. There is limited information on the progress of this project. PwC stated that it has been advised by the proponent (via the DBCT User Group) that this is one of the projects that is either very unlikely to proceed or will not proceed at all. 986	Exclude. Project status and timeframes are uncertain. PwC stated that it has been advised that this project is either very unlikely to proceed in the declaration period or will not proceed at all.
Winchester South	MMI did not include this project in the base case in the original reconciliation, as the development path for the mine was highly uncertain at that time. Whitehaven Coal acquired this project from Rio Tinto in 2018 and stated that it intends to bring the project into production by FY24.987 In April 2019, it was declared a coordinated project by the Queensland Government. A draft EIS is being prepared by the proponent.988	Include as per Wood Mackenzie's forecasts. Wood Mackenzie's forecasts align with an estimated production start date in FY24.

⁹⁸⁵ Department of State Development, Manufacturing, Infrastructure and Planning, Olive Downs project, Queensland Government, viewed 23 September 2019, https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/olive-downs-project.html.

⁹⁸⁶ DBCT User Group, sub. 30, schedule 2, p. 23.

⁹⁸⁷ Whitehaven Coal, Winchester South Project, viewed 23 September 2019, http://www.whitehavencoal.com.au/operations-3/winchester-south-project/.

⁹⁸⁸ Department of State Development, Manufacturing, Infrastructure and Planning, Winchester South project, Queensland Government, viewed 23 September 2019, https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/current-projects/winchester-south-project.html.

APPENDIX E—KEY ACCESS SEEKER/USER AND ACCESS PROVIDER RIGHTS AND OBLIGATIONS UNDER PART 5 OF THE QCA ACT

This appendix provides a summary of some key access seeker/access holder and access provider rights and obligations under Part 5 of the QCA Act. ⁹⁸⁹

- An access provider must (if required by an access seeker), negotiate for making an access agreement (s. 99).
- The access seeker and access provider must negotiate in good faith for reaching an access agreement (s. 100(1)).
- The access provider must not unfairly differentiate between access seekers in negotiating access agreements (s. 100(2)).
- The access provider must make all reasonable efforts to try to satisfy the reasonable requirements of the access seeker in negotiations (s. 101(1)).
- The access provider must give the access seeker information regarding the service (s. 101(2)), including the information concerning:
 - price (including the way in which it is calculated)
 - costs of providing the service (including the capital, operation and maintenance costs)
 - value of the access provider's assets (including the way in which the value is calculated)
 - spare capacity of the service (including the way in which the spare capacity is calculated)
 - operation of the facility
 - safety system for the facility.
- The access seeker or access provider may ask the QCA for advice or directions on matters concerning the obligation of the access provider to satisfy the access seeker's requirements (s. 101(5)).
- An access provider or user must not engage in conduct for the purpose of preventing or hindering a user's access (s. 104).
- A user of a declared service under an access agreement may transfer all or part of the user's interest in the agreement in accordance with the Act (s. 106).
- The parties to an access agreement may apply to the QCA for approval of an access agreement (s. 108).
- An access seeker or access provider may refer an access dispute to the QCA for determination (s. 112(2)).
- An access provider must not engage in conduct for the purpose of preventing or hindering a user's access to the declared service under an access determination (s. 125(1)).

⁹⁸⁹ Only the gist of certain relevant provisions within the QCA Act is provided. Please refer to the relevant provisions for further elaboration, particularly with regard to applicable exceptions and qualifications. For declared services, other rights and obligations may accrue pursuant to the terms of an approved access undertaking and/or an access agreement.

- An access provider must give the QCA a draft access undertaking for the service if so requested, pursuant to an initial undertaking notice (s. 133).
- The QCA may approve a draft access undertaking only if it considers it appropriate to do so having regard to various factors, including the interests of access seekers and users of the service (s. 138(2)).
- If an access provider fails to comply with an initial or secondary undertaking notice, the QCA may prepare, and approve, a draft access undertaking for the declared service (s. 135).
- An access provider may only withdraw an approved access undertaking with the written agreement of the QCA (s. 148(3)(a)).
- An access provider must comply with an approved access undertaking (s. 150A).
- A party to an access determination may apply to the court for orders to enforce an access determination made by the QCA (s. 152).
- A person may apply to the court to enforce prohibitions on hindering access and unfair differentiation (s. 153).
- A person may apply to the court to enforce an approved undertaking (s. 158A).
- The access provider must keep, in a form approved by the QCA, accounting records for the service separately from accounting records relating to other operations of the access provider (s. 163).
- An access provider must not unfairly differentiate between users of the service in a way that has a material adverse effect on the ability of 1 or more of the users to compete with other users (s. 168C).

APPENDIX F—OPERATION OF THE DEED POLL AND ACCESS FRAMEWORK

The QCA has considered the deed poll and access framework to assess whether there are particular aspects of their operation that are relevant in comparing competitive conditions in a dependent market with conditions that would prevail if the relevant service was declared. Other than pricing terms that would apply with and without declaration (addressed in section 3.3.6), the following aspects of the operation of the deed poll and access framework are particularly relevant:

- the ability to amend access arrangements
- access negotiation and arbitration
- compliance and enforcement.

Ability to amend access arrangements

Stakeholder submissions

DBCT Management said it had responded to concerns about its ability to amend the access framework by 'hard-coding' key aspects into the deed poll, specifically the framework objective and the \$3 per tonne price difference cap. It said additional protections in the amendment process in the executed deed poll increase transparency and reduce barriers to challenging amendments. DBCT Management said specific amendments include:

- Consultation requirements are enhanced, including requirements to provide notice; advertise
 intention to make an amendment; publish a draft of any amendments; and a minimum consultation
 period of 45 days.
- Amendments will only take effect after the amendment procedure is fully completed (i.e. once the
 period for a court challenge has elapsed without challenge or a court challenge has been determined).
- Amendments must be appropriate having regard to the mandatory considerations in cl. 8.3 of the deed poll (derived from ss. 138 and 168A of the QCA Act), in addition to a requirement that they promote the framework objective.
- The timeframe for a court challenge has been extended to 120 days.
- DBCT Management is now restricted from seeking an award of adverse costs for challenges to a framework amendment.⁹⁹⁰

DBCT Management considered that the revised provisions of the access framework confer power on the court to consider and determine the appropriateness of amendments. Furthermore, DBCT Management said that the remedy for a successful challenge to an amendment is declaratory relief⁹⁹¹, which will prevent that amendment from being implemented.⁹⁹²

The DBCT User Group considered that the deed poll provides DBCT Management with extensive rights to amend the access framework, such that many of the constraints can be easily removed. It submitted that

⁹⁹⁰ DBCT Management, sub. 26, pp. 71–75, sub. 38, p. 35.

⁹⁹¹ The QCA notes that 'declaration' or 'declaratory relief' is a discretionary order made by the court, which 'declares' what the rights are between the parties at the relevant date.

⁹⁹² DBCT Management, sub. 38, pp. 38–39.

the lack of protections against amendments are clear, given: they may only be triggered by DBCT Management (such that any amendment will be in its favour); the new consultation obligations have not constrained DBCT Management's discretion in any way and it is not bound to implement comments received; and the threshold for amendment being permitted is low and it is difficult for a court to determine if it has been breached.⁹⁹³ The DBCT User Group submitted legal advice that the restriction on amendments in the deed poll are of minimal practical utility.⁹⁹⁴

The DBCT User Group submitted that there is a wide range of outcomes that could be said to promote the object of Part 5 and that there is a material difference between the QCA determining the appropriate outcome within that range and DBCT Management determining whether discretionary terms that it wishes to set to pursue its profit maximising incentive would fall somewhere within that range of outcomes. It considered that a court would not be able to determine the appropriate outcome in a quasi-regulatory 'QCA like' manner, but would be constrained by determining what was within the range of outcomes that satisfy or promote the object of Part 5.

The DBCT User Group submitted that the only recourse is to commence costly legal proceedings, with declaratory relief being the only remedy. It noted that disputes take time and cost, and a new user may not be in a position to bring such a dispute or be incentivised to do so. It said such a user is more likely to simply not invest than take the exposure to risks of future amendments and potential challenges. ⁹⁹⁵ A number of other stakeholders agreed that curtailed remedies and costs of enforcement mean that DBCT Management has limited downside risk. ⁹⁹⁶

Peabody expressed concern about DBCT Management's exercise of discretion compared to the QCA:

Clearly it is appropriate for the QCA, an experienced and independent regulator, to exercise discretion and judgement in considering amendments to access undertakings under the QCA Act. It is not appropriate for the same level of discretion to be conferred on a monopoly service provider in determining amendments to its access framework.⁹⁹⁷

Pacific National was also concerned that the access framework can be unilaterally altered and that it therefore could not be assumed it will continue to operate in the form submitted, but rather that it would be amended by DBCT Management to allow the exercise of monopoly power. It considered the access framework does not provide regulatory certainty, particularly as there would be no regulator to oversee amendments, determine terms of access for new users and resolve disputes. Glencore shared these concerns, and noted that the changes made by DBCT Management do not resolve the key issue of DBCT Management having the ability to amend the access framework to suit its own interests and to disadvantage access seekers/holders.

QCA analysis

The deed poll has features that are less favourable to users compared to access under declaration. However, the inclusion of the price difference cap in the deed poll provides a pricing constraint that cannot be revoked or amended for the term, giving a level of protection and certainty to users. While there is uncertainty associated with potential changes to other (non-price) terms of access in future, this risk is mitigated by other factors.

⁹⁹³ DBCT User Group, sub. 46, pp. 85–86.

⁹⁹⁴ DBCT User Group, sub. 46, pp. 86–87, schedule 8.

⁹⁹⁵ DBCT User Group, sub. 30, pp. 66–67.

⁹⁹⁶ Glencore, sub. 43, pp. 9, 12–13; Peabody, sub. 47, p. 2; Pacific National, sub. 37, p. 1.

⁹⁹⁷ Peabody, sub. 47, pp. 4–5.

⁹⁹⁸ Pacific National, sub. 37, pp. 12, 17–18.

⁹⁹⁹ Glencore, sub. 43, pp. 11–12.

The future with declaration

The QCA Act provides a mechanism for access undertakings to be amended through a draft amending access undertaking (DAAU). A DAAU may be either given voluntarily or the QCA may require the responsible person to submit a DAAU for approval. The QCA may approve a DAAU if it considers it appropriate having regard to mandatory considerations in s. 138(2) of the QCA Act. These include the objective of Part 5 (access to services), the legitimate business interests of both the access provider and access seekers, the public interest and the pricing principles in the QCA Act. The QCA may approve a DAAU only if it has published the undertaking and invited and considered submissions. 1000

The QCA has the power to conduct an investigation for preparing and approving a DAAU. The QCA Act gives the QCA a range of powers and obligations in relation to an investigation, including to compel the provision of information and documents; informing itself on any matter relevant to the investigation in any way it considers appropriate; and requiring submissions. Once the DAAU is approved, the access undertaking forms the basis of access negotiations. When an access seeker has entered into an access agreement, access is provided on the terms of that agreement (although the access undertaking continues to be relevant as it is referenced in the access undertaking SAA).

In summary, in a future with declaration, there is an ability for access terms and conditions, in the form of an access undertaking, to vary over time, but only with the approval of the QCA. Access seekers and access holders would have a degree of confidence about access continuing to be available on reasonable terms and conditions, given the central role of the independent regulator in approving any such amendments.

The future without declaration

DBCT Management covenants that the framework will remain in effect and will continue to apply to the use of the terminal, throughout the term (up to 10 years), subject to any amendments permitted in accordance with the deed poll. ¹⁰⁰² The access framework, including the access framework SAA, is based on the 2017 access undertaking and SAA (with the key differences being the pricing approach and removal of the QCA's roles, including in the arbitration of disputes). Therefore, other than pricing, the non-price terms of access are broadly similar both in a future with and without declaration (the pricing approach is considered in section 3.3.6).

However, DBCT Management has the ability to amend the access framework under the terms of the deed poll. It may do so if, in its view, the amendments promote the framework objective (which is the same as the object of Part 5 of the QCA Act)¹⁰⁰³ and are 'appropriate' having regard to each of the mandatory factors listed in the deed poll (cls. 8.2 and 8.3). The mandatory factors are similar to those that the QCA must have regard to in considering whether to approve a draft access undertaking (or DAAU).

DBCT Management said that the inclusion of an ability to amend the access framework was intended to act as a safeguard in the event an unintended issue arose with the framework, such as when circumstances change in future. It envisaged that the discretion would be exercised rarely, if at all.¹⁰⁰⁴

This ability of DBCT Management to amend access arrangements may create a degree of uncertainty for access seekers and access holders, as the basis for providing access may change over time, without the

¹⁰⁰² Deed poll, cl. 4.1.

¹⁰⁰⁰ QCA Act, ss. 138, 143.

¹⁰⁰¹ QCA Act, Part 6.

¹⁰⁰³ The framework objective has the meaning given in s. 69E of the QCA Act, as may be amended from time to time. In the event that s. 69E of the QCA Act is repealed, the framework objective will have the meaning given in s. 69E of the QCA Act immediately prior to its repeal (deed poll, cl. 1.1).

¹⁰⁰⁴ DBCT Management, sub. 26, p. 72.

oversight of an independent regulator. Stakeholders have noted concerns about the potential for DBCT Management to exercise its discretion in making amendments that may involve the exercise of market power. As the access framework sets out the negotiation framework and terms and conditions of access, including the SAA, its terms will be important to future access seekers.

Once an access agreement is entered into, access is provided on the terms of that agreement. However, the access framework will continue to be relevant to an access holder as, under the terms of the access framework SAA, it must comply with the requirements, obligations and processes in the access framework and deed poll. The access framework is also referenced in the access framework SAA—for example, the price review provisions specify that, if a dispute is referred to arbitration, 'the arbitration must be conducted in accordance with the Access Framework'. 1006

It is therefore relevant to consider how the ability to amend the access framework might affect investment incentives and the environment for competition in dependent markets compared to access under declaration (which also allows for access undertaking terms to be varied over time, as outlined above). The following factors highlight the risk for prospective access seekers:

- While the deed poll amendment provisions adopt similar language to the QCA Act, the key difference is that with declaration, it is the QCA, as the independent regulator, that weighs the various considerations and determines what is appropriate. In contrast, under the deed poll it is DBCT Management that determines what is appropriate, subject to court proceedings if parties challenge the validity of the proposed amendment. DBCT Management, as the service provider, is an interested party that has an incentive and ability to make changes, within the scope permitted by the deed poll, that favour its commercial interests.
- There may be limitations on the ability of a covenantee to enforce the deed poll, as the relevant terms (cls. 8.2 and 8.3) make it difficult to obtain a court order that a proposed amendment is invalid.
 - The deed poll provides that a covenantee may apply to the court for a declaration that an amendment to the access framework has not been made in accordance with the deed poll. However, the criteria that must be satisfied under the deed poll to amend the access framework are so broad that it would be difficult for a covenantee (or a third party)¹⁰⁰⁷ to establish that a given amendment is not permitted by reference to these provisions. In particular, the onus would be on the covenantee (or third party) to demonstrate that a given amendment does not meet the broad requirements of promoting the framework objective and being appropriate, having regard to mandatory factors. ¹⁰⁰⁸ This may mean that, in practice, it would be difficult to establish that a given variation was invalid and therefore it would be difficult to obtain declaratory relief.
- While DBCT Management may face relatively little cost and risk in proposing amendments, a
 covenantee or third party that believed a proposed amendment to be inappropriate or invalid would
 ultimately have to bear the costs and risks of undertaking legal action to prevent it. This asymmetry
 may allow a number of relatively minor amendments over time, which may nonetheless have a
 cumulative impact, to proceed without challenge.

However, there are also factors that mitigate the risk posed by DBCT Management's ability to amend the access framework:

¹⁰⁰⁶ Access framework SAA, cl. 7.2(d).

¹⁰⁰⁵ Access framework SAA, cl. 3.1.

¹⁰⁰⁷ 'Third parties' are any other third parties who have provided comments on final proposed amendments to the access framework published by DBCT Management (see cl. 8.4.6 of the deed poll).

¹⁰⁰⁸ Deed poll, cls. 8.2 and 8.3.

- The price difference cap of \$3 per tonne above the floor price—the TIC that would apply for the existing terminal under a QCA-administered pricing regime—is hard-coded in the deed poll. AS DBCT Management has covenanted that it will not revoke or amend the deed poll until expiry of the term this provides protection and certainty to users about the key issue of access pricing, in particular, that this price difference cap will not change during the term of the access framework. The QCA notes that it is both the pricing methodology for establishing the floor price (i.e. the TIC that would apply under a QCA-administered pricing regime) as well as the \$3 per tonne price difference cap above this floor, that is hard-coded into the deed poll and, therefore, unable to be amended during the term.
- The framework objective—which is linked to s. 69E of the QCA Act (the object of Part 5)—is also hard-coded in the deed poll and so cannot be amended for the term.
- The deed poll includes a process in relation to proposed amendments, including an obligation on DBCT
 Management to publish proposals and to review and consider any comments received. Amendments
 will not become effective unless and until the court has determined legal proceedings in favour of
 DBCT Management by dismissing any legal proceeding brought by a covenantee or third party.¹⁰¹¹
- Should DBCT Management propose and/or successfully implement an amendment (or series of amendments) that would likely have a detrimental impact on competitive conditions in dependent markets, compared to a future with declaration, it would be open to parties to apply for declaration (either under the QCA Act or CCA) at any time.

Outside of the matters hard-coded in the deed poll—in particular, the pricing approach and cap—there are a wide range of access framework terms, including the access framework SAA, which could potentially be modified in accordance with the deed poll. Whether investment incentives are affected will therefore depend on the nature of any proposed amendments, which may range from changes to relatively non-controversial matters to more commercially sensitive matters. The QCA considers that examples of commercially sensitive changes might include changes to queuing, terminal regulations, capacity expansion or arbitration provisions. Whether DBCT Management would propose such substantive changes, or whether such proposals would be able to proceed under the terms of the deed, is unknown. It is also relevant to consider this in the context of the range of risks a prospective mine investor would face—including approval, financing, construction and coal price risks—as well as normal business risks.

While the hard-coding of the key features of the pricing methodology in the deed poll is an important consideration, the fact remains that the deed poll permits DBCT Management to amend other terms of the access framework, under criteria that give DBCT Management considerable flexibility. The question then is what, if anything, would constrain DBCT Management from using this ability to make amendments that favour itself at the expense of users and prospective users.

DBCT Management has an incentive to maximise its profits; however, the pricing approach in the deed poll and access framework, in particular the price difference cap, provides some constraint on its ability to exercise market power in terms of pricing (see section 3.3.6). If there is excess demand, DBCT Management may arguably have an incentive to amend the queuing provisions in the access framework (for instance to change the order of access seekers) to provide capacity to the user with the highest willingness to pay. However, the inclusion of the price difference cap in the deed poll would limit any incentive DBCT Management may have to amend queuing provisions in a way that would materially affect

¹⁰¹⁰ Deed poll, cl. 3.1.

¹⁰⁰⁹ Deed poll, cl. 6.1.

¹⁰¹¹ Deed poll, cls. 8.4–8.7.

competitive conditions in a dependent market compared to with declaration, as it would still obtain no more than \$3 per tonne above the TIC that would apply in a QCA-administered pricing regime.

Pacific National raised concerns that, without regulatory oversight by the QCA, DBCT Management may amend or remove provisions in the access framework relating to the terminal regulations (the governing procedures for the operation of the terminal) and ring-fencing. These provisions in the access framework are based on those in the access undertaking. 1012,1013 As DBCT Management does not have a related business in the supply chain, the QCA does not consider that DBCT Management would have an incentive to implement changes to terminal regulations or provide access to the terminal in a way that would unfairly favour a particular party. Moreover, the QCA considers that both DBCT Management and the terminal operator—which is an independent user-owned entity—would have an aligned incentive to manage access to the terminal in a way that promotes efficient use of the infrastructure.

The QCA considers that the threat of declaration is also relevant in this respect. As discussed in section 3.3.5, the QCA's view is that the threat of declaration on its own is not sufficient to constrain market power. However, the fact that DBCT Management has executed the deed poll, including putting in place a pricing constraint, indicates that the threat of a further request for declaration is credible should DBCT Management modify its access framework in a manner that would be likely to have a detrimental effect on competitive conditions in dependent markets, compared to a future with declaration. If it were to do so, particularly for commercially sensitive matters, such as capacity expansion or arbitration provisions, then this would likely enhance the risk of future declaration, which parties may apply for at any time. Therefore, in this specific context, the QCA considers that the threat of declaration is a relevant factor impacting upon DBCT Management that can be expected to curtail the misuse of the ability to modify the access framework.

The QCA acknowledges that access terms under the deed poll may be less favourable for access seekers and access holders than access terms under declaration, given the uncertainty about the possibility of disadvantageous changes that DBCT Management may make to the access framework—other than to the pricing constraint—in future.

The key issue is whether the uncertainty created by DBCT Management's ability to amend the access framework would affect the provision of access to such a degree that it would be likely to have a detrimental impact on competitive conditions in a dependent market compared to access under declaration. The QCA's view is that the inclusion of the pricing constraint in the deed poll is an important consideration in this regard. It provides protection and certainty to users that the pricing methodology, including the price difference cap, will not change for the term. DBCT Management's ability to amend other access framework terms creates some uncertainty. The potential for this to materially affect competitive conditions in a dependent market would however be mitigated by the aforementioned factors. In addition, the QCA's view is that the risk resulting from that uncertainty is unlikely to be material considering the range of risks a prospective mine investor generally would face.

¹⁰¹² Pacific National, sub. 57, pp. 2–3.

¹⁰¹³ The terms of the access undertaking and access framework provisions regarding terminal regulations and ring-fencing are broadly similar. Differences include an independent expert replacing the QCA in determining objections about DBCT Management's approval or rejection of amendments to the terminal regulations proposed by the operator. Also, the access framework ring-fencing provisions reflect the fact that DBCT Management has closed its secondary capacity trading business, BPC.

Access negotiation and arbitration

Stakeholder submissions

DBCT Management submitted that the access framework maintains the open access approach contained under the current approved access undertaking and maintains its features, including adopting a negotiate-arbitrate model. It said that, properly applied, DBCT Management's access framework provides a strong constraint on its ability to exercise market power in relation to new users without declaration. Further, DBCT Management said that it has an incentive to agree a negotiated price with an access seeker to avoid the costs associated with arbitration. 1015

DBCT Management said that the capacity allocation approach in the access framework is the same as the process in the 2017 access undertaking (including the queuing mechanism), so that there is no basis to conclude it would have the ability to 'auction' capacity to extract economic rents. To remove doubt, DBCT Management said it amended the access framework to clarify that the queuing system operates independently from the negotiation/arbitration of the initial TIC. It said that these amendments provide for access seekers to execute a binding access agreement for the purposes of determining the queue, without a value for the initial TIC being established. 1016

The DBCT User Group argued that the QCA-regulated third party access regime provides a credible and effective constraint on DBCT Management's exercise of market power and enables a balanced negotiation framework, such that declaration promotes a material increase in competition in the coal tenements market (compared to without declaration, where in its view DBCT Management is likely to engage in unconstrained monopoly pricing).¹⁰¹⁷

The DBCT User Group submitted that there is a material difference in the level of certainty provided by the access framework, because private arbitration is not equivalent to the QCA regulatory framework, which provides a more certain backstop. The DBCT User Group submitted a report by Castalia that noted a material difference between declaration and the access framework in terms of complexity and enforceability for new entrants. It noted DBCT Management has no incentive to offer anything but the profit maximising price—the cap—meaning each new entrant will be forced into arbitration. This results in greater uncertainty, particularly where access is complex, such as when requiring an expansion. 1018

Further, the DBCT User Group had concerns about whether a private arbitrator could ever put itself in a position to address matters that might arise in an access dispute in the manner in which the QCA could, given:

- the QCA's knowledge and experience regarding the terminal and tariff setting for monopoly infrastructure
- the QCA's statutory powers in arbitrating disputes under Part 7 of the QCA Act, including information production powers and the power to compel witnesses
- the fact the QCA would be making a decision under an enactment, making the decision subject to judicial review.

¹⁰¹⁴ DBCT Management, sub. 26, p. 56.

¹⁰¹⁵ DBCT Management, sub. 58, p. 20.

¹⁰¹⁶ DBCT Management, sub. 26, pp. 75–77, appendix 11, cl. 5.4(k).

¹⁰¹⁷ DBCT User Group, sub. 30, pp. 71–72.

¹⁰¹⁸ DBCT User Group, sub. 46, pp. 91–92, schedule 6.

It submitted that the resulting lack of certainty makes arbitration a more costly and risky affair for an access seeker and will have a chilling effect on investment incentives for potential coal tenements purchasers.

The DBCT User Group also submitted that the deed poll does not operate in favour of all relevant third parties, with a potential user (purchaser of coal tenements) not receiving the benefit, making it difficult to make material investment decisions. ¹⁰¹⁹

Glencore submitted that an access seeker would be reluctant to commence arbitration due to the information asymmetry, which prevents it from making an assessment of probable arbitration outcomes. Glencore considered that pricing uncertainty would be exacerbated by removing safeguards such as obligations to provide key information to access seekers and the QCA; the determination of pricing after entry into an access agreement; and a costs obligation that is imposed on the unsuccessful party to arbitration. ¹⁰²⁰

QCA analysis

With declaration, the QCA Act provides an environment of greater certainty for access seekers in negotiations compared to access under the deed poll/access framework. Nevertheless, the access framework provides a transparent framework for negotiations, including standard terms and conditions of access (other than in relation to the access price) that will apply for its term (until 2030) and a constraint through the ability to refer a dispute to independent arbitration (which would apply the pricing approach in the access framework arbitration provisions).

The future with declaration

With declaration, the QCA Act specifies in detail the information that the access provider must give the access seeker, including information about:

- the price at which the access provider provides the service, including the way it is calculated
- the costs of providing the service, including capital, operation and maintenance costs
- the value of the access provider's assets, including the way in which the value is calculated.¹⁰²¹

The QCA may allow this information to be given in the form of a reference tariff—which is a price, or formula for calculating a price, that has been approved by the QCA to set the basis for negotiation of the price for access. This is ordinarily under an access undertaking approved by the QCA. Also, the access provider or access seeker may ask the QCA for advice or directions about a matter relating to information to be provided.

The ability to approve a reference tariff facilitates negotiations and minimises scope for disputes. To date, the QCA has approved a reference tariff for access to the DBCT service. Even if a reference tariff were not approved in a future with declaration, the obligations in the QCA Act with respect to the provision of key information, as well as the ability to ask the QCA for advice or directions in relation to information to be provided to access seekers, mitigate the negotiating power imbalance that exists when an access seeker is negotiating with a monopoly service provider.

The QCA Act requires the provider of a declared service to negotiate in good faith with an access seeker for an access agreement relating to the service. An access seeker is free to attempt to negotiate departures from the terms set out in an access undertaking, although in an arbitration, the QCA must not

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¹⁰¹⁹ DBCT User Group, sub. 46, p. 78.

¹⁰²⁰ Glencore, sub. 43, pp. 8–11.

 $^{^{\}rm 1021}$ QCA Act, s. 101.

¹⁰²² QCA Act, ss. 99, 100.

make a determination that is inconsistent with an approved access undertaking.¹⁰²³ Access determinations may be made under arbitration¹⁰²⁴ (with or without an access undertaking in place) and there is scope for determinations to be varied/revoked.¹⁰²⁵ This could result in the dispute being referred by the QCA to mediation and/or the QCA making an access determination (by arbitration).¹⁰²⁶

Both in approving an access undertaking or in determining an access dispute, the QCA must have regard to certain mandatory considerations in the QCA Act. These include, amongst other things, the object of Part 5 of the QCA Act (access to services), the legitimate business interests of both the access provider and access seeker, the public interest and the pricing principles in the QCA Act.

The QCA considers that the terms and conditions that would result from the QCA weighing the mandatory considerations in an arbitration or in approving an access undertaking would be 'reasonable terms and conditions' as a result of declaration referred to in criterion (a).

The future without declaration

While the access framework is based on the 2017 access undertaking, there are key differences—in particular, the pricing approach and the removal of the QCA's various roles, including in the arbitration of disputes.

The access framework requires an applicant to agree to 'unconditionally and irrevocably' comply with the framework and deed poll (cl. 5.2(b)). Without this agreement, the access seeker has no rights under the framework. In contrast, a party seeking access to a declared service can attempt to negotiate terms that depart from an approved access undertaking without ultimately jeopardising its right to negotiate access to the service. However, as noted above, in the event of a dispute, the QCA must not make a determination that is inconsistent with an approved undertaking. Also, where there is an access undertaking in place, this typically governs the negotiation and provision of access to the service. Therefore, in practice, this may not be dissimilar to access under the access framework.

The QCA considers that, while a potential future user is not a beneficiary of the deed poll¹⁰²⁸, any investment risk arising from this would be mitigated by the fact it would be a beneficiary on becoming an access seeker/applicant. The DBCT User Group noted that buyers of coal tenements have no rights under the amendment regime until they actually become an access seeker.¹⁰²⁹ However, DBCT Management's deed poll allows third parties (that is, parties other than covenantees) to make submissions and challenge proposed amendments to the access framework.¹⁰³⁰ This mechanism would appear to allow future users to be involved in the amendment process should they wish to do so.

Without declaration, the access framework relies on a two-stage process—firstly negotiation, and if parties cannot agree terms, then arbitration. Under the access framework, DBCT Management must take all reasonable steps to progress access applications and negotiations in a timely way; negotiate in good faith; not unfairly differentiate between access seekers; and make all reasonable efforts to satisfy the reasonable requirements of the access seekers. ¹⁰³¹ An access seeker may also request reasonably

¹⁰²⁴ QCA Act, s. 112.

¹⁰²⁵ QCA Act, s. 127A.

¹⁰²⁶ QCA Act, ss. 115A, 116–126.

¹⁰²⁹ DBCT User Group, sub. 60, p. 20.

¹⁰³⁰ Deed poll, cls. 2.2, 8.4.6, 8.5, 8.6

¹⁰³¹ Access framework, cls. 5.1(b)–(e).

¹⁰²³ QCA Act, s. 119(1).

¹⁰²⁷ QCA Act, s. 120 (Matters to be considered by authority in making an access determination), s. 138 (Factors affecting approval of a draft access undertaking).

¹⁰²⁸ Beneficiaries of the deed poll are confirmed access seekers, access applicants, access holders, DBCT Holdings and the State (deed poll, cl. 2).

available preliminary information and initial meetings before submitting an application. 1032 The access framework includes guidance to the arbitrator on how to determine a TIC in the event of a dispute. This guidance is likely to inform negotiations. Importantly, access negotiation would occur in the knowledge that independent arbitration is available if parties cannot reach agreement. Disputes under the access framework are to be resolved by an independent expert or arbitrator, with arbitration conducted in accordance with the Resolution Institute Arbitration Rules. 1033

There is no requirement for DBCT Management to provide access seekers with price, cost and asset value information. 1034 As this information is relevant to the estimation of the floor price—the TIC that would apply for the existing terminal under a QCA-administered pricing regime—access seekers may be at a disadvantage in terms of their ability to form a view about expected pricing/arbitration outcomes. This factor may increase uncertainty for access seekers, particularly in the case of an expansion. However, this apparent information imbalance is mitigated to an extent by the fact that users of the DBCT service are businesses that are likely to be relatively informed negotiating parties with a degree of knowledge about terminal operations.

Where parties are unable to reach agreement, the ability for an access seeker to refer a dispute to arbitration (which would apply the pricing approach in the access framework arbitration provisions) is the key constraint on DBCT Management in an access negotiation. An access seeker may need to refer a dispute to arbitration to establish the TIC (at least on the first occasion), increasing the costs of negotiating access. 1035 Under declaration, historically, a single reference tariff approved by the QCA (ordinarily as part of the approval of an access undertaking) has applied to all access seekers as a basis for negotiation, minimising scope for disputes and therefore transaction costs. Even if no reference tariff were approved in a future with declaration, access seekers benefit from the obligations in the QCA Act with respect to information provision, as well as the ability to ask the QCA for advice or directions in relation to information to be provided to access seekers.

The access framework was changed since the draft recommendation, so that it now provides for parties to enter into a binding agreement with the TIC to be negotiated at a later stage. In the event parties do not reach agreement, either party may refer a dispute for arbitration. DBCT Management said this change addresses concerns about 'auctioning capacity'. The QCA notes that the process does not preclude the parties from attempting to negotiate an initial TIC (and other terms) prior to entering into the binding agreement.

In summary, under declaration, the QCA Act provides an environment of greater certainty for access seekers in negotiations compared to access under the deed poll/access framework—particularly through the ability to determine a reference tariff (or otherwise provide the access seeker with price, cost and asset value information), which would facilitate access negotiations and minimise scope for disputes. Nevertheless, the access framework provides a transparent framework for negotiations, including standard terms and conditions of access (other than the access price) that will apply for its term (until 2030) and a constraint through the ability to refer a dispute to independent arbitration—where the pricing approach in the access framework arbitration provisions, including the price difference cap, would apply.

The pricing approach the access framework prescribes in an arbitration is considered in section 3.3.6.

¹⁰³² Access framework, cls. 5.1(e), 5.2(d).

¹⁰³³ DBCT Management, sub. 38, p. 23.

¹⁰³⁴ DBCT Management, sub. 35, p. 2, table—Rationale for changes to DBCT Access framework—Pricing amendments. ¹⁰³⁵ The access framework provides that, where an arbitration has already occurred in a pricing period, the TIC in a subsequent arbitration must be equal to the TIC for the pricing period determined in the first completed arbitration for that pricing period, adjusted for escalation and any review events, and within floor and ceiling limits (access framework, cl. 10.4(f)).

Compliance and enforcement

Stakeholder comments

DBCT Management considered that access seekers have visibility in relation to its compliance with the access framework through public reporting, general dealings with DBCT Management and user ownership of the operator. DBCT Management submitted that the access framework enables referral of disputes, including, more broadly, questions that arise under or in relation to the framework. 1036

DBCT Management also submitted that if it does not strictly abide by its commitments in the access framework, then it will likely be re-declared. It said it therefore has every incentive to ensure it diligently conducts itself in accordance with the framework. 1037

The DBCT User Group did not accept that the amended access framework includes similar general obligations to those that apply under the QCA Act and believed that they do not by themselves provide an effective constraint on DBCT Management's monopoly pricing. Issues that stakeholders noted include:

- Enforcing the access framework for individual users could be difficult and costly and involve delays.
- Transparent regulatory oversight by an independent regulator with information-gathering powers and enforcement rights is absent, with users having limited visibility of any breach.
- Remedies for a breach are significantly more constrained (particularly lack of damages or compensation) compared to remedies under the QCA Act and approved access undertakings.
- The deed poll is not irrevocable as claimed, as it contemplates breaches and limits available remedies so that this would be ineffective to prevent it being revoked. 1038

The DBCT User Group submitted that the deed poll is not legally effective and that it is not possible for access seekers to enforce the key pricing restrictions. The DBCT User Group also considered the deed poll created uncertainties about obtaining remedies and specific performance of the price cap. It provided legal advice, which concluded that the difficulty of proving what price would have applied under a QCA-administered pricing regime would make this provision 'impossible of proof', such that it would not be susceptible to an order for specific performance. ¹⁰³⁹

Pacific National also considered that removal of QCA oversight would make it difficult to assess whether there may have been a ring-fencing breach, and that these provisions are more appropriately overseen by an economic regulator. ¹⁰⁴⁰

Both DBCT Management and the DBCT User Group made further submissions addressing the availability of remedies for a failure to comply with the deed poll and access framework. 1041

QCA analysis

Mechanisms are available under the deed poll and access framework to hold DBCT Management accountable for compliance. However, potential new entrants and access holders will likely face a greater degree of uncertainty associated with compliance and enforcement than would be the case with access under declaration.

¹⁰³⁶ DBCT Management, sub. 38, pp. 22–24.

¹⁰³⁷ DBCT Management, sub. 58, p. 5.

¹⁰³⁸ DBCT User Group, sub. 30, p. 72, sub. 46, pp. 83–84; Glencore, sub. 43, pp. 9, 12; Peabody, sub. 47, p. 2; Pacific National, sub. 37, pp. 2, 18.

¹⁰³⁹ DBCT User Group, sub. 46, pp. 58–59, 81–83, schedule 8, pp. 5–6 and sub. 60, p. 20.

¹⁰⁴⁰ Pacific National, sub. 57, p. 3.

¹⁰⁴¹ DBCT User Group, sub. 56; DBCT Management, sub. 55.

The future with declaration

With declaration, the QCA Act provides mechanisms to enforce access obligations and obtain remedies for breaches.

The QCA Act provides a role for access undertakings (either voluntary or mandatory) to set out detailed terms and conditions of access. The QCA Act specifies a range of matters that may be included in an access undertaking, including information to be given to the QCA and information on compliance with the undertaking. Where an access undertaking has been approved, the QCA Act places an obligation on the responsible person to comply. 1043

The QCA Act gives the QCA powers to conduct investigations, require information (e.g. about compliance with an approved access undertaking or by asking the access provider for a copy of an access agreement) and take action to find out whether an access provider is complying with the prohibition on engaging in conduct for the purpose of preventing or hindering access.¹⁰⁴⁴

The QCA Act specifies enforcement mechanisms to resolve access disputes and enforce access determinations and to enforce compliance with access undertakings. It also prohibits hindering access and unfair differentiation. ¹⁰⁴⁵

In the event of a breach of an approved access undertaking, the QCA or another person may apply to the court for an order to enforce an access undertaking. Remedies for a breach include all or any of an order directing compliance, compensation or another order the court considers appropriate. ¹⁰⁴⁶ Similarly, parties may apply to the court for orders to enforce access determinations relating to arbitration of access disputes. ¹⁰⁴⁷

The future without declaration

Under the deed poll and access framework, the ability to enforce access rights and obligations through the court and independent arbitration of disputes provide mechanisms for holding DBCT Management accountable for compliance. A 'covenantee' can seek to enforce any covenant made in the deed poll. 'Third parties'—which are any other parties who have provided comments on proposed amendments to the framework—can seek to enforce the covenants relating to amendments to the access framework. Disputes under the access framework, including about DBCT Management's compliance with the access framework, may be referred to arbitration.

It would be up to covenantees to bring proceedings before the court, as there is no independent body with investigative powers that are equivalent to the QCA's powers, to monitor and enforce compliance. In contrast, under declaration, the QCA (or another person) may apply to the court for an order to enforce an access undertaking. As a result, compared to access with declaration, covenantees may face additional costs associated with enforcement.

DBCT Management has sought to limit the remedies available for breaches of the deed poll. It makes its covenants in the deed poll subject to, among other things, the following restrictions:¹⁰⁴⁹

• Damages are not a remedy for any breach of the deed poll.

¹⁰⁴⁴ QCA Act, ss. 145, 185, 150AA, 125(1), 126(1), 104(1), 105, 126, 103.

¹⁰⁴⁷ QCA Act, s. 152.

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¹⁰⁴² QCA Act, s. 137(2). ¹⁰⁴³ QCA Act, s. 150A.

¹⁰⁴⁵ QCA Act, ss. 112, 117, 123, 124, 152, 153, 158A.

¹⁰⁴⁶ QCA Act, s. 158A.

¹⁰⁴⁸ QCA Act, ss. 10(ha), 158A.

¹⁰⁴⁹ Deed poll, cl. 9.2.

- Specific performance is the only remedy available to a covenantee for a breach of the deed poll (other than for a breach of amendment provisions, cls. 7–8).
- Declaratory relief is the only remedy available to covenantees for a breach of cl. 7 of the deed poll (review of framework by agreement) or cl. 8 of the deed poll (amendments to framework).
- Where a covenantee alleges that DBCT Management has not complied with the access framework, any
 dispute arising is to be determined in accordance with the dispute resolution provisions contained in
 the framework, and not in accordance with the deed poll. Urgent injunctive relief may also be
 sought.¹⁰⁵⁰

The QCA understands that a covenantee under the deed poll would be unable to seek remedies other than as specified above. However, while these deed poll provisions may be relevant in the exercise of any discretion to grant the remedy, they cannot dictate how the court will exercise its discretion. Remedies available for a breach where a service is declared are wider than the remedies available under the deed poll, with the QCA Act providing for compensation for loss or damage. This may strengthen incentives to comply with access obligations under declaration compared to without declaration.

This contrasts with declaration, where the QCA has monitoring and enforcement powers under the QCA Act (e.g. ss. 10(ha), 150A, 150AA). Also, the QCA can itself refer matters to the court for enforcement (under s. 158A), where the court can (expressly under the terms of the Act) order a party to comply with the terms of the undertaking and/or make any other related order (which might include, for example, an obligation to report compliance to the QCA).

In terms of a constraint on DBCT Management's ability to exercise market power, a key element of its access framework is the cap on the TIC—essentially, the TIC must be no more than the TIC that would apply for the existing terminal under a QCA-administered pricing regime plus \$3 per tonne. This cap is included both in the access framework (in the guidance to the arbitrator in the event of a dispute) as well as in the deed poll. The inclusion of this price difference cap in the deed poll means it is irrevocable and cannot be amended for the term (see section 3.3.6).

The QCA considers that it may be difficult for a covenantee to prove that this provision of the deed poll has been breached, chiefly due to the expression 'the TIC that would apply for the Existing Terminal [or a Terminal Component other than the Existing Terminal] under a QCA-administered pricing regime'. ¹⁰⁵¹ The determination of a price 'floor' using this methodology is likely to involve the exercise of judgement about what price would result from the application of that methodology. ¹⁰⁵² Pricing decisions involve complex modelling, including estimation of a number of parameters, which again may be subject to a range of differing views. Nevertheless, where there is a dispute about such matters, there is a mechanism in the access framework by which that dispute can be resolved. The QCA notes that this issue would most likely arise in the context of an access negotiation, in which the arbitration provisions of the access framework, including the \$3 per tonne price difference cap, would apply.

The QCA carefully considered the submissions on the availability of remedies in the case of an alleged breach of the deed poll. The underlying difficulty with the enforcement of this instrument lies not with the discretionary nature of the available remedies, but rather the difficulties that a party would face in proving a breach (e.g. proving that the TIC had not been calculated in accordance with the prescribed methodology, or that an amendment was made in breach of the relevant provisions of the deed poll). In either case, access seekers may perceive that they will have difficulty in obtaining relief from a court in

¹⁰⁵⁰ Access framework, s. 16.5.

¹⁰⁵¹ Deed poll, cl. 6.1.

¹⁰⁵² The QCA notes that DBCT Management has characterised the floor TIC in the access framework to mean the QCA-regulated cost-reflective TIC for the existing terminal (see section 3.3.6).

the event that they disagree with DBCT Management about whether a particular outcome has been reached in accordance with the terms of the deed poll. However, these difficulties are not necessarily confined to the deed poll, but rather are often a feature of pricing disputes generally.

In summary, compared to access with declaration, covenantees may face a greater degree of uncertainty, as there would be no independent regulator to monitor and enforce compliance. However, the QCA considers that enforcement by a court or expert/arbitrator provides mechanisms to hold DBCT Management accountable for compliance with the deed poll and access framework. There may be limitations on the ability of a covenantee to enforce the pricing covenant (including the \$3 per tonne price difference cap) in the deed poll—or at least a perception that it will be difficult to obtain relief from a court. However, the price difference cap is also included in the access framework in the pricing methodology to be applied by an arbitrator in the event of a dispute. The inclusion of the pricing covenant in the deed poll prevents this from being changed for the term. The QCA considers that, in practice, the ability to refer a dispute to arbitration under the access framework would be the primary mechanism to enforce this pricing constraint, and a determination by the arbitrator would be enforceable in court.

Therefore, the deed poll and access framework provide mechanisms to hold DBCT Management accountable for compliance with its access obligations and, as such, provide some constraint on its conduct. Moreover, having executed the deed poll in the present circumstances (and the pricing constraints contained within it), the threat of declaration, which can be applied for at any time, can also be expected to influence DBCT Management's conduct in how it administers the deed poll and access framework.

Conclusions on the operation of the deed poll and access framework

While access seekers would likely have a greater level of certainty in access negotiations under declaration, the access framework provides a transparent framework for negotiations and a constraint through the ability to refer a dispute to independent arbitration (which would apply the pricing approach specified in the access framework). Moreover, access prices will be capped, and in a manner that is irrevocable for the term of the access framework.

The QCA acknowledges that the access environment under the deed poll would be less favourable for access seekers and access holders than access under declaration, given the uncertainty about potential amendments to the access framework (other than to the pricing constraint) and about aspects of enforcement of the deed poll because there would be no independent regulator to monitor access arrangements and enforce compliance.

However, in terms of DBCT Management's ability to amend the access framework, an important consideration for the QCA is that the pricing constraint—namely, the pricing methodology and price difference cap—is included in the deed poll and therefore cannot be amended or revoked for the term. This provides protection and certainty to users about the application of the pricing constraint for the term.

Further, the deed poll and access framework include mechanisms to hold DBCT Management accountable for its compliance with its access obligations and, therefore, provide some constraint. In particular, the QCA considers that the ability to refer a dispute to arbitration under the access framework will provide a mechanism to enforce the pricing constraint.

APPENDIX G—DBCT MANAGEMENT'S INITIAL PRICING POSITION

DBCT Management's initial pricing position (May 2018)

DBCT Management's May 2018 position was that if DBCT Management and an access seeker seek arbitration for the determination of the TIC, the arbitrator must determine the TIC that:

- is no less than the floor TIC, which is the TIC that would apply under a QCA-administered pricing regime
- is no greater than the ceiling TIC
- 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.¹⁰⁵³

This position is set out in Box G.1.

DBCT Management's revised position for the ceiling TIC determination is that the ceiling TIC will be subject to a \$3 cap above the floor TIC. This position was submitted in response to the QCA's draft recommendation. The QCA's assessment of criterion (a) for the final recommendation has focused on DBCT Management's revised position, not its initial May 2018 position.

Nevertheless, this appendix considers DBCT Management's initial May 2018 position, in particular DBCT Management's comments on the analysis in the QCA's draft recommendation.

¹⁰⁵³ DBCT Management, sub. 1, appendix 7, paras 13, 16, 17.

Box G.1: DBCT Management's May 2018 position on ceiling TIC

- (1) The ceiling TIC is the highest TIC for which the forecast annual production from mines that prefer to handle their coal at DBCT where that TIC applies is no less than the forecast annual production from mines that prefer to handle their coal at DBCT where the floor TIC applies.
- (2) A mine will prefer to handle its coal at a coal terminal if:
 - (a) 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;
 - (b) this maximises its profits; and
 - (c) this delivers a profit of at least zero,
 - (d) where profits are calculated on a per tonne basis as:
 - (i) the FOB coal price;
 - (ii) less
 - (iii) 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
 - (iv) rail transport charges for delivering coal to the coal terminal
 - (v) applicable infrastructure and handling charges for using port infrastructure including the coal terminal
 - (e) 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
 - (f) 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.

Source: DBCT Management, sub. 1, appendix 7, para. 19.

The QCA's draft recommendation concluded that DBCT Management would have the ability and incentive to seek an access charge subject to a cap that would reflect the cost of accessing an alternative terminal with spare capacity. The draft recommendation observed that although no other coal export terminal in Queensland is a close substitute for DBCT, an alternative available terminal with spare capacity for mines in the Goonyella system seeking a coal handling service may be WICET.¹⁰⁵⁴

The conclusion in the draft recommendation reflects the condition stated in DBCT Management's May 2018 position on the ceiling TIC, namely that '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'.

The draft recommendation concluded that capacity was not expected to be available at AAPT and RG Tanna, and that BMA's HPCT is not open access. The terminal with capacity expected to be available is WICET. It followed therefore that the assessment of whether a coal mine will prefer to handle its coal at a coal terminal and hence the determination of the ceiling TIC would reflect the cost of accessing WICET. The draft recommendation estimated that the supply chain cost of accessing WICET for mines in the Goonyella system would be at least \$26 per tonne. This meant the coal handling charge (which is a part of supply chain cost) for potential DBCT entrants in a future without declaration could increase from the current \$5 per tonne to up to \$20 per tonne, such that the cost of accessing DBCT for entrants could be about the same as accessing WICET, all other things being equal.

¹⁰⁵⁴ QCA, *Part C: DBCT declaration review*, draft recommendation, December 2018, pp. 70–71, https://www.qca.org.au/wp-content/uploads/2019/05/34433_Draft-recommendation-Part-C-DBCT-2.pdf. In its submission on the draft recommendation, DBCT Management said the draft recommendation mischaracterises its pricing approach in the access framework. DBCT Management said that, in order to determine the ceiling TIC:

The arbitrator will identify the "marginal user". The marginal user is the user with the lowest willingness to pay that would be served at the terminal component, at the floor price, when users are served in order of their willingness to pay (taking into account the capacity of that terminal component).

In other words, the marginal user is the first user that would cease to contract for capacity at DBCT in response to an increase in access charges – either because it would substitute to another terminal, or because that user would no longer be able to operate profitably. In assessing substitutability under this test, the arbitrator is required only to consider whether an alternative terminal is technically capable of serving a user (meaning the arbitrator must disregard any contractual or capacity constraints at the terminal).

The arbitrator is then required to determine the maximum TIC that could be charged at DBCT without preventing that marginal user from contracting for capacity at DBCT. This TIC is the ceiling TIC and will operate to cap the initial TIC that can apply to any user of that terminal component (not just the marginal user). ¹⁰⁵⁶

The QCA considers that DBCT Management's explanation that the arbitrator must disregard capacity constraints at an alternative terminal is inconsistent with the condition stated for calculating the ceiling TIC (as noted in Box G.1)—namely, that the volumes that miners prefer to deliver to any other coal terminal must not, when aggregated, exceed the capacity expected to be available at that terminal. That inconsistency is also reflected in HoustonKemp's calculation of a ceiling TIC of \$7.44 per tonne¹⁰⁵⁷, which does not consider the condition whether capacity is expected to be available at another terminal.

Therefore, given this apparent inconsistency, it is unclear how the ceiling TIC under the access framework would be estimated in practice, as per DBCT Management's May 2018 position.

After the release of the draft recommendation, DBCT Management revised its pricing approach. In particular, in its executed deed poll of March 2019, DBCT Management put in place a \$3 per tonne price difference cap for determining the ceiling TIC during the term of the access framework. Accordingly, for the final recommendation the QCA has focused on DBCT Management's revised pricing approach and not its May 2018 position.

¹⁰⁵⁵ DBCT Management, sub. 26, p. 51.

¹⁰⁵⁶ DBCT Management, sub. 26, p. 55, para. 249.

¹⁰⁵⁷ DBCT Management, sub. 26, pp. 50–54.

APPENDIX H—COAL PRODUCTION BY MINES LOCATED IN THE HAY POINT CATCHMENT

Mine	2015–16		2016–17		2017–18	
	Thermal coal	Metallurgical coal	Thermal coal	Metallurgical coal	Thermal coal	Metallurgical coal
Blair Athol					1,092,574	
Burton Coal		1,248,357		797,877		
Carborough Downs		2,352,774		2,062,010		2,047,011
Caval Ridge	283,335	6,575,651	27,280	6,265,159	205,995	8,450,362
Clermont Coal	13,647,981		11,235,268		11,264,472	
Coppabella		3,170,077		3,242,736		3,631,830
Daunia		5,303,660		5,220,589		5,137,051
Foxleigh		2,673,761		3,052,767		2,814,890
German Creek— Grasstree		7,900,809		5,686,654		5,909,168
German Creek— Lake Lindsay	577,298	3,811,109	351,755	2,764,518	412,687	2,714,993
Goonyella— Riverside		17,974,553		14,708,264		15,921,711
Grosvenor		860,561		2,118,173		3,341,394
Hail Creek	3,455,348	6,071,692	4,032,202	5,178,543	4,175,818	5,356,850
Isaac Plains	90,757	140,268	303,784	900,500	154,106	357,529
Lake Vermont		8,970,878		8,838,967	412,918	9,092,425
Middlemount		4,240,407		3,863,404		4,172,070
Millennium		3,888,103		2,755,068		2,879,594
Moorvale		2,213,675		2,292,014	653,487	1,987,278
Moranbah North		4,670,419		6,057,179		7,156,305
North Goonyella		1,954,176		1,678,217		2,879,904
Oaky Creek No 1		2,938,444		2,631,629		643,376
Oaky North		3,287,646		3,478,237		3,443,144
Peak Downs		9,953,571		12,114,440		12,700,185
Poitrel		3,496,334		3,247,468		3,713,132
Saraji		8,414,880		9,468,661		10,105,916
South Walker Creek		5,231,565		5,102,306		6,030,207
Total	18,054,719	117,343,370	15,950,289	113,525,380	18,372,057	120,486,325
(% share of total	(13%)	(87%)	(12%)	(88%)	(13%)	(87%)

1 (coal production)			

Source: DNRME, Coal industry review statistical tables 2015–18: Queensland production by individual mines (tonnes), updated June 2019, mine identified in Hay Point catchment based on QCA analysis of DNRME, Queensland's major mineral, coal and petroleum operations and resources, updated November 2019, https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0003/242085/qld-resources-map.pdf.

APPENDIX I—PROFIT MARGIN ESTIMATES FOR NEW MINE PROJECTS IN A FUTURE WITH AND WITHOUT DECLARATION

