Queensland Competition Authority

Draft recommendation

Part C: DBCT declaration review

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Level 27, 145 Ann Street, Brisbane Q 4000
GPO Box 2257, Brisbane Q 4001
Tel (07) 3222 0555
www.qca.org.au

Contents

1 INTRODUCTION

1.1 The existing declaration

The service of 'the handling of coal at Dalrymple Bay Coal Terminal by the terminal operator' is declared for third party access purposes under Part 5 of the QCA Act (see Box 1).

The regulatory framework for DBCT under declaration is governed by the 2017 access undertaking (2017 AU), which was approved by the QCA and took effect on 16 February 2017. The 2017 AU 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 declared for third party access purposes.

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 multi-user coal export terminal. 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.

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 draft recommendation). DBCT Management has the option to extend the lease, which expires in 2051, for a further 49-year period.

An aerial photo of DBCT is provided in Figure 1.

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.[2]

DBCT Management's operation of, 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. 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.

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.

A range of coal companies 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

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

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 on expiry.

1.3 The changing landscape

The coal handling services were 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.
>
> The government is committed to ensuring that the current users of the terminal are not adversely affected.[3]

The Queensland Government subsequently outlined its (then) view of the DBCT access regime when it sought National Competition Council (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.[4]

Since then, a number of developments have taken place in the Queensland coal handling environment, fuelled in part by the mining boom. Among the key developments are the following:

- In 2011, a long-term lease of Adani Abbot Point Coal Terminal (AAPT) was granted to Mundra Ports, a subsidiary of the Adani group of companies.[5]
- In 2011, the Goonyella to AAPT expansion (GAPE) was completed, connecting the existing Goonyella and Newlands rail systems.[6]

[3] Australian Government, *Parliamentary Debates*, Legislative Assembly, 22 June 2001, p. 1838, http://www.parliament.qld.gov.au/documents/Hansard/2001/010622ha.pdf#search=dbct.

[4] 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/CECTQlAp-002.pdf.

[5] *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/Id/74576.

[6] QCA, *Goonyella to Abbot Point Expansion Reference Tariff*, draft amending access undertaking, July 2013, p. iv, http://www.qca.org.au/getattachment/32486a45-7b53-4c2e-a839-917b70357a0f/Draft-Decision.aspx.

- In 2015, the private Wiggins Island Coal Export terminal (WICET) was commissioned at Gladstone, with a capacity of 27 million tonnes per annum (mtpa).[7]
- In 2015, BHP Mitsubishi Alliance (BMA) completed a 11 mtpa expansion of its Hay Point terminal, which is adjacent to DBCT.[8]

During the recent coal boom, further 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, but have not yet been approved by the Queensland Government. These include further potential developments at Abbot Point, which are:

- GVK Limited's proposed 60 mtpa T3 coal terminal to potentially service up to three mines in the southern area of the Galilee Basin[9]
- Adani Mining's proposed 20 mtpa T0 expansion of the existing T1 terminal.[10]

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.[11]

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*. 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.[12]

1.4 Summary of stakeholder submissions and the QCA's draft recommendation

The QCA has considered stakeholder submissions and has formed a draft position that it should recommend declaration of the DBCT service. A summary of some of the key issues are presented in Table 1 below. Further information is available in the following chapters.

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

[8] 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.

[9] DTMR, Coal transport infrastructure development, Queensland Government, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Coal-transport-infrastructure-development.

[10] DTMR, Coal transport infrastructure development, Queensland Government, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Coal-transport-infrastructure-development.

[11] 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.

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

Table 1 Summary of key positions and draft recommendation—DBCT service

QCA Act, s. 76	*Draft recommendation and draft view of each access criterion*
	The QCA is satisfied all criteria are met and recommends declaration of the service
Criterion (b)	Criterion (b) is satisfied The relevant market for criterion (b) is the market for DBCT's coal handling services in the Goonyella system In this market, there are no viable substitutes to DBCT DBCT is able to meet total foreseeable demand in the market at the least cost compared to any two or more facilities
Criterion (a)	Criterion (a) is satisfied DBCT Management has an ability and incentive to exercise market power, such that in the absence of declaration, efficient entry to the coal tenements market would be discouraged and there will be a material impact on competition in that market Access (or increased access) to the DBCT service on reasonable terms and conditions as a result of declaration would promote a material increase in competition in the coal tenements market
Criterion (c)	Criterion (c) is satisfied DBCT is of significance having regard to its size and importance to the Queensland economy
Criterion (d)	Criterion (d) is satisfied[13] Access (or increased access) to the DBCT service on reasonable terms and conditions, as a result of declaration would promote the public interest The QCA has balanced the costs and benefits and considers, among other things: • Declaration is likely to have a positive effect on investment in other markets, particularly in the coal tenements market • The administrative and compliance costs incurred by DBCT Management under declaration are not excessive, as many of these costs would have to be incurred in the absence of declaration. DBCT Management can manage compliance costs associated with any undertaking at any time by proposing amendments to the QCA • There are efficiency impacts if new (and more efficient) users are crowded out from the upstream tenements market

[13] As the DBCT facility does not extend outside Queensland, the QCA has not considered s. 76(5)(a) any further.

2 CRITERION B—MEET TOTAL FORESEEABLE DEMAND AT LEAST COST

2.1 Introduction

The access criterion in s. 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. Matters that require a more detailed explanation are discussed in sections 2.2 to 2.7.

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

Criterion (b)			
Issue	***DBCT Management***	***Other stakeholders***	***QCA draft 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 Hay Point common user coal handling services market	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	15 years as a starting point, but criterion (b) 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 77 mtpa to 84 mtpa (throughput)	76 mtpa to 84 mtpa (throughput) 85 mtpa to 93 mtpa (contract entitlements) See section 2.6

Criterion (b)			
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 2.7

2.2 The service

The declared service of 'the handling of coal at Dalrymple Bay Coal Terminal by the terminal operator' is defined in s. 250(1)(c) of the QCA Act.

2.2.1 QCA analysis

All stakeholders were in agreement that the relevant service that is the subject of the declaration review is defined in s. 250(1)(c) of the QCA Act.

The QCA notes that 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.[14]

DBCT operates under a cargo assembly logistics methodology, which requires the railing of the product to meet the arrival of the vessel.

> In the DBCT cargo assembly operation, a vessel typically arrives and once all parcels to be loaded on the vessel are produced and available for railing, the above rail operators bring the coal to the terminal where it is assembled in a space allocated to the parcel in the DBCT stockyard. Railings to complete the vessel are subject to the availability of the mine load-out, DBCT stockyard space, above rail assets and below rail pathing.[15]

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, PCI coal[16] and thermal coal—which can be blended into a possible 58 registered products.[17]

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—

[14] QCA, *Dalrymple Bay Coal Terminal Draft Access Undertaking*, draft decision, October 2004, pp. 5–6, http://www.qca.org.au/getattachment/dd6f9368-3c28-44e5-9350-7549981b461e/2004-Draft-Decision-re-DBCT-Draft-Access-Undertaki.aspx.

[15] DBCT Management, *Master Plan 2018: Expansion Opportunities at the Dalrymple Bay Coal Terminal*, 2018, p. 29, http://www.dbctm.com.au/_files/Documents/MP2018.pdf.

[16] Pulverized coal injection.

[17] DBCT Management, About the Terminal, http://www.dbctm.com.au/aboutdbct.aspx.

(a) loading and unloading equipment;

(b) stacking, reclaiming, conveying and other handling equipment;

(c) wharfs and piers;

(d) deepwater berths;

(e) ship loaders.

2.3.1 QCA analysis

Stakeholders did not disagree with the description of the facility in s. 250(5).

The terminal opened in 1983 as a common user coal export terminal, servicing mines in the Goonyella system of the Bowen Basin coal fields. The terminal has been expanded from time to time to service the growth in demand for coal. A 'short-term gain' expansion was completed in 2006, which increased terminal capacity from 54.5 mtpa to 59 mtpa. This was followed by a dredging program by the Ports Corporation of Queensland, which increased terminal capacity to 60 mtpa.[18] In 2009, DBCT was further expanded to 85 mtpa, following the commissioning of the 7X expansion project.[19]

Coal trains arrive at the terminal, where they pass through a rail receival station where coal is dumped out of the bottom of the train onto conveyors, which then transfer the coal to the stockyard. The stockyard holds different types of coal in stockpiles, which can then be reclaimed and transferred (via kilometres of conveyors) to shiploaders 3.8 kilometres offshore. The shiploaders load the coal onto customer vessels which then transfer the coal to various ports.[20]

DBCT Management's 2018 Terminal 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
- 8 stockpile rows, each approximately 1,100 m in length
- 3 outloading systems
- 4 berths capable of receiving cape size vessels.[21]

[18] QCA, *Dalrymple Bay Coal Terminal 2006 Draft Access Undertaking*, decision, June 2006, p. 1, http://www.qca.org.au/getattachment/1e3051ac-748d-43b9-a07c-601188601dd2/DBCT-2006-Draft-Access-Undertaking.aspx.

[19] QCA, *DBCT Management's POST-85 Mtpa Expansion Study Costs*, final decision, April 2013, p. 1, http://www.qca.org.au/getattachment/eaa1d5b4-c43d-47cc-81df-9c8d7d6c05fd/POST-85-Mtpa-Expansion-Study-Costs.aspx.

[20] DBCT Management, Coal Chain, http://www.dbctm.com.au/coalchain.aspx.

[21] DBCT Management, *Master Plan 2018*, p. 13.

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).

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.

The terminals that provide coal handling services in Queensland are identified in Table 3.

Table 3 Coal terminals in Queensland

Terminal	*Location*	*Nominal capacity (mtpa)*	*Contracted capacity status (mtpa)*	*Access status*
DBCT	Hay Point	85	76.9	Multi-user Open access
HPCT	Hay Point	55	Contract status unknown	Not multi-user Vertically integrated Closed access[a]
AAPT	Abbot Point (near Bowen)	50	Fully contracted[b]	Multi-user
WICET	Gladstone	27	Partially contracted. Spare capacity of 11	Multi-user Open access under an access policy
RG Tanna	Gladstone	75	Contract status unknown, but no evidence received of spare capacity	Multi-user
Barney Point	Gladstone	–	–	Terminal has closed
Brisbane	Brisbane	10	Contract status unknown, but no evidence received of spare capacity	Multi-user

a *BMA provides BMC (a related party) with limited access to HPCT, pursuant to an agreement between the parties (BHP, sub. 18, p. 4).*

b *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.*

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; Department of Transport and Main Roads, Master plan: Priority Port of Gladstone, 2018; Department of Transport and Main Roads 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.

2.4.2 Defining the market

A market is an area of close competition or rivalry where purchasers can substitute between different products, given a sufficient price incentive (see Chapter 2). In this respect, s. 71 of the QCA Act provides that:

> [i]f 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).

The QCA therefore 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. 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.

2.4.3 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 Point.[22] In contrast, both Peabody and the DBCT User Group said the relevant market is the Hay Point common-user coal handling services market.[23]

2.4.4 QCA analysis

The QCA considers the relevant market for criterion (b) is the market for DBCT's coal handling service in the Goonyella system.[24] In this market, there are no viable substitutes to DBCT's coal handling service.

In reaching this draft position, the QCA has explored the market for DBCT's coal handling service and whether other coal handling services are substitutable with DBCT's coal handling service, before determining total foreseeable demand.

This section considers the following key aspects:

- the approach to determining the relevant market
- the nature of the demand of Goonyella coal chain customers and the factors that influence this demand
- the demand of other coal chain customers
- the relevance of the facility at HPCT.

The QCA has also considered the views stakeholders have expressed on the relevant market in their submissions.

Approach to determining the relevant market

The QCA's focus in defining the relevant market has been on whether other terminals provide a closely substitutable service to the coal handling service at DBCT. This is consistent with the QCA's views of how a market should be defined (Chapter 2).

Section 71 of the QCA Act contains the phrase 'able to be substituted for, or are otherwise competitive with'. This reflects the fact that under the QCA Act, markets are to be defined in terms of substitution possibilities.

The QCA is of the view that market definition is purposive.[25] In that context, the QCA has focused on what is happening in the market as part of determining whether other terminals provide a competitive constraint to DBCT Management, by virtue of providing a substitutable service to the coal handling service at DBCT.

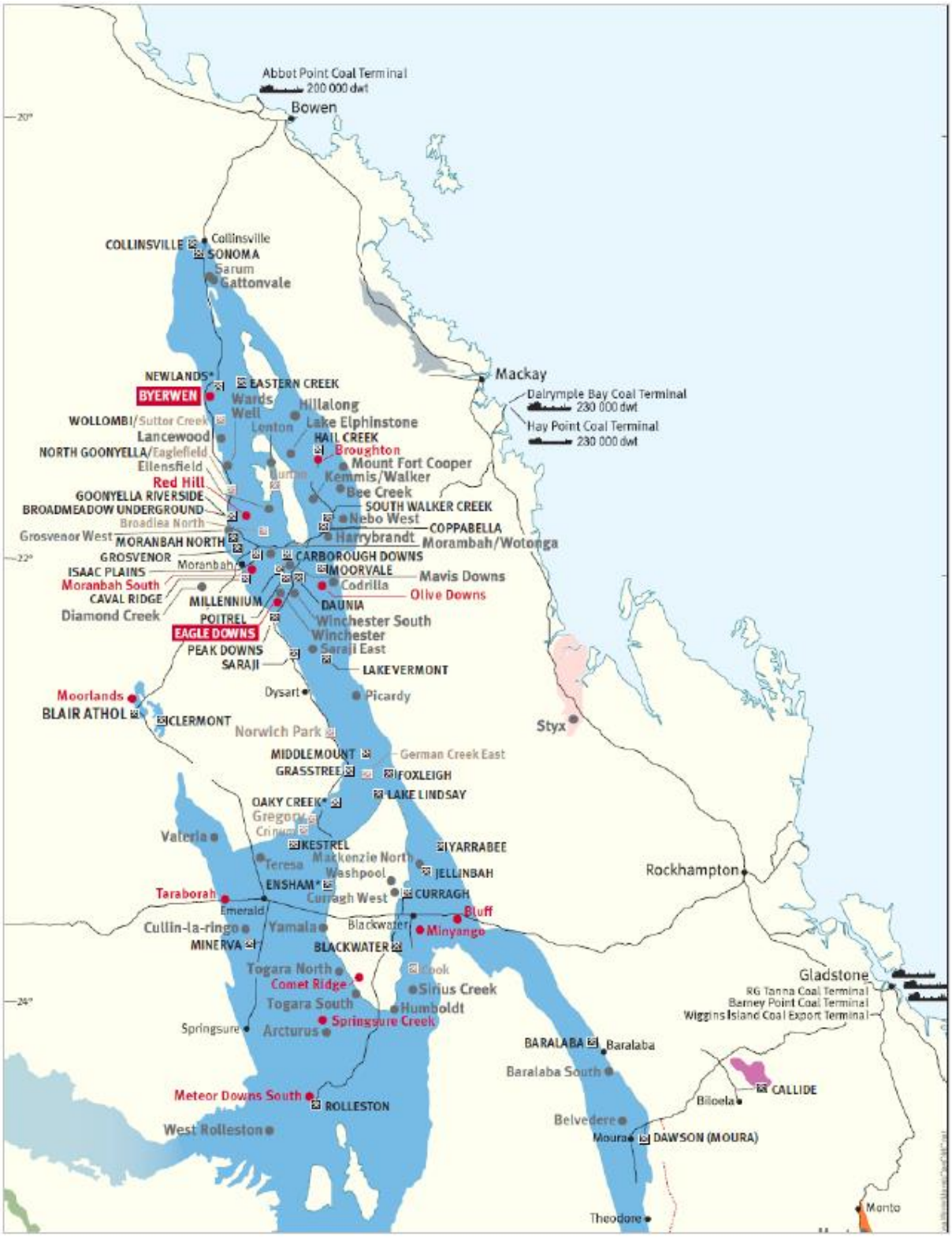
[22] DBCT Management, sub. 1, p. 27, para 120, which refers to its HoustonKemp supporting report.
[23] DBCT User Group, sub. 3, p. 56; Peabody, sub. 2, p. 2, para 4.
[24] In other words, existing or future mines that access Aurizon Network's Goonyella Network.
[25] DBCT Management, sub. 1, pp. 24–25 (para 106); DBCT User Group, sub. 3, p. 14.

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.[26] While DBCT Management and the DBCT User Group have different means of defining the market from a geographic perspective, there is not a material difference in the geographic configuration of their respective market definitions. Both DBCT Management and the DBCT User Group focus on a subset of the Bowen Basin coal fields; that is, on the location of mines with reference to the Hay Point region.

Figure 3 shows the mines in the Bowen Basin coal fields and the various terminals that satisfy the demand for coal handling services.

[26] 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.

Figure 3 Mines in the Bowen Basin coal fields and coal terminals that service the mines



DBCT Management, Master Plan 2018, p. 10.

Considering the market from the outset by reference to Hay Point will necessarily involve a range of views about which mines should be included in or excluded from the market definition. Notwithstanding the geographic focus of both DBCT Management and the DBCT User Group on

the Hay Point region, they approach the concept of market definition from fundamentally different perspectives:

- DBCT Management, in essence, defines the market in terms of mines that would prefer to use the coal handling service at DBCT on the basis of cost. DBCT Management does not consider existing barriers to use the coal handling service at DBCT relevant, such as rail infrastructure and contractual constraints. DBCT Management also does not consider non-cost factors relevant or material to this issue.
- The DBCT User Group focuses on demand for the DBCT service without considering other mines which, although in close proximity to mines that use DBCT, are currently accessing coal handling services at terminals other than DBCT. The DBCT User Group considers that existing barriers to using DBCT, such as rail and contractual constraints, are relevant. Moreover, it considers that non-cost factors are relevant and material to defining the market.

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 whether the relevant mines would consider coal handling services at other terminals as close substitutes (for instance, under a SSNIP[27] test)
- the demand for coal handling services outside the Goonyella system and whether the relevant mines utilising alternative rail systems on the CQCN would consider switching to DBCT (via the Goonyella system).

Goonyella coal chain customers

DBCT provides coal handling services to around 26 mines on the Goonyella system.[28,29] The furthest mines on the Goonyella network that access DBCT are:

- North Goonyella (north on the network)
- Blair Athol (west on the network)
- Oaky Creek (south on the network).[30]

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

The DBCT User Group said other coal handling terminals in Queensland did not provide a substitutable service to Goonyella system for a range of reasons. DBCT Management disputed the DBCT User Group's assertions.

The QCA's view of the matters raised by DBCT Management and other stakeholders is discussed below.

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[27] Small but significant non-transitory increase in price.

[28] QCA, *DBCT Management's 2015 draft access undertaking*, final decision, p. 1, http://www.qca.org.au/getattachment/081401b3-903e-4aea-b9fd-9da8e544cf94/Secondary-Undertaking-Notice—Attachment—QCA-decisi.aspx.

[29] DBCT Management, Maps, http://www.dbctconstruction.com.au/coalchain/maps.aspx

[30] The QCA understands that Kestrel is the most southern mine that accesses DBCT; however, it is not on the Goonyella network.

Cost factors

The DBCT User Group and Peabody said substitution to alternative terminals is not economically viable based on below- and above-rail costs.[31]

Below-rail costs

DBCT is the closest terminal for the overwhelming majority of Goonyella users (Table 4); hence, below-rail costs would be lower when accessing DBCT than when accessing other terminals.

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 network	217	AAPT: 243
Blair Athol	West on the Goonyella network	282	AAPT: 391
Oaky Creek	South on the Goonyella network	298	Port of Gladstone (RG Tanna/WICET): 384

Distance calculations 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.

Goonyella system users would also incur additional charges in accessing terminals in other systems.

The DBCT User Group mentioned that for a mine located in the Goonyella system to export to AAPT, it would also need to use the GAP system; that would involve payment of the regulated return on the use of the Newlands infrastructure as well as payment of the GAPE fee.[32] The same would apply for a Goonyella system mine that sought to use WICET, whereby it would need to pay the WIRP fee.

These additional fees are over and beyond the standard access charges that users bear.

Above-rail cost

The greater distances to alternative terminals are likely to be reflected in higher above-rail costs. The QCA is satisfied that haulage rates to AAPT and WICET/RG Tanna would further increase because of the smaller payload trains allowed on the Newlands and Blackwater systems respectively, compared to that allowed on the Goonyella system.[33]

Cost estimates

The DBCT User Group provided total infrastructure cost estimates of the cost of a Bowen Basin mine accessing DBCT ($4.86/tonne), AAPT ($18/tonne), RG Tanna ($12.50/tonne) and WICET ($30/tonne).[34] The QCA has not relied on these estimates, as it has not seen the detailed assumptions or underlying data that underpin the calculations. Rather, the QCA has sought to independently model its own cost estimates for mines in the Goonyella system to transport coal

[31] DBCT User Group, sub. 3, p. 21; Peabody, sub. 2, pp. 6–7.
[32] DBCT User Group, sub. 3, pp. 34–35.
[33] DBCT User Group, sub. 3, p. 36.
[34] DBCT User Group, sub. 3, p. 23 and schedule 3 (PWC report), pp. 32–33.

to other coal handling terminals, relative to transporting coal to DBCT. Table 5 shows these cost details, and Part C, Appendix A contains the QCA's modelling assumptions and methodology.

Table 5 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	$2.62	$9.23	$6.33	$6.33
Above-rail cost	$3.70	$5.73	$5.17	$5.17
Coal handling cost	$5.05	$7.01	$5.18	$14.67
Other port and shipping costs	$0.05	$0.05	$0.05	$0.05
Supply chain cost	**$11.42**	**at least $22.02**	**at least $16.73**	**at least $26.22**
Cost difference relative to accessing DBCT	–	*at least $10.60 (93%)*	*at least $5.32 (47%)*	*at least $14.81 (130%)*

See Table 4, Appendix A, Part C.

As explained in Part C, 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 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 47 to 130 per cent.

The QCA's view is that in the absence of declaration DBCT Management could significantly increase the terminal charge for accessing DBCT (i.e. by more than 5 to 10 per cent under a SSNIP test), and it would still be cheaper for a miner to continue to access DBCT.

Below and above-rail network differences

The DBCT User Group, Peabody and BHP[35] 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 said that as the Goonyella system supported electric and diesel trains, whereas the Newlands system supported only diesel trains 'there may be limits to what rail haulage providers with electric rolling stock … will be able to do in terms of switching to the Newlands system'.[36] Similarly, 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.[37]

BHP noted that the requirement for smaller rollingstock consists[38] with lower payloads on the Newlands system increased costs.[39]

The QCA considers that the ability of the Newlands line to only accommodate diesel trains may impact on the incentive and ability of Goonyella system users to switch from DBCT to AAPT. That

[35] BHP, sub. 18, p. 8; Peabody, sub. 2, p. 7; DBCT User Group, sub. 3, p. 36.
[36] DBCT User Group, sub. 3, p. 36.
[37] Peabody, sub. 2, p. 7.
[38] A consist is a sequence of railroad carriages.
[39] BHP, sub. 18, p. 8.

said, the QCA notes that this restriction does not apply on the Blackwater system, which accommodates both diesel and electric trains.

Insufficient terminal and below-rail capacity

Whether there is spare capacity at alternative terminals or on the below-rail network is clearly relevant to the ability of a DBCT user to switch from DBCT when faced with price or non-price incentives.

Terminal capacity

The QCA's preliminary view in respect of terminal capacity is that while there is spare capacity of 11 mtpa at WICET[40], there is no spare capacity at either AAPT or RG Tanna.

In respect of AAPT, the QCA also notes that to the extent that take or pay contracts will be expiring over the coming years, the North Queensland Bulk Port's view is 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.[41,42]

The QCA notes that there are considerable uncertainties regarding the construction of the Carmichael Coal Mine and Rail project, including if it will be built. However, the QCA considers that future spare capacity at AAPT is unlikely to be contracted until the details of this project are clarified.

The QCA is also not aware of any planned expansions of AAPT that are likely over the declaration period, and which will be available for common user access.

Likewise, in respect of RG Tanna, the DBCT User Group noted that:

> While the exact contracted capacity is not publicly known, the DBCT User Group understands that RGT is contracted close to its capacity (since the Barney Point coal terminal permanently ceased to operate in 2016).[43]

The DBCT User Group's position is consistent with throughput data collated by the Department of Natural Resources and the Environment for the Port of Gladstone.[44]

In the absence of contrary evidence, the QCA's position is that future spare capacity at AAPT is not expected to be available for common-user access, and separately, RG Tanna is fully contracted.[45]

Rail capacity

The DBCT User Group and Peabody also said the below-rail network was capacity-constrained.[46]

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[40] WICET, Access, http://www.wicet.com.au/irm/content/access1.aspx?RID=379&RedirectCount=1.
[41] DBCT User Group, sub. 3, p. 36.
[42] DBCT User Group, sub. 3, schedule 3, p. 18 (quote 44); North Queensland Bulk Ports, *Annual Report 2016–17*, https://nqbp.com.au/__data/assets/pdf_file/0016/2842/NQBP-2201-Annual-Report-2017_PRINT_low-res-2.pdf.
[43] DBCT User Group, sub. 3, p. 39.
[44] Following the closure of Barney Point, the only coal handling terminals at the Port of Gladstone are RG Tanna and WICET. See also Queensland Government data, 2017 calendar—Coal sales statistics, https://data.qld.gov.au/dataset/annual-coal-statistics/resource/c522fcaa-89d7-4c76-bd6e-064d39617d38.
[45] The QCA's consultants, Balance Advisory, as part of advising the QCA on criterion (a) also note that RG Tanna is fully contracted. (Balance Advisory, *DBCT Management Declaration Review*, report for the QCA, 31 August 2018, p. 8).
[46] DBCT User Group, sub. 3, p. 39; Peabody, sub. 2, p. 7.

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. As a result, transferring capacity from DBCT would likely result in a significant cost penalty for users.[47]

Consideration of DBCT Management's views

In contrast, DBCT Management said capacity constraints at alternative terminals or on rail systems are not relevant.

> The appropriate time dimension of the market is the period over which the market operates – that is, the period over which transactions are normally conducted. 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.[48]

The QCA's view is that substitution must be considered over the period the market operates. For the purposes of this review, the QCA has considered the market over the recommended 10-year declaration period and assessed total foreseeable demand during this timeframe.

However, the QCA has not received compelling evidence of the availability of spare capacity at RG Tanna or AAPT over this period.[49]

Moreover, there is no certainty that alternative coal handling terminals would be expanded over this period.

There may also be changes that reduce the attractiveness of alternative terminals. For example, users may consider AAPT less attractive in the future to the extent that it represents part of AAPT's vertically integrated operations. That said, the QCA has not considered relevance of Adani's future operations at AAPT any further, given the absence of submissions on this matter.

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. Some may argue that it is reasonable to assume that capacity will be upgraded to reflect demand, but uncertainties about the timing and pricing of any upgrades, and the need for alignment across below-rail, above-rail and coal terminal capacity are likely to impact on the extent to which Goonyella system users consider alternative terminals as substitutes.

The lack of alternative coal handling and rail capacity are a commercial reality for entities that may otherwise consider a switch away from DBCT. The QCA's view is that this reality is likely to be relevant to defining the relevant market.

The ACCC's merger guidelines—to which both DBCT Management and the DBCT User Group refer in defining the market—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.[50]

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[47] DBCT User Group, sub. 3, schedule 3, pp. 15–17.

[48] DBCT Management, sub. 13, pp. 20–21, paras 87–88.

[49] While there is spare capacity at WICET, the costs of this capacity is significantly greater than the costs of using DBCT (see analysis of criterion (a) in Part C, Chapter 3).

[50] ACCC, *Merger Guidelines*, November 2008 and amended November 2017, p. 17, https://www.accc.gov.au/system/files/Merger%20guidelines%20-%20Final.PDF.

Metallurgical coal co-shipping opportunities

The DBCT User Group said co-shipping arrangements are highly sought after by metallurgical coal producers.[51]

> For a metallurgical coal producer with smaller production volumes or who has steel mill customers which seek a specific combination of metallurgical coal for their coal blend, coal handling services [at AAPT] as a terminal that provides much lesser co-shipping options is not a close substitute for the Service.[52]

In the same vein, the DBCT User Group said coal handling services at RG Tanna and WICET are also not a close substitute to that at DBCT, because of their lesser co-shipping options compared to DBCT.[53]

DBCT Management's consultant, HoustonKemp, said:

> [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.[54]

The QCA notes that DBCT predominantly handles metallurgical coal[55,56] 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 those available at other terminals. The QCA also notes that such co-shipment opportunities are of value to Goonyella system users.

In the absence of evidence to the contrary, the QCA is satisfied that co-shipment opportunities at DBCT are a material reason why DBCT users prefer the coal handling service at DBCT to that provided at other terminals which are located further away, all other factors remaining unchanged. While the availability of co-shipping 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 considering substitution between terminal services. To the extent that users value the co-shipment 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.

Blending

As explained by DBCT Management, DBCT can blend coal into 58 registered coal products.[57] The 2016 DBCT 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

[51] DBCT User Group, sub. 3, p. 28. See also Anglo American, sub. 14, p. 7.
[52] DBCT User Group, sub. 3, p. 37.
[53] DBCT User Group, sub. 3, p. 39.
[54] DBCT Management, sub. 15, p. 20, para 82.
[55] DBCT Management, About the Terminal, www.dbctm.com.au/aboutdbct/facts.aspx.
[56] In 2017, metallurgical and thermal coal sales from mines utilising the CQCN were 151 mtpa and 51 mtpa respectively. See Queensland Government data, 2017 calendar year—Coal statistics, https://data.qld.gov.au/dataset/annual-coal-statistics/resource/c522fcaa-89d7-4c76-bd6e-064d39617d38.
[57] DBCT Management, About the Terminal, http://www.dbctm.com.au/aboutdbct.aspx.

> 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.[58]

The DBCT User Group said:

> There is no existing or proposed terminal which offers the same stockyard space with a similar ability to process coal.[59]

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.[60]

The QCA understands that blending at the terminal is likely to be cheaper than at individual mines, given the need for specialised machinery (reclaimers) to undertaking blending. The QCA is also satisfied that the blending capabilities at DBCT may be different to those provided at other terminals, such that it may impact on the decision of Goonyella system users to prefer DBCT to other terminals, all other things remaining unchanged. That said, while the QCA is of the view that blending capabilities at a terminal are important to meet the specifications of particular end users, detailed submissions have not been received that demonstrate that the blending capabilities at DBCT are superior to those at other terminals, or that it is a material consideration for users accessing the DBCT service.[61]

Existing long-term take or pay contracts

The DBCT User Group said rail haulage, rail access agreements and terminal access agreements are typically entered on a 10-year take or pay basis. As such, a producer would not switch away from DBCT in response to a SSNIP where such switching would simply expose them to substantial take or pay penalties.[62]

The QCA does not consider that the cost of exiting a contract before its expiry is the type of 'switching cost' that is relevant to assessing the existence of substitutes.[63] If a user would be willing to switch from the DBCT service to another service (e.g. if an existing contract was reaching its end), and if that switch was non-marginal, it would suggest that the services are substitutable. Rather, existing contractual constraints are properly taken into account in assessing the strength of competition within a market, and are relevant to assessing foreseeable demand in a given year (see section 2.6).

The 2018 DBCT Master Plan indicates that a substantial proportion of existing contracts expire from 2024, which is during the proposed period for declaration under consideration.[64] The QCA

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[58] DBCT Management, *Master Plan 2016*, p. 15, http://www.qca.org.au/getattachment/d4141799-c9d9-4460-b15b-753c0e91d63f/DBCT-Management-Master-Plan.aspx. While the 2016 Master Plan has been replaced by the 2018 Master Plan, the QCA has not received submissions indicating the quoted material in the 2016 Master Plan is incorrect.

[59] DBCT User Group, sub. 3, schedule 3, p. 17.

[60] DBCT Management, sub. 13, p. 18, para 68.

[61] The QCA notes that 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. However, while DBCT does create unique coal blends (in DBCT Management's own view), there is not sufficient evidence before the QCA for it to form a view that the blending capabilities at DBCT are relevant to assessing substitutability between DBCT and other terminals.

[62] DBCT User Group, sub. 3, p. 29; DBCT User Group, sub. 15, pp. 7, 17, 36-37. See also DBCT User Group, sub. 15, schedule 1, p. 8.

[63] DBCT Management, sub. 13, pp. 20, 21, paras 87–88 and appendix 1, pp. 13–14.

[64] DBCT Management, *Master Plan 2018*, p. 21, www.dbctm.com.au/_files/Documents/MP2018.pdf.

also assumes that the contracts for coal handling, as well as above- and below-rail contracts, have broadly similar expiry dates.[65]

As a substantial proportion of existing contracts expire in 2024, this may indicate that the (port, above- and below-rail) take or pay costs of users switching to an alternative terminal are not significant.

That said, the costs to exit existing terminal contracts before their expiry will impose a cost on a user, which will affect the assessment of foreseeable demand. The QCA concludes that a DBCT user will not switch to another terminal during the declaration period to the extent that it has contractual entitlements (and take or pay obligations) at DBCT, and has considered this aspect in assessing foreseeable demand.

Mine infrastructure investment

Peabody said its mines were configured to send coal to DBCT and a switch to AAPT would require additional investment.

> Peabody's current mines, predominantly export from DBCT, and the rail network linking these mines is set up to facilitate loaded trains exiting the mine site onto the rail network for delivery to DBCT. In order to facilitate delivery to an alternative port, Peabody would have to undertake additional investment at its mine sites to reconfigure the relevant parts of the rail network. Peabody has not undertaken a detailed study of such investment but estimates that it would be a material cost at each site.[66]

DBCT Management's consultant, HoustonKemp, 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, as:

> the extent of this effect for these miners is limited to the cost associated with upgrading the rail infrastructure … and 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.[67]

The QCA considers that whether miners have a readily available choice of coal terminal is related to switching costs. In particular, if the costs of switching terminals was so high because of the necessary infrastructure upgrades to accommodate the movement of coal to an alternative terminal, it may be that switching would not be a viable option for a miner. Such a finding of fact would be directly relevant to whether a miner has a readily available choice of coal terminals, and hence directly relevant to any market assessment.

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. Mine infrastructure investment is therefore relevant to an analysis of the boundaries of the market. The ability of a mine in the Goonyella system to switch to an alternative terminal is integral to assessing the boundaries of the market, and infrastructure costs to facilitate switching are necessarily a matter to consider.

The QCA considers there may be additional mine investment cost to switch to another terminal and the costs could be material, given the need to align the mine/rail infrastructure in an appropriate manner to allow coal to be transported to an alternative terminal.

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[65] DBCT User Group (sub. 15, p. 37) noted rail haulage or rail access contracts may not potentially align with a 'recontracting decision' at a terminal, but provide no further information on this matter.

[66] Peabody, sub. 2, p. 7.

[67] DBCT Management, sub. 13, p. 19, para 78.

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 in the direction of DBCT. In this context, where DBCT users have invested in mine infrastructure to facilitate delivery of coal in the direction of DBCT (as opposed to AAPT), there may be additional costs for them in switching to another terminal. Further information from stakeholders is invited on this matter.

Conclusion on factors relevant to substitution

The QCA considers that there are a range of factors that are relevant and material as to the likelihood of DBCT users switching to alternative terminals (AAPT, RG Tanna and WICET) over the 10-year period adopted by the QCA for assessing total foreseeable demand. Indeed, since the commencement of declared access at DBCT, there has been a material increase in the terminal infrastructure charge (in excess of 5 to 10 per cent under a SSNIP test). However, the QCA has not received any evidence that DBCT users have switched away from DBCT in response to such price increases.

That said, HPCT is in a different category, and requires consideration of different issues.

Hay Point Coal Terminal

Background

BHP Billiton Mitsubishi Alliance (BMA), a 50/50 partnership between BHP and Mitsubishi owns the Hay Point Coal Terminal (HPCT), which has a terminal capacity of 55 mtpa. The parties have not chosen to operate the terminal as a common-user facility.[68,69]

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 mines[70] 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.[71] 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 Chapter 2.

Given both HPCT and DBCT are located at the same port, matters that may be relevant to determining whether the coal handling service 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 Hay Point is in the same market as the DBCT service.

DBCT Management considers that DBCT is a close substitute for HPCT, noting that the same integrated rail network links mines to each of DBCT and HPCT.[72] DBCT Management said:

[68] BHP, sub. 18, pp. 2, 4.
[69] BMA, submission to the Standing Committee on Transport and Regional Services, *Inquiry into integration of regional rail and road networks and their interface with ports*, submission 47, 2005.
[70] BMA's mines are Caval Ridge, Peak Downs, Goonyella/Riverside, Broadmeadow, Saraji, Daunia and Blackwater.
[71] BHP, sub. 18, pp. 2, 4.
[72] DBCT Management, sub. 1, p. 33, para 156 and p. 34, paras 165–67.

> [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.[73]

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 2 or more facilities. If, based on a proper analysis, 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.[74] 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. The possibility of substitution between a vertically integrated and a vertically separate service was discussed by the Australian Competition Tribunal in *Re Fortescue Metals Group Limited*.[75] The Tribunal stated:

> [1038] Accepting there is a separate functional market, the question that then arises is: Should the in-house 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 in-house 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.

The QCA considers that in determining whether HPCT provides coal handling services 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 non-transitory change in the DBCT terminal infrastructure charge, would DBCT users switch from or to the coal handling services 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.

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[73] DBCT Management, sub. 1, p. 34, para 165.
[74] *Queensland Competition Authority Act 1997*, s. 71.
[75] [2010] ACompT 2 at [1035]–[1039].

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.[76]

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 prior to the development of 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.[77]

> 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.[78]

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.[79] As such, the QCA is not aware that there is spare capacity which 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.

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[76] DBCT Management, *2016 DAU Submission*, 9 October 2015, p. 7.
[77] DBCT Management, sub. 13, p. 30, para 138.
[78] DBCT Management, sub. 13, p. 30, para 139.
[79] DBCT User Group, sub. 3, p. 30. Likewise, BHP says that HPCT is 'efficiently fully utilised' (BHP, sub. 18, p. 5).

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 services 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.[80]

These views are consistent with BHP's media release at the time of the HPX3 expansion:

> Importantly, the increased capacity at HPX3 will enhance our ability to run an even more productive value chain.[81]

These views are also echoed by the DBCT User Group, who stated:

> In the interests of maintaining … efficiencies, BMA advises that it anticipates continuing to utilise all of HPCT's capacity for its own operations (and possibly for BMC production, at times) and will not offer coal loading services at HPCT to third party producers.[82]

Use of HPCT by BMA and BMC

The QCA notes that some BMC and BMA mines utilise DBCT as well as HPCT.

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.

Relevantly, BHP 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.[83]

Where BMA or BMC require additional capacity, 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 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 than accessing DBCT.[84]

The QCA's position when defining the market for the relevant service is to exclude HPCT.

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[80] BHP, sub. 18, p. 4.

[81] BHP, *New BMA Hay Point Coal Terminal boosts Queensland's coal exports*, media release, 16 December 2015, https://www.bhp.com/media-and-insights/news-releases/2015/12/new-bma-hay-point-coal-terminal-boosts-queenslands-coal-exports.

[82] DBCT User Group, sub. 3, p. 30.

[83] BHP, sub. 18, p. 4.

[84] 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/.

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[85] (but do not have current contract entitlements at DBCT[86]).

The QCA considers that it is appropriate to include the contract entitlements held by BMC mines at DBCT as part of the market for coal handling services at DBCT. 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 do otherwise and also include the demand that is presently satisfied by other terminals would artificially inflate the estimate of total foreseeable demand (the calculation of which is ultimately central to criterion (b)). Moreover, DBCT Management has not demonstrated that to date the use by BMA mines of DBCT represents anything other than the occasional and opportunistic use of DBCT, indicating that it is not a strong substitute. The QCA has not received evidence that BMA would switch from HPCT to DBCT in response to a SSNIP.

Access to HPCT

The QCA notes that its conclusion about whether HPCT is in the relevant market rests on its findings about 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.[87] In this context, it might be thought odd that 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 services provided by HPCT are in the same market as those 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 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.

Conclusion

For the reasons set out above, the QCA considers that HPCT is not a sufficiently strong substitute to place it in the market in which DBCT operates.

[85] DBCT Management, sub. 1, p. 32.
[86] BHP, sub. 18, p. 5.
[87] Productivity Commission, *National Access Regime*, inquiry report no. 66, 2013, p. 45.

What if HPCT were declared?

A related question is whether the above analysis and our 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 declaration criteria under the two Acts are similar but not identical. In particular, criterion (c) in s. 76(2) of the QCA Act is concerned with the significance of the facility, having regard to its size or importance to the Queensland economy, whereas criterion (c) in s. 44CA(1) of the CCA is concerned with national significance. The crucial difference between the two regimes, if a service is declared, is that the QCA can require a service provider to submit a draft access undertaking. Under Part IIIA, submission of an access undertaking is voluntary. The QCA has no view on whether HPCT would satisfy the criteria for declaration under either Act although the outcome of a declaration application under either regime would likely be the same.[88] 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 the *Sydney Airport* decision, 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.[89] 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.[90]

Importantly, in Part IIIA of the CCA and Part 5 of the QCA Act, there are limits on the extent to which an existing user can be deprived of its right to use a declared service. Specifically, s. 44W(1)(a) of the CCA provides that the ACCC cannot, in arbitrating an access dispute, make a determination *'preventing an existing user obtaining a sufficient amount of the service to be able to meet the user's reasonably anticipated requirements, measured at the time the dispute was notified'*. Section 119 of the QCA Act (Restrictions affecting making of access determination) is similar in effect.

The QCA understands that HPCT is currently operating at, or near, full capacity. This means that even if HPCT was declared, it would be unlikely to result in a third party being able to obtain access to existing capacity at the terminal. 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. Even if declared, the existing capacity of HPCT would not be offered to users in the same market as the coal handling services offered at DBCT.

Declaration of HPCT could, however, result in an access seeker obtaining a right to require it to be expanded, with such additional capacity to be offered to access seekers.[91] 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 time frame, which 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.[92] Higher expansion costs, together with the steps that would be

[88] For example, there would be a serious question about whether HPCT could be expanded to a size that would enable it to satisfy total foreseeable demand for coal handling services from DBCT users.
[89] *Sydney Airport Corporation v Australian Competition Tribunal* [2006] FCAFC 146 at [30].
[90] *Sydney Airport Corporation v Australian Competition Tribunal* [2006] FCAFC 146 at [83].
[91] CCA, s. 44V(2A); QCA Act, s. 119(4).
[92] See Morgans & CIMB Securities (Australia), *Special Report: Wiggins Island Coal Export Terminal*, 6 May 2014, p. 2.

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.

A different analysis is required if there was also a need to expand DBCT to meet additional demand. If the service at HPCT was already declared, it is conceivable that access seekers might endeavour to negotiate an expansion of HPCT if the terms proposed by DBCT Management, for expansion and use of additional capacity, were unacceptable. For the purpose of applying criterion (b), this scenario would require consideration of whether it would be cheaper to meet the total foreseeable demand (including demand in excess of DBCT's existing capacity) by expanding DBCT, or by expanding a HPCT (if the HPCT service was declared). If expansion of DBCT was still the cheaper option, criterion (b) would be satisfied.

Goonyella system users that use other terminals

Some mines in the Goonyella system are users or have been users of AAPT. 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 also exports coal through DBCT) has contracted capacity of 6 mtpa at AAPT and 4 mtpa at RG Tanna.[93]
- 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) export 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).[94]
- 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 and DBCT.
- Some BMA mines also export coal through RG Tanna (in addition to DBCT, HPCT and AAPT).[95]

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.[96]

DBCT Management said that the coal handling service provided at these terminals are a close substitute for mines using the DBCT service.[97]

[93] DBCT Management, sub. 1, p. 29, paras 132.3, 136.1.
[94] DBCT Management, sub. 1, p. 84, para 373.
[95] DBCT Management, sub. 1, p. 96, para 433.
[96] DBCT Management, sub. 1, p. 29, paras 131–33.
[97] DBCT Management, sub. 1, p. 28, para 129.

To the extent that DBCT Management's statement applies to Goonyella system users, the QCA remains unconvinced, and considers that the coal handling services at these terminals are not a close substitute for users.

Firstly, the QCA understands that some DBCT users (in the case of Lake Vermont and Middlemount) would have preferred 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.[98,99]

The QCA has not received evidence that these entities switched from DBCT to AAPT in response to a price change. Rather, it appears that both of them were unable to access additional capacity beyond their contracted entitlements at DBCT, and therefore sought additional capacity elsewhere. 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.[100]

As DBCT Management acknowledged, in the context of the 2017 DAU process:

> users' decisions to contract at AAPT rather than DBCT were not primarily price-based. AAPT secured capacity from DBCT's Goonyella catchment because DBCTM was still completing its expansion and there was considerable new demand. That demand would have preferred to come to DBCT but AAPT could bring it to market quicker … [101]

Secondly, the QCA notes that BHP (BMC), Glencore and Anglo American do have mines in the Goonyella chain that also have contracts with, or utilise, terminals other than DBCT.

However, the QCA is not persuaded that this represents strong substitution between DBCT and other terminals (i.e. AAPT and RG Tanna). BHP, Glencore and Anglo American noted that the use of terminals other than DBCT represented actions to optimise their business operations.

For instance, BHP acknowledged BMC's contract entitlements at AAPT, but indicated that there was limited capacity at DBCT during the mining boom and that costs of switching to AAPT are substantial. BHP also said BMC did not rail significant volumes to RG Tanna.[102]

Likewise, Anglo American said there is marginal use by Hay Point catchment mines of alternative coal export terminals, and moving product to an alternative terminal would allow a user to defray take or pay expenses under a contract at that alternative terminal. Anglo American also said contracting at a range of terminals can be part of a broad risk mitigation strategy. This does not

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[98] 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.

[99] Middlemount commenced full scale productions in 2011. Further information about Middlemount is available on Middlemount Coal's website.

[100] Peabody, sub. 12, p. 7, para 23.

[101] DBCT Management, submission to the QCA, *DBCT Management's 2015 DAU—draft decision*, 8 July 2016, p. 3, http://www.qca.org.au/getattachment/f4531182-ec59-4e6c-9870-51d1c38fdaa9/DBCTM-Submission-Redacted.aspx.

[102] BHP, sub. 18, pp. 7–9.

mean terminal services are substitutable, but sometimes producers take uneconomic decisions to protect against disruptions caused by system shutdowns or cyclones.[103]

Thirdly, the QCA understands that it is materially more costly for a Goonyella system user to switch to an alternative terminal. The QCA's modelling suggests that it is substantially cheaper to access DBCT than to access alternative coal handling terminals (Table 5). The QCA notes that DBCT Management has previously accepted this proposition during the 2017 DBCT DAU process in the context of DBCT users that secured access at AAPT:

> Total infrastructure costs for Goonyella miners at AAPT were in the range of $25 to $30/t and only about $15/t at DBCT. But the users still chose AAPT because they had no certainty as to the timing of expansions at DBCT.[104]

Fourthly, it is not evident to the QCA that Goonyella system users have switched from DBCT in response to price or non-price incentives. However, even if there was 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. There should be evidence of switching at levels which indicate that the two services are close substitutes.

Likewise, the DBCT User Group, having regard to the Court's decisions in *Arnotts Ltd v TPC*[105] and *Singapore Airlines Ltd v Taprobane Tours WA Pty Ltd*[106] 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 services provided at another terminal it would need to show that at least a significant proportion of DBCT Users would switch to that other terminal in response to a SSNIP for the Service.[107]

The QCA is not convinced that other terminals provide close substitution possibilities to DBCT in the market for coal handling services in the Goonyella coal chain.

Conclusion on Goonyella coal chain customers

The QCA understands that the (regulated) terminal infrastructure charge at DBCT is lower than at comparable terminals[108], a point echoed by other entities, such as rating agencies:

- According to Fitch, DBCT is the lowest cost producer in the Bowen Basin.[109]
- S&P's view is that DBCT will remain the most competitive export point in the region.[110]

In the absence of declaration, the QCA's view is that an unconstrained DBCT Management could substantially increase DBCT's terminal infrastructure charge (i.e. a SSNIP increase), without

[103] Anglo American, sub. 14, p. 7.
[104] DBCT Management, submission to the QCA, *DBCT Management's 2015 DAU—draft decision*, 8 July 2016, p. 3.
[105] (1990) 24 FCR 313.
[106] (1991) FCA 621.
[107] DBCT User Group, sub. 3, p. 21.
[108] QCA, *DBCT Management's 2015 draft access undertaking*, final decision, p. 97.
[109] *Reuters AfricaTech*, 'Fitch Rates DBCT Finance's Senior Secured Debt 'BBB-'/Stable', 7 June 2016, https://af.reuters.com/article/africaTech/idAFFit961210.
[110] QCA, *DBCT Management's 2015 draft access undertaking*, final decision, p. 97.

existing DBCT users switching to an alternative terminal.[111] The QCA's reasons for its position are as follows:

- DBCT has particular (non-price) 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 proposed declaration period under consideration.
- While certain Goonyella chain users access other terminals, or have capacity entitlements with other terminals, the QCA remains unconvinced that these users have switched from DBCT in response to price or non-price incentives (e.g. co-shipping opportunities). Rather, any use of alternative terminals appears to reflect a range of other reasons, including the absence of capacity at DBCT at a time of demand, as well as commercial and risk mitigation strategies designed to optimise the processing of coal from mines.
- Goonyella chain users would incur additional above- and below-rail costs in switching to an alternative terminal.

Non-Goonyella coal chain customers

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

Newlands and Blackwater lines

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.[112,113]

In addition, trains on the Newlands system are diesel only. It is unclear whether Aurizon Network would be prepared to accommodate additional diesel trains on the Goonyella system, given Aurizon Network's substantial investments in electric infrastructure and considering that Goonyella largely operates as an electric system. In this respect, Aurizon Network had submitted an application to the QCA under a separate process that proposed to amend its regulatory arrangements to facilitate recovery of its electric infrastructure costs. The QCA's final decision on this matter summarised Aurizon Network's position as follows:

> Aurizon Network was concerned about the possibility of users bypassing its electric infrastructure. It said that because of rising electricity prices electric traction has lost its historic cost advantage over diesel—and that the AT5 pricing framework acts to widen the cost differential, which further discourages operators from using or investing in electric locomotives. In Aurizon Network's view, this puts pressure on its ability to recover its electric traction costs and creates significant

[111] 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.

[112] 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 and Teresa projects, both of which are outside the Goonyella system, as part of its estimates of total forseeable demand. MMI's view was that there is no evidence to support a material redirection of Kestrel volumes to DBCT, while the status of the Teresa project is unknown.

[113] 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).

uncertainty over the future use of its electric network (through bypass and ultimately asset stranding).[114]

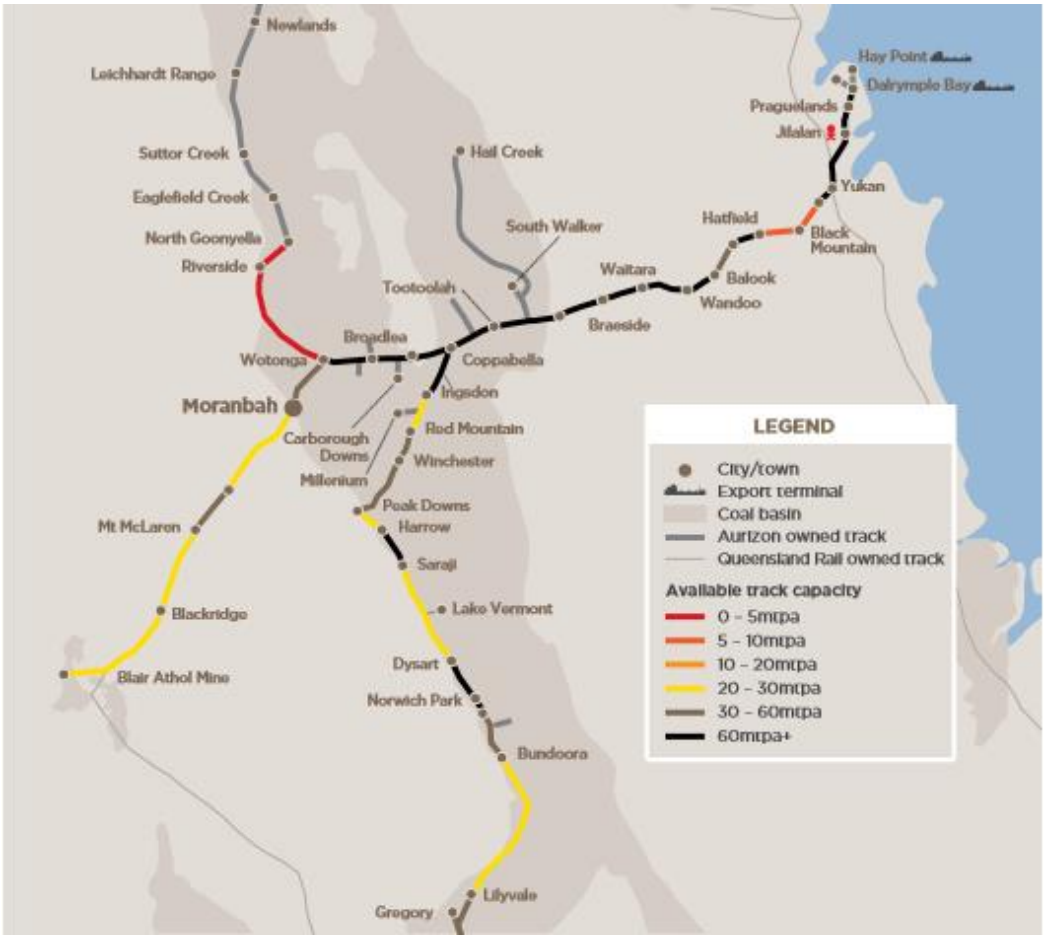
Moreover, it is unclear that train operators would have an incentive to switch electric trains from the Blackwater system to the Goonyella system, because it may result in their existing electric train supporting infrastructure on Blackwater being underutilised. Similarly, it may be the case that train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

That said, stakeholders have not made submissions on these matters.

GAP system

Mines on the GAP system have underwritten the GAP expansion, so it is unlikely that they will have an incentive to switch to an alternative terminal.[115] Moreover, mines on the Newlands system can only access DBCT via the GAP system, which the QCA understands is capacity-constrained (Figure 4).

Figure 4 Goonyella system—available capacity and constraints



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

[114] QCA, *Aurizon Network's 2017 Electric Traction DAAU*, final decision, August 2018, p. ii, http://www.qca.org.au/getattachment/e403ddd1-830f-4ec1-927c-f6524431eeba/QCA—Final-Decision—2017-Electric-Traction-DAAU.aspx.

[115] 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.

More broadly, there is limited capacity (0–5 mtpa) on the Goonyella system south of GAP system, such that GAP 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 rail upgrades.

Evidence to date

More broadly, the QCA notes that there has been evidence to date that users from alternative systems do not consider DBCT a close substitute.

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.[116]

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

DBCT Management's 2018 Master Plan notes that an increase in access seeker activity has occurred in the second half of 2017 and into early 2018.[118] However, the QCA has not been provided with evidence on how much of that relates to increased demand from access seekers within the Goonyella system, compared to access seekers outside the Goonyella system. For instance, the QCA is aware that TerraCom has recommissioned the Blair Athol mine on the Goonyella system and has begun to transport coal to DBCT.[119]

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[116] DBCT Management, submission to the QCA, *DBCT Management's 2015 DAU—draft decision,* July 2016, p. 7, http://www.qca.org.au/getattachment/f4531182-ec59-4e6c-9870-51d1c38fdaa9/DBCTM-Submission-Redacted.aspx.

[117] 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*, p. 13).

[118] DBCT Management, *Master Plan 2018*, p. 46, http://www.dbctm.com.au/_files/Documents/MP2018.pdf.

[119] TerraCom, *ASX Announcement*: *Blair Athol Update—Mining, Sales and Market*, 8 August 2017, http://terracomresources.com/wp-content/uploads/2017/08/1699015.pdf.

Mines on other systems that use DBCT

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. For example, DBCT Management noted:

> Rio Tinto's Kestrel mine in the Blackwater system, which is located closest to RGTCT and exports through that terminal, is also sporadically exporting through DBCT.[120]

While Rio Tinto has divested itself of the Kestrel mine, the QCA understands that in the past Rio Tinto did not hold a specific contract for coal handling capacity at DBCT for Kestrel. Rather, Rio Tinto used its excess contract entitlements it held across its various mines that access DBCT to enable Kestrel to sporadically access DBCT.

Given the above, the QCA does not consider that this demonstrates that for mines on rail systems (other than Goonyella), the coal handling services provided at DBCT are substitutable for other terminals, as a significant proportion of the users of those terminals would not switch to DBCT in response to a SSNIP for the relevant service.

Conclusion on market definition

The QCA has not accepted DBCT Management's approach to defining the market as the region within which mines would prefer to use the coal handling services at the Port of Hay Point. Specifically, this is the geographic region where it is physically feasible and financially preferable for a mine to use the coal handling service at the Port of Hay Point.[121]

The QCA considers that DBCT Management's market definition does not adequately take into account:

- the unavailability of HPCT to non-BMA/BMC miners
- non-price factors relevant to assessing substitutability
- the additional above- and below-rail costs that would be necessarily incurred.

Likewise, the QCA has not accepted the DBCT User Group's approach to defining the market as the Hay Point common-user coal handling market, in which the only supplier is DBCT.[122] The QCA considers that the DBCT User Group's market definition:

- does not provide an insight into the geographical dimension of the market[123]
- ignores mines that may seek to use DBCT in the future (including by their proximity to other mines in the Goonyella coal chain that use DBCT)
- only focuses on demand for coal handling services at DBCT, rather than demand in the market.[124]

The QCA concludes that the relevant market for assessing total foreseeable demand is the market for DBCT's coal handling services in the Goonyella coal system. The QCA has reached this view based on the following:

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[120] DBCT Management, sub. 1, p. 30, para 137.
[121] DBCT Management, sub. 13, p. 27, paras 119–20.
[122] DBCT User Group, sub. 3, p. 16.
[123] DBCT Management, sub. 13, pp. 21–24.
[124] The amendments to the QCA Act have refocused the criterion (b) test from an 'uneconomic to duplicate the existing facility' criterion to a market test which considers total foreseeable demand in the market.

- The overwhelming 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 by a terminal outside the coal chain (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 coal handling services by DBCT (i.e. DBCT does not provide a close substitute to other terminals).

In this market, there are no close substitute coal handling facilities to DBCT. Rather, it is evident that DBCT is overwhelmingly the dominant coal handling facility in this market.

2.5 Period for assessing demand

The QCA has considered the period over which it can be satisfied about whether the facility (or a combination of facilities) can satisfy total foreseeable demand at least cost. For the reasons set out below, we consider that this is a period of 10 years (i.e. the proposed declaration period).

2.5.1 Stakeholder submissions

DBCT Management assumed a declaration period of 10 years for the purposes of its submission (and for assessing total foreseeable demand).[125] The DBCT User Group said that if criterion (b) is not satisfied under one period, the QCA is required to consider whether there are other periods for which criterion (b) is satisfied.[126] The DBCT User Group considered that 15 years is an appropriate starting point for consideration of criterion (b). However, the DBCT User Group said that if criterion (b) is to be tested based on a single declaration period, then criterion (b) should be tested against a shorter period over which there is a high degree of certainty of the demand profile.[127]

2.5.2 QCA's analysis

The QCA's view is that the appropriate period for declaration is 10 years, which is consistent with the period over which the DBCT service has been declared to date.

Long-term certainty and mine duration

The QCA considers that the need 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 that it should adopt the longest period possible that satisfies criterion (b), as DBCT Management can seek revocation if circumstances change.[128]

DBCT Management and the DBCT User Group provided different examples of declaration periods.[129] The declaration periods determined in the examples provided had regard to the specific circumstances faced in those examples. The QCA has not sought to adopt any of these periods simply on the basis that the NCC or the Tribunal had adopted them in the past. The QCA considers it appropriate to set a declaration period as is relevant and necessary to the circumstances in this review.

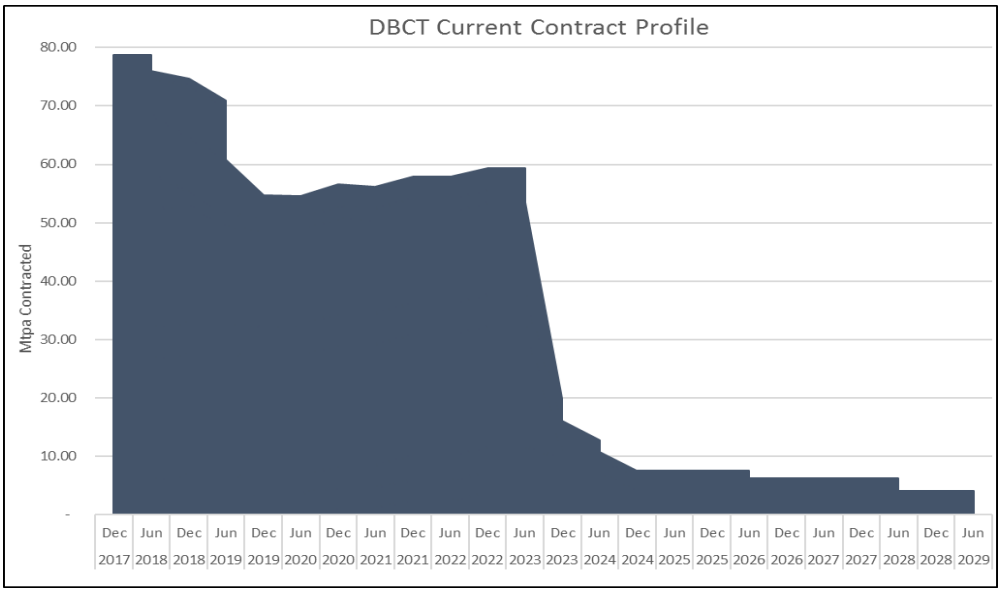
[125] DBCT Management, sub. 1, p. 21, para 93.
[126] DBCT User Group, sub. 3, p. 57; DBCT User Group, sub. 15, pp. 45–46.
[127] DBCT User Group, sub. 15, p. 46.
[128] DBCT User Group, sub. 3, pp. 57–58.
[129] DBCT Management, sub. 13, p. 12; DBCT User Group, sub. 15, p. 45.

The QCA has formed the view that no other terminals in the CQCN offer a closely substitutable service to that provided at DBCT (discussed in section 2.4). This means that DBCT Management could have the capacity to exert market power setting the prices and conditions for access at the terminal.

Existing users are insulated, to some extent, from DBCT Management's ability to exert market power through the operation of existing access agreements (that will continue irrespective of declaration). The QCA also understands that the access agreements have an evergreen five-year option in favour of the users.[130]

DBCT Management's 2018 Master Plan indicates that a substantial proportion of these contracts will expire from 2024, unless they are renewed (Figure 5).

Figure 5 Contractual position, March 2018



Source: DBCT Management, Master Plan 2018, p. 21.

The QCA considers that a 10-year declaration period (from 2020) provides an adequate opportunity for any new users to execute access agreements under the aegis of declaration.

The QCA does not dispute 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.[131] However, to the extent that these assets are in place at the commencement of the declaration period, their lives would be partially life expired.

The QCA also considers that long-term certainty and the duration of mines are relevant considerations, as the DBCT facility would continue to be open access in the absence of declaration.[132] However, the QCA's assessment of criterion (a) in Part C, Chapter 3 establishes that, in the absence of declaration, DBCT Management would have the incentive to contract with new users on a willingness to pay basis, rather than based on the costs of service provision, which, in the presence of existing user agreements, would likely discourage efficient entry.

A 10-year period provides some certainty to stakeholders who may make long-term investments in the expectation of terminal access (i.e. investments in mines and above-rail haulage as well as

[130] DBCT Management, *Master Plan 2018*, p. 20.
[131] DBCT User Group, sub. 3, p. 57.
[132] DBCT Management, sub. 1, p. 22, para 92.

in below-rail infrastructure). While some stakeholder investments may have a life well beyond 10 years, other stakeholder assets will have a remaining life below 10 years. Moreover, to the extent that new DBCT users contract at DBCT for new access during the declaration period, the QCA presumes that they will have the benefit of the evergreen renewal right to the extent that their mine life exceeds 10 years, and therefore beyond the declaration period.

Protections offered by evergreen renewal rights

As outlined in Chapter 3, Part C, existing DBCT users are protected from DBCT Management's exercise of market power in the absence of declaration, due to the evergreen nature of their existing user agreements. However, potential new users would be exposed to DBCT Management's exercise of market power in the absence of declaration. Nevertheless, declaration of the DBCT service would address that asymmetry between existing users and potential new users, and to the extent new users seek access to DBCT service during the declaration period, they would also benefit from the operation of evergreen access rights during and beyond the declaration period. In this respect, a 10-year declaration period is appropriate for potential new users of DBCT.

Nearly a third of existing contracted capacity at DBCT relates to mines that are expected to reach the end of their economic life over the next 10 years (around 12 per cent in the first five years and around 20 per cent in the next five years). It is likely that the relevant existing users would seek coal tenements to continue to benefit from their existing user rights. In that respect, declaration for a period of 10 years would encourage potential new users to also participate in the coal tenements market and compete with existing users (as they too would benefit from evergreen renewal rights under declaration).

Multiple declaration periods

The QCA does not share the DBCT User Group's view that the QCA must consider multiple declaration periods. Indeed, the logical conclusion of the DBCT User Group's position is that it should keep assessing criterion (b) based on varying periods until it finds a period for which criterion (b) is satisfied. 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 dependant markets, as it means a declaration period of as short as one year (or even less) could be appropriate.

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. There is considerable uncertainty in predicting demand at DBCT in the out-years, particularly in the period 2026–2030 (section 2.6). Indeed, the QCA notes that even when the foreseeable demand estimates of DBCT Management and the DBCT User Group are compared on a common basis, and on a mine by mine basis, there are differences in views on both the anticipated outputs of existing mines and the timing of new developments.

The QCA considers that one option in response to uncertainty about demand estimates is to adopt a shorter declaration period of, say, five years. However, at this stage, the QCA is minded to recommend a period of 10 years, given the other factors discussed in this section. It is always open for DBCT Management to seek revocation of declaration if the estimates of demand that the QCA adopts are exceeded, and demand has been underestimated such that DBCT cannot satisfy criterion (b).

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 on 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 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.

The QCA also notes that international developments in climate change policy could potentially impact coal demand, particularly for thermal coal which comprises around 16 per cent of DBCT's throughput.[133] That said, the QCA has not received any evidence, including from DBCT Management[134], to suggest that climate change policies are likely to adversely impact the demand for coal handling services in the Goonyella system over the recommended declaration 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 the 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.[135]

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'.[136] The QCA considers that this statement was made in a separate context and has not had regard to the previous statement.[137]

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

[133] DBCT Master Plan 2018, p. 46.
[134] DBCT Management expects demand for thermal coal exports out of Queensland to grow in the medium to long term (DBCT Master Plan 2018, p. 46).
[135] Section 87A provides for a declaration to be reviewed at least 6 months, but not more than 12 months before the expiry date of a declaration.
[136] DBCT User Group, sub. 3, pp. 57–58.
[137] DBCT Management, sub. 13, p. 11, paras 37–38.

2.6 Foreseeable demand over the declaration period

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.

Both parties have produced estimates on a throughput basis and under varying assumptions. The QCA has focused on the estimates prepared by DBCT Management's consultant, HoustonKemp, and those prepared by the DBCT User Group's consultant, Wood Mackenzie (see Table 6).

Table 6 Estimates of total foreseeable throughput demand

	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	79.5	80.7	80.9	83.5	80.9	83.6	77.3	80.2	77.7	79.0

Sources: DBCT User Group, sub. 15, p. 41 (Table 1); DBCT Management, sub. 1, p. 44 (para 212).

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 only 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 and the dates of commencement over the foreseeable demand period.

2.6.1 QCA's analysis

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

In seeking to estimate total foreseeable demand in this market, the QCA has reviewed the forecasts and calculations provided by consultants of DBCT Management (HoustonKemp, AME Advisory) and the DBCT User Group (PWC, Wood Mackenzie). In doing so, the QCA notes that there is considerable uncertainty in demand forecasting, and both DBCT Management and the DBCT User Group have shifted in their respective views in recent years on demand for coal handling services.

2.6.2 Evolving views on demand

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.[138]

However, DBCT Management now considers that demand for contract capacity in the market is as high as 168 mtpa[139] in 2021 (at the end of the current regulatory period) and 207 mtpa[140] 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.

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'.[141]

However, the DBCT User Group has now provided material on DBCT's contract profiles in future years (presumably in support of their views) from DBCT Management that, it said, demonstrates the following:

> (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 that the demand remains below the existing capacity of DBCT
>
> … the DBCT User Group considers this projection may overstate long term demand …[142,143]

Given the evolving nature of stakeholders' views on the demand in the market over such a short period of time, the QCA does not consider that forecasting total foreseeable demand for the market in which DBCT operates can be a precise exercise.

For instance, DBCT Management's 2016 Terminal Master Plan appeared to echo a similar 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.[144]

Likewise, the 2018 Terminal 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 …[145]

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[138] DBCT Management, submission to the QCA, *DBCT Management's 2015 DAU—draft decision*, 8 July 2016, p. 6, http://www.qca.org.au/getattachment/f4531182-ec59-4e6c-9870-51d1c38fdaa9/DBCTM-Submission-Redacted.aspx.

[139] This corresponds to a throughput estimate of 150.9 mtpa in 2021 as in Table 6.

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

[141] DBCT User Group, submission to the QCA, *DBCT Management's 2015 DAU*, 8 July 2016, p. 12, http://www.qca.org.au/getattachment/9125b426-310a-4848-8069-1fb4565481c3/DBCT-User-Group.aspx.

[142] DBCT User Group, sub. 3, p. 61.

[143] 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 2017 DBCT draft access undertaking process to the declaration reviews process which subsequently commenced.

[144] DBCT Management, *Master Plan 2016*, p. 44, http://www.qca.org.au/getattachment/d4141799-c9d9-4460-b15b-753c0e91d63f/DBCT-Management-Master-Plan.aspx.

[145] DBCT Management, *Master Plan 2018*, p. 7, http://www.dbctm.com.au/_files/Documents/MP2018.pdf.

2.6.3 Total foreseeable demand

Both DBCT Management and the DBCT User Group have provided demand estimates supported by their respective consultant's estimates of demand.

Despite this, there is a material difference in the estimates of demand between the parties. Clearly, forecasting demand in the market for the purposes of criterion (b) involves an element of subjectivity.

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 under a 'base case' and then provides a 'high case' based on certain capacity currently contracted to AAPT reverting to DBCT (Lake Vermont/Middlemount), Eagle Downs being developed and utilising DBCT, and some marginal tonnage reverting to DBCT from RG Tanna.[146] The DBCT User Group provided a range of other estimates including the contract profiles at DBCT as part of seeking to demonstrate that peak foreseeable demand is below the existing capacity of DBCT.[147]

The QCA has some concerns with the DBCT User Group's estimates, including:

- difficulties in reconciling the various foreseeable demand estimates of the DBCT User Group:
  - for instance, the Wood Mackenzie forecasts on page 59 of the DBCT User Group's original submission do not appear to align with the Wood Mackenzie forecasts on page 42 of the DBCT User Group's cross-submission
- a lack of detail on individual mine forecasts (other than table 1 in the Wood Mackenzie report in the DBCT User Group's cross-submission)
- limited visibility on 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. For example, the Wood Mackenzie base case throughput estimates peak at 83.6 mtpa in 2026.[148] However, it is not apparent whether the DBCT User Group's conclusion that peak foreseeable demand is below the existing capacity of DBCT adequately considers that throughput capacity is typically at least 10 per cent below contract entitlements.

DBCT Management and the DBCT User Group also differ in their views of mine output and the expected timing of new developments. 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 foreseeable demand can be generally regarded as subsuming demand estimates provided by the DBCT User Group. DBCT Management has also been more transparent about its methodology in estimating total foreseeable demand and provided a more detailed methodology for establishing its demand forecasts.

Therefore, while the QCA has considered the DBCT User Group's forecasts, it has focused on reviewing HoustonKemp's estimates, while having regard to its shortcomings.

[146] DBCT User Group, sub. 15, p. 42.
[147] DBCT User Group, sub. 15, p. 67.
[148] DBCT User Group, sub. 15, schedule 2, p. 9 (table 6).

Potential for overestimation

The QCA's view is that the HoustonKemp data appear to overstate demand, given its assumptions on rail capacity and timing of new developments.

Assumes 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. The QCA considers that this 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 102 mtpa 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 102 mtpa.[149]

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. The QCA notes that Aurizon Network's 2016–17 network development plan indicates that capacity of the Goonyella system is 140 mtpa. In contrast, HoustonKemp indicated total foreseeable demand of 150.9 mtpa (throughput demand) and 167.7 mtpa (capacity 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).

More broadly, the QCA notes HoustonKemp's projections for coal handling demand at the Port of Hay Point differ (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).[150] Clearly, additional demand for coal handling services, i.e. beyond that served by a 140 mtpa Goonyella rail capacity, can only eventuate to the extent that there is supporting rail capacity and this 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.

Early project commencements

The HoustonKemp data also appear to take an optimistic view on the likelihood that projects will commence and the timing of such projects. For example, Houston Kemp included Moranbah South in its foreseeable demand estimate from 2021, whereas Wood Mackenzie (on behalf of the DBCT User Group) considered that demand from this mine will only commence in 2035. The QCA also notes that Anglo American—a developer of Moranbah South—mentions on its website that:

[149] DBCT Management sub. 1, p. 39, para 195.

[150] For instance, table 18 in Aurizon Network's 2016–17 Network Development Plan 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).

> our focus has been on securing the environmental approvals for the project, providing us with the flexibility to progress the project when conditions improve.[151]

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.

Growth in total foreseeable demand

At an aggregate level, the QCA considers HoustonKemp's growth in total foreseeable demand to be optimistic. At face value, it is difficult to reconcile how DBCT can move from present levels of capacity and demand to operating in an environment where total foreseeable throughput demand is 91 mtpa in 2021 and 120 mtpa in 2026.[152]

Engagement of MMI

In the context of the above, the QCA considered that there would be merit in reviewing the demand forecasts provided to it, rather than engaging yet another consultant to undertake a demand forecasting exercise.

Accordingly, the QCA engaged MMI Advisory to review the HoustonKemp demand forecasts and make the following adjustments:

- Exclude demand for HPCT, as the QCA does not consider it to be in the market for the purposes of criterion (b).
- Exclude demand for mines within the Goonyella system who contract at other terminals for the duration over which these mines have current contracted capacity at those terminals. For instance, while the QCA considers that Middlemount and Lake Vermont are in the market (for the purpose of defining the market), the QCA does not consider it appropriate to include their demand for coal handling services, for the purpose of determining foreseeable demand, in the market for the remaining duration of their contracts at AAPT.
- Exclude mines outside the Goonyella system (but undertake a reasonableness test in doing so), namely Kestrel and Teresa.
- Make adjustments for double counting.
- Consider the likelihood of projects commencing during the foreseeable demand period.

MMI was instructed to make objectively based adjustments where possible, relying on publicly available data, rather than undertaking a separate forecasting exercise.

The details of MMI's methodology and analysis are provided in MMI's report that is available on the QCA's website. As MMI identified, one of the key issues is establishing the timing of the development projects and whether they are likely to be commissioned over the forecast period. For many of these projects, there is no publicly available information on their current status or the likely date that development would start. For new developments, there is at least a five-year development phase, including obtaining approvals (including an Environmental Impact Statement), followed by construction. It is expected that for many of these projects the proponents are awaiting an improvement in market conditions; however, each company's 'trigger point' for development is not known.

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[151] Anglo American, Operations and projects, http://australia.angloamerican.com/operations-and-projects.
[152] DBCT Management, sub. 1, appendix 10, p. 62, table A1.1—total foreseeable demand estimate in 2026 excluding BMA and BMC.

In the absence of information to enable the conclusion that development is likely over the forecast period, a number of these projects have therefore been excluded from the 'base case'. MMI has also included a 'high case', which assumes that all of these excluded projects are commissioned mid-way through the forecast period (which also accounts for development timeframes). MMI has not sought to make any specific assumptions on the timing of individual projects unless there is information available that allowed it to do so. BMA projects remain excluded, as it is assumed that it will use HPCT.[153]

MMI's adjustments are summarised in Table 7.

Table 7 MMI's adjustments to HoustonKemp's foreseeable demand forecasts

	2021	*2022*	*2023*	*2024*	*2025*	*2026*	*2027*	*2028*	*2029*	*2030*
HoustonKemp forecasts	150.9	156.1	164.8	172.7	182.4	186.7	179.0	181.9	181.6	182.1
Base case mtpa	83.69	80.23	80.19	76.21	77.53	72.23	59.19	64.69	70.04	70.74
High case mtpa	83.69	80.23	80.19	76.21	78.43	82.54	82.6	96.3	107.65	109.35

Conclusion on total foreseeable demand

The QCA reviewed MMI's recommended adjustments in an overall context of what it considers is a gradually improving market for coal tenement development. The QCA agrees with DBCT Management's 2018 Terminal Master Plan that 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.[154]

Moreover, the 2018–19 Queensland Government Budget Papers note that:

> Looking ahead, while coal exports volumes are forecast to continue to grow strongly in 2018-19, partly due to a resumption of full operation at the Dalrymple Bay Coal Terminal, the rate of growth will most likely be moderate in later years. Increased industrial production in Asia, particularly Japan and Korea, is expected to underpin demand for hard-coking coal, while new coal fired power stations in Japan will support demand for thermal coal.[155]

At the same time, the QCA notes, after making adjustments to the HoustonKemp forecasts, there is an increasing difference between the base case and the high case. From 2026, the base case estimates decline, while the high case materially increases. This reflects considerable uncertainty over what will happen over the foreseeable period (particularly the out-years), and whether new mines will commence operation during this time. As noted above, the high case assumes that all of the excluded development projects (except BMA projects) are commissioned mid way through the forecast period.

[153] BMC contracted tonnage at DBCT have been included in the base and high case estimates as these contract entitlements are no different to those held by other DBCT users. BMA does not have contract entitlements at DBCT (BHP, sub. 18, p. 5). To the extent that BMA accesses BMC entitlements at DBCT, BMA’s access has not been included in the QCA’s estimates as this would involve double counting with BMC’s estimates.

[154] 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.

[155] Queensland Government, *Queensland Budget 2018–19, Budget Strategy and Outlook: Budget Paper No. 2*, p. 27, https://budget.qld.gov.au/files/BP2-2018-19.pdf.

The QCA is reluctant to adopt an overly conservative approach to estimating total foreseeable demand and has adopted an intermediate path between both sets of adjustments applied by MMI. The QCA has adopted MMI's high case, but maintained the 2026 forecast of 82.54 mtpa in the out-years.

The QCA considers that estimating total foreseeable demand is uncertain, and much of the uncertainty relates to the likelihood of new projects and their expected timing over the foreseeable demand period. Further information from stakeholders is invited on this matter.

The QCA's preliminary position is provided in Table 8, which shows throughput estimates and contract capacity estimates. The capacity estimates reflect an assumption that throughput is on average 90 per cent of contract entitlements. This is consistent with HoustonKemp's position:

> Over the long term, we assume that demand for contract capacity is derived from the demand for coal throughput, with demand for throughput being 90 per cent of the demand for contract capacity. This is equivalent to assuming that, on average, 10 per cent of contracted capacity is not used.[156]

Given the QCA's view that capacity entitlements are the relevant measure of total foreseeable demand, Table 8 (the row in bold) reflects the QCA's estimate of total foreseeable demand during the 10-year period.

Table 8 Total foreseeable demand

	2021	***2022***	***2023***	***2024***	***2025***	***2026***	***2027***	***2028***	***2029***	***2030***
Throughput estimate	83.69	80.23	80.19	76.21	78.43	82.54	82.54	82.54	82.54	82.54
Capacity entitlement estimate	**92.99**	**89.14**	**89.10**	**84.68**	**87.14**	**91.71**	**91.71**	**91.71**	**91.71**	**91.71**

2.7 At the least cost

The QCA considers that DBCT can satisfy total foreseeable demand at least cost, compared to two or more terminals. Specifically, the QCA considers that DBCT in expanded form can satisfy total foreseeable demand at a lower cost than a combination of DBCT and an alternative facility.

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

- methodological issues
- calculation of 'least cost'.

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 'at the least cost' and matters relevant to the calculation of cost.

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. The QCA does not agree with DBCT Management

[156] DBCT Management, sub. 1, appendix 9, p. 37.

that the exclusion of sunk costs is necessarily required in considering the application of criterion (b).

DBCT Management said that:

> 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.
>
> The least cost assessment should recognise that:
>
> 170.1 the capital costs incurred to date of the existing terminal and rail infrastructure in central Queensland have already been incurred. They are sunk costs, which are unaffected by the level of demand, and are not relevant for the least-cost assessment; and
>
> 170.2 only the incremental costs of meeting total foreseeable demand over the declaration period are relevant for the least cost assessment.[157]

DBCT Management said that its approach of excluding sunk costs is consistent with the Tribunal's decision in the 2010 Pilbara rail decision[158], and quoted an extract of that decision (in part as follows):

> In the case of an incumbent's line, the additional costs to be taken into account are of operating the line on a shared basis plus the capital cost of any expansion that is necessary to meet the demand. Those costs are to be contrasted with the sum of the costs of operating the incumbent's line (plus the cost of any expansion) for its own use and the cost of constructing and operating a new line(s) to meet third party demand.[159]

DBCT Management further said in respect of the Tribunal's decision in *Pilbara*:

> In addition, DBCTM notes that paragraph 906 of the Tribunal's decision sets out all of the capital and operational costs that the Tribunal considered in comparing the cost of sharing a facility instead of duplicating it. Paragraph 907 goes on to acknowledge that the original costs of the incumbent's rail line will be the same regardless whether there is one line with shared access or a new line is built as an alternative to shared access …[160]

DBCT Management also said:

> HoustonKemp observes that having regard to incremental costs in the least cost assessment is appropriate because:
>
> 182.1 the sunk costs of existing rail and terminal infrastructure have already been incurred and will not be incurred again over the period for which the service would be declared; and
>
> 182.2 even if the sunk costs of existing rail and terminal infrastructure were to be taken into account in an assessment of least cost, these costs would be captured under all scenarios in which total foreseeable demand in the market is met and are therefore not relevant to determining whether the facility for the service can meet that demand at least cost.[161]

[157] DBCT Management, sub. 1, p. 35, paras 169, 170.
[158] *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2.
[159] DBCT Management, sub. 1, p. 35, para 171.
[160] DBCT Management, sub. 1, p. 36, para 173.
[161] DBCT Management, sub.1, p. 37, para 182.

The QCA considers that while earlier decisions applying criterion (b) in its previous form may provide guidance, it is the language of the QCA Act that is paramount (Chapter 2). DBCT Management made similar comments in its submission to the QCA.[162]

However, the QCA understands the position of DBCT Management to be that the test under criterion (b) is only concerned with a comparison of the incremental costs to society as a whole in meeting total foreseeable demand under different scenarios. It therefore follows that costs which are 'sunk' (i.e. capital costs of existing facilities that society has already incurred) are to be disregarded.

The QCA has reservations with DBCT Management's approach. The approach of DBCT Management appears to have its foundation in decisions that applied the former version of criterion (b), which was concerned with the feasibility of duplicating the relevant facility.

In contrast, criterion (b) is now clearly directed towards consideration of the cost of meeting total foreseeable demand in a variety of possible scenarios, which does not necessarily involve duplication of the facility for the service, and may or may not require consideration of sunk costs.

Where the nature of the least cost calculation results in the same sunk costs being considered under separate scenarios (thereby cancelling each other out), it may be simpler to exclude them, rather than to go through the process of quantifying those costs. The QCA considers this is consistent with the Tribunal's decision in *Pilbara* where it is stated:

> In comparing the cost of "sharing" and not "non-sharing" a facility, some costs will be the same, … the "original" costs – being the costs that would be incurred in any event, regardless of whether the existing line is shared or not – cancel out in either scenario. **For the sake of simplicity, we do not include those costs.** [Emphasis added] In the end, the differences should come down to:
>
> - the difference between additional operating costs on the incumbent's line due to sharing versus the operating costs of the new line; and
> - the difference between the capital costs of any necessary expansion to the incumbent's line versus the capital costs of developing another line.[163]

This view was neatly described by the Productivity Commission in the following terms:

> [A]ny costs incurred in both scenarios (that is, costs that would be incurred both where the facility under application meets total foreseeable market demand and under the least costly alternative scenario) will cancel out and therefore do not need to be estimated. The Tribunal took this approach in its Pilbara rail determination (para. 907), where it noted that it was unnecessary to estimate the capital and operating costs that would be incurred in both scenarios that it considered.[164]

In this context, the QCA considers that the 'cost' of meeting total foreseeable demand in a given scenario is the total cost of meeting demand, rather than the incremental cost to society. 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). In this exercise, sunk costs form a key part of establishing the costs of service provision, as do incremental costs. 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

[162] DBCT Management, sub 13, pp. 9–10.
[163] *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 at [906]–[907].
[164] Productivity Commission, *National Access Regime*, inquiry report no. 66, 25 October 2013, p. 163, https://www.pc.gov.au/inquiries/completed/access-regime/report/access-regime.pdf.

requisite natural monopoly characteristics and is not, in the QCA's view, consistent with the proper construction of s. 76(2)(b) of the Act.

The QCA considers that sunk costs should be taken into account, and that to do otherwise would be inconsistent with the concept of 'least cost' as that term is used in criterion (b).[165]

DBCT Management's approach to sunk costs and incremental costs can be contrasted with the QCA's approach as set out in the hypothetical example in Box 2.[166]

[165] DBCT User Group, sub. 15, p. 47.

[166] For the purposes of illustration, Box 2 focuses on the QCA's understanding of how DBCT Management proposes that facility costs should be treated in the 'least cost' calculation. The QCA notes that the concept of 'least cost' considers costs beyond facility costs (see Chapter 2).

Box 2: Approach to facility sunk (capital) costs and incremental costs–a hypothetical example

Assumptions

- Total foreseeable demand is 100 units.
- Regulated facility's capacity is 90 units and can be expanded by 10 units.
- Alternative facility's spare capacity is 10 units.

DBCT Management's approach

Least cost involves the following comparison:

- incremental capital costs of expanding regulated facility by 10 units to 100 units + incremental operating costs of producing an additional 10 units

compared with

- incremental operating costs of alternative facility producing 10 additional units.

The QCA's approach

Least cost involves the following comparison:

- **capital costs of the regulated facility at 90 units + operating costs of producing 90 units** + incremental capital costs to expand the facility by 10 units + operating costs of producing 10 units

compared with

- **capital costs of the regulated facility at 90 units + operating costs of producing 90 units** + capital and operating costs of the alternative facility in producing 10 units.

Note: Under the QCA's scenario, any costs incurred in both scenarios will cancel out and do not need to be estimated (PC 2013; p. 163). These costs that can be cancelled out for calculation purposes are in bold.

In summary, the relevant consideration with regard to accounting for sunk costs involves assessing:

- the costs of the facility in question versus the costs of the facility in question and another facility
  - sunk costs of the facility in question can be included, or can be excluded, as they are on both sides of the comparison[167]
- the costs of the facility in question versus the costs of two alternative facilities
  - sunk costs of the facility in question cannot be excluded.

Later in this section, the QCA compares whether DBCT in expanded form can satisfy total foreseeable demand at least cost compared to DBCT in existing form combined with an alternative facility. As such, sunk costs are included.

[167] In other words, sunk costs can be excluded for calculation purposes, as they are on both sides of the least cost comparison and therefore cancel each other out.

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 price is a suitable proxy for cost.

As the QCA considers that sunk costs are a relevant consideration in assessing which facility/facilities can satisfy total foreseeable demand at least cost, it is not persuaded by DBCT Management's argument that access prices are not relevant to this assessment.[168]

Average costs versus incremental costs

The QCA notes the modelling of the incremental costs of expansions by the DBCT User Group[169] and by DBCT Management,[170] and considers that these costs will impact the overall costs of service provision at DBCT.

However, for the purposes of the least cost assessment required by s. 76(2)(b), it is not it necessary (or appropriate) to have regard to the specific incremental expansion costs of DBCT expansions, as calculated on a $/mtpa basis.

Rather, the QCA's view is that the relevant matter is whether the average per unit cost at DBCT of satisfying total foreseeable demand (including expansion costs) is lower than the average per unit cost at DBCT and another facility.[171] It is not evident that incremental expansion cost (on a mtpa basis) is, by itself, enough to form a conclusive view on whether DBCT is more or less costly than an alternative terminal to satisfy foreseeable demand.

Likewise, it is not evident to the QCA that differential pricing of expansions is a relevant matter in assessing least cost, as it does not address the average cost of service provision by the facility as a whole, when it is compared to the average costs of service provision by two or more facilities.

The QCA concurs with the views of the QRC:

> The QRC considers that criterion (b) requires the QCA to consider the average costs of providing the service from an expanded facility and not the incremental costs of any expansion required to meet total foreseeable demand. This is reflected in section 76(3) of the QCA Act, which states 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."
>
> That is, the QCA should consider the costs of providing the service by the entire facility as expanded. It is a hypothetical assessment that requires the QCA to average the costs of providing the service (including the costs of any expansion required) across all demand rather than only focusing on the costs of expansion required to satisfy demand. The QRC therefore agrees with the use of average costs as set out in the analysis in Appendix B of the Staff Issues Paper.[172]

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[168] DBCT Management, sub. 1, p. 37, para 185.
[169] DBCT User Group, sub. 3, pp. 69–71.
[170] DBCT Management, sub. 13, p. 48.
[171] The QCA published a staff issues paper, *Declaration reviews: applying the access criteria,* in April 2018. The QCA's reasoning here is consistent with the worked example in Appendix B of that paper, where the focus is on the average costs of service provision.
[172] QRC, sub. 7, p. 36.

Calculation of 'least cost'

The QCA's estimate of the total foreseeable demand over the declaration period is approximately 93 mtpa. However, DBCT's nameplate capacity is 85 mtpa, which means DBCT would need to be expanded to meet the total foreseeable demand. The QCA's view is that for total foreseeable demand in the market to be met by DBCT, the Zone 4 and 8X Phase 1 expansion projects would be required (see Part C, Appendix A). Additionally, as per Aurizon Network's 2016–17 Network Development Plan (NDP), DBCT Zone 4 and 8X expansions will require expanding the capacity of the Goonyella system to accommodate the higher tonnage.

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, it is relevant to consider the expansions costs at DBCT and in the Goonyella system. Table 9 shows the resulting average cost estimates and Part C, Appendix A contains the QCA's modelling assumptions and methodology.

Table 9 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	$3.61	$10.69	$7.25	$7.25
Above-rail cost	$3.25	$5.03	$4.54	$4.54
Coal handling cost	$5.14	$7.01	$5.18	$14.67
Other port and shipping costs	$0.05	$0.05	$0.05	$0.05
Supply chain cost	**$12.05**	**at least $22.79**	**at least $17.02**	**at least $26.51**
Cost difference relative to accessing DBCT	-	*at least $10.73 (89%)*	*at least $4.97 (41%)*	*at least $14.46 (120%)*

As explained in Part C, Appendix A, for this assessment, the QCA has considered the highest estimate of expansion costs that are available without seeking to comment on the prudency of those expansion costs. Additionally, the approach that has been adopted to estimate the below-rail costs with Goonyella expansion, which would apply for Goonyella users seeking to access DBCT, is more likely to overestimate those costs. Despite this apparent overestimated cost of accessing DBCT, the average supply chain cost for a mine in the Goonyella system to access DBCT remains substantially cheaper than that for accessing other terminals—a cost difference of 41 to 120 per cent. Thus, DBCT would be able to meet the total foreseeable demand in the market at least cost compared to any two or more facilities.[173]

2.8 Conclusion

Following consideration of stakeholder comments, 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, DBCT is overwhelming the dominant coal handling facility.[174] DBCT can satisfy total foreseeable demand in this market over a 10-year declaration period (following a minor expansion) at least cost compared to a combination of DBCT and an alternative facility.

[173] The QCA is required to have regard to all costs associated with having multiple users of the facility for the service (s. 76(4)). Given the outcomes in Table 9 and given DBCT will remain a multi-user terminal irrespective of whether the service was declared, these costs have not been estimated.

[174] HPCT, which is a vertically integrated facility without open access, is discussed in section 2.4.

3 CRITERION A—PROMOTE A MATERIAL INCREASE IN COMPETITION

3.1 Introduction

The access criterion in s. 76(2)(a) of the QCA Act is:

> 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 focus of the QCA's assessment of criterion (a) in respect of the DBCT service is whether, in a future without declaration, DBCT Management (the access provider of the service) would have an ability and incentive to exert market power such that it would adversely affect the environment for competition in at least one dependent market. If so, the next issue to consider is whether declaration of the service would improve the environment for competition in the dependent market by constraining DBCT Management's ability and incentive to exert market power such that opportunities or conditions for competition in the dependent market would be materially better with declaration than they would be without declaration.

Broadly speaking, the QCA's assessment of criterion (a) for the DBCT service consists of the following steps:

(1) Identify markets other than the market for the DBCT service (i.e. dependent markets) and confirm that each such market is separate from the market for the DBCT service.

(2) Assess whether DBCT Management would be constrained from exercising market power in the absence of declaration compared to the scenario when the service is declared.

(3) If DBCT Management has an ability and incentive to exercise market power in the absence of declaration, assess the environment for competition in one or more dependent markets if the DBCT service is not declared and compare it to the environment for competition in one or more of those dependent markets if the DBCT service is declared.

(4) Conclude whether access (or increased access) to the service as a result of declaration would promote a material increase in competition in at least one dependent market.

Stakeholders made a number of comments in respect of the assessment of criterion (a) for the coal handling service at DBCT. Those comments are summarised in Table 10, and are considered further in sections 3.2 to 3.8 of this chapter.

Table 10 Summary of key positions—s. 76(2)(a) of the QCA Act

Criterion (a)			
Issue	***DBCT Management's position***	***Other stakeholders' position***	***QCA draft view***
Identify markets other than the market for the DBCT service (dependent markets)	Dependent markets include: • mining authorities market (coal tenements market)	Dependent markets include: • coal tenements market • coal haulage services market	Dependent markets considered in section 3.2

Criterion (a)			
	• coal haulage services market • coal export markets	• DBCT secondary capacity trading market	
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: • competition from other coal export terminals • DBCT Management's proposed access framework for the future without declaration	Without declaration, DBCT Management would be able to exert market power because: • other coal export terminals do not compete with DBCT • DBCT Management's access framework has never been implemented and DBCT Management can easily amend it	DBCT Management would have the ability and incentive to exercise market power without declaration 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	Declaration would not promote competition Declaration would not promote competition in the coal export markets; therefore, there would be no flow-on effects in any related markets	Declaration would promote competition Without declaration, there will be unequal access terms between existing users and new entrants, which will distort competition in the tenements market	Environment for competition in coal tenements market would be materially better with declaration than it would be without declaration See section 3.4
• DBCT secondary capacity trading market (i.e. market for trading capacity rights at DBCT)	Declaration would not promote competition Declaration would not promote competition in the coal export markets; therefore, there would be no flow-on effects in any related markets	Declaration would promote competition Distortion of competition in tenements market in the future without declaration would have flow-on consequences in other dependent markets	Not apparent that environment for competition would be better with declaration; stakeholders invited to submit additional material See section 3.5
• Coal haulage services market	Declaration would not promote competition Declaration would not promote competition in the coal export markets; therefore, there would be no flow-on effects in any related markets	Declaration would promote competition Distortion of competition in tenements market in the future without declaration would have flow-on consequences in other dependent markets	Not apparent that environment for competition would be better with declaration; stakeholders invited to submit additional material See section 3.6

Criterion (a)			
• Coal export markets	Declaration would not promote competition Under DBCT Management's proposed access framework, coal volume exported through DBCT would be the same with or without declaration	Declaration would potentially promote competition in metallurgical coal market.	Not apparent that environment for competition would be better with declaration; stakeholders invited to submit additional material See section 3.7
Whether criterion (a) is satisfied in the context of the DBCT service	Criterion (a) is not satisfied	Criterion (a) is satisfied	Criterion (a) is satisfied as declaration would promote a material increase in competition in coal tenements market in the Hay Point catchment See section 3.8

3.2 Market(s) other than the market for the service

Criterion (a) requires identification of markets other than the market for the service.

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

Therefore, this section is about the identification of other markets (which may be referred to as dependent markets) and confirmation whether each such market is separate from the primary market for DBCT's coal handling service in the Goonyella system.

Stakeholders—DBCT Management and DBCT User Group—identified the following dependent markets as separate from the market for the coal handling service at DBCT:

(a) coal tenements market

(b) coal haulage services market (above-rail services)

(c) DBCT secondary capacity trading market

(d) coal export markets

(e) rail access market (below-rail services)

(f) 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).[175]

Of these markets, DBCT Management and the DBCT User Group collectively focused on the effect of declaration on competition in the markets listed at (a) to (d) above. Therefore, for the purpose of the draft recommendation, the QCA has considered only those four markets.

[175] DBCT Management, sub. 1, p. 74; DBCT User Group, sub. 3, p. 40.

3.2.1 Coal tenements market

A tenement is the right to carry out prospecting, exploration or mining activity in respect of a specific piece of land—a right created through licence issued by the state. Coal tenements refer to resource authorities under the *Minerals Resources Act 1989* (Queensland) that allow mining companies to explore, develop and operate coal mines in Queensland. Coal tenements are granted for a specific location and for a given duration.[176]

The life cycle of a coal tenement ranges from exploration through development to production; accordingly, there are three types of coal tenements:

- exploration permit for coal—an exploration permit allows tenement holders to prospect, conduct geophysical surveys, drilling, and sampling and testing of materials and use other advanced exploration methods to determine the quantity and quality of coal present
- mineral development licence—a mineral development licence 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 (production tenement)—a mining lease allows the tenement holder to conduct larger-scale mining operations and other activities associated with mining.[177]

Stakeholders' submissions

The DBCT User Group said that the coal tenements market is separate from the tenements market for other minerals, as (i) the Queensland Government grants separate tenements for coal and for other minerals; (ii) buyers of coal tenements are different to those of other mineral tenements; and (iii) 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.[178] DBCT Management also noted that firms wanting to acquire resource authorities are unlikely to substitute between resource authorities for different minerals.[179]

The DBCT User Group also said that the market for exploration and development tenements, which characterise the pre-production stages of a tenement life cycle, is separate from the market for production tenements. This was because, among other things, greater rights and obligations are attached to production tenements than to exploration and development tenements; and the risks, prices, suppliers and acquirers are fundamentally different for operating mines relative to exploration and development tenements.[180]

The DBCT User Group noted that coal tenements can be acquired from the government (usually through a competitive tender); by directly purchasing tenement rights from parties that hold such rights; and by acquiring entities that hold such rights. It provided a list of recent transactions involving acquisition of exploration/development and production tenements.[181]

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[176] DBCT Management, sub. 1, appendix 9, pp. 37–38; DBCT User Group, sub. 3, pp. 40–42; Aurizon Network, *2011 AT5 DAAU*, explanatory submission, December 2011, p. 55.
[177] Queensland Government, Business Queensland: Mineral and coal authorities, viewed 9 August 2018, https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/applying/authorities.
[178] DBCT User Group, sub. 15, p. 54.
[179] DBCT Management, sub. 1, appendix 9, p. 38.
[180] DBCT User Group, sub. 15. p. 54.
[181] DBCT User Group, sub. 3, pp. 41–42 and schedule 2, p. 10.

There was, however, disagreement between DBCT Management and the DBCT User Group over the geographic dimension of the coal tenements market.

The DBCT User Group said that the geographic dimension of the coal tenements market is the Hay Point catchment region.[182] It argued that miners valued coal tenements on a discounted cash flow basis and that valuation of tenements in the Hay Point catchment was distinct from tenements in other parts of the central Queensland coal region due to, among other things:

- infrastructure cost differences across rail and port charges
- portfolio effects arising for existing mines in the Hay Point catchment region, as they would be able to use existing port capacity for new projects, and to achieve economies of scale through co-location
- greater co-shipping and blending opportunities, particularly for metallurgical coal producers.[183]

DBCT Management disagreed with the DBCT User Group's view that the geographic dimension of the coal tenements market is the Hay Point catchment region. Yet DBCT Management referred to the view of the DBCT User Group's consultant (Castalia) about the geographic dimension of coal tenements market, to provide support for its own view about the geographic dimension of the market in which the DBCT service is supplied for the purpose of criterion (b).[184] DBCT Management stated:

> The Castalia Report supports an approach to market definition by which the geographic dimension of the market in which the DBCT service is supplied incorporates all mines within the 'Hay Point catchment'. This is consistent with the DBCT Management Submission and HoustonKemp Report on (b). Castalia defines the coal tenements market as 'the market for the supply and acquisition of rights to explore for or develop resources of coking coal, thermal coal or both in the *Hay Point catchment*'.[185]

DBCT Management also expressed differing views in respect of the geographic dimension of the coal tenements market, for example:

- Mining authorities are provided for a specific location, and so the geographic dimension of the market may be quite small, although there may be some scope for substitution between exploring different areas.[186]
- In the Port of Newcastle matter, the National Competition Council (NCC) did not consider it necessary to precisely define the relevant markets. DBCT Management added that, consistent with the NCC's position in the Port of Newcastle case, it was not necessary to precisely define the relevant markets or geographic boundaries of the relevant market to establish that declaration will not promote a material increase in competition in any of the dependent markets.[187]

[182] The DBCT User Group referred to the Goonyella rail system as the Hay Point catchment, and acknowledged that the Hay Point catchment is not perfectly aligned with the Goonyella rail system, as tenements that are not connected to the rail system, but for which that [Goonyella rail system] would be the most efficient rail network for export, would be within the market (DBCT User Group, sub. 3, pp. 34, 44).
[183] DBCT User Group, sub. 15, pp. 55–56.
[184] DBCT Management, sub. 13, pp. 23, 84.
[185] DBCT Management, sub. 13, p. 23.
[186] DBCT Management, sub. 1, appendix 9, p. 38.
[187] DBCT Management, sub. 1, pp. 73–74.

- The Australian Competition Tribunal (referred to as Tribunal) determined that there was an iron ore tenements market in the Pilbara in relation to the applications for declaration of rail services. In the Port of Newcastle matter, the Federal Court said that there were 'markets for the acquisition and disposal of exploration and/or mining authorities'. Based on these decisions, DBCT Management concluded that there are likely to be markets (or a market) for mining authorities in Queensland.[188]
- The buyers of tenements are investors who face a vast array of choices about where to acquire the rights to potential resources. Additionally, 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.[189]

QCA analysis

The QCA notes stakeholders did not contest that the coal tenements market is separate from the market for other minerals, and that the market for exploration and development tenements is separate from the market for production tenements.

The QCA engaged Balance Advisory[190] (referred to as Balance) to provide an independent opinion on the QCA's analysis of the effect of declaration in the coal tenements market. Balance agrees with the view presented by stakeholders that coal tenements in the exploration and development stage have a different value and a different market, compared to those in the production phase.[191]

However, DBCT Management and the DBCT User Group disagreed about the geographic dimension of the coal tenements market.

When identifying the geographic dimension of the market, it is relevant to consider the factors that would affect valuation of a tenement to prospective buyers. DBCT Management and the DBCT User Group considered that the demand for coal tenements (or the valuation buyers attached to coal tenements) was influenced by a number of factors, including infrastructure costs. Balance agreed with this view.[192]

For a given price of coal in the coal export market[193], a material difference in infrastructure costs across different geographic regions would likely affect the expected return from mining operations across those regions, on the presumption that mine production costs across Queensland are not spread over a wide range.

Given significant difference in infrastructure costs between the Goonyella coal supply chain and other coal supply chains across below-rail, above-rail and port charges (in the order of 47 to 130 per cent[194]), the valuation of coal tenements in the Goonyella system would likely be different from other regions. Therefore, coal tenements in the Hay Point catchment region are unlikely to be a close substitute for tenements in other parts of central Queensland. This leads the QCA to

[188] DBCT Management, sub. 1, appendix 9, p. 38.
[189] DBCT Management, sub. 13, pp. 84–85.
[190] A consulting firm that provides commercial advice to the resources sector on rail and port transactions.
[191] Balance, *DBCTM Declaration Review,* report for the QCA, August 2018, p. 6.
[192] Balance, August 2018, pp. 4–7.
[193] Productivity Commission, *National Access Regime*, inquiry report no. 66, 2013, p. 89.
[194] See Part C, Chapter 2.

agree with the DBCT User Group's view that the geographic dimension would likely be the Hay Point catchment region. Balance agreed with this view.[195]

The QCA's view is consistent with its conclusion for criterion (b) on the geographic location of mines that would seek to access the coal handling service at DBCT.[196]

In conclusion, the QCA considers there are separate markets for coal exploration and development tenements, and production tenements in the Hay Point catchment region.

3.2.2 Coal haulage services market (above-rail services)

Stakeholders' submissions

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 Hay Point Coal Terminal (HPCT).[197]

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, 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.[198]

However, 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.[199] The DBCT User Group argued that:

- different wagons are used in central Queensland and the trains that operate in central Queensland are different to those in other parts of the broader Queensland rail network (for

[195] Balance, August 2018, p. 4.
[196] There is no requirement for the geographic regions for the primary and dependent markets for the purposes of criterion (b) and (a) respectively to be identical. The focus of criterion (b) is the market in which DBCT Management provides coal handling services, whereas the focus of criterion (a) is whether DBCT Management has the ability and incentive to exercise market power, such that competition in a dependent market is materially impacted.
[197] DBCT Management, sub. 1, p. 80 and appendix 9, pp. 33–34; DBCT User Group, sub. 3, pp. 50, 86.
[198] DBCT Management, sub. 1, p. 80 and appendix 9, pp. 33–34.
[199] DBCT User Group, sub. 15, p. 56.

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 regions[200])

- 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.[201]

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 substitutability, as electric locomotives can only operate on the Goonyella and Blackwater systems.[202]

QCA analysis

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 i.e. 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.

That means, in respect of the product dimension, 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 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 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, Pacific National and BHP 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 Chapter 2).

In respect of the geographic dimension, it is necessary to determine whether a SSNIP applied to coal haulage services in the Goonyella system would be profitable. 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

[200] For instance, the maximum axle load applicable in the Goonyella system is 26.5 tonnes and that in the Mount Isa system 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).
[201] DBCT User Group, sub. 3, p. 50; sub. 15, p. 56.
[202] DBCT User Group, sub. 15, p. 56.

significant cost difference between the Goonyella coal supply chain and other coal supply chains in the order of 47 to 130 per cent, 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. 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, 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 the geographic dimension of above-rail haulage market could be as narrow as the Goonyella system or could be CQCN-wide. Relevantly, the QCA considers that its views 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 section 3.6).

3.2.3 DBCT secondary capacity trading market

Stakeholders' submissions

The DBCT User Group said that there are two distinct markets in which capacity at DBCT could be acquired, namely:

(a) the primary market, which is the market for the service for the purposes of criterion (b), in which:

  (i) the only supplier is DBCT Management

  (ii) acquirers are access seekers for long-term capacity contracts (i.e. coal producers seeking coal terminal access to support a new or expanded mine)

(b) the DBCT secondary capacity trading market, in which:

  (i) suppliers are existing access holders at DBCT with surplus contract capacity compared to what they need.

  (ii) acquirers are typically existing access holders seeking short-term capacity to supplement their existing contracted positions, to manage production volatility.[203]

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.[204]

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:

[203] DBCT User Group, sub. 3, pp. 48–49.
[204] DBCT User Group, sub. 3, pp. 48–49.

- different lengths of term—the primary market involves provision of services under a long-term contract on take or pay terms, whereas the secondary market typically involves short-term 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 development of a new mining project; therefore, the miner concerned requires long term infrastructure access and is willing to assume long-term take or pay commitments to secure access
- different pricing—pricing in the secondary market can vary from the charges applicable in the primary market (i.e. the terminal infrastructure charge (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.[205]

The DBCT User Group said that coal miners can trade capacity in the secondary market directly with each other or through Brookfield Port Capacity (BPC)—a trading supply chain business (Trading SCB) of DBCT Management.[206]

QCA analysis

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 standard DBCT user agreements 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.[207]

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 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.

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.[208] 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 in nature)
- 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 in nature)

[205] DBCT User Group, sub. 3, p. 49.
[206] DBCT User Group, sub. 3, pp. 48–49. The QCA understands that 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).
[207] See DBCT 2017 standard user agreement, cl. 12.
[208] DBCT Management, *DBCT 2017 Access Undertaking—Trading SCB DAAU*, June 2018, p. 3.

- 6 transactions for about 51.5 mtpa were permanent capacity transfers.

The QCA considers 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 time 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.[209]

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.

Accordingly, the QCA is inclined to be of the view that short-term capacity transfers (typically up to one year) would more appropriately be considered to be 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 DBCT User Group's view.[210]

The QCA is aware that under the terms of the standard DBCT user agreements, DBCT Management's consent is required for a capacity transfer (temporary and permanent transfers), and that the acquirer is required to hold a user agreement with DBCT Management. The implications of these provisions and the ability of existing users to transfer capacity are considered in the analysis of the environment for competition in the secondary trading market (in section 3.5) as well as in the coal tenements market (in section 3.4).

3.2.4 Coal export markets

Stakeholders' submissions

Stakeholders said 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.[211]

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.[212]

In respect of the geographic dimension of the market, 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 Port of Newcastle matter the NCC considered that the geographic scope of coal export market extended at least beyond Australia and into the

[209] DBCT User Group, sub. 3, pp. 41, 48. DBCT User Group's submission 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.
[210] DBCT User Group, sub. 3, p. 48.
[211] DBCT Management, sub. 1, appendix 9, p. 24; DBCT User Group, sub. 3, p. 51.
[212] DBCT Management, sub. 1, appendix 9, pp. 29–30; DBCT User Group, sub. 3, p. 51.

Asia-Pacific region. Therefore, DBCT Management's view was that the geographic dimension of coal export market is likely to be at least Asia-Pacific-wide.[213]

QCA analysis

Stakeholders did not contest the view that metallurgical coal and thermal coal are in separate product markets and that the geographic dimension of the coal export market is likely to extend at least beyond Australia and into the Asia-Pacific region. The QCA notes this view is consistent with the views expressed by the NCC and the Tribunal in the Port of Newcastle matter.[214] Accordingly, the QCA has considered the market definition proposed by stakeholders.

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

The QCA considers 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.

The QCA notes that 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:

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

In this section, the QCA has assessed these potential constraining factors and in sections 3.4 to 3.7 the QCA has assessed the likely effect on competitive conditions in relevant dependent markets, if DBCT Management were to engage in conduct that involves the exercise of market power.

3.3.1 Competition from other coal export terminals

Stakeholders' submissions

DBCT Management said it would be constrained by competing coal terminals in Queensland to which miners could seek access. Specifically, DBCT Management said that DBCT is exposed to competition from other coal terminals—Hay Point coal terminal (HPCT), Adani Abbot Point terminal (AAPT), RG Tanna coal terminal (RG Tanna) and Wiggins Island coal export terminal (WICET).[215] DBCT Management noted that the constraints imposed by other coal terminals have also been recognised by the ACCC, where it stated that:

[213] DBCT Management, sub. 1, appendix 9, pp. 29–30.
[214] National Competition Council, *Declaration of the shipping channel service at the Port of Newcastle, Final recommendation*, November 2015, p. 29; Australian Competition Tribunal, *Application by Glencore Coal Pty Ltd [2016] ACompT 6*, May 2016, p. 26.
[215] DBCT Management, sub. 1, pp. 9, 82–84.

> in the ACCC's merger clearance decision regarding Brookfield's proposed acquisition of Abbot Point Coal Terminal in 2011 (which involved horizontal issues, in contrast to vertical issues considered by the ACCC in the previously proposed acquisition of Asciano by a Brookfield consortium in 2015), the ACCC found that Brookfield's ability to increase prices or reduce service levels in the provision of coal loading facilities would be constrained over the long term by the likely future presence of competing coal terminals. The ACCC also found that Brookfield would not have an incentive to foreclose terminal access for coal producers in the upstream market and its ability to do so would be constrained over the long term by the likely availability of alternative coal terminals.[216]

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.[217] The DBCT User Group noted that its view was consistent with the ACCC's view in the assessment of Brookfield consortium's proposed acquisition of Asciano [which is separate from Brookfield's acquisition of Abbot Point coal terminal]. The DBCT User Group's consultant, PwC, described the ACCC's view:

> The ACCC noted that the ports of Gladstone and Abbot Point did not constitute close substitutes to the DBCT Terminal, due to the capacity constraints at the terminals and connecting rail network, the underlying contractual arrangements that underpin access and the non-electrified nature of the Newlands rail system.[218]

QCA analysis

As concluded in the assessment of criterion (b) for the DBCT service[219], coal handling services at other coal export terminals are not close substitutes to the DBCT service including due to:

- cost factors—for mines in the Goonyella system seeking terminal access, the cost of exporting coal through other terminals is significantly greater than exporting through DBCT. For instance, the supply chain cost (across above-rail, below-rail and port charges) to a Goonyella coal chain user of exporting through an alternative terminal would, on average, be around 47 to 130 per cent greater than exporting through DBCT
- non-cost factors—capacity constraints on the Goonyella to Abbot Point (GAP) rail system as well as the fact that GAP/Newlands rail line is unable to accommodate electric train services would prevent Goonyella system users from switching to AAPT. Besides, the QCA's preliminary view is that other coal export terminals are fully contracted (RG Tanna and AAPT), and are unlikely to be available for common-user access (HPCT).[220]

Therefore, the QCA does not consider other coal export terminals can be regarded as a close substitute to DBCT, and hence they would not act as an effective competitive constraint on DBCT Management's behaviour for mines in the Goonyella system seeking terminal access.

The QCA understands the ACCC's views referenced by DBCT Management in relation to the proposed acquisition of Abbot Point coal terminal focused on whether the Abbot Point coal terminal would face competitive constraints from other terminals. However, because the QCA's task is to recommend whether to declare the DBCT service, the QCA's focus is on whether DBCT Management would face competitive constraints from other terminals. In this context, the QCA

[216] DBCT Management, sub. 1, pp. 84–85.
[217] DBCT User Group, sub. 3, pp. 16–18.
[218] DBCT User Group, sub. 3, schedule 3, pp. 18–19.
[219] See Part C, Chapter 2.
[220] North Queensland Bulk Ports Corporation, the entity responsible for AAPT, also noted that it expects any future spare capacity at AAPT to be allocated for the Carmichael Mine and Rail project (North Queensland Bulk Port Corporation, *Annual Report 2016–17*, p. 11).

notes the ACCC's views referenced by the DBCT User Group in relation to the proposed acquisition of Asciano focused on whether other terminals constituted close substitutes to DBCT, and the ACCC's views in that matter are consistent with the QCA's conclusion that other coal export terminals are not close substitutes for DBCT.

3.3.2 Countervailing power of users

Stakeholders' submissions

DBCT Management said that the presence of viable alternative coal 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.[221]

DBCT Management also said that it faces a potential significant drop-off in contracted capacity, as user agreements accounting 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.[222]

The DBCT User Group said that countervailing power required DBCT users to have a viable alternative facility to switch material volumes away from DBCT. It argued that, given the substantial price 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.[223]

QCA analysis

DBCT Management said that existing users could threaten to switch to other export terminals to constrain DBCT Management's conduct in a future without declaration. However, as per the QCA's criterion (b) analysis, for mines in the Goonyella coal chain seeking terminal access, there is a substantial cost difference in exporting coal through other coal terminals compared to exporting through DBCT. All other things being equal, such mines would prefer coal handling service at DBCT over other terminals and any threat by them to switch to a higher cost terminal will not be credible.

The QCA also understands that DBCT Management's existing user agreements are described as 'evergreen', because existing users have the option to extend their agreements and continue to access DBCT based on the terms of access and volumes set out in those agreements.

As DBCT Management stated:

> DBCT Management's existing user agreements set out the terms of access for existing users and are often described as 'evergreen' as they are able to be extended at the option of the user. Accordingly, existing users will have the option to extend their agreements and continue to access the Terminal based on the terms of access and volumes set out in those agreements.[224]

[221] DBCT Management, sub. 1, p. 85.
[222] DBCT Management, sub. 1, pp. 84–85.
[223] DBCT User Group, sub. 15, pp. 89–90.
[224] DBCT Management, sub. 1, p. 63.

The DBCT User Group also noted that:

> existing DBCT access holders will have the protection of the existing user agreements continuing, which provides certainty of access for as long as the renewal rights are exercised, and some arrangement in relation to future pricing through the contractual price review and arbitration rights.[225]

The existing user agreements provide for regular reviews of the method of calculating charges based on negotiation between DBCT Management and the user, and a dispute resolution mechanism for determination of charges, which is intended to produce an outcome similar to that which the QCA would have been expected to determine.

Therefore, in the absence of declaration, existing user agreements will provide an effective constraint on DBCT Management's exercise of market power up to the volumes specified in those agreements.

Indeed, given the protection existing users have and considering DBCT's position as the least cost provider of coal handling 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. That is also the view of DBCT Management and the DBCT User Group.[226]

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.[227] However, if an existing user is unable to obtain capacity through the capacity transfer mechanism, it will need to negotiate new access terms with DBCT Management which will be subject to DBCT Management's bargaining power in a future without declaration, since other exports terminals would not be a viable substitute.

Similarly, for potential new entrants seeking access to DBCT, DBCT Management will have bargaining power in setting access terms, as new entrants will need to negotiate a new user agreement, regardless of whether they seek to acquire capacity from DBCT Management or from existing DBCT users through the capacity transfer mechanism.

Therefore, the QCA's view is that since other export terminals would not be a viable substitute for DBCT, both existing users—in so far as they require more capacity and are unable to obtain additional capacity through the transfer mechanism—and new entrants would have no effective countervailing power against DBCT Management in a future without declaration.

3.3.3 Access arrangement in the absence of declaration

Stakeholders' submissions

A consistent view among stakeholders was that existing user agreements will provide an effective constraint on DBCT Management's exercise of market power up to the volumes specified in those agreements, as existing users can extend the term of their agreements and continue to access the DBCT service based on the terms of access set out in those agreements.[228]

[225] DBCT User Group, sub. 3, p. 4.
[226] DBCT Management, sub. 13, p. 88 and appendix 1, p. 9; DBCT User Group, sub. 3, p. 64.
[227] See, for example, 2017 DBCT standard user agreement, schedule 6.
[228] DBCT Management, sub. 1, p. 63. DBCT User Group, sub. 3, p. 4.

However, stakeholders submitted opposing views on whether DBCT Management's proposed access framework would constrain DBCT Management from exerting market power in a future without declaration.

DBCT Management said that the access framework that will 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 it does under the 2017 access undertaking.[229]

DBCT Management contended that its proposed access framework would be binding and enforceable through a deed poll that DBCT Management would sign in favour of certain third parties.[230] DBCT Management said that it could amend the access framework as long as the amendments promoted the framework objective (which is the same as the object of Part 5 of the QCA Act[231]), with any disputes in respect of the amendments to be raised after amendments are published on DBCT Management's website. Disputes would be determined by the courts of Queensland.[232]

Under DBCT Management's proposed access framework, the access charge (terminal infrastructure charge, TIC) would be set based on buyers' and sellers' willingness to pay and capped at a level such that there is no difference in coal volumes handled at DBCT with or without declaration.[233] DBCT Management also said that the non-price terms and conditions of access would be substantively the same with and without declaration.[234]

On the other hand, the DBCT User Group raised concerns with DBCT Management's proposed access framework and observed:

- The access framework is not an appropriate counterfactual, as it has not been executed, has never been implemented and DBCT Management can easily amend it.
- The access framework would enable DBCT Management to act as a perfectly discriminating monopolist, which captures all 'consumer surplus' but does not reduce output, as the ceiling price would effectively be the price just below the level that would prompt the user to switch to an alternative logistics chain or make the user unviable.
- The access framework will result in unequal access terms for existing users and future users—existing users have the benefit of the pricing regime in their existing user agreements for as long as they exercise their ongoing renewal rights, whereas future users will be exposed to pricing under the access framework.[235]

[229] DBCT Management, sub. 1, pp. 6, 56, 72; sub. 13, p. 69. DBCT Management made a late submission on 29 June 2018 to the QCA, providing additional material on its proposed access framework. As noted in Chapter 1, the QCA did not take this submission into account in making its draft recommendation in respect of the DBCT service. However, the QCA now invites submissions in relation to DBCT's submission of 29 June 2018.

[230] DBCT Management, sub. 1, p. 82.

[231] 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 (s. 69E of the QCA Act).

[232] DBCT Management, sub. 1, pp. 69–71.

[233] DBCT Management, sub. 1, pp. 62–71.

[234] DBCT Management, sub. 1, pp. 56–57.

[235] DBCT User Group, sub. 15, p. 57 and schedule 3, pp. 1–2.

QCA analysis

Two aspects of access arrangements that are proposed in the absence of declaration drew comments from stakeholders—existing user agreements and DBCT Management's proposed access framework.

The QCA is satisfied that the existing user agreements would provide an effective constraint on DBCT Management's exercise of market power up to the volumes specified in those agreements (as concluded in section 3.3.2).

However, if 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, under DBCT Management's proposal, they would be subject to whatever access commitments would exist in the absence of declaration. As set about above, DBCT Management has proposed an access framework to apply in a future without declaration.

In this section the QCA has considered relevant aspects of the proposed access framework to assess the extent to which it would constrain DBCT Management's ability and incentive to exercise market power in the absence of declaration. In section 3.4 the QCA has considered the interaction between existing user agreements and the proposed access framework and its effect on competitive conditions in the coal tenements market.

DBCT Management's proposed access framework

DBCT Management has indicated that the proposed access framework would apply in the absence of declaration. The QCA notes that, at this stage, DBCT Management has not executed the deed poll under which DBCT Management proposes to apply the access framework.

In the event DBCT Management executes the deed poll, DBCT Management's proposal would still enable it to amend the access framework on grounds that the amendments, in its view, promoted the framework objective, which is worded in the same terms as the object of Part 5 of the QCA Act.[236]

The QCA understands that DBCT Management's view is that its ability to amend the access framework would be restricted, as access seekers could challenge the amendments through the court.

> Providing for disputes such as contractual disputes to be determined by a Court is common and the courts of Queensland are well-equipped to appropriately and efficiently determine a dispute that arises under the Deed Poll. The courts of Queensland (rather than a commercial arbitrator) are an appropriate forum for such disputes and ensure independent oversight of amendments to the Framework.[237]

However, the QCA has concerns with DBCT Management's proposal.

One concern is over DBCT Management's discretion in amending the access framework. The QCA considers that there are a range of outcomes, in relation to an access undertaking or the access framework, which may satisfy or promote the object of Part 5 in any given scenario. Where the issue is the approval of an access undertaking for a declared service, the judgment about the outcome that will best promote this objective is a matter for the QCA (having considered and applied the criteria in the QCA Act).

[236] DBCT Management, sub. 13, pp. 69–70.
[237] DBCT Management, sub. 13, p. 76.

Under DBCT Management's access framework/deed poll proposal, DBCT Management, the access provider, would also be the entity who would exercise this discretion. The role of the court, under this approach, would not be to substitute its judgment for that of DBCT Management, but rather to resolve any dispute about whether proposed amendments fall within the range of outcomes that satisfy the relevant criterion (based on the object of Part 5). The QCA considers that this is a crucial difference between the outcomes that can be anticipated depending on whether the service is declared.

Additionally, under the QCA Act's access regime for a declared service, the QCA has periodically approved an access undertaking and standard user agreement for the coal handling service at DBCT. The access undertaking and standard user agreement establish standard price and non-price terms, which seek to facilitate commercial negotiations by providing a credible backstop position from which access seekers can choose to either adopt the standard terms or negotiate alternative terms for access, and minimise access disputes. In contrast, the discretion DBCT Management would have in amending the proposed access framework may create uncertainty as to the scope of the framework itself as well as the standard access terms which may apply.

For these reasons, the QCA's view is that DBCT Management's ability to modify its access framework could be counterproductive to conducting negotiations in a timely and cost effective manner, particularly considering the opportunity cost (in the form of lost sales) miners would face because of a delay in obtaining terminal access.[238]

The QCA does not consider that the application of criterion (a) (which refers to access on reasonable terms and conditions) requires a detailed comparison of the terms that would be anticipated either if the service was declared, or if it was not declared. The QCA understands DBCT Management's view is also that the QCA is not required to undertake a detailed assessment of its access framework.[239]

Rather, the QCA's focus is on assessing what access or increased access would look like in a future without declaration. Accordingly, the relevant issue for the QCA is the broader matter of assessing how DBCT Management would be constrained by its proposed access framework if it were in place in a future without declaration. In this regard, the QCA has focused in particular on capacity allocation and approach to pricing.

Terminal capacity allocation with and without declaration

As per available information, DBCT's nameplate capacity is 85 mtpa and the total capacity contracted under existing user agreements is about 77 mtpa.[240] This means there is about 8 mtpa of uncontracted available capacity at DBCT.

The QCA's estimate of total foreseeable demand in the market in which DBCT service is provided is approximately 93 mtpa over the next 10 years[241], which is 8 mtpa more than DBCT's nameplate capacity and 16 mtpa more than the tonnage contracted under existing user agreements. This means the existing capacity at DBCT would be insufficient to meet the total foreseeable demand over the next 10 years.

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[238] DBCT Management also said that 'miners incur significant opportunity costs (e.g. deferred profits) if coal sales are delayed for any reason, including delays to availability of terminal capacity (DBCT Management, sub. 1, p. 30).

[239] DBCT Management, sub. 1, p. 71, para 325 and sub. 13, p. 63, para 300.1.

[240] DBCT Management, *DBCT Review Event—Change in Reference Tonnage*, letter to the QCA, 11 July 2018. The amended annual reference tonnage effective 2018–19 is 76.9 million tonnes.

[241] See Part C, Chapter 2.

It is therefore relevant to consider how DBCT Management might allocate capacity—existing as well as expanded if it undertakes to expand the capacity of the terminal, in a future without declaration compared to a future with declaration.

Capacity allocation in a future without declaration

In order to assess how DBCT Management would behave in a future without declaration, the QCA has, for the ensuing analysis, considered as given the following about the DBCT service:

- The coal handing service at the terminal is an essential service for moving coal from rail to ships for mines in the Goonyella system.
- DBCT Management would not face any significant competitive constraints from other coal export terminals.
- DBCT is the least cost provider to meet the foreseeable demand.
- Users (particularly new entrants) lack countervailing power due to constraints (price and non-price) in switching to other export terminals.

Under the above conditions, DBCT Management will presumably have the ability and incentive to provide access to capacity in a manner that will maximise its profits/returns, such as by auctioning terminal capacity to extract economic rents[242] from access seekers (for example, potential DBCT users). The QCA's understanding is that DBCT Management has, in its access framework, stated its intent to provide access to terminal capacity based on users' willingness to pay.[243] Furthermore, DBCT Management could undertake future terminal expansions based on users' willingness to pay for that expanded capacity, which it has indicated in the access framework.[244] While transfer of rents between parties in a supply chain may not be inefficient, the QCA's view is that DBCT Management's ability and incentive to extract rents from potential DBCT users (potential entrants) but not from existing users would likely discourage efficient new entry in the coal tenements market (see section 3.4).

DBCT Management said that the access charge (TIC) under its access framework would be subject to a cap such that coal volumes handled at DBCT without declaration would be the same as those with declaration.[245] Castalia's (DBCT User Group's consultant) view was that the TIC in a future without declaration would effectively be the price just below the level that would prompt the user to switch to an alternative logistics chain or make the user unviable.[246]

The QCA sees merit in Castalia's view and considers that in a future without declaration 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. Although no other coal export terminal in Queensland is a close substitute for DBCT, the QCA considers that the alternative available terminal for mines in the Goonyella system seeking a coal handling service may be WICET, which

[242] Economic rents are payments in excess of normal profits.
[243] DBCT Management, sub. 13, pp. 68, 72, 77, 78, paras 319, 327, 357, 364.
[244] DBCT Management, sub, 1, appendix 7, p. 134, para 25. The QCA's understanding is that DBCT Management has proposed that in a future without declaration if terminal capacity expansion is differentiated for pricing purpose, the TIC to access that expanded capacity would be subject to the 'willingness to pay' rule. Additionally, if terminal expansion is socialised, it would presumably be treated on the same basis as existing capacity and would also be subject to the 'willingness to pay' rule. Therefore, the QCA's understanding is that in a future without declaration, access price for existing as well as expanded capacity would be based on the 'willingness to pay' rule.
[245] DBCT Management, sub. 1, pp. 67–68, paras 313, 314.
[246] DBCT User Group, sub. 15, schedule 3, pp. 1–2.

has spare capacity of about 11 mtpa noting that the associated rail network (Blackwater system) also has about 18 mtpa available capacity.[247] However, the cost of accessing WICET for mines in the Goonyella system ('at least' $26 per tonne) would be material relative to that of accessing DBCT (around $11 per tonne).[248]

Additionally, a mechanism to allocate capacity based on users' willingness to pay would mean that the degree of willingness to pay has a determining role. Consequently, access seekers would face uncertainty about whether and when they would obtain terminal access to support their planned mining operations. This is because access to terminal capacity would be subject to, among other things, an access seeker's willingness to pay relative to other access seekers and there being sufficient capacity available to meet access seekers' requirements.

To summarise, the QCA's view is that in a future without declaration, access seekers would face the risk of negotiating access in an environment where DBCT Management would have the discretion to set access terms and conditions, the risk of paying a materially higher access charge reflecting the cost of accessing WICET as well as the uncertainty as to whether and when they would obtain access to the terminal. This risk would be unmanageable and fundamental, considering the essential nature of the DBCT service for mining operations in the Goonyella system, and is over and above the normal uncertainties miners would face in conducting their operations. In section 3.4, the QCA has assessed the impact of this risk faced by potential DBCT users on the environment for competition in the coal tenements market.

Capacity allocation in a future with declaration

In a future with declaration, the capacity allocation mechanism would be governed by the QCA Act, which, among other things, prohibits an access provider from unfairly differentiating between users of the service in a way that has a material adverse effect on the ability of users to compete with other users (s. 168C) and from engaging in conduct for the purposes of preventing or hindering access to the declared service (s. 104). The Act does allow for price discrimination when it aids efficiency (s. 168A(b)).

The QCA understands DBCT Management's view is that its proposal to allocate capacity based on users' willingness to pay would merely alter the distribution of rents between users and DBCT Management, and that will not affect economic efficiency or competitive conditions in any dependent market.[249] However, the QCA's view is that given existing evergreen user agreements, DBCT Management's stated intent to provide access to terminal capacity to potential DBCT users based on their willingness to pay will result in a material asymmetry between existing DBCT users and potential DBCT users over the access terms and conditions that would apply in a future without declaration. In an environment where existing users would likely seek coal tenements to continue to benefit from their existing user rights, this asymmetry would have a material adverse effect on potential DBCT users' ability to compete with existing users in the coal tenements market, which would likely discourage efficient entry in the coal tenements market, and so competitive conditions in that market would be adversely affected in a material way (see section 3.4).

[247] WICET Capacity webpage, viewed 25 September 2018, http://www.wicet.com.au/irm/content/access1.aspx?RID=379&RedirectCount=1; Aurizon Network, *2016 Baseline Capacity Assessment Report*, p. 16.
[248] Part C, Chapter 2.
[249] DBCT Management, sub. 13, p. 78, para 364.

The QCA has considered how terminal capacity might be allocated in a future with declaration and its implications for potential DBCT users.

The QCA Act (s. 138(2) of Part 5) provides for the approval of an access undertaking if it satisfies the statutory criteria. To date, access undertakings approved by the QCA for accessing coal handling service at DBCT have included a range of measures relevant to the allocation of capacity. While the QCA does not presume that these measures will necessarily apply during any future declaration period, the QCA considers that the operation of the regulatory framework to date may provide some guidance as to its operation in the future.

For example, DBCT Management's access undertakings have included an access queuing mechanism for allocating capacity on a 'first-come first-served basis'. Nonetheless, access seekers who are not at the front of the queue can obtain access to terminal capacity if they are willing to execute an access agreement, provided that access seekers at the front of the queue are not willing to execute an access agreement at the relevant time.[250]

Another key aspect of the access queuing mechanism that has applied is that access seekers face the same reference tariff (regulated TIC) for accessing the existing capacity, regardless of their position in the queue. The regulated TIC is determined having regard to DBCT Management being able to recover at least its efficient costs for providing the service, including a return on investment commensurate with the regulatory and commercial risks involved.[251]

Effectively, the access queuing mechanism has operated in a way such that capacity is allocated based on an access seeker's willingness to execute an access agreement subject to their position in the queue. Such a capacity allocation mechanism has provided an orderly, transparent and predictable process for allocating capacity—where access seekers know what they have to do to get access and there are clear criteria the access provider needs to follow when deciding on whom to grant access rights.

Additionally, for any terminal expansion that would be undertaken, access seekers' ability to access the expanded capacity would depend on their willingness to execute a conditional access agreement subject to their position in the queue. Access seekers seeking expansion capacity would face the same expansion price that would be set having regard to DBCT Management being able to recover at least its efficient expansion costs, including a return on investment commensurate with the regulatory and commercial risks involved. In other words, the expansion price would not be set on the basis of access seekers' willingness to pay or on the basis of the cost of accessing an alternative available terminal, and so would not result in DBCT Management pricing above efficient costs. In these circumstances, the QCA expects there would be certainty and clarity on the negotiation stages through which access seekers move in order to obtain access to the terminal.

In summary, having regard to provisions of the QCA Act and considering past access undertakings as an indication of the access regime that could apply, the QCA considers the future with declaration can be expected to provide a framework in which access seekers pay a cost–reflective

[250] DBCT Management's proposed access framework includes a queuing mechanism, whereby access seekers at the back of queue could obtain access to terminal capacity if they are willing to execute an access agreement albeit and presumably with a different pricing structure i.e. the access charge would reflect their willingness to pay relative to those at the front of the queue (DBCT Management, sub. 1, appendix 1, cl. 5.4 and appendix 7).

[251] The QCA notes access seekers have the option to seek non-reference services (e.g. blending) and in such cases the access charge they pay may vary from the reference tariff to reflect any additional cost and risk to DBCT Management for providing such services.

access charge, and the capacity allocation mechanism would be predictable and transparent to assist with access seekers' forward planning.

Conclusion

In this section, the QCA considered whether DBCT Management's ability and incentive to exercise market power in the absence of declaration would be constrained by existing user agreements and DBCT Management's proposed access framework.

On the one hand, existing user agreements will enable existing users to extend the term of their agreements and continue to access the DBCT service based on the terms and the volumes set out in those agreements. So, existing user agreements will provide an effective constraint on DBCT Management's exercise of market power up to the volumes specified in those agreements.

However, on the other hand, the proposed access framework will enable DBCT Management to exercise discretion in setting access terms and conditions, including pricing above cost by providing access to terminal capacity based on users' willingness to pay. This would have the effect that, in the absence of declaration, potential DBCT users would face the risk of paying a materially higher access charge reflecting the cost of accessing WICET as well as the uncertainty as to whether and when they would obtain access to the terminal. This risk and uncertainty would not arise under declaration, as the QCA Act and any related access undertakings would provide a framework such that the access charge would be cost–reflective and the capacity allocation mechanism would be predictable and transparent. In other words, the QCA considers that DBCT Management would have the ability and incentive to exercise market power in the absence of declaration.

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 to consider whether DBCT Management's ability and incentive to exercise market power would adversely affect competitive conditions in a dependent market. The QCA's view is that given the existence of evergreen existing user agreements, DBCT Management's stated intent to provide access based on users' willingness to pay would have a material adverse effect on potential DBCT users' ability to compete with existing users in the coal tenements market. In an environment where existing users would likely seek coal tenements to continue to benefit from their existing user rights, this adverse effect on potential DBCT users would likely discourage efficient entry in the coal tenements market. In contrast, in a future with declaration, efficient entry in the coal tenements market would not be discouraged, and so the competitive conditions in the coal tenements market would be materially better with declaration than they would be without declaration (see section 3.4).

3.3.4 DBCT Management's lease arrangement with the state government

Stakeholders' submissions

DBCT Management argued that the terms of its lease of DBCT with the Queensland Government contained in the Port Services Agreement (PSA) will constrain its ability or incentive to exercise market power.

> 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.[252]

The DBCT User Group said that although the PSA required DBCT Management to use reasonable endeavours to submit a voluntary draft access undertaking (DAU) to the QCA:

- other stakeholders (i.e. access seekers, access holders, rail haulage providers) are not parties to the PSA, which is a confidential document, and so non-PSA parties would not be able to enforce the terms of 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.[253]

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 has argued that the terms of the PSA will 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.

First, 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.

Second, the PSA is not a public document, so a lack of visibility of the PSA would create a risk for potential DBCT users as to the terms that would apply for accessing the coal handling service at the terminal. Arguably, potential DBCT users who may have concerns about DBCT Management's behaviour may rely on the government to obtain redress. However, that would entail a significant time and cost commitment by the government as well as it would not be effective in preventing any adverse effects on competitive conditions in the coal tenements market that are likely to have already occurred from DBCT Management conducting itself under the PSA.

Third, if DBCT Management submits a voluntary DAU to the QCA in a future without declaration, it will be considered under s. 136 of the QCA Act. Therefore, if the QCA's decision is not to approve such a DAU, the QCA will not be able to require compulsory amendment of the DAU under s. 136A, as that section applies to a voluntary DAU for a declared service.

Fourth, rather than relying on the terms of the PSA to provide access in a future without declaration, DBCT Management has proposed an access framework. To the extent the PSA obliges DBCT Management to conduct itself in a certain manner in providing access to the terminal, it is presumed that DBCT Management's access framework would be consistent with such obligations. Although the QCA has not embarked on a detailed analysis of the terms of the framework, the QCA has focused in particular on capacity allocation and approach to pricing contained in the framework (section 3.3.3). The QCA's view is that DBCT Management would not be constrained from exercising market power in the absence of declaration and that would have a material adverse effect on the environment for competition in the coal tenements market (section 3.4).

[252] DBCT Management, sub. 1, p. 86; sub. 13, p. 71.
[253] DBCT User Group, sub. 3, pp. 80–81.

The PSA therefore does not appear to be a mechanism that would constrain DBCT Management from exercising market power in a future without declaration.

3.3.5 DBCT Management is not vertically integrated

Stakeholders' 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.[254]

DBCT Management argued that any concerns about future vertical integration would be addressed through:

- ring-fencing provisions in DBCT Management's proposed 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* (CCA) which prohibits arrangements and acquisitions that have the effect or likely effect of substantially lessening competition in a market.[255]

The DBCT User Group said the QCA cannot rely on DBCT Management's word that it will not vertically integrate in the future.[256] It also expressed concerns about the operation of BPC, DBCT Management's related business that operates in the DBCT secondary capacity trading market. The DBCT User Group said that without declaration the protections against anti-competitive conduct by DBCT Management/BPC in the secondary market will effectively be removed. However, DBCT Management said that BPC will cease operations on 1 September 2018, which will address any vertical integration concerns relating to that business.[257]

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. Speculating about whether or not DBCT Management will vertically integrate with a business in the coal supply chain in the future is not relevant to this assessment.

Nevertheless, the secondary capacity trading activities undertaken by BPC (DBCT Management's related party) can be characterised as involving a degree of vertical integration with the activities of DBCT Management. However, the QCA understands that BPC ceased trading of capacity at DBCT on 1 September 2018.[258]

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[254] DBCT Management, sub. 1, pp. 6, 57 and sub. 13, pp. 67, 78, 86.
[255] DBCT Management, sub. 1, p. 65 and sub. 13, pp. 92, 94.
[256] DBCT User Group, sub. 3, p. 76 and sub. 15, p. 57.
[257] DBCT Management, sub. 1, p. 86; sub. 13, p. 92.
[258] 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.

Following cessation of BPC's capacity trading activity, it can be said that DBCT Management is not vertically integrated; therefore, an argument may be made that as a vertically separated infrastructure service provider DBCT Management may have little incentive to exert market power in providing access to the DBCT service.

In order to form a view on whether DBCT Management would have an ability and incentive to exert market power in a future without declaration, the QCA has accepted the following about the DBCT service:

- The coal handing service at the terminal is an essential service for moving coal from rail to ships for mines in the Goonyella system.
- DBCT Management would not be constrained by the availability of substitute facilities, by the countervailing power of users (particularly potential DBCT users) and by the threat of a new facility being built.
- DBCT is the least cost provider to meet the total foreseeable demand.
- Existing capacity at DBCT would be insufficient to meet the total foreseeable demand.[259]

Under the above conditions, DBCT Management, despite not being vertically integrated, would have the ability and incentive to exert market power in the absence of declaration in a manner such that it would have a material adverse effect on the environment for competition in the coal tenements market (section 3.4).

3.3.6 Threat of declaration or regulation

Stakeholders' submissions

DBCT Management argued that the threat of declaration under the QCA Act (or under the CCA when the certified DBCT access regime ends) would constrain DBCT Management from using any market power to adversely affect competition in dependent markets.[260]

DBCT Management also said that the courts of Queensland could make interim orders if there was a real prospect of immediate damage to competition in the absence of declaration, adding 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.[261]

However, the DBCT User Group's view was the opposite. It argued that if the service was declared after a period of no declaration, material lessening in competition in the interim would have already occurred.[262] It also said 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.[263]

QCA analysis

In order to assess whether the threat of declaration or regulation would constrain DBCT Management from exercising market power in a future without declaration, the QCA has accepted the following about the DBCT service:

[259] See sections 3.3.1, 3.3.2 and 3.3.3; and Part C, Chapter 2.
[260] DBCT Management, sub. 1, p. 85.
[261] DBCT Management, sub. 1, p. 86.
[262] DBCT User Group, sub. 3, p. 76; sub. 15, p. 91.
[263] DBCT User Group, sub. 15, p. 91.

- Coal handing service at the terminal is an essential service for moving coal from rail to ships for mines in the Goonyella system.
- DBCT Management would not be constrained by the availability of substitute facilities, by the countervailing power of users (particularly potential DBCT users) and by the threat of a new facility being built.
- DBCT is the least cost provider to meet the total foreseeable demand.
- Existing capacity at DBCT would be insufficient to meet the total foreseeable demand.[264]

Under the above conditions, the QCA's view is that DBCT Management would have the ability and incentive to exert market power in the absence of declaration. Specifically, given the existing evergreen user agreements, DBCT Management's stated intent to provide access to terminal capacity to potential DBCT users based on their willingness to pay will result in a material asymmetry between existing DBCT users and potential DBCT users over the access terms and conditions that would apply in a future without declaration. In an environment where existing users would likely seek coal tenements to continue to benefit from their existing user rights, this asymmetry will have a material adverse effect on potential DBCT users' ability to compete with existing users in the coal tenements market, which would likely discourage efficient entry in the coal tenements market. Therefore, competitive conditions in that market would be adversely affected in a material way (see section 3.4).

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 competition in a dependent market (see the discussion in Chapter 2).

The QCA also considered whether the threat of declaration would constrain DBCT Management from exercising market power such that the adverse effect on competitive conditions in the coal tenements market would be unlikely to occur.

The QCA's view is that since declaration does not apply retrospectively, re-declaration will not remedy the adverse effect on competitive conditions in the coal tenements market that would have already occurred in the absence of declaration of the DBCT service. This means the threat of declaration would not deter DBCT Management from exercising market power in a manner such that it would adversely affect competitive conditions in the coal tenements market.

In summary, the QCA's view is that the threat of declaration or regulation under the CCA would not constrain DBCT Management's conduct in the absence of declaration.

3.3.7 Conclusion: DBCT Management's ability and incentive to exercise market power with and without declaration

DBCT Management's ability and incentive to exert market power in the absence of declaration will 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 (particularly potential entrants)

[264] See sections 3.3.1 and 3.3.2; and Part C, Chapter 2.

- the access framework DBCT Management proposed to apply in a future without declaration
- DBCT Management's lease arrangement with the state
- DBCT Management not being vertically integrated
- the threat of declaration or regulation.

The QCA has also accepted the following about the DBCT service:

- Coal handing service at the terminal is an essential service for moving coal from rail to ships for mines in the Goonyella system
- DBCT is the least cost provider to meet the total foreseeable demand in the market for the service.
- Existing capacity at DBCT would be insufficient to meet the total foreseeable demand.

Accordingly, the QCA's view is that, in the absence of declaration, DBCT Management would have the ability and incentive to exercise market power, for instance in the form of pricing above cost, without fear of losing customers to other coal export facilities.

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 to consider whether DBCT Management's exercise of market power would adversely affect competitive conditions in a dependent market. The QCA's view is that given the existing evergreen user agreements, DBCT Management's stated intent to provide access to terminal capacity based on users' willingness to pay would have a material adverse effect on potential DBCT users' ability to compete with existing users in the coal tenements market. In an environment where existing users would likely seek coal tenements to continue to benefit from their existing user rights, this adverse effect on potential DBCT users would likely discourage efficient entry in the coal tenements market (see section 3.4).

In contrast, when considering the future with declaration, the QCA Act's third party access regime provides a credible constraint on DBCT Management's exercise of market power and enables a balanced access negotiation framework.

For instance, declaration under the QCA Act establishes a right for an access seeker, and an obligation on DBCT Management (as the access provider of the service), to negotiate an access agreement. This right extends to any access seeker. The QCA Act envisages that those negotiations will end in the successful conclusion of an access agreement, and if commercial negotiations fail, in arbitration by the QCA.

In order to facilitate commercial negotiations and minimise arbitration, the QCA has periodically approved an access undertaking and standard user agreement for the coal handling service at DBCT. The access undertaking and standard user agreement establish standard price and non-price terms to guide access negotiations and provide a credible backstop position from which access seekers can choose to either adopt the standard terms or negotiate alternative terms for access.[265] The QCA approves those standard terms, having regard to the factors listed in s. 138(2) of the QCA Act, which, among other things, seek to promote economically efficient outcomes in relation to essential infrastructure services, and protect the legitimate business interests of access provider, the interests of access seekers and access holders, and the public interest.

[265] If parties cannot agree on the alternative terms for access, arbitration by the QCA will apply, although the QCA's determination must not be inconsistent with the QCA-approved access undertaking.

Furthermore, as noted above, the mechanism to allocate terminal capacity will be governed by the QCA Act, which, among other things, prohibits an access provider from unfairly differentiating between access seekers in negotiating access agreements in a way that has a material adverse effect on the ability of access seekers to compete with each other.

The QCA Act also provides for periodic variations to the standard terms and ongoing monitoring of compliance with the approved terms.

Effectively, the access regime provided under the QCA Act and an access undertaking prevents DBCT Management from unilaterally setting, for any access seeker(s):

- the terms on which DBCT Management would negotiate access arrangements, as those terms are set out in a QCA-approved undertaking
- the terms and conditions under which DBCT Management will provide access, as negotiations for an access agreement take place against the backdrop of the default terms approved by the QCA in the standard user agreement.

The QCA Act's third party access regime for a declared service:

- is enforceable—the standard terms set by the QCA in an approved access undertaking as well as the QCA's access dispute determinations are enforceable through the court
- is predictable, tested, and provides regulatory certainty—access terms (e.g. formula/methodology for setting access charges) are known; the process to set access terms is transparent and consultative; the process through which access is granted, including the process when there is insufficient available capacity, is known and understood
- provides a framework within which there is a periodic review of the standard terms (i.e. price and non-price arrangements) to reflect, among other things, any changes in market conditions, and that the process is understood by the parties.

Having found that DBCT Management has the ability and incentive to exercise market power in relation to the service, we turn below to the question of whether such an exercise of market power would have a material impact on competitive conditions in a dependent market and the corresponding question of whether access to the service on reasonable terms as a result of declaration would promote a material increase in competition in such a market.

3.4 Coal tenements market: 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 (see Chapter 2).

Of particular relevance is the requirement that the increase in competition be ‘material’.

The words 'material increase' were first introduced into criterion (a) by the *Motor Accident Insurance and Other Legislation Amendment Act 2010*. The Explanatory Notes to that amending Act states that the purpose of the 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.

In the Port of Newcastle matter, the NCC observed:

> Consistent with a view that criterion (a) does not set a low threshold, the Council considers that where access would have no material impact on the actions of market participants, then this may be an indicator that access would not promote an increase in competition that is material, and thus criterion (a) would not be satisfied.[266]

In the same matter, the Tribunal observed:

> [I]t is necessary to consider whether access would promote a material increase in competition in at least one dependent market. As noted above, the threshold of materiality will require a non-trivial increase in competition. While the counterfactual character of the exercise to be undertaken may not have changed, the qualitative assessment involved has plainly changed.[267]

The QCA's view is that the words 'would promote a material increase in competition' require an assessment of whether access on reasonable terms and conditions as a result of declaration would materially improve the environment or conditions for competition in a dependent market. In other words, in undertaking the analysis the QCA has considered aspects such as the likely entry condition in a dependent market in a future with and without declaration—for example, whether the service provider's conduct in the market for the service would discourage entry or restrict participation in a dependent market. In that respect, the QCA's view is that what matters in terms of a material impact on competition is not necessarily the number of potential entrants that would be discouraged, but the possibility that more efficient firms would be discouraged from entering a dependent market in a future without declaration compared to a future with declaration. If so, it would indicate that access as a result of declaration would promote an increase in competition that is material.

DBCT Management's view was that the primary dependent market that is relevant for criterion (a) assessment is the coal export markets, and it argued that if declaration would not promote a material increase in competition in the coal export markets there cannot be any flow-on effects in any related markets. DBCT Management said its view is supported by the legal precedent set by the Tribunal in the Port of Newcastle matter, where the Tribunal (in responding to submissions relating to an impact on demand for mining authorities and competition in the bidding for the award of mining authorities) concluded:

> 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 …[268]

DBCT Management's understanding of the Tribunal's conclusion needs to be viewed in the context in which the Tribunal arrived at that conclusion. Relevantly, the Tribunal in that matter stated:

> 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.

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[266] National Competition Council, *Declaration of the shipping channel service at the Port of Newcastle, Final recommendation*, November 2015, p. 36, para 4.86. The QCA is aware that the NCC's view was made when criterion (a) called for an enquiry into the effect of access (or increased access), and not the effect of access (or increased access) as a result of declaration. Nonetheless, the NCC's approach to interpreting materiality remains relevant.

[267] Australian Competition Tribunal, *Application by Glencore Coal Pty Ltd [2016] ACompT 6*, p. 22, [106].

[268] DBCT Management, sub. 13, p. 83.

> **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** [emphasis added].[269]

Clearly, the Tribunal's conclusion in the Port of Newcastle matter was a view arrived at by the Tribunal based on the facts before the Tribunal. Relevantly, in the Pilbara matter, the dependent markets the Tribunal had considered were iron ore tenements market and rail haulage market, in addition to the iron ore export market.

The QCA's view is that criterion (a) requires the QCA to consider one or more dependent markets if access as a result of declaration of the DBCT service would potentially affect competitive conditions in that market. One such dependent market is the coal tenements market, in respect of which DBCT Management and the DBCT User Group made opposite claims about the effect of declaration on the environment for competition in that market.

Stakeholders' submissions

DBCT Management said the pricing arrangement in its proposed access framework would alter the distribution of rents in the supply chain but not affect the volume of coal that is mined and exported without declaration compared to with declaration. Since declaration would not affect the volumes of coal produced or exported (or any dimension of quality), the number of mining authorities will not change. So, declaration of the DBCT service would not have any direct effect on mining authorities.[270]

DBCT Management also said that new entrants are unlikely to be able to access existing capacity due to evergreen existing user agreements, and that expansion pricing principles would result in differentiated pricing—an outcome that would also apply in a future with declaration.[271]

The DBCT User Group/Castalia argued that, in the absence of declaration, the access charge (TIC) under existing evergreen user agreements would be set according to a methodology that would attempt to mimic the QCA process. So, existing DBCT users would have guaranteed access at a 'reasonable price' whereas new entrants (potential DBCT users) would have to negotiate conditions of access and face a price set at 'what the market will bear'.[272]

The DBCT User Group/Castalia said that because of existing users' more favourable and more certain pricing terms of access:

- existing DBCT users will place a higher value on tenements than potential DBCT users—making them more effective competitors for acquisition of tenements in the tenements market
- potential DBCT users will have a much reduced incentive to invest in acquisition of tenements—due to the uncertainty of returns that they will be able to derive, and the unbankable nature of the access framework. For the same reasons, they will have a much reduced incentive to invest in exploration/development of coal mining projects.[273]

[269] Australian Competition Tribunal, *Application by Glencore Coal Pty Ltd [2016] ACompT 6*, p. 29, [139].
[270] DBCT Management, sub. 1, pp. 6, 57, 62, 74, 80 and appendix 9, p. 38.
[271] DBCT Management, sub. 13, p. 62.
[272] DBCT User Group, sub. 15, schedule 3, p. 4.
[273] DBCT User Group, sub. 15, pp. 76–80 and schedule 3, pp. 4–6.

The DBCT User Group/Castalia argued that as a result there would be a substantial increase in concentration in the coal tenements market (as the only likely buyers will be the existing DBCT users); and a reduction in supply in the coal tenements market (as non-existing DBCT users will have very little incentive to develop tenements given the pricing regime they will face).[274]

The DBCT User Group/Castalia observed that the access price under the access framework will be fixed for five-year intervals. They argued that it would be difficult for a miner to raise finance when a key element of the logistic costs could be arbitrarily increased by DBCT Management at five-yearly intervals, not based on underlying costs but, on their guess, at the available 'consumer surplus'. By contrast, under declaration, new mines will have a legally enforceable right of access with reasonable prices set by an independent regulator.[275]

The DBCT User Group/Castalia also said that the access framework would create strong financial incentives for DBCT Management to price discriminate between users, which is not inefficient, but means that DBCT Management will favour users with the capacity to pay the highest ceiling prices. For instance, DBCT Management would favour mines located closer to DBCT, where the costs of alternative ports are higher, or mines producing higher value metallurgical coal, or both. By contrast, under declaration, DBCT Management is required to treat all prospective users equally on a first-come, first-served basis.[276]

QCA analysis

The QCA notes that DBCT Management has stated its intent to provide access to terminal capacity based on users' willingness to pay with the access price (TIC) capped at a level such that there is no difference in coal volumes handled at DBCT with or without declaration. If this resulted in a transfer of rents, but did not impact the behaviour of miners, the QCA understands DBCT Management's proposition is that criterion (a) cannot be satisfied, as there would be no effect on the environment for competition in dependent markets.

On the other hand, the QCA's understanding is that the DBCT User Group argued that the absence of declaration would result in a material reduction in the environment for competition in the coal tenements market due to:

- asymmetric access terms and conditions between existing users and new entrants, which will discourage new entry
- DBCT Management's discretion to set prices at five-yearly intervals which will make potential DBCT users' mining operations unbankable, and so will discourage new entry
- DBCT Management's ability and incentive to price discriminate between users which will favour certain mines (mines closer to DBCT or higher value metallurgical coal mines).

The QCA has considered these three aspects to assess the environment for competition with and without declaration in the coal tenements market in the Hay Point catchment region.

[274] DBCT User Group, sub. 15, pp. 76–80. As noted in section 3.2.1, although government is the primary supplier of coal tenements, holders of coal tenements are secondary suppliers in the coal tenements market as they are able to sell their tenement rights to other parties. See also Table 13 which lists recent transactions in the coal tenements market involving tenement holders (as suppliers) and other parties.

[275] DBCT User Group, sub. 15, schedule 3, p. 7.

[276] DBCT User Group, sub. 15, schedule 3, p. 6.

Asymmetric terms between existing users and potential entrants

The question to examine is whether access to the DBCT service in a future without declaration would result in a material asymmetry between existing DBCT users (incumbents) and potential DBCT users (potential entrants) over access terms and conditions such that it would likely discourage entry by more efficient firms in the coal tenements market. If so, the next question to examine is whether access as a result of declaration would not create a material asymmetry such that the entry conditions in coal tenements market would be unlikely to discourage entry by more efficient firms (all other things being equal).

Accordingly, the QCA has considered the following issues:

- Would access terms and conditions be materially different between existing users (incumbents) and potential DBCT users (potential entrants) in a future without declaration compared to a future with declaration?
- Are incumbents able to perpetually use existing rights at DBCT for any mine on their portfolio?
- To what extent (if any) are incumbents likely to seek coal tenements over the declaration period of 10 years?
- Have new entrants participated in the coal tenements market?
- Is the difference in access terms and conditions in a future without declaration, compared to a future with declaration, likely to be material such that it would likely deter more efficient entrants from participating in the coal tenements market?

Access terms between incumbents and potential entrants

DBCT Management's existing user agreements are described as 'evergreen' as incumbents have the option to extend their agreements and continue to access DBCT based on the terms of access and volumes set out in those agreements. Therefore, for incumbents, in a future

- Without declaration: the existing user agreements provide for periodic reviews of the access charges, and provide a dispute resolution mechanism for determination of charges which is intended to produce an outcome similar to that which the QCA would have been expected to determine.
- With declaration: the applicable access charge will be as approved by the QCA having regard to DBCT Management's efficient costs for providing the service, including a return on investment commensurate with the regulatory and commercial risks involved.

Effectively, for incumbents, there is likely to be no material difference in access terms and conditions with and without declaration.

DBCT Management observed that the current terminal infrastructure and handling charges at DBCT—that is, coal handling charges that apply when the DBCT service is declared—would represent about 2 to 3 per cent of the forecast metallurgical coal prices until 2035.[277] This

[277] DBCT Management, sub. 1, pp. 77–78. DBCT Management considered a combined terminal infrastructure charge and handling charge at DBCT of approximately $5 per tonne and forecast metallurgical coal prices of between A$167 and A$256 per tonne between 2017 and 2035. DBCT Management also reported that the terminal charge would represent approximately 4.5 to 4.7 per cent of the forecast thermal coal prices of between A$106 and A$111 per tonne between 2017 and 2035. For representation purposes, the QCA has reported the proportions based on metallurgical coal price, noting also that DBCT predominantly handles metallurgical coal.

calculation is based on coal handling charges that apply under existing declaration. Considering that for incumbents there is likely to be no material difference in access terms with and without declaration, the 2 to 3 per cent estimate would represent the proportion of the metallurgical coal price that incumbents would expect to pay as coal handling charge in a future with and without declaration.[278]

For potential entrants, access to DBCT capacity in a future without declaration would depend on their willingness to pay relative to other access seekers, with the coal handling charge likely being subject to a cap to reflect the cost they would likely incur for accessing the next available alternative terminal.[279]

There are capacity constraints on GAP system which would prevent potential DBCT users from accessing AAPT. Besides, the QCA understands that AAPT and RG Tanna are almost fully contracted and the QCA's conclusion is that BMA's Hay Point terminal is not open access.[280] In contrast, WICET has spare capacity of about 11 mtpa and the associated rail network (Blackwater system) also has about 18 mtpa available capacity.[281] Therefore, although no other coal export terminal in Queensland is a close substitute for DBCT, the QCA considers that the alternative available terminal for potential DBCT users may be WICET. To that extent, for a potential DBCT user, the coal handling charge at DBCT in a future without declaration would likely be subject to a cap that would reflect the cost of accessing WICET.

Coal from a mine in the Goonyella system to WICET will have to traverse the Blackwater system. That means the relevant mine would have to incur (i) rail network cost for accessing the Blackwater system, which will be in addition to the rail network cost for accessing the Goonyella system, (ii) additional rail transportation cost due to the extra distance to be traversed on the Blackwater system as well as due to the extra cost associated with lower train payload on the Blackwater system (i.e. coal volume per train on Blackwater system is lower than on the Goonyella system), and (iii) the materially higher coal handling charge at WICET (estimated to be at least $15 per tonne).[282]

The cost a potential DBCT user would expect to incur for exporting coal through WICET (instead of to DBCT) will vary depending on the exact location of its mine in the Goonyella system. The QCA's calculation shows that, for mines in the Goonyella system, the average supply chain cost to access WICET is at least $26 per tonne, which is more than double the supply chain cost to access DBCT at $11 per tonne. As explained in Part C, Appendix A, the estimated cost of accessing WICET does not include the rail infrastructure and transportation cost that Goonyella system users would incur on the Goonyella system before their coal is hauled through another system to

[278] In this analysis, the QCA has considered coal handling charge as a proportion of forecast metallurgical coal prices data submitted by DBCT Management. To the extent, stakeholders consider it would be more appropriate to analyse coal handling charge as a proportion of another parameter (e.g. mine operating costs, total delivered cost of coal), stakeholders are invited to submit supporting information and evidence.

[279] New entrants will be subject to such a pricing regime regardless of whether they acquire capacity rights from other existing DBCT users in the form of a permanent or long-term capacity transfer to access existing DBCT capacity, or from DBCT Management. This is because a new entrant that acquires capacity rights from existing users will be required to negotiate a new user agreement with DBCT Management. In a future without declaration, that negotiation will be subject to a 'willingness to pay' pricing regime. Therefore, new entrants would not be incentivised to prefer acquiring DBCT capacity rights from existing DBCT users over DBCT Management (see the 2017 access undertaking standard user agreement, schedule 6).

[280] See Part C, Chapter 2.

[281] WICET Capacity webpage (http://www.wicet.com.au/irm/content/access1.aspx?RID=379&RedirectCount=1, viewed 25 September 2018); Aurizon Network, *2016 Baseline Capacity Assessment Report*, p. 16.

[282] See Part C, Appendix A.

access alternative terminals. To that extent, the estimated cost difference between accessing WICET and DBCT of at least $15 per tonne is extremely conservative.

In any event, it means the coal handling charge at DBCT for potential entrants in a future without declaration would likely go up from the current $5 per tonne (that incumbents would pay) by an additional at least $15 per tonne to at least $20 per tonne, such that the cost of accessing DBCT for entrants would be about the same as accessing WICET, all other things being equal. Considering the extremely conservative nature of the estimated cost of accessing WICET, the coal handling charge at DBCT for potential entrants is expected to be materially more than the charge incumbents would pay in a future without declaration.

A coal handling charge at this level for potential entrants would represent at least 8 to 12 per cent of the forecast metallurgical coal prices in a future without declaration. This would be at least four times the 2 to 3 per cent of metallurgical coal price that existing users would pay as a coal handling charge. Thus existing DBCT users would enjoy a considerable cost advantage over potential entrants in accessing the DBCT service in a future without declaration.

Additionally, in a future without declaration, potential entrants would face the risk of negotiating access in an environment where DBCT Management would have the discretion to set access terms and conditions and the uncertainty about whether and when they would obtain access to the terminal, which would adversely affect their forward planning (see section 3.3.3).

By contrast, in a future with declaration, potential entrants' access to DBCT capacity would be governed by the QCA Act. The risk and uncertainty that would likely arise in a future without declaration would not arise under declaration, as the QCA Act and any related access undertakings would provide a framework such that the capacity allocation mechanism would be predictable and transparent and the access charge would be cost–reflective. For instance, if following declaration, an access undertaking is in place, the applicable access charge would be as approved by the QCA and would be same for potential new entrants and existing users for accessing existing capacity at DBCT—that is, a coal handling charge of approximately $5 per tonne, which is about 2 to 3 per cent of the forecast metallurgical coal prices.

If potential new entrants obtain access to expanded capacity under declaration, they may expect to pay a socialised coal handling charge (if expansion cost reduces the pre-expansion TIC and is socialised) or a differentiated charge (if expansion cost increases the pre-expansion TIC and is not socialised, subject to some exceptions).[283]

The QCA's view is that for total foreseeable demand in the market to be met by DBCT, the Zone 4 and 8X Phase 1 expansion projects would be required (see Part C, Chapter 2). The QCA's analysis shows that, in the event expansion cost was socialised, the coal handling charge could increase by 9 cents to $5.1 per tonne—that is, an increase of less than 2 per cent, all other things remaining unchanged. This is despite the QCA considering the highest estimate of expansion costs that are available without seeking to assess the prudency of those expansion costs (see Part C, Appendix A).

Indeed, 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).

[283] See, QCA, *DBCT Management's 2015 DAU*, final decision, November 2016, pp. 235–36.

> 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.[284]

Based on the information available to the QCA, it would appear that a differentiated access charge may not apply for the expansion projects required to meet foreseeable demand.

In the event the expansion cost was not socialised, the coal handling charge with a differentiated TIC could be at most $8.5 per tonne, which would be about 3 to 5 per cent of the forecast metallurgical coal price, all other things remaining unchanged.[285] Considering the possibility that this estimate would be an overestimate, a coal handling charge of this order would not appear to be materially different from the 2 to 3 per cent for existing users.

Table 11 summarises the potential source of different access terms and conditions incumbents and potential entrants would face in a future with and without declaration.

[284] DBCT Management, Master Plan 2018, p. 62.

[285] The coal handling charge is the sum of differentiated TIC of $6 per tonne (obtained by dividing the $49 million of ARR with expansion by 8 mtpa of incremental volume) and other coal handling charges of $2.5 per tonne (see Part C, Appendix A).

Table 11 Access terms between incumbents and potential entrants with and without declaration

	Existing users (incumbents)	*Potential DBCT users (potential entrants)*	*Outcome*
Future with declaration	Access terms as per existing user agreements, including access charge as approved by the QCA if an approved access undertaking is in place (coal handling charge approximately $5 per tonne—representing 2 to 3 per cent of metallurgical coal price forecast)	Access terms governed by the QCA Act; access terms and charges approved by the QCA if an approved access undertaking is in place (applicable coal handling charge of about $5 per tonne for existing capacity and if expansion cost is socialised, or at most $8.5 per tonne if expansion cost is not socialised—representing 3 to 5 per cent of metallurgical coal price forecast)	Material difference unlikely
Future without declaration	Access terms as per existing user agreements, with access charge expected to be similar to what the QCA would determine (coal handling charge approximately $5 per tonne)	Access terms subject to DBCT Management's discretion and access to DBCT dependent on willingness to pay relative to other access seekers, which would create uncertainty about whether and when access to DBCT would be obtained (coal handling charge at least $20 per tonne—representing at least 8 to 12 per cent of metallurgical coal price forecast)	Material cost and risk disadvantage to potential entrant, considering also that handling charge estimate of $20 per tonne is extremely conservative
Outcome	No material difference	Material cost and risk impact in a future without declaration	Potential entrants would face material cost and risk disadvantage against incumbents

Therefore, incumbents (existing users) would have materially more favourable access conditions and terms than potential DBCT users in a future without declaration which would unlikely exist in a future with declaration.

Can existing rights be used for another mining operation?

For existing users, access rights under existing user agreements would be significantly more valuable than their seeking to acquire access rights in a scenario where DBCT Management will presumably have an incentive to allocate the limited capacity in a manner that will maximise its profits. 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.[286]

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.[287]

Thus, existing users would have the option to use existing terminal rights for another mine on their portfolio as long as the tonnage is not in excess of their contracted tonnage. That said, a new tenement may not become available 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 DBCT user agreements (as 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 acquiring a coal mining tenement 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 price similar to that which the QCA would have been expected to determine. An incumbent could reduce its take or pay liability by transferring its capacity rights to another incumbent in the DBCT secondary capacity trading market.[288]

The alternative option for the user would be to give up its existing rights and seek new access rights when it has acquired a mining tenement but that would likely mean negotiating access subject to DBCT Management's discretion including paying a materially higher coal handling charge as well as facing the uncertainty about whether and when it would obtain such access rights.

In this environment, the QCA's view is that an existing user would likely seek to assume take or pay liability under its existing agreements to preserve its existing rights as long as these costs are less than (i) access charges under a regime without declaration and (ii) expected opportunity costs of foregone coal sale revenue due to the uncertainty about whether and when it would obtain access in a future without declaration.

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[286] DBCT User Group, sub. 15, schedule 3, p. 6. See also Rio Tinto, *Blair Athol mine to finish production*, media release, 8 August 2012, viewed 29 October 2018, http://www.riotinto.com/media/media-releases-237_994.aspx.

[287] DBCT Management, sub. 13, appendix 1, p. 10.

[288] See for example schedule 6 of the DBCT 2017 access undertaking standard user agreement. In a future without declaration, another incumbent would be able to use the transferred capacity rights under the terms of its existing user agreement; so would avoid negotiating a new user agreement with DBCT Management that would be subject to DBCT Management's discretion including where access charge would be based on a willingness-to-pay regime.

In conclusion, existing users can use existing terminal rights to ship coal from another mine on their portfolio, and they could preserve those rights even if they are not using their contracted tonnage.

Are incumbents likely to seek coal tenements over the declaration period?

The capacity contracted at DBCT under existing user agreements is about 77 mtpa. From the data submitted by DBCT Management, the QCA understands that about 23.5 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 (Table 12). This coal handling throughput would represent about 26.1 mtpa of contracted capacity at DBCT, considering that throughput at DBCT is about 90 per cent of contracted capacity.[289]

Table 12 Mines with throughput that are expected to reach the end of economic life[290]

Miner and mine	*Annual throughput (mtpa)*	*Economic life ending in year*
Glencore—Clermont mine	13.0	2026
Realm Resources—Foxleigh	3.3	2025
Terracom—Blair Athol	2.0	2025
Stanmore Coal—Isaac Plains	1.2	2028
Peabody—Coppabella	4.0	2023
Total throughput	**23.5**	

Of these miners, based on data in DBCT Management's submission, Peabody seems to have potential replacement production tenements with throughput estimates of those tenements exceeding 4 mtpa.[291] Therefore, the QCA's understanding is that Peabody may not seek coal tenements for exploiting under the terms of its existing agreement. However, the other miners with about 19.5 mtpa of coal handling throughput or 21.7 mtpa of contracted capacity at DBCT (i.e. representing about 25 per cent of DBCT's nameplate capacity of 85 mtpa) do not seem to have another replacement production tenement.

Relevantly, based on publicly available material, these miners have expressed an interest in continuing their mining operations. For instance:

- Glencore, after acquiring in collaboration with Sumitomo Corporation a 50.1 per cent stake in Clermont mine, said 'the investment reflects Glencore's focus on identifying high quality assets that complement our existing operations and marketing capabilities'. The QCA also notes that in March 2018, Glencore had acquired the Valeria development project from Rio Tinto.[292]

[289] See Part C, Chapter 2 for the QCA's consideration of the relation between coal handling throughput and contracted capacity.
[290] DBCT Management, sub. 10, pp. 61–62.
[291] DBCT Management, sub. 10, pp. 61–62.
[292] Glencore Australia, Clermont, viewed 21 September 2018, http://www.glencore.com.au/en/who-we-are/energy-products/clermont/Pages/default.aspx; Hail Creek, viewed 24 September 2018, http://www.glencore.com/index/media-and-insights/news/glencore-to-acquire-hail-creek-coal-mine-in-queensland.

- Realm Resources' website states that it has applied for a mineral development licence over its existing exploration permit for coal and is exploring additional resources in its exploration tenement package proximate to the Foxleigh mine.[293]
- Terracom, after acquiring the Blair Athol mine, stated in an ASX announcement that 'in order to support further growth and expansion, TerraCom continues to evaluate cash generative assets for potential acquisition.'[294]
- Stanmore Coal's website refers to another project adjacent to its existing Isaac Plain coal mine for which exploration has been completed.[295]

New entrants' participation in the coal tenements market

The DBCT User Group provided a list of transactions in the coal tenements market over the last three years and said that the vast majority of transactions were attributable to new entrants.[296]

Table 13 Hay Point catchment coal tenement transactions by new entrants[297]

Date	*Mine project*	*Purchaser (new entrants)*	*Vendor*
July 2015	Wotonga/Isaac Plains East (exploration project)	Stanmore	Peabody
July 2015	Isaac Plain coal mine (on care and maintenance)	Stanmore	Vale/Sumitomo
May 2016	Olive Downs (exploration project)	Pembroke Resources	Peabody/CITIC
July 2016	Blair Athol (on care and maintenance)	TerraCom	Rio Tinto
December 2016	Broadlea (on care and maintenance)	Fitzroy Australia Resources	Vale
September 2017	Lenton (exploration project)	Lenton Joint Venture (New Hope 90%)	Peabody
February 2018	Hillalong East (exploration project)	Bowen Coking Coal	Rio Tinto and Cape Coal
March 2018	Winchester South (exploration project)	Whitehaven	Rio Tinto

Thus, new entrants have participated in the coal tenements market in the recent past. Relevantly, that participation occurred in an environment where the DBCT service is declared, and so a user agreement executed by such entrants would have been based on the QCA-approved standard terms and cost-reflective access charges. As noted above, such agreements provide that users have the option to continue to access the DBCT service based on the terms of access and volumes set out in their agreement (the 'evergreen' access right).

[293] Realm resources, Asset overview: Foxleigh, viewed 21 September 2018, http://www.realmresources.com.au/site/our-assets/foxleigh-coal-mine/asset-overview.
[294] TerraCom, ASX Announcement: Blair Athol Update—Mining, Sales and Market, 8 August 2017, viewed 21 September 2018, http://terracomresources.com/wp-content/uploads/2017/08/1699015.pdf.
[295] Stanmore Coal, About us, viewed 21 September 2018, https://www.stanmorecoal.com.au/about.
[296] DBCT User Group, sub. 15, pp. 78–79.
[297] DBCT User Group, sub. 3, pp. 41–42; sub. 15, pp. 78–79.

Are more efficient entrants likely to be deterred from participating in coal tenements market?

Potential entrants seeking to acquire coal tenements in the Hay Point catchment region will do so with the expectation that those tenements would eventually be developed for export through DBCT.

As noted above, the QCA's view is that what matters in terms of a material impact on competition is not necessarily the number of potential entrants that would be discouraged, but the possibility that more efficient firms would be discouraged from entering a dependent market in a future without declaration compared to a future with declaration.

The preceding analysis shows that:

- Incumbents would enjoy materially more favourable access terms and conditions, including a considerable cost advantage over potential entrants in accessing the DBCT service in a future without declaration compared to a future with declaration (Table 11).
- Incumbents would be able to use their existing capacity rights at DBCT for another mining operation. Further about a quarter of DBCT's nameplate capacity is accessed by miners that have mines in the Goonyella system which are expected to reach the end of their economic life over the recommended declaration period, and the relevant miners have, based on publicly available material, expressed an interest in continuing their mining operations.
- New entrants have participated in the coal tenements market in the recent past in an environment where the DBCT service is declared.

Accordingly, the QCA's view is that the environment for access to the DBCT service in a future without declaration would likely deter more efficient entrants in coal tenements market that may have higher valuation than incumbents, but that is unlikely to be sufficiently high to overcome the materially favourable access terms and conditions, including the cost advantage, incumbents would enjoy in accessing the DBCT service. In other words, there is the possibility that more efficient entrants would be crowded out of the market by less efficient incumbents who would benefit from the access terms and conditions, including price controls in their evergreen user agreements. Therefore, the environment for competition in the coal tenements market in the Hay Point catchment region would be materially adversely affected in a future without declaration.

All other things being equal, access as a result of declaration would not create a material difference in access terms between incumbents and new entrants; so, more efficient entrants would not be discouraged from participating in the coal tenements market in the Hay Point catchment region. Therefore, competitive conditions in the coal tenements market in the Hay Point catchment region would be materially better than they would be without declaration.

DBCT Management's proposed price review arrangement

The QCA understands DBCT Management's proposal is that access charges in a future without declaration would be reviewed at five-year intervals, with the initial and subsequent access charge determined based on user's willingness to pay.[298]

The QCA also understands that the DBCT User Group's argument is that DBCT Management's discretion to set prices at five-yearly intervals will increase the risk of mining projects for a potential DBCT user to such an extent that those projects would not be bankable, and so potential

[298] DBCT Management, sub. 13, pp. 87–88, para 407.

entrants will be discouraged from participating in the coal tenements market in the Hay Point catchment region.

The QCA's view is that in a future without declaration, potential DBCT users would face the risk of paying a materially higher access charge reflecting the cost of accessing WICET as well as the uncertainty as to whether and when they would obtain access to the terminal—risks that are unmanageable and fundamental, and that do not arise in a future with declaration (Table 11).

Additionally, the QCA considers that in a future without declaration potential DBCT users would be exposed to DBCT Management seeking to expropriate the value of users' sunk investment through the five-yearly price review mechanism in an environment where DBCT Management would have the ability and incentive to exercise market power without fear of losing customers. In contrast, in a future with declaration, the QCA Act and any related access undertakings would provide a framework such that the access charge at each price review event would be cost–reflective. This scenario of a future with declaration would be akin to the existing user agreements which provide for periodic reviews of the access charges, and provide a dispute resolution mechanism for determination of charges which is intended to produce an outcome similar to that which the QCA would have been expected to determine.

Furthermore, one can expect that an access charge based on a potential user's willingness to pay would reflect that user's expectation of coal price. However, if those coal price expectations do not materialise and, as a result, the user is unable to meet its contract entitlements, it may face a 'take or pay' charge—which would be in the nature of fixed cost and that may increase the risk of its project becoming unviable. The events at WICET provide support for such a proposition. The coal handling charge at WICET was about $14.16 per tonne in 2015-16.[299] However, three out of the eight original WICET partners—Cockatoo Coal, Bandanna Energy and Galedon Coal—have gone into administration due to the prolonged slump in coal prices worsened by the burden of paying 'take or pay' port fees for anticipated volumes that did not materialise.[300]

Arguably, potential DBCT users might be able to mitigate the take or pay charges by transferring their unused access rights to other users. However whether potential entrants would have the ability to directly trade unused capacity rights with other users would depend, among other things, on what access terms they are able to negotiate with DBCT Management in an environment where DBCT Management would have the discretion to set access terms. To the extent potential entrants are unable to directly trade capacity with other users, it would enhance the asymmetry between the access terms and conditions faced by new entrants compared with existing users. As noted above, an existing user could reduce its take or pay liability by transferring its capacity rights to another existing user in the DBCT secondary capacity trading market.[301]

In contrast, in a future with declaration, 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). Therefore, the ability of potential users to trade unused capacity rights under declaration

[299] See Part C, Appendix A. The driver of WICET's high terminal charge has been its high capital cost attributed to the location (i.e. marine area) and design (e.g. length of conveyor and jetty) of the terminal. See Morgans & CIMB Securities (Australia), *Special report: Wiggins Island Coal Export Terminal*, May 2014, viewed 17 May 2018, http://www.wicet.com.au/irm/PDF/1017/2014MorgansResearchNote.

[300] P Duran & J Regan, 'Glencore-led Australian coal port eyes $3billion 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.

[301] See, for example, schedule 6 of the DBCT 2017 access undertaking standard user agreement. In a future without declaration, another incumbent would be able to use the transferred capacity rights under the terms of its existing user agreement.

would likely be akin to existing users' ability to trade unused capacity rights with other users (all other things being equal).

In other words, in a future without declaration, potential DBCT users are likely to face a higher fixed take or pay component relative to incumbents due to the material difference in access charges as well as the possibility that they may not be able to mitigate the take or pay liability relative to incumbents, and so the risk of the project becoming unviable for potential DBCT users is likely to be higher relative to incumbents. However, these risks would not arise in a future with declaration.

The valuation miners attach to coal tenements is affected by a number of factors, including infrastructure costs. It can be argued that the prospect of facing an access charge in an environment of the future without declaration would significantly raise the hurdle rate for potential DBCT users to acquire coal tenements in the Hay Point catchment market.

Therefore, the QCA considers there are sound arguments to suggest that DBCT Management's proposed pricing arrangement in a future without declaration would, by itself, deter potential entrants' participation in the coal tenements market in the Hay Point catchment region.

Price discrimination between users

The DBCT User Group said that in the absence of declaration DBCT Management would have the incentive to favour a certain category of users—that is, favour mines closer to DBCT or higher value metallurgical coal mines who would have the capacity to pay the highest price. The QCA understands the DBCT User Group's argument is that such price discrimination would discourage potential entrants from acquiring tenements that do not fall into this category.

The QCA's view is that although price discrimination by itself would not be inefficient, the access terms and conditions that would apply in a future without declaration would likely discourage potential more efficient entrants from participating in the coal tenements market in the Hay Point catchment region.

Conclusion—competitive conditions in coal tenements market with and without declaration

The QCA's view is that the existence of evergreen existing user agreements and DBCT Management's discretion in providing access, including its stated intent to provide access to capacity based on users' willingness to pay would create a material asymmetry between existing users and potential DBCT users in a future without declaration over access terms and conditions, in particular:

- Potential DBCT users would face a material disadvantage over access terms and conditions against existing users in the coal tenements market including the risk of paying a materially higher coal handling charge reflecting the cost of accessing WICET (see Table 11).
- Potential DBCT users would face uncertainty as to whether and when they would obtain access to the terminal, whereas existing users would have certainty of access under their existing user agreements (see section 3.3.3).
- Potential DBCT users would be exposed to DBCT Management seeking to expropriate the value of users' sunk investment through the five-yearly price review mechanism, whereas existing users are perpetually protected from DBCT Management's conduct in a future without declaration.
- Potential DBCT users would likely face a higher fixed take or pay component relative to incumbents due to the material difference in access charges as well as the possibility that they may not be able to mitigate the take or pay liability relative to incumbents if they are

unable to meet their contract entitlements, and so the risk of the project becoming unviable for potential DBCT users is likely to be higher relative to incumbents.

As noted above, the QCA's view is that what matters in terms of a material impact on competition is not necessarily the number of potential entrants that would be discouraged, but the possibility that more efficient firms would be discouraged from entering a dependent market in a future without declaration compared to a future with declaration.

The QCA's view is that access to the DBCT service in a future without declaration would likely create a materially uneven playing field between existing users and potential entrants in the market for coal tenements in the Hay Point catchment region. In an environment where existing users would likely seek coal tenements to continue to benefit from their existing user rights, this asymmetry would be material enough to likely deter more efficient entrants that may have higher valuation than incumbents but that is unlikely to be sufficiently high to overcome the materially favourable access terms and conditions that incumbents would enjoy in accessing the DBCT service. Therefore, the environment for competition in the coal tenements market in the Hay Point catchment region would be materially adversely affected in a future without declaration.

All other things remaining unchanged, access as a result of declaration would be unlikely to create material asymmetry between existing users and potential entrants. So, entrants that may have higher valuations than incumbents would not be deterred from participating in the coal tenements market in the Hay Point catchment region. Therefore, competitive conditions in the coal tenements market in the Hay Point catchment region would be materially better than they would be without declaration.

Independent opinion

The QCA engaged Balance Advisory to provide an independent opinion of its analysis in respect of the impact that access as a result of declaration of the service provided at DBCT will have on the environment for competition in the coal tenements market. Balance Advisory's opinion is available on the QCA website.

In summary, Balance's opinion is that an access regime based on 'willingness to pay' would create the following cumulative risk factors over and above the normal commercial risks relating to port access:

- Port costs cannot be estimated with a reasonable degree of precision, which would compromise valuing tenements (and therefore raising finance). This in turn would reduce the demand for coal tenements. This scenario is in stark contrast to the current regulated port arrangements, which allow a relatively small pricing range to be inserted in financial models.
- There would be increased uncertainty for a new producer to secure port capacity due to DBCT Management's incentive to allocate capacity in a manner that would maximise its returns and favour users willing to pay the highest price.
- Increased uncertainty around securing capacity at all would be compounded by the lack of any obligation on DBCT Management to offer capacity, even to the potential customer who has demonstrated the most willingness to pay.
- The uncertainty around changes to the coal market in the period after port capacity is secured would increase the risk profile of a project. For example, if a party secured DBCT capacity based on a willingness to pay in a strong coal market and then the coal price

dropped, the increased fixed cost from the port take or pay will create a greater risk for the project.[302]

Balance's view is that in a future without declaration:

- Existing DBCT users would have materially more favourable access terms and conditions (for existing tonnage) than potential users, which would create an uneven playing field between existing and potential users for the acquisition of coal tenements. As a result, existing users would place a higher value on coal tenements than potential users and would ultimately have the potential to discourage future users from participating in the coal tenements market. The environment for competition in the coal tenements market (and particularly thermal coal tenements) would be materially adversely affected.
- Potential users would face both the risk of their economic rents being transferred to DBCT Management and uncertainty about the possibility and timing of securing access to the terminal, which would create extra risks for new entrants attempting to acquire coal tenements in the Hay Point catchment area and is likely to discourage them from participating in the coal tenements market.[303]

3.5 DBCT secondary capacity trading market: environment for competition with and without declaration

Under the terms of the standard DBCT user agreements, 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.[304]

Stakeholders' submissions

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 trade was done through BPC, which is DBCT Management's related secondary trading business. As a result, BPC would have a monopoly in the DBCT secondary capacity transfer market. The DBCT User Group noted DBCT Management's proposal to cease the operations of BPC (as part of a separate regulatory process[305]), but argued that, without declaration, the protections against anti-competitive impacts of future vertical integration would be removed.[306]

The DBCT User Group noted that the 2017 access undertaking constrained DBCT Management's/BPC's conduct in the secondary trading market.[307] Accordingly, the DBCT User Group argued that, with declaration, miners would have a choice of dealing directly with each other such that BPC would compete with miners who have surplus capacity for trading. Therefore, declaration would create the conditions or environment for improving and enhancing competition in the secondary trading market.[308]

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[302] Balance, *DBCTM Declaration Review,* report for the QCA, August 2018, p. 10.
[303] Balance, August 2018, pp. 4, 12.
[304] 2017 access undertaking (clause 5.3); 2017 standard user agreement (clause 12.2).
[305] DBCT Management, *DBCT 2017 AU—Trading SCB DAAU*, June 2018.
[306] DBCT User Group, sub. 3, p. 86; sub. 15, p. 57.
[307] 2017 access undertaking, cl. 9.
[308] DBCT User Group, sub. 3, p. 86; Schedule 2, pp. 20–21.

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 a binding dispute resolution.
- Most capacity transfers were direct trades between users rather than through BPC.[309] 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 anti-competitive effect in a market.
- Secondary trading is a derivative market to the coal export markets, and 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.[310]

QCA analysis

The QCA considers a fundamental aspect in analysing the effect of declaration on the environment for competition in the DBCT secondary 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.

Users' ability to transfer capacity at DBCT is due specifically to the provision in the standard user agreements and generally to the provision for access agreements for declared services provided in the QCA Act (as noted in section 3.2.3).

Specifically, existing users are able to trade capacity with each other on short-term basis—that is, ones who have surplus contract capacity can trade with those who seek extra capacity to manage production volatility. Such capacity transfers are governed by the provisions in the standard user agreements which provide that:

- DBCT Management is required not to unreasonably withhold its consent to a capacity transfer
- there is a binding dispute resolution if users do not agree with DBCT Management's refusal to consent to a transfer.

For instance, clause 12.3(d) of the 2017 standard user agreement 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;

[309] 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.
[310] DBCT Management, sub. 13, pp. 91–93.

> (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.

Regarding a user's ability to refer a dispute to the QCA in the absence of declaration, the view of DBCT User Group's legal adviser (Allens) was that:

> 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.[311]

Allens' conclusion was that the absence of declaration will not result in any of the user agreements being frustrated.[312]

Hence, to the extent existing user agreements include those provisions from the standard user agreements, the QCA considers that DBCT Management would be constrained from unreasonably frustrating direct trading of capacity between users. For that reason, the QCA considers that existing users would be able to bypass any related trading business of DBCT Management and trade directly with each other under the terms of their existing user agreements.

That said, whether new entrants, if they execute a user agreement with DBCT Management in a future without declaration, would have the ability to directly trade capacity with other users would depend on DBCT Management's incentives in that environment. To the extent new entrants are unable to directly trade capacity with other users, it would enhance the asymmetry between the access terms and conditions faced by new entrants compared with existing users, and is a matter that is more relevant for the coal tenements market rather than the secondary capacity trading market (section 3.4).

Separately, the QCA is aware the standard user agreements also allow existing users to transfer capacity to new entrants, and new entrants have acquired capacity on long-term and permanent basis.[313] For the transfer to be effective, new entrants will need to negotiate and execute a user agreement with DBCT Management. In a future without declaration, new entrants will have to negotiate a user agreement with DBCT Management in an environment where DBCT Management would have discretion in setting access terms, including paying access charge based on a willingness to pay regime subject to a price cap to reflect the cost of accessing WICET.

By contrast, existing users that acquire capacity on a permanent and long-term basis in the secondary trading market would be able to utilise those capacity rights under the terms of their existing user agreements.

To the extent new entrants seek to acquire capacity on a long-term or permanent basis through the capacity transfer mechanism, it would enhance the asymmetry between the access terms and conditions faced by new entrants compared with existing users, and is a matter that is more relevant for the coal tenements market rather than the secondary capacity trading market (section 3.4).

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[311] DBCT User Group, sub. 3, schedule 1, p. 6.

[312] DBCT User Group, sub. 3, schedule 1, p. 6.

[313] DBCT User Group's submission notes 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, sub. 3, p. 41).

Conclusion: DBCT secondary capacity trading market

The DBCT secondary capacity trading market is typically about short-term capacity transfers between existing 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's preliminary view is that the opportunities or conditions for competition in the DBCT secondary capacity trading market with declaration would not be materially better than they would be without declaration.

3.6 Coal haulage market: environment for competition with and without declaration

Stakeholders' submissions

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, the uncertainty and adverse impact on pricing that will arise due to the access framework will make it very difficult for future users of DBCT service to sponsor new entry by a haulage provider.[314]

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 volumed handled at DBCT is 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.[315]

QCA analysis

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:

[314] DBCT User Group, sub. 3, pp. 86–87 and sub. 15, pp. 80–81; Pacific National, sub. 9, p. 12.
[315] DBCT Management, sub. 1, p. 80.

- The thing that is fundamental to improving the entry condition, and thereby, improving the environment for competition in the coal haulage service market is the declaration of access to the below rail service provided by Aurizon Network. This is because declaration would constrain Aurizon Network from favouring its related rail haulage provider (Aurizon Operations) and denying third party providers access to the below-rail service (see Part A).
- Given total capacity contracted under existing user agreements is about 77 mtpa, that volume 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 as well as volumes hauled in other parts of the CQCN to terminals that are not declared.
- About 23.5 mtpa of coal handling throughput at DBCT by existing users relates to mines that are expected to reach the end of their economic life over the next 10 years, and the relevant miners have expressed an interest in continuing their mining operations (see section 3.4). Existing users would be able to use existing terminal rights to ship coal from another mine on their portfolio, and so there would likely be both pricing and access certainty for new mining operations by existing users. 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.

Conclusion: coal haulage market

Based on the available material, it is not immediately evident that the opportunities or conditions for competition in the coal haulage services market in the Goonyella coal system with declaration would be materially better than they would be without declaration. The QCA considers that its conclusion is unlikely to be affected by whether the geographic boundary of the coal haulage services is considered as the Goonyella coal system or as the wider central Queensland coal region.

3.7 Coal export markets: environment for competition with and without declaration

Stakeholders' submissions

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 considering that coal prices 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 proposed access framework would ensure no difference in the volume of coal exported without declaration compared to with declaration.[316]

[316] DBCT Management, sub. 1, pp. 76–79; sub. 13, pp. 83, 96.

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.[317]

The DBCT User Group observed that declaration would potentially promote a material increase in competition in the metallurgical coal market, but did not provide any supporting material.

QCA analysis

The seaborne coal export market comprises separate markets of metallurgical coal and thermal coal (see section 3.2.4).

The DBCT User Group argued that the metallurgical coal market was most relevant to the declaration review as the vast majority of coal exported from DBCT is metallurgical coal.[318] As per data submitted by the DBCT User Group, about 72 per cent of coal exports from DBCT in 2017 were metallurgical coal.[319] As per DBCT Management's master plans, metallurgical coal accounts for around 82 to 85 per cent of coal throughput at DBCT.[320] Additionally, the QCA notes that metallurgical coal accounts for around 77 per cent of total foreseeable demand estimate in the market in which DBCT service is provided.[321] Thus, metallurgical coal accounts for a significant proportion of DBCT's throughput, which is in the range of 72 to 85 per cent.

Accordingly, the QCA considers it would be relevant to examine the effect of access as a result of declaration on the environment for competition in seaborne metallurgical coal market. In order to assess that a starting point would be to consider DBCT's share 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.[322] DBCT Management noted that DBCT caters for around 21 per cent of world metallurgical seaborne coal exports.[323]

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 seaborne metallurgical coal exports with declaration would be no better than they would be without declaration.

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[317] DBCT Management, sub. 1, pp. 57, 74, 79.

[318] DBCT User Group, sub. 3, p. 51.

[319] 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).

[320] DBCT Management, *Master Plan 2016*, p. 34 and *Master Plan 2018*, p. 36. As per the 2016 Master Plan, around 82–85 per cent of DBCT's total throughput was metallurgical coal and as per the 2018 Master Plan it was 84 per cent.

[321] As per the QCA's estimate, the foreseeable demand is 93mtpa, and of that about 71.8 mtpa (77 per cent) is metallurgical coal and 21.2 mtpa (23 per cent) is thermal coal (see Part C, Chapter 2). The foreseeable demand data was further split into metallurgical coal and thermal coal types considering MMI's analysis and data reported in DBCT Management, sub. 10, pp. 96–102.

[322] 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).

[323] DBCT Management, About the Terminal, http://www.dbctm.com.au/aboutdbct.aspx.

The capacity contracted at DBCT under existing user agreements is 77 mtpa (for handling metallurgical and thermal coal) and total foreseeable demand for handling metallurgical and thermal coal in the market is 93 mtpa. So, about 16 mtpa of demand would be over and above existing user agreements. Considering that about 72 to 85 per cent of coal handled at DBCT is metallurgical coal, it implies about 11.5 mtpa to 13.6 mtpa could be metallurgical coal, and would be subject to whatever access commitments exist in the absence of declaration.

DBCT Management has proposed an access framework to apply in a future without declaration. The QCA's view is that the proposed access framework will enable DBCT Management to exercise discretion in setting access terms, including price above cost such that existing users—in so far as they require capacity over and above their existing contracted capacity and are unable to obtain additional capacity through the transfer mechanism—and new entrants would face the risk of paying a materially higher access charge reflecting the cost of accessing WICET (see Table 11).

It may be argued that the access terms and conditions in a future without declaration that would apply for handling 11.5 mtpa to 13.6 mtpa of metallurgical coal at DBCT would be at a level such that it may frustrate export of that foreseeable volume of metallurgical coal through DBCT. However, considering the forecast size of the seaborne metallurgical coal market, of about 309 to 332 mt,[324] the volume of demand over and above that covered by existing user agreements (i.e. 11.5 mtpa to 13.6 mtpa) would represent about 3–4 per cent of that market, which does not appear material.

Additionally, DBCT Management referred NCC's observations in the Port of Newcastle 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.[325]

DBCT Management also argued, based on its analysis of data published by the Department of Natural Resources and Mines:

> 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 149 Mt of coking coal in 2016-17, representing approximately 47 per cent of worldwide coking coal exports.[326]

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 with prices set by reference to international spot prices, which seems consistent with the views of market analysts.[327]

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[324] Resource Management International, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, May 2017, p. 14, and Commodity Insights, Market Demand Study: Australian Metallurgical Coal, report to the Minerals Council of Australia, 12 October 2018, p. 31, viewed 1 November 2018, http://www.minerals.org.au/sites/default/files/181012%20Commodity%20Insights%20Met%20Coal%20Report.pdf. The forecast market size of seaborne metallurgical coal market and the QCA's estimate of the peak foreseeable demand are for the year 2020–2021.

[325] DBCT Management, sub. 1, p. 76, para 352.

[326] DBCT Management, sub. 1, appendix 9, pp. 27–28.

[327] 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,

Conclusion: metallurgical coal export market

Based on the available material, the QCA's view is that it is not immediately evident that the opportunities or conditions for competition in the metallurgical coal export market with declaration would be materially better than they would be without declaration.

3.8 Conclusion of criterion (a) assessment

The QCA's conclusions are as follows:

- Coal handling service at DBCT is an essential service for moving coal from rail to ships for mines in the Goonyella system.
- In the absence of declaration, DBCT Management would have the ability and incentive to exercise market power in providing access to the DBCT service such that it would likely deter more efficient entrants from participating in the coal tenements market in the Hay Point catchment, and the environment for competition in that market would be adversely affected in a material way.
- Access as a result of declaration would constrain DBCT Management's market power such that the opportunities or conditions for competition in the coal tenements market in the Hay Point catchment would be materially better than they would be without declaration.

As there is at least one market—the coal tenements market in the Hay Point catchment—where access as a result of declaration would promote a material increase in competition, criterion (a) is satisfied in respect of the coal handling service provided at DBCT.

https://platts.com/IM.Platts.Content/InsightAnalysis/IndustrySolutionPapers/sr-global-met-coal-benchmarks-give-way042018.pdf.

4 CRITERION C—STATE SIGNIFICANCE

4.1 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 14).

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

Criterion (c)			
Issue	***DBCT Management's position***	***Other stakeholders' position***	***QCA draft 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 4

4.2 Facility for the service

The facility for the service is DBCT, as defined in section 250 of the QCA Act.

4.3 Size and importance to the Queensland economy

4.3.1 Stakeholder submissions

DBCT Management did not make any submissions on criterion (c).[328]

Both Peabody Energy and the DBCT User Group said that DBCT satisfied criterion (c). Peabody Energy said 'there can be little debate that DBCT is economically significant'[329] 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'.[330]

4.3.2 QCA analysis

The QCA considers that DBCT is significant, having regard to its size and its importance to the Queensland economy.

Size

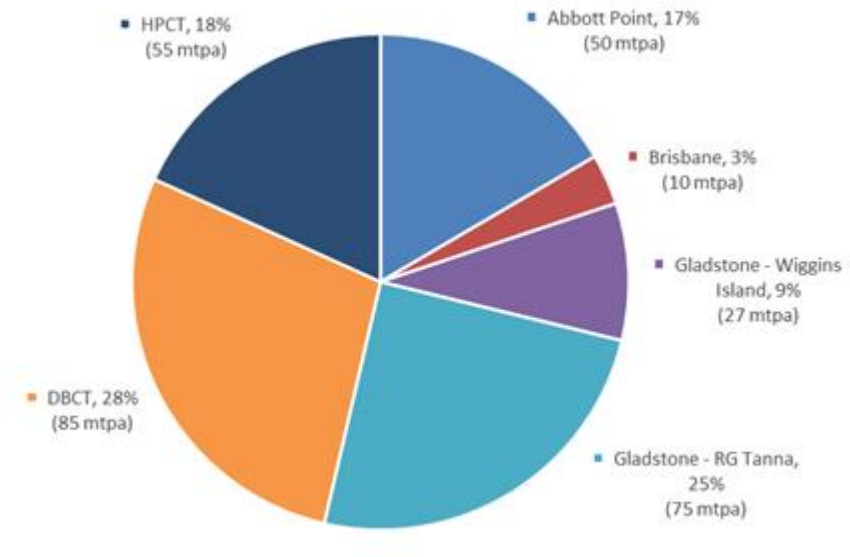
DBCT is located on approximately 214 hectares of strategic port land and 160 hectares of off-shore sea-bed lease. The key components of the terminal are the three rail receiving stations, a stockyard (with an area of over 366,000 m^2), and four off-shore wharves, all connected by a series of conveyor 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.[331]

[328] DBCT Management, sub. 1, p. 87.
[329] Peabody, sub. 2, p. 12.
[330] DBCT User Group, sub. 3, p. 6.
[331] DBCT Management, *Master Plan 2018*, pp. 12–13.

Moreover, the total rated terminal capacity at DBCT is 85 million tonnes per annum (mtpa), making it Queensland's largest standalone coal export terminal.[332] In comparison, the nameplate capacity of other Queensland coal export terminals are:[333]

- RG Tanna Coal Terminal, Port of Gladstone—75 mtpa[334]
- Hay Point Coal Terminal—55 mtpa
- Abbott Point Coal Terminal—50 mtpa
- Wiggins Island Coal Terminal, Port of Gladstone—27 mtpa
- Queensland Bulk Handling Coal Terminal, Port of Brisbane—10 mtpa.

Figure 6 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 economy

Contribution to coal exports

DBCT makes a substantial contribution to the Queensland economy in facilitating coal exports. DBCT Management noted:

[332] DBCT Management, *Master Plan 2018*, p. 13. See also Peabody, sub. 2, p. 12; DBCT User Group, sub. 3, p. 89.

[333] 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.

[334] 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.

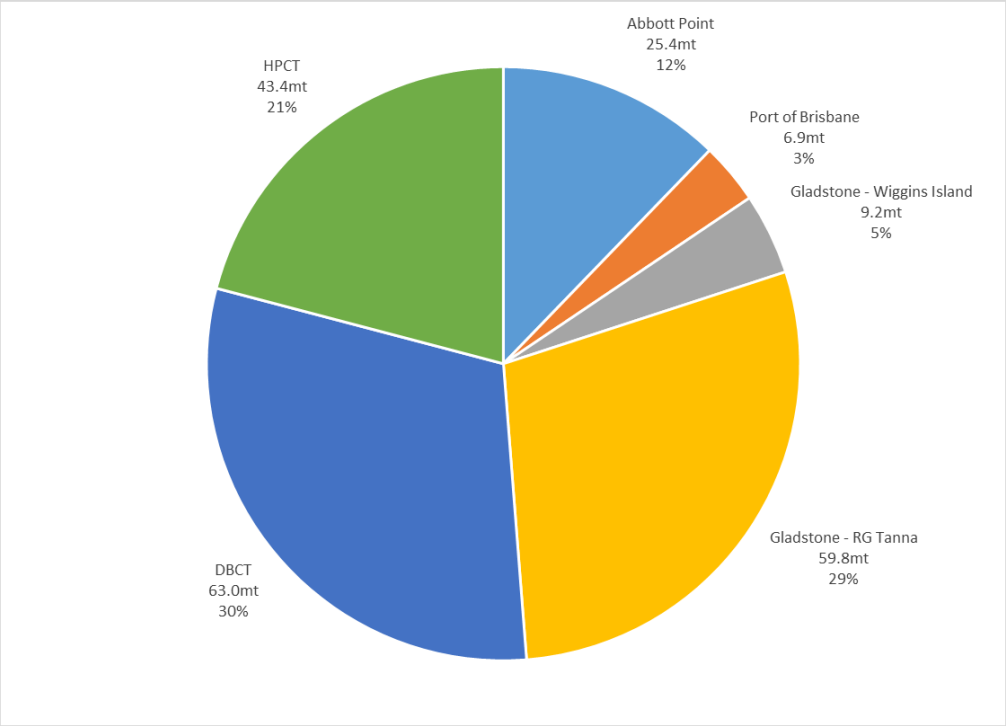
> DBCT is a critical component of the Bowen Basin export coal supply chain and caters for around 7% of total global seaborne coal exports and 21% of world metallurgical seaborne coal exports.[335]

In 2016–17, approximately 207.5 mtpa of coal was exported from Queensland, including 148.8 mtpa of metallurgical coal and 58.7 mtpa of thermal coal, generating $36.27 billion for the Queensland economy.[336]

In 2016–17, DBCT exported approximately 63.0 mtpa of coal, constituting 30 per cent of all of Queensland's coal exports for that period.[337] In comparison, other Queensland ports' coal export volumes in 2016–17 were:[338]

- RG Tanna Coal Terminal, Port of Gladstone—59.8 mtpa
- Hay Point Coal Terminal—43.4 mtpa
- Abbott Point Coal Terminal—25.4 mtpa
- Wiggins Island Coal Terminal, Port of Gladstone—9.2 mtpa
- Queensland Bulk Handling Coal Terminal, Port of Brisbane—6.9 mtpa.

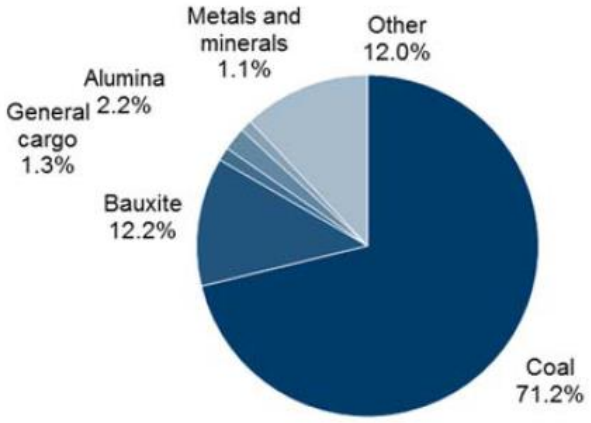
Figure 7 Queensland's total coal exports by port, 2016–17



[335] DBCT Management, About the Terminal, http://www.dbctm.com.au/aboutdbct.aspx.
[336] Queensland Government, Coal Industry Review Tables, Total value of exports per year, Coal industry review tables 2016–2017 spreadsheet, https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/fccfc461-7673-4d4b-a03f-321314501edb.
[337] DTMR, *Trade Statistics for Queensland Ports*, Queensland Government, 2017, https://www.tmr.qld.gov.au/-/media/busind/Transport-sectors/Ports/Trade-statistics/Trade-Statistics-Report-2017.pdf?la=en.
[338] DTMR, *Trade Statistics for Queensland Ports*, 2017.

Coal exports constituted 71.2 per cent of total Queensland exports by commodity in 2016–17, of which DBCT handled 30 per cent, which was 27 per cent of all of Australia's metallurgical coal exports.[339]

Figure 8 Queensland total exports by commodity, 2016–17



Source: Department of Transport and Main Roads, *Trade Statistics for Queensland Ports,* 2017.

Other considerations

Coal exports are a vital economic driver in Queensland, forming approximately 55 per cent of Queensland's total exports by value in 2016–17.[340] The coal industry contributed $3.4 billion in total royalties to the State of Queensland in 2016–17, of which the contribution by coal exported through DBCT was approximately $1 billion.[341]

The terminal operator of DBCT employs approximately 350 workers[342], 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.[343] Further, DBCT services around 26 mines on the Goonyella system, including some of Queensland's largest metallurgical coal producers.[344] Aurizon Network notes that the Goonyella system provides the largest amount of railings in the central Queensland coal network.[345] As Queensland's largest multi-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.

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[339] DTMR, *Trade Statistics for Queensland Ports*, 2017. See also Peabody, sub. 2, p. 12; DBCT User Group, sub. 3, p. 93.

[340] Queensland Government, *Overseas exports and imports of goods, value, Queensland and Australia, 1988–89 to 2017–18*, Queensland Government data, https://data.qld.gov.au/dataset/os-exports-imports-goods-qld-aus/resource/fe46ac75-52ea-468f-b6eb-8d3835a83621; Queensland Government, *Coal industry review statistical tables: Total value of exports per year*, Queensland Government data, https://data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/fccfc461-7673-4d4b-a03f-321314501edb.

[341] Queensland Resources Council, *What is Queensland's coal industry worth to Queensland, 2016–2017 financial year*, https://www.qrc.org.au/contributiontoqueensland/.

[342] Peabody, sub. 2, p. 12; DBCT User Group, sub. 3, p. 93.

[343] Queensland Resources Council, sub. 7, schedule. 2.

[344] QCA, DBCT Management's 2015 draft access undertaking, final decision, p. 1, http://www.qca.org.au/getattachment/081401b3-903e-4aea-b9fd-9da8e544cf94/Secondary-Undertaking-Notice—Attachment—QCA-decisi.aspx.

[345] Aurizon Network, *Network Development Plan 2016–17*, p. 8.

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.[346]

Conclusion

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 coal handling service at DBCT satisfies criterion (c).

[346] 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.

5 CRITERION D—PROMOTE THE PUBLIC INTEREST

5.1 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[347] –
>
> (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) (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 below in Table 15. Matters that require a more detailed explanation are discussed in sections 5.2 to 5.5.

Table 15 Summary of key positions—s. 76(2)(d)

Criterion (d)			
Issue	***DBCT Management***	***Other stakeholders***	***QCA draft 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 satisfied for DBCT
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	There is no evidence to suggest that declaration will impact DBCT Management's incentives to invest in DBCT. However, declaration is likely to promote investment in rail network and haulage facilities See section 5.2

[347] As the DBCT facility does not extend outside Queensland, the QCA has not considered s. 76(5)(a) any further.

Criterion (d)			
The effect that declaring the service would have on investment in markets that depend on access to the service	Declaration will not impact investment in dependent markets	Declaration will facilitate investment in coal projects	Declaration likely to promote investment in the market for coal tenements See section 5.3
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 are not excessive. It is also open for DBCT Management to submit a draft access undertaking to the QCA that includes measures to reduce its compliance costs. See section 5.4
The effect of DBCT Management's proposed access framework on public interest considerations	If the service is not declared, 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	If the service is not declared, the resulting transfer of economic rents is not neutral, as the uncertainty it will cause for miners will distort investment decisions, particularly by new entrants	Absence of declaration would likely have an adverse impact on efficient investment in coal tenements market. See sections 5.3–5.5
Other considerations	DBCT Management identified 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	As declaration would promote a material increase in competition in the market for coal tenements, it will also promote the public interest because of the wider economic benefits of promoting investment in that market, including higher coal royalties See section 5.5

5.2 Investment in facilities

The QCA has considered investment in DBCT as well as other facilities that may be affected by the declaration of the service. In considering the impact on investment in other facilities, this section considers 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 5.3).

5.2.1 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 access contracts

have shorter terms than the life of the investment.[348] 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 also stated that it is exposed to regulatory risk in the absence of merits review.

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.[349] 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 AU took effect.[350]

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.[351] The DBCT User Group also quoted Brookfield Infrastructure Partners (BIP), who stated in its submission to the NCC review of the certification of the Queensland access regime that the regime has generally 'worked well' and that terminal capacity has increased by 52 per cent since approval of the 2006 AU.[352] However, DBCT Management argued that this statement has been taken out of context and that BIP was supporting certification to provide certainty as to the regime that will be applied, rather than arguing that declaration has promoted investment.[353]

DBCT Management disputed the argument that its expansion history supports the case that declaration has not resulted in a disincentive to invest, 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.[354] DBCT Management also stated that it is 'primarily the demand for capacity that determines expansion requirements'.[355]

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.[356] 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.[357]

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.[358]

[348] DBCT Management, sub. 1, p. 101, para 465.
[349] DBCT Management, sub. 1, appendix 15.
[350] DBCT Management, sub. 13, p. 101.
[351] DBCT User Group, sub. 3, p. 102.
[352] DBCT User Group, sub. 3, p. 96.
[353] DBCT Management, sub. 13, p. 107.
[354] DBCT Management, sub. 13, p. 10, para 459.
[355] DBCT Management, sub. 13, p.101, para 460.
[356] DBCT User Group, sub. 3. p. 97.
[357] DBCT Management, sub. 13, p. 108.
[358] Pacific National, sub. 9, p. 13.

5.2.2 QCA analysis

The QCA considers that declaring the service provided by DBCT is likely to have a net positive impact on investment incentives in facilities. Specifically, the QCA considers access as a result of declaration of the DBCT service would likely promote efficient entry in the coal tenements market, which is likely to result in efficient investment in mining operations that is likely to have an overall positive impact on the incentive to invest in the coal supply chain.

Investment in DBCT

A range of arguments have been submitted by stakeholders regarding the impact of declaration on DBCT Management's incentives to invest in DBCT. A primary argument by DBCT Management was that it only bears downside risk on terminal expansions undertaken during periods of strong demand. In essence, this is about asset stranding risk.

Asset stranding

The QCA assessed DBCT Management's exposure to asset stranding risk in its final decision on DBCT Management's 2015 draft access undertaking[359] and concluded that the risk of asset stranding was low. The QCA considers that the factors facing DBCT 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 proposed declaration period (but also beyond that period). These factors include:

- Long-term demand fundamentals for coal demand are positive, despite ongoing volatility in the seaborne coal market. There is no current evidence to suggest that a structural decline in the demand for coal is likely.
- Coal producers in DBCT's market are in a strong competitive position, many of whom are positioned in 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 support an expected life of the terminal of at least 35 years as at 2020.

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 (Part C, Chapter 2).

Competition is not a source of stranding risk for DBCT Management as it is not currently exposed to close substitution within its own market and, for the reasons outlined in Chapters 2 and 3, competition from other ports is not considered a competitive constraint given the economic and practical barriers to switching (such as insufficient rail capacity).

If the risk of asset stranding were to increase materially, 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. And in the event that declaration contributed to the risk of asset stranding in the future, the option exists for DBCT Management to submit a revocation application on the grounds that criterion (d) is not satisfied, which would be assessed under the access criteria in the Act.

[359] QCA, *DBCT Management's 2015 draft access undertaking*, final decision, November 2016.

Consideration of regulatory error

DBCT Management has 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.[360]

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. On this, the Productivity Commission has said:

> 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.[361]

It is evident that it is not always possible for a regulated entity and an access seeker to successfully negotiate regulated access. In this context, Part 5 also provides for the development of an access undertaking to guide how the access regime should operate. 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.

That said, Part 5 does provide 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)[362]
- 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)).

Moreover, the regulated entity is able to seek an amendment of an approved access undertaking at any time (s. 142).

It is not evident that Part 5 will impact on DBCT Management's incentives to invest in the terminal.[363] Indeed, DBCT Management's 2018 Master Plan (approved under declaration) notes

[360] Productivity Commission, *National Access Regime*, inquiry report no. 66, 25 October 2013, p. 103.
[361] Productivity Commission, *National Access Regime*, inquiry report no. 66, 25 October 2013, p. 115.
[362] 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, goes over and beyond the consultation requirements in the QCA Act.
[363] For instance, DBCT Management has made decisions to approve non-expansion capital expenditure (NECAP) expenditure since 2006.

that to satisfy total foreseeable demand further expansions of the terminal would be required. The plan then discusses expansion options.[364]

More broadly, to the extent that declaration promotes mine investment, which creates demand for rail infrastructure network capacity, demand for capacity at DBCT would be stimulated.

The QCA invites further submissions on this matter.

No delays in investment

DBCT Management said that declaration (and hence regulation) has delayed, and is likely to continue to delay, expansions. 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.[365]

As DBCT Management acknowledged, a number of factors led to the delay at DBCT.[366] 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.

The original access undertaking submitted by (the then) Prime Infrastructure did not contain a clear capital expenditure program. In response to this, a framework was included in the access undertaking to facilitate expansions, providing a clear process for development and approval. The framework included provisions ensuring that expansion costs that have been prudently and efficiently incurred will be included in the regulated asset base, entitling DBCT Management to recover a return on, and of, the capital invested. The provisions in the previous and existing access undertakings may not continue to operate over the declaration period as any access undertaking must be approved in accordance with the statutory criteria in Part 5 of the QCA Act. However, it is evident that mechanisms can be included in access undertakings to approve expansion costs in a manner that increases regulatory certainty for the access provider.

Ultimately, there is no guarantee that expansions would be completed more quickly if the service was not declared, as the risk of disputes and delays will remain.

Moreover, the QCA notes that when DBCT Management submitted its 2010 draft access undertaking, it made the following comments about the regulatory processes embedded in the 2006 access undertaking approved by the QCA:

> DBCT Management considers that [the QCA's] approach is reasonable based on the experience to date with the Stage 7X expansion. In particular, all parties are now familiar with this process and how it is applied. Moreover, the evidence of the past few years indicates that this approach to gaining regulatory approval of capacity expansions during the term of the undertaking **has not delayed expansions** [emphasis added], but rather has allowed them to proceed as required while providing certainty to all parties. Subject to some relatively minor modifications (described in chapter 3), DBCT Management proposes to continue with this framework.[367]

[364] DBCT Master Plan 2018, p. 7. Note that the QCA has a different view to DBCT Management on the extent to which a terminal expansion is necessary to satisfy total foreseeable demand (Part C, Chapter 2).
[365] DBCT Management, sub. 1, pp. 104–105, para 479.
[366] DBCT Management, sub. 1, pp. 104–105, para 479.
[367] DBCT Management, *2010 Access Undertaking submission*, supporting submission, March 2010, p. 8, http://www.qca.org.au/getattachment/157669e5-ec4a-4814-8702-71d4a6017747/DBCT-Management-2010-DAU-Supporting-Submission.aspx.

While expansion experiences under declaration are considered relevant to the QCA's assessment, the QCA also agrees with DBCT Management that the assessment needs to be forward-looking, based on whether the service currently satisfies the declaration criteria.[368]

Clause 12.3 of the 2017 Access Undertaking (the 2017 AU) contains general obligations on DBCT Management in relation to capacity expansions; however, the QCA notes DBCT Management's view that '[i]t is primarily the demand for capacity that determines expansion requirements.'[369] While investment has occurred under declaration, future investment opportunities will continue to be identified and assessed on their own merits, depending on prevailing market conditions and the outlook for demand at the time. In this respect, the QCA is of the view that the demand for capacity for coal export determines expansion requirements (and hence investment). Therefore, to the extent declaration of the service would promote efficient investment in mining operations, it would create increased demand for capacity to export coal and would have a positive impact on DBCT Management's incentives to invest in the terminal.

Moreover, following commissioning of the 7X expansions, DBCT Management has engaged in, and received approval for, non-expansion capital expenditure (NECAP) under approval processes in undertakings. The QCA has not received evidence that the NECAP provisions in the 2010 access undertaking and the more recent 2017 access undertaking have delayed NECAP investments by DBCT.

No impact on inter-terminal competition and investment

The QCA does not find DBCT Management's argument compelling that declaration distorts the inter-terminal pattern of investment. The QCA's view is that DBCT Management is not exposed to a competitive constraint from other terminals, and evidence has not been provided to support a conclusion that the inter-terminal pattern of investment can or will be distorted. There is also an absence of evidence to support DBCT Management's claim that as the only regulated terminal, it is at a comparative disadvantage in being able to attract capital to fund investments.

The QCA's understanding is that, ultimately, expansion requirements will primarily be driven by the demand for capacity.

If that demand supports proceeding with an expansion, the QCA Act framework provides that when approving access undertakings, the QCA must 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, 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.[370]

In conclusion, there is an absence of evidence to support the view that declaration will reduce DBCT Management's future incentives to invest. On the contrary, access (or increased access) as a result of declaration of the DBCT service would likely promote efficient entry in the coal tenements market (section 3.4), which is likely to result in efficient investment in mining operations and increased demand for supply chain capacity to export coal that would have a positive impact on DBCT Management's investment incentives.

[368] DBCT Management, sub. 13, p. 99, para 447.
[369] DBCT Management, sub. 13, p. 101, para 460.
[370] For instance, refer to the expansion approval processes in the 2006 and 2010 access undertakings.

Investment in rail network and haulage infrastructure

In an integrated supply chain it is essential that investment in capacity is aligned.

The QCA notes DBCT Management's comments that the rail network has been expanded in other systems to support the development of terminals that are not currently declared. As noted above, the demand for terminal capacity for coal export will determine terminal expansion requirements. In turn, demand for terminal capacity will also lead to an increase in the demand for rail capacity. To the extent efficient mine investment is promoted by declaration, which then drives demand for increased terminal capacity, it follows that there will be corresponding investment in above- and below-rail haulage infrastructure.

The QCA's view is that declaration is likely to promote efficient investment in coal mining (see section 5.3), that would result in increased demand for terminal capacity, therefore declaration of DBCT would likely promote investment in the rail network and haulage infrastructure.

While the QCA has not been informed by submissions on this matter, its preliminary conclusion is that declaration of the service is likely to have a positive impact on rail network and haulage infrastructure investment.

5.3 Investment in markets that depend on access to the service

5.3.1 Stakeholder submissions

The DBCT User Group submitted that the current protections in DBCT's access regime facilitate investment in coal 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.[371]

The DBCT User Group argued that access price increases that it expects to occur in the absence of declaration will reduce incentives for coal producers to invest in the Hay Point catchment relative to coal projects elsewhere.[372] 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'.[373]

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.[374]

Further arguments and analysis of the potential impact of price increases at DBCT, which can extend beyond investment incentives, are provided in section 5.5.

[371] DBCT User Group, sub. 3, pp. 96–97.
[372] DBCT User Group, sub. 15, p. 86.
[373] DBCT User Group, sub. 15, p. 87.
[374] DBCT User Group, sub. 15, schedule 3, p. 6.

The DBCT User Group further 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.

DBCT Management considered that coal producers still face uncertainty in the absence of declaration, which will impact their own investment decisions, given they operate in 'a global, highly volatile and competitive commodity market'.[375] It also stated that the DBCT User Group failed to substantiate its claims that historical investment in coal mining would not have occurred in the absence of declaration, highlighting that no members have made public statements suggesting that declaration is relevant or pivotal to their supply chain certainty and requirements.[376]

In response to the DBCT User Group's assertion that the public benefits of providing investment incentives to coal producers outweigh the benefit of providing DBCT Management with incentives to invest in the terminal, 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.'[377]

5.3.2 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.

The QCA's conclusion on criterion (a), as set out in Part C, Chapter 3 is that declaration of the service would promote a material increase in competition in the market for coal tenements. As outlined in Part C, Chapter 3, the geographic boundaries of this dependent market are limited to coal tenements in the Hay Point region.

This reflects the QCA's assessment of criterion (a) that in the absence of declaration potential DBCT users would:

- face a material disadvantage over access terms and conditions against existing users in the coal tenements market including the risk of paying a materially higher coal handling charge reflecting the cost of accessing WICET
- face uncertainty as to whether and when they would obtain access to the terminal whereas existing users would have certainty of access under their existing user agreements
- be exposed to DBCT Management seeking to expropriate the value of users' sunk investment through the five-yearly price review mechanism whereas existing users are perpetually protected from DBCT Management's conduct in a future without declaration
- likely face a higher fixed take or pay component relative to incumbents due to the material difference in access charges as well as the possibility that they may not be able to mitigate the take or pay liability relative to incumbents if they are unable to meet their contract entitlements, and so the risk of the project becoming unviable for potential DBCT users is likely to be higher relative to incumbents (section 3.4).

The QCA considers that such risk and uncertainty would create a barrier to efficient entry in the coal tenements market, which would likely have a material and adverse impact on efficient

[375] DBCT Management, sub. 1, p. 105, para 482.
[376] DBCT Management, sub. 13, p. 107.
[377] DBCT Management, sub. 13, p. 100, para 455.

investment in this market. The QCA also notes the DBCT User Group's comments that this adverse impact will be through the uncertainty of the returns that can be generated, along with the 'unbankable' nature of the proposed access framework (as supported by the Castalia report).[378]

The size of the coal tenements market is difficult to determine. According to the Department of Natural Resources, Mines and Energy (DNRME), more than 34 billion tonnes (raw coal in situ) have been identified in drilling operations in Queensland as a whole.[379] In June 2018 it released a tender for the exploration of three sites south of Clermont totalling 57 square kilometres.[380] These sites present opportunities for thermal coal, as well as metallurgical and possible PCI coals.[381] In the absence of contrary evidence, the QCA assumes that tenders for exploration rights will continue to be released over the proposed declaration period.

The QCA considers that the market for coal tenements in the Hay Point region is likely to be of sufficient size to support the conclusion that incentivising efficient investment in this market would promote the public interest. If efficient investment in this market is deterred in the absence of declaration, there are not only foregone revenue opportunities, but the community also forgoes the wider economic benefits of maximising the value of the state's coal resources, including increased coal royalties, employment and associated regional development.

5.4 Administrative/compliance and other costs incurred by the provider of the service

5.4.1 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 2022[382] and forecasts costs over the proposed 10-year declaration period of $58 million.[383] 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.

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'.[384] 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.[385]

[378] DBCT User Group, sub. 15, p. 77.
[379] DNRME, *Queensland exploration program*, Queensland Government, June 2018.
[380] DNRME, *Queensland exploration program*, Queensland Government, June 2018, p. 9.
[381] A Lynham, *New coal exploration opportunities up for grabs*, media release, Queensland Government, 3 May 2018, viewed 25 August 2018, http://statements.qld.gov.au/Statement/2018/5/3/new-coal-exploration-opportunities-up-for-grabs.
[382] DBCT Management, sub. 1, p. 106, para 487.
[383] DBCT Management, sub. 1, p. 107, para 489.
[384] DBCT User Group, sub. 3, p. 101.
[385] DBCT User Group, sub. 15, p. 94.

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'.[386] 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.[387]

The DBCT User Group commented on 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.'[388] 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'.[389]

5.4.2 QCA analysis

The QCA considers that the administrative and compliance costs incurred by DBCT Management as a result of declaration are not sufficiently material to have an impact on the public interest.

Three main categories of these costs are:

- costs incurred by the QCA in administering the regulatory regime and passed onto the service provider (the QCA levy)
- 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.[390]

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'.[391] In any case, as the full amount of this levy is passed through to users, the incidence of this cost is borne by users, rather than DBCT Management. It is therefore not a cost that is incurred by the service provider.

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.

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[386] Peabody, sub. 12, p. 11.
[387] Peabody, sub. 12, p. 11.
[388] DBCT User Group, sub. 3, p. 69.
[389] DBCT Management, sub. 13, p. 53, para 266.
[390] The QCA has also had regard to coordination costs in the context of criterion (b), as per the requirements of s. 76(4).
[391] DBCT Management, sub. 13, p. 110.

Under DBCT Management's current 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 DBCT Management.[392]

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 or could be expected to do so over the proposed declaration period.

In any event, 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 that includes measures to reduce its costs of compliance.

The QCA considers it relevant to have regard to the costs that DBCT Management may incur in the absence of declaration. It will still incur costs under its proposed access framework, ranging from ongoing administration and compliance costs to costs incurred in dealing with access disputes, including arbitration. No estimates of these costs have been provided (and the framework is untested). The QCA refers to the observations by stakeholders regarding the pricing disputes that have occurred under the (unregulated) AAPT access regime.

Moreover, the QCA notes that the access framework has not yet been executed, so there is uncertainty as to whether DBCT Management will implement it if DBCT's coal handling service is not declared or whether it will seek to amend what it has proposed.

In conclusion, the QCA does not consider that the compliance costs incurred by DBCT Management as a result of regulation are excessive on their own as well as relative to the costs it may incur in the absence of declaration.

Coordination costs from dealing with multiple users

DBCT Management has a long-established history as a multi-user terminal. If the service was not declared, it will still remain an open-access, multi-user terminal governed by the terms of existing user agreements, and presumably by DBCT Management's access framework (if it is executed). Stakeholders have acknowledged that these costs associated with DBCT remaining an open access facility will therefore 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.

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 multi-user terminal if the service provided by DBCT was not declared.

5.5 Other relevant matters

5.5.1 Changes in access charges and the redistribution of economic rents

Stakeholder submissions

A number of the arguments submitted here were also considered in assessing criterion (a).

DBCT Management argued that the commercial environment will constrain its ability to exert market power irrespective of declaration and listed nine factors.[393] These include competitive constraints imposed by other terminals in Queensland, the mutual dependence between parties

[392] In the absence of contrary information, the QCA considers that the pass-through arrangements in the existing access undertaking provide a guide as to what could occur to these costs in a future with declaration.
[393] DBCT Management, sub. 1, pp. 93–94, para 424.

that incentivise reaching agreement, the constraints imposed by the proposed 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.

The DBCT User Group rejected the effectiveness of the constraints argued by DBCT Management. The DBCT User Group argued that the transfer of economic rents is not neutral, particularly where they do not apply equally to all supply chain participants, as this will distort investment decisions. As noted above, it considers that this will be of particular detriment to new entrants. It states that the countervailing power argument does not apply for smaller users and also requires there to be a credible threat of switching to an alternative terminal.[394] 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 submitted that declaration will be preferable to DBCT Management's proposed access framework because the latter would not similarly provide the benefits that promote the public interest, including:

- independent determination of the reasonableness of terms and conditions
- greater transparency, and greater certainty provided by the access undertaking
- standard access agreements and QCA determinations
- the flexibility to review and/or amend the access undertaking if required.[395]

The DBCT User Group presented AAPT as a case study.[396] 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.

DBCT Management responded that issues at AAPT have eventually been settled to users' satisfaction and that arbitration has only been required for two out of seven users. It also noted that 'users have not sought declaration of the terminal'.[397] 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 proposed access framework.

QCA analysis

The QCA considers that the relevant issue in assessing whether declaration will promote the public interest is not redistribution of economic rents per se, but the material and adverse impact that not declaring the service could have on investment in the coal tenements market (see section 5.3.2).

In this context, a key concern is that the absence of declaration would create a material uneven playing field between existing users and potential entrants in the market for coal tenements in the Hay Point catchment region. This asymmetry would be material enough to likely deter efficient entry by potential DBCT users that may have higher valuations than existing users but

[394] DBCT User Group, sub. 15, p. 89.
[395] DBCT User Group, sub. 15, p. 94.
[396] DBCT User Group, sub. 3, p. 103.
[397] DBCT Management, sub. 13, p. 111.

that is unlikely to be sufficiently high to overcome the material favourable access terms and conditions that existing users would enjoy in accessing the DBCT service due to their evergreen existing user agreements. Therefore, the environment for competition in the coal tenements market in the Hay Point catchment region would be materially adversely affected in a future without declaration (see section 3.4). This material adverse effect on competitive conditions in the coal tenements market in a future without declaration would likely crowd out the acquisition and investment in tenements by new users, even if they are able to invest in, and exploit the tenement at a lower cost than an existing user, and likely have a material adverse effect on efficient investment in mining operations.

Separately, the QCA only considers the AAPT case relevant to the extent that uncertainty regarding the ability to secure terminal access could distort competition in the market for coal tenements.[398] 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.

A further consideration here is that the redistribution of economic rents will impact the coal royalties that are received by the state (see section 5.5.4).

5.5.2 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 agrees that this is a relevant matter that can be considered under s. 76(5)(d), which relates to administration and compliance costs incurred as a result of declaration.

The DBCT User Group submitted that aggregate costs (for DBCT Management and users) would be materially higher in the absence of declaration, a view that was supported by Peabody. The DBCT User Group cited AAPT as a case study for the costs that would arise under a commercial negotiate–arbitrate model, which 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.[399] These costs will also be incurred by access seekers, who could end up in lengthy and protracted negotiations.

The DBCT User Group argued that the AAPT agreements also specify the calculation of access charges in more detail.

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.[400] DBCT Management said that the DBCT User Group failed to acknowledge the broader costs of regulation, including productive, allocative and dynamic inefficiencies.[401]

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[398] Although insufficient evidence has been presented in respect of AAPT to enable the conclusion that this has in fact occurred.
[399] DBCT User Group, sub. 15, p. 102.
[400] DBCT Management, sub. 13, p. 110.
[401] DBCT Management, sub. 13, p. 104, para 478.

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.

The QCA agrees with stakeholders that it is likely that individual access seekers, along with access holders, could incur additional costs if the service is not declared. While costs are still incurred by individual access seekers/users in negotiating access agreements under declaration, under DBCT Management's proposed access framework there is the potential for individual parties to incur higher costs in the event of disputes.

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 proposed 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 will 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 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 was considered in section 5.5.

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 and standard access agreements under declaration that could facilitate negotiations and minimise the scope for disputes. 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 is unknown.

There is insufficient evidence that would enable the QCA, at this stage, to conclude that any reductions of these costs as a result of declaration would be material enough to promote the public interest. Stakeholders are invited to provide further information on this matter.

5.5.3 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'.[402] 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 points 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 also highlights that its remediation obligations exist under the PSA and

[402] DBCT User Group, sub. 3, p. 98.

while it did not consider that the costs of these were relevant, it would be reasonable to assume that they would continue to be met via access charges in the absence of declaration.[403]

QCA analysis

The QCA is of the view that the DBCT User Group has not substantiated its claim 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 DBCT Management's point about the government's ability to impose environmental restrictions irrespective of whether the service is declared. The QCA also refers to the *Sustainable Ports Development Act 2015*, 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.'[404] This legislation controls new terminal development having regard to managing the environmental impact.

The QCA notes that DBCT Management's obligations to remediate the terminal site at the end of the lease remain regardless of whether the service is declared.

5.5.4 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 include:[405]

- wider economic benefits, including growth in property prices and gross regional product
- reduced tariffs, which will improve the viability of the coal industry
- higher government royalties, based on increased investment incentives for coal producers and a lower terminal access charge to be deducted from coal royalty calculations
- 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.

Pacific National, whose submission addressed all three facilities that are the subject of this declaration review, 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.[406]

[403] DBCT Management, sub. 13, p. 108.
[404] Section 2(1).
[405] DBCT User Group, sub. 3, pp. 98–101.
[406] Pacific National, sub. 9, pp. 13–14.

DBCT Management argued that the DBCT User Group has failed to substantiate that the public benefits it has identified have or will directly result 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 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.[407]

DBCT Management rebutted the DBCT User Group's claim of windfall gains, stating that these claims are 'unsubstantiated and largely irrelevant'[408] 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.[409] While DBCT Management only touched on these forms of efficiency briefly, it stated that inefficiencies would arise under declaration in all three areas:

- 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'[410]
- 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.

QCA analysis

The QCA considers that as declaration would promote a material increase in competition in the market for coal tenements, it would likely promote the public interest because of the wider economic benefits of promoting competition in that market, including higher coal royalties.

Wider economic benefits

The QCA has concluded that one dependent market in which the environment for competition would be materially adversely affected in the absence of declaration is the market for coal tenements. This would result in reduced incentives for efficient investment in that market. Although it is difficult to quantify the extent of this impact, it could have a material flow-on effect to the regional and state economies if it reduces exploration and development of the state's high-quality coal resources. Declaration would therefore promote the public interest if it reduces a potential barrier to these benefits being realised.

There are also broader economy wide impacts of declaration, including through greater investment in above-rail haulage and rail infrastructure (as discussed earlier in this chapter) – to the extent that mine investment is promoted.

Reduced tariffs

The DBCT User Group argued that the difference between the tariffs that would apply with and without declaration would be sufficiently material to impact the viability of the coal industry. The QCA notes DBCT Management's argument regarding the materiality of the TIC in the context of

[407] DBCT Management, sub. 13, p. 109.
[408] DBCT Management, sub. 13, p. 109.
[409] DBCT Management, sub. 13, p. 104, para 478.
[410] DBCT Management, sub. 13, p. 104, para 478.

total mining input costs. However, the QCA understands that DBCT User Group's point is about the TIC that would apply to terminal capacity over and above that contracted under existing user agreements in the absence of declaration.

The QCA's view is that the proposed access framework will enable DBCT Management to price terminal capacity beyond that contracted under existing user agreements in a manner that users would face the risk of paying a materially higher TIC reflecting the cost of accessing WICET as well as the uncertainty as to whether and when they would obtain access to the terminal. This risk and uncertainty would not arise under declaration. Therefore, the QCA considers that the uncertainties and TIC increases that would arise in the absence of regulation would have a negative impact on the mining industry, compared to what would occur under declaration. In particular, it considers that the uncertainties in both price and non-price terms and conditions could deter investment in coal tenements.

Government royalties

To the extent that absence of declaration of the service reduces efficient investment in coal tenements, and ultimately the development and commissioning of new mines, the QCA's view is that royalties collected by the state could be lower. It is difficult to estimate these costs, however, if developments are delayed or do not occur, they have the potential to be significant.

Efficiency benefits

The DBCT User Group's arguments about the efficiency benefits of economies of scale are relevant to the assessment of criterion (d).

In terms of the three forms of efficiency as submitted by DBCT Management, 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 proposed access framework, would be sufficiently material to have an impact on the public interest. The costs to access seekers and holders under the proposed access framework are likely to be higher without declaration and the absence of a reference tariff for new access seekers has the potential to increase the negotiation costs for potential entrants. However, the QCA does not consider that declaration will necessarily lead to productive inefficiency.
- *Allocative efficiency:* DBCT Management submits that allocative inefficiency can arise where mines with different cost bases are subject to a uniform price. The socialisation of costs of existing capacity that occurs under DBCT Management's regulated access pricing framework is a practice that is well accepted by all stakeholders and also provides protection to DBCT in the event of counterparty failure. However, the 2017 AU provides for the differential pricing of expansions based on decision criteria that reflect the need to provide efficient signals to current and potential users whose demand may trigger an expensive expansion. In this regard, the QCA notes DBCT Management has been opposed to a differential pricing framework and also notes that this opposition is not driven by concerns that mines with different cost bases will be subject to a uniform price. DBCT Management's key argument has been that differential pricing should only be applied where an expansion is clearly separable from existing terminal infrastructure, otherwise it continues to favour the application of a uniform tariff.[411] DBCT Management has also highlighted that 'its PSA with

[411] For example, DBCT Management, submission to the QCA, *Differential Pricing DAAU—draft decision*, 2015.

the State requires the application of average cost or socialised pricing for common services … This also reinforced the clear intent regarding the future application of socialised pricing that existed at the time that the Terminal was privatised and the PSA entered.'[412]

- *Dynamic efficiency:* The QCA has concluded that declaration is likely 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 Management's 2017 AU 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 proposes to retain this mechanism under its access framework.

The QCA therefore considers that, on balance, declaration would promote the public interest by increasing the incentive to invest in the market for coal tenements. It will otherwise have no adverse impacts on productive or allocative 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. In the first instance, there is no evidence to demonstrate that this was the case. More importantly, 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)).

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 the intent of these provisions to assess the service against the declaration 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 *Competition and Consumer Act 2010*, intends for the declaration of services to continue in perpetuity.

The QCA therefore rejects the argument that the service should be declared because the continuation of declaration is expected by all stakeholders.

Windfall gains

The QCA does not see merit in the DBCT User Group's argument 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 QCA is not satisfied that this is a relevant consideration.

5.6 Conclusion on criterion (d)

The QCA's view is that the existence of evergreen existing user agreements and DBCT Management's stated intent to provide access to capacity based on users' willingness to pay in the absence of declaration, would create a material asymmetry over access terms and conditions between existing users and potential entrants in the market for coal tenements in the Hay Point catchment region. This would create a barrier to more efficient entrants in the coal tenements market, which would likely have a material and adverse impact on investment in this market and,

[412] DBCT Management, *2016 DAU Submission*, 2015, p. 60.

therefore on the public interest. To the extent more efficient entrants are discouraged from participating in the coal tenements market, there will be will be impacts on allocative efficiency.

Access as a result of declaration would create an environment for efficient investment in coal tenements markets, which would likely result in higher coal export revenues as well as would likely generate wider economic benefits to the regional and state economies, including higher coal royalties.

There is no evidence to suggest that declaration will impact DBCT Management's incentives to invest in the terminal. In fact, declaration is likely to have a positive impact on the incentives to invest in DBCT as well as on the incentive to invest in the rail network and haulage facilities that service the terminal, to the extent that there is an increase in mining investment as a result of declaration.

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.

No other factors have been identified that the QCA 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 environment with and without declaration.

Having weighed all of the costs and benefits, the QCA considers that there is a net public benefit.

The QCA therefore concludes 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, compared to the cost of exporting coal through other terminals connected to the Central Queensland Coal Network (CQCN), which are AAPT, RG Tanna and WICET.[413]

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), so that they can easily be compared.

This assessment focuses on:

(a) estimating unit cost based on current throughput and current cost

(b) estimating unit cost of DBCT satisfying total foreseeable demand compared to the corresponding costs of any two or more facilities.

This cost estimation is based on publicly available data.

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, we have 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) to export 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 typically low[414], 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). For example, if the 'within

[413] BMA's Hay Point terminal has been excluded, as it is not an open-access terminal.

[414] 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).

system' average below-rail cost for mines in the Blackwater system to access RG Tanna/WICET is $7.25 per tonne, mines in the Goonyella system seeking to export coal through RG Tanna/WICET will incur $7.25 per tonne (on average) for using the Blackwater system *plus* the below-rail cost of using the Goonyella system. In that sense, the average below-rail cost in the Blackwater system of $7.25 per tonne will be a lower bound estimate, as it assumes that Goonyella mines incur no below-rail cost for traversing the Goonyella system to export coal through RG Tanna/WICET, which is unrealistic.

- In another scenario, suppose the 'within system' average below-rail cost in the Goonyella system is $3.07 per tonne. Adding this unit cost ($3.07 per tonne) to the $7.25 per tonne cost yields $10.32 per tonne, which would be an upper bound estimate of the below-rail cost 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 RG Tanna/WICET. 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.[415]
- Thus, the below-rail cost that mines in the Goonyella system would incur to export coal through RG Tanna/WICET is expected to be between the lower and upper bound estimates, and the actual cost would depend 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:
  - mines in the Blackwater system to export coal through RG Tanna/WICET. The WIRP fee that a user would pay for accessing WICET has not been considered in this calculation. To that extent, the lower bound estimate of the below-rail cost of accessing WICET is an underestimation
  - exporting coal through the Goonyella to Abbot Point (GAP) system to AAPT. Since a key issue is to assess whether mines in the Goonyella system would prefer to export coal through another system, the below-rail cost of using the GAP system (including Newlands system) to access AAPT has been estimated.
- 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. Since the approved MAR is translated into reference tariffs (AT1, AT2, AT3 and AT4) based on approved volume forecasts for each coal system, the allowable revenue for each reference tariff component for a coal system has been considered.
- Allowable revenue associated with the AT2-4 reference tariff components are from Aurizon Network's 2016–17 revenue cap submission, which the QCA approved in December 2017 and which is the most

[415] 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.

recent data on approved AT2–4 allowable revenues.[416] Allowable revenue associated with the AT1 reference tariff component (which reflects incremental maintenance cost) is the product of the 2016–17 approved AT1 reference tariff[417] and the 2016–17 volume from Aurizon Network's 2016–17 revenue cap submission. The combined 2016–17 AT1–4 revenue for a system represents the below-rail cost of using that system for hauling coal.

- Below-rail cost per tonne for traversing a coal system was obtained by dividing the combined AT1–4 revenue by the actual coal throughput on that system as reported in Aurizon Network's 2016–17 revenue cap submission. The lower bound and upper bound estimates of the below-rail cost per tonne based on 2016–17 data are reported in Table 1.
- To calculate an alternative estimate, data from Aurizon Network's revenue cap submission for the years 2015–16, 2016–17 and 2017-18 (provisional[418]) were used to calculate the below-rail cost per tonne averaged over those three years. Applying the approach described above, the corresponding lower and upper bound estimates were also derived (Table 1).

Table 1 Below-rail cost per tonne estimates for mines in the Goonyella system ($ per tonne)

Cost components	*DBCT*	*AAPT (GAPE)*	*RG Tanna*	*WICET*
Based on 2016–17 data	$3.07			
• Lower bound		$10.69	$7.25	$7.25
• Upper bound		$13.76	$10.32	$10.32
3-year average (2015–16, 2016–17 and 2017–18)	$2.62			
• Lower bound		$9.23	$6.33	$6.33
• Upper bound		$11.85	$8.96	$8.96

- 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 1 are an underestimation.

Above-rail cost

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

[416] QCA, *Aurizon Network's 2016–17 revenue adjustment amount application*, final decision, December 2017. Aurizon Network, *FY2017 Revenue Adjustment Amounts – Explanatory Memorandum revised as at 5 December 2017*, 14 December 2017.

[417] AT1 reference tariff data are from Aurizon Network's 2016 access undertaking (UT4).

[418] The revenue cap submission for years 2015–16, 2016–17 and 2017–18 were considered in accordance with the provisions in Aurizon Network's 2016 access undertaking (UT4). Aurizon Network's 2017–18 revenue cap submission was under the QCA's consideration at the time of doing this analysis for the draft recommendation. Therefore, data from Aurizon Network's 2017–18 revenue cap submission are provisional in nature and have been used here only for illustrative purpose. QCA released a draft decision on 15 November 2018 refusing to approve the 2017–18 revenue cap proposal. However, the QCA indicated that 99.98 per cent of the adjusted revenue amount was acceptable to it (QCA, *Aurizon Network's 2017–18 revenue adjustment*, draft decision, November 2018).

equal. In other words, the variable part of above-rail cost is directly related to distance. 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.[419] The approximate distance from Oaky Creek to Port of Gladstone (for accessing RG Tanna or WICET) through the Blackwater system is 383.54 km.[420] 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 our 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**.[421]
  - 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.[422] The approximate distance from North Goonyella to AAPT is 242.746 km.[423] Therefore, the distance from North Goonyella to AAPT is about 12 per cent more than the distance from North Goonyella to DBCT. Applying our 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**. 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 on:

[419] 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.

[420] 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.

[421] That is, (0.5*$1) *plus* (0.5*$1*1.29).

[422] Data are from Aurizon Network, *Goonyella System,* summary sheet*,* version 7.0, March 2017.

[423] 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 Goonyella system is 10,055 tonnes[424]
  - the Blackwater system is 8211 tonnes.[425]
  - GAP/Newlands is 6871 tonnes[426]

- 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.[427]
- 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 46 per cent more coal than a reference train service on the GAP/Newlands system. This means that above-rail cost on GAP/Newlands system would be at least **46 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.[428]

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 **40 per cent more**.[429]
- GAP system would be at least 6 per cent more due to the distance-related factor, at least 46 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 as every additional train service would have a higher variable cost due to travelling greater distance—that is, at least **55 per cent more**.

As noted, data on above-rail cost are not publicly available. However, a recent regulatory submission by Aurizon Network reported that, on average, coal haulage cost (combined below-rail and above-rail) on the Goonyella system is about $6.32 per tonne.[430] In the absence of any alternative data and noting that

[424] Aurizon Network, 2016 Access Undertaking, schedule F, p. 392.
[425] Aurizon Network, 2016 Access Undertaking, schedule F, p. 388.
[426] Aurizon Network, *2016 Access Undertaking*, schedule F, p. 401.
[427] 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). We have not modelled this cost effect. To that extent the estimated cost to reflect the payload difference between the Goonyella system and another coal system is an underestimation.
[428] This phenomenon would be akin to the interaction of distance-related factor and payload factor.
[429] Due to rounding to two places, the sum of individual factors do not match 40 per cent.
[430] Aurizon Network, *2017 Electric Traction Draft Amending Access Undertaking*, submission, November 2017, p. 12. The cost estimate for using diesel trains to haul coal on the Goonyella system is $6.32 per tonne. The

stakeholders (in that regulatory process) did not object to Aurizon Network's cost estimate, we have, for this assessment, 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 $3.07 per tonne to export coal through DBCT (datum in Table 1), the above-rail cost on the Goonyella system would be $6.32 minus $3.07—that is, $3.25 per tonne. As discussed, above-rail cost would be at least 40 per cent more on the Blackwater system for exporting through RG Tanna/WICET—that is, at least $4.54 per tonne and at least 55 per cent more on the GAP system for exporting through AAPT—that is, at least $5.03 per tonne.
- Alternatively, if mines in the Goonyella system incurred, on average, a below-rail cost of $2.62 per tonne to export coal through DBCT (datum in Table 1), the above-rail cost on the Goonyella system would be $6.32 minus $2.62—that is, $3.70 per tonne. On that basis, above-rail cost on the Blackwater system would be at least $5.17 per tonne and on the GAP system at least $5.73 per tonne.

These above-rail cost data are reported in Table 2 below.

Table 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 (if 2016–17 below-rail cost data are considered); lower bound estimate for accessing other terminals	$3.25	$5.03	$4.54	$4.54
Above-rail cost (if 3-year average of below-rail cost are considered); lower bound estimate for accessing other terminals	$3.70	$5.73	$5.17	$5.17

Coal handling cost

Coal handling cost comprise terminal infrastructure charge (TIC) and terminal operating costs (i.e. fixed handling charge and variable handling charge).

- DBCT—for 2017–18, the TIC is $2.52 per tonne, the fixed handling charge is $1.41 per tonne and the variable handling charge is $1.12 per tonne, which gives a combined handling cost of $5.05 per tonne.[431]
- AAPT—the TIC was initially estimated from revenue and volume data reported in 2015 report by FIIG Securities Ltd.[432] 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.[433] This yields a combined handling cost of $7.01 per tonne.

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 different.

[431] Data on coal handling charges has been rounded to two decimals for presentation purpose. Data are from DBCT Management's website, Charges, viewed 5 November 2018.

[432] FIIG, *Adani Abbot Point Terminal Pty Ltd (AAPT),* 2015.

[433] Adani Abbot Point Terminal Pty Limited, *Statement of Claim,* submission to Supreme Court of Queensland, number S9440/2017, 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

- RG Tanna—the coal handling charge of $5.18 per tonne for 2017–18 was estimated based on information reported by Reuters.[434] 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.[435] 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 mtpa, with 16 mtpa of capacity being allocated to the remaining partners.[436] Since handling charge at WICET is based on a cost recovery basis, an increase in allocated capacity beyond 16 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 the NQBP website, these charges appear to be immaterial.[437] 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

As two separate estimates of below-rail and above-rail cost per tonne were derived (Tables 1 and 2), there are two separate cost estimates for mines in the Goonyella system (Tables 3 and 4).

Table 3 Average supply chain cost to Goonyella system users of accessing alternative coal terminals, with below-rail cost based on 2016–17 data ($ per tonne)

Cost components	*DBCT*	*AAPT (GAPE)*	*RG Tanna*	*WICET*
Below-rail cost (2016-17 data), lower bound estimate for accessing other terminals	$3.07	$10.69	$7.25	$7.25

http://apps.courts.qld.gov.au/esearching/FileDetails.aspx?Location=BRISB&Court=SUPRE&Filenumber=9440/17 (viewed 5 April 2018).

[434] 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.

[435] *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.

[436] WICET, Access, viewed 5 November 2018, http://www.wicet.com.au/irm/content/access1.aspx?RID=379.

[437] For example, harbour dues at AAPT are about 14 cents per tonne and at DBCT are about 7 cents per tonne. See https://nqbp.com.au/trade/fees-and-charges/fees-and-charges-2017 (viewed 24 April 2018).

Cost components	*DBCT*	*AAPT (GAPE)*	*RG Tanna*	*WICET*
Above-rail cost, lower bound estimate for accessing other terminals	$3.25	$5.03	$4.54	$4.54
Coal handling cost	$5.05	$7.01	$5.18	$14.67
Other port and shipping costs	$0.05	$0.05	$0.05	$0.05
Supply chain cost	**$11.42**	**at least $22.79**	**at least $17.02**	**at least $26.51**
Cost difference relative to accessing DBCT	-	*at least $11.37 (100%)*	*at least $5.60 (49%)*	*at least $15.09 (132%)*

Table 4 Average supply chain cost to Goonyella system users of accessing alternative coal terminals, with below-rail cost based on 3-year average data ($ per tonne)

Cost components	*DBCT*	*AAPT (GAPE)*	*RG Tanna*	*WICET*
Below-rail cost (3-year average), lower bound estimate for accessing other terminals	$2.62	$9.23	$6.33	$6.33
Above-rail cost, lower bound estimate for accessing other terminals	$3.70	$5.73	$5.17	$5.17
Coal handling cost	$5.05	$7.01	$5.18	$14.67
Other port and shipping costs	$0.05	$0.05	$0.05	$0.05
Supply chain cost	**$11.42**	**at least $22.02**	**at least $16.73**	**at least $26.22**
Cost difference relative to accessing DBCT	-	*at least $10.60 (93%)*	*at least $5.32 (47%)*	*at least $14.81 (130%)*

Conclusion

As discussed above, 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 Tables 3 and 4 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 47 to 130 per cent.

Cost estimation for meeting total foreseeable demand

The QCA's estimate of the total foreseeable demand over the declaration period is approximately 93 mtpa. However, as DBCT's nameplate capacity is 85 mtpa, DBCT will need to be expanded to meet the total foreseeable demand.[438] The options to expand the capacity at DBCT are summarised in Table 5.

[438] As noted in Chapter 1, DBCT Management's correspondence of 7 November 2018 refers to an estimate of DBCT's capacity prepared by the Integrated Logistics Company (ILC). Due to the time at which this information was provided, the QCA has been unable to take it into account in making its draft recommendation in respect of the DBCT service. To the extent stakeholders consider the ILC report relevant to this cost estimation exercise, stakeholders are requested to consider it in making their submission.

Table 5 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, Master Plan 2018, pp. 50–51, 62.

For total foreseeable demand in the market to be met by DBCT, Zone 4 and 8X Phase 1 expansion project would be required.

On various occasions, DBCT Management has published an estimate of capital costs for these expansion projects (see Table 6).

Table 6 Capital cost estimates for relevant expansion projects published by DBCT Management

Expansion project	*2016 Master Plan[a] ($m, June 2018 dollars)*	*2018 Master Plan[b] ($m, June 2018 dollars)*	*DBCT Management, sub. 1[c] ($m, June 2018 dollars)*	*DBCT Management, sub. 1[d] ($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

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.*

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.*

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 de-escalated 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 6) and those considered by DBCT Management's consultant HoustonKemp for its least cost analysis (last column in Table 6)—in the order of 33 to 40 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 Phase 1 expansion, the 2017–18 capital cost estimates (the last column in Table 6) were included in the DBCT's tariff model from the DBCT 2017 access undertaking process. Furthermore, noting that the approved TIC is around $2.60 per tonne for 2018–19 (effective 24 August 2018), the two expansion projects were assumed as being completed in 2018–19 to assess the effect on this TIC. A 36 years 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, since these expansions would be required to accommodate the foreseeable demand of 93 mt (and not the 93.5 mt terminal capacity as a result of these expansions), the resulting annual revenue requirement (ARR) estimate was spread over 93 mt. All other parameters remaining unchanged, the 2018–19 ARR increased by around

$49 million. The TIC increased by around 8 cents (3 per cent) from $2.60 per tonne to around $2.67 per tonne (Table 7).[439]

Table 7 DBCT TIC without and with Zone 4 and 8X Phase 1 expansion projects

	2017–18[a] ***(without expansion)***	***2018–19[b]*** ***(without expansion)***	***2018–19[c]*** ***(with expansion projects)***
ARR ($m)	198.1	199.6	248.6
Reference tonnage (mt)	78.7	76.9	93.0
TIC ($ per tonne)	2.52	2.60	2.67

a *QCA, DBCT Management 2016–17 NECAP, decision, 13 July 2017.*

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.*

On the effect of DBCT expansion costs on 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.[440]

Assuming the handling charge fixed at $1.41 per tonne and the handling charge variable at $1.12 per tonne remain unchanged, the combined handling cost at DBCT with Zone 4 and 8X Phase 1 expansions would be around $5.20 per tonne for 2018–19 (or $5.14 per tonne for 2017–18 using CPI to de-escalate the estimated TIC with expansion).

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.[441] The NDP identifies various expansion options for the Goonyella system:

- 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 7.17 per cent regulated WACC approved for UT4, gives a return on and of capital component of about $104.6 million. Assuming

[439] Due to rounding the difference in the TICs do not match to 8 cents.
[440] DBCT Management, Master Plan 2018, p. 62.
[441] Aurizon Network, *Network Development Plan 2016–17*, p. 41.

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 148 mtpa (i.e. 93 mtpa to DBCT to meet the foreseeable demand, and 55 mtpa to HPCT, assuming HPCT is fully utilised[442]). To estimate the resulting average below-rail cost on the Goonyella system, the following steps were followed:

- the 2016–17 annual revenue amount for Goonyella system was considered, as it represents the highest revenue (in gross terms as well as per unit terms) over the three years from 2015–16 to 2017–18
- the 2016–17 revenue amount for Goonyella system was scaled up, on a pro rata basis, to reflect higher volumes, noting the 2016–17 revenue amount of $341.3 million in Aurizon Network's 2016–17 revenue cap submission is associated with 111.1 mt. The pro rata revenue amount for a volume of 140 mt (i.e. the volume associated with existing Goonyella capacity) would be $430.1 million (assuming the revenue amount varies with tonnage)
- the $104.6 m additional revenue estimate for Goonyella expansions was added to the scaled-up 2016–17 revenue, which gave a revenue estimate of $534.7 million
- the resulting revenue estimate of $534.7 million was divided by the volume of 148 mtpa, which yielded a below-rail cost estimate of $3.61 per tonne.

This approach of considering the highest revenue amount and scaling it in line with the increase in volumes as well as adding a rough estimate of the expansion capital costs is extremely conservative. A less conservative approach would have been to only scale up the operations and maintenance part of the revenue for volumes. Therefore, the approach considered here will overestimate the below-rail cost of using the Goonyella system (with expansion) for accessing DBCT.

Table 8 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 3.

Table 8 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 (2016–17 data), lower bound estimating for accessing other terminals	$3.61	$10.69	$7.25	$7.25
Above-rail cost, lower bound estimate for accessing other terminals	$3.25	$5.03	$4.54	$4.54
Coal handling cost	$5.14	$7.01	$5.18	$14.67
Other port and shipping costs	$0.05	$0.05	$0.05	$0.05
Supply chain cost	**$12.05**	**at least $22.79**	**at least $17.02**	**at least $26.51**
Cost difference relative to accessing DBCT	–	*at least $10.73 (89%)*	*at least $4.97 (41%)*	*at least $14.46 (120%)*

[442] 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 mpta. 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.

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 41 per cent to 120 per cent even after expansions in DBCT and Goonyella system are considered to meet the total foreseeable demand in the DBCT market. Relevantly, as noted above, the below-rail and above-rail cost estimates for accessing other terminals are a lower bound estimate, so this cost difference estimate is an underestimation.

As discussed above, the QCA has considered the highest estimate of DBCT and Goonyella system expansion costs that are available without seeking to comment on the prudency of those expansion costs. Additionally, the approach to estimating the below-rail costs with Goonyella expansion costs, which would apply to Goonyella system users seeking to access DBCT, is more likely to overestimate those costs. Despite this evident overestimation in the cost of accessing DBCT for mines in the Goonyella system, the average supply chain cost to access DBCT remains substantially cheaper than that for accessing other terminals—a cost difference of 41 to 120 per cent. Thus, DBCT would be able to meet the total foreseeable demand in the market at the least cost compared to any two or more facilities.