Queensland Competition Authority

Draft decision

DBCT Management's 2015 draft access undertaking

April 2016

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We wish to acknowledge the contribution of the following staff to this report:

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SUBMISSIONS

Closing date for submissions: 10 June 2016

Public involvement is an important element of the decision-making processes of the Queensland Competition Authority (QCA). Therefore, submissions are invited from interested parties concerning its assessment of Dalrymple Bay Coal Terminal Management's (DBCTM's) 2015 draft access undertaking (DAU). The QCA will take account of all submissions received.

Submissions, comments or inquiries regarding this paper should be directed to:

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www.qca.org.au/submissions

Confidentiality

In the interests of transparency and to promote informed discussion, the QCA would prefer submissions to be made publicly available wherever this is reasonable. However, if a person making a submission does not want that submission to be public, that person should claim confidentiality in respect of the document (or any part of the document). Claims for confidentiality should be clearly noted on the front page of the submission and the relevant sections of the submission should be marked as confidential, so that the remainder of the document can be made publicly available. It would also be appreciated if two copies of each version of these submissions (i.e. the complete version and another excising confidential information) could be provided. Where it is unclear why a submission has been marked 'confidential', the status of the submission will be discussed with the person making the submission.

While the QCA will endeavour to identify and protect material claimed as confidential as well as exempt information and information disclosure of which would be contrary to the public interest (within the meaning of the *Right to Information Act 2009* (Qld) (RTI)), it cannot guarantee that submissions will not be made publicly available. As stated in section 187 of the *Queensland Competition Authority Act 1997* (the QCA Act), the QCA must take all reasonable steps to ensure the information is not disclosed without the person's consent, provided the QCA believes that disclosure of the information would be likely to damage the person's commercial activities and that the disclosure of the information would not be in the public interest. Notwithstanding this, there is a possibility that the QCA may be required to reveal confidential information as a result of a RTI request.

Public access to submissions

Subject to any confidentiality constraints, submissions will be available for public inspection at the Brisbane office, or on the website at www.qca.org.au. If you experience any difficulty gaining access to documents please contact us on (07) 3222 0555.

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EXECUTIVE SUMMARY

The Dalrymple Bay Coal Terminal (DBCT or the Terminal) is a common-user coal export terminal servicing mines in the Goonyella system of the Bowen Basin coal fields. It is owned by the Queensland Government, but leased to DBCT Management (DBCTM) for 50 years, with an option for a further 49 years.

The services provided at DBCT are declared for third-party access under Part 5 of the Queensland Competition Authority Act 1997 (the QCA Act). The regulatory framework for DBCT is governed by the 2010 access undertaking (2010 AU), which was approved by the QCA and took effect from 1 January 2011.

The 2010 AU is due to expire on 30 June 2016. On 23 June 2015, the QCA issued an initial undertaking notice requiring DBCTM to submit a replacement draft access undertaking (DAU). On 12 October 2015, DBCTM submitted its proposed replacement DAU (the 2015 DAU) to the QCA for approval.

Our draft decision is to refuse to approve DBCTM's 2015 DAU, for the reasons detailed in this document. We have indicated how we consider the 2015 DAU should be amended in order for it to be approved.

2015 DAU

We have reviewed DBCTM's 2015 DAU in accordance with our obligations under the QCA Act. These obligations provide that we may only approve a DAU if we consider it appropriate to do so, having regard to the criteria set out in section 138(2) of the QCA Act. We have to consider all of the criteria in section 138(2) in making our decision, balancing the criteria as we consider appropriate, in light of the nature of the particular DAU and relevant circumstances. This includes having regard to the object of Part 5 in section 69E of the QCA Act and the statutory pricing principles set out in section 168A of the QCA Act.

On balance, our view is that DBCTM's 2015 DAU does not appropriately meet the criteria in section 138(2) of the QCA Act. We consider that DBCTM's proposed approach is not consistent with the approval criteria in the QCA Act, across both pricing matters and terms and conditions of the DAU.

Our draft decision therefore proposes to refuse to approve DBCTM's 2015 DAU, and proposes amendments to the DAU to address these matters.

Pricing matters

DBCTM's 2015 DAU proposes an average annual revenue requirement (ARR) of $262.4 million per annum and an average terminal infrastructure charge (TIC) of $3.09 per tonne over the 2016–21 regulatory period. This compares to the 2015–16 ARR of $260.0million and TIC of $3.10 per tonne.

Our draft decision proposes an average ARR of $186.4 million per annum and an average TIC of $2.19 per tonne. Key building blocks used to determine the ARR and TIC are described below.

Weighted average cost of capital (WACC)

DBCTM's 2015 DAU proposes an indicative WACC of 7.46 per cent per annum, with key parameter estimates including a risk-free rate (RFR) of 2.8 per cent; a market risk premium (MRP) of 8.0 per cent; an equity beta of 1.0; a raw debt risk premium of 2.32 per cent; and a gamma of 0.25. These estimates are based on an indicative averaging period of the 20 business days up to 21 August 2015.

Our draft decision proposes a WACC of 6.10 per cent per annum, with key parameter estimates including a RFR of 2.10 per cent; a MRP of 6.5 per cent; an equity beta of 0.87 (asset beta of 0.45); a raw debt risk premium of 2.68 per cent; and a gamma of 0.47. These estimates are based on an indicative averaging period of the 20 business days up to 30 October 2015.

Depreciation

DBCTM's 2015 DAU proposes an average depreciation allowance of approximately $112.4 million per annum. This is based on DBCTM's proposed weighted average mine life (WAML) approach, which would reduce the remaining economic life of the Terminal from 38 years to 25 years as at 1 July 2016.

Our draft decision proposes an average depreciation allowance of approximately $82.8 million per annum. This estimate is based on maintaining the same estimated economic life of the Terminal used in the 2006 and 2010 AUs (i.e. 50 years from 2004, or 38 remaining years from 2016).

Remediation allowance

DBCTM's 2015 DAU proposes a very significant increase in the allowance provided for remediation of the Terminal site, from approximately $0.95 million per annum in the 2006 and 2010 AUs to $12.8 million per annum in the 2015 DAU. This was based on an increased estimated rehabilitation cost (from $30 million in 2004-05 dollars to $826.6 million in 2014-15 dollars) and a 32-year term to remediation (2016 to 2048).

Our draft decision proposes a remediation allowance of approximately $5.7 million per annum, based on an estimated rehabilitation cost of $390 million and a 38-year term to remediation (i.e. to 2054, which is consistent with the remaining economic life we have used for determining the depreciation allowance).

Corporate overhead costs

DBCTM's 2015 DAU proposes an increase in the corporate overheads allowance from approximately $6.1 million in 2015–16 to $8.2 million in 2016–17. This was based on taking the median of three estimates provided by its consultant (Stephen Meyrick).

Our draft decision proposes a corporate overheads allowance of approximately $7.23 million in 2016–17. This is based on Meyrick's 'bottom-up' approach, with some adjustments, which is considered to result in a more plausible estimate for a benchmark regulated firm in the same business than the other two methods. The allowance will be escalated for inflation through the regulatory period.

Other cost and modelling issues

In addition to the matters described above, there are a number of other cost and modelling-related issues where our draft decision is to require DBCTM to amend its 2015 DAU, including to:

- apply the 30-day working capital period that applied in the 2010 AU
- revert to the outturn inflation index applied in the 2010 AU
- maintain the residual value assigned to initial Terminal assets.

Terms and conditions

DBCTM's 2015 DAU proposes some significant changes to the drafting of the terms and conditions contained in the 2010 AU, in a number of key areas.

Our draft decision proposes to accept the majority of drafting changes proposed by DBCTM; however, in some cases, we propose not to accept proposed amendments or require further amendments. The most significant of these matters are discussed below.

Negotiation and investment framework

DBCTM's 2015 DAU proposes a number of changes to the negotiation and investment framework provisions contained in the 2010 AU.

In the majority of cases, these changes were supported by stakeholders, and our draft decision proposes to approve them. However, there are a number of areas where we consider amendments are required, including to:

- reinstate the 2010 AU access term and access renewal provisions, but allow DBCTM to apply non-standard terms to conditional access agreements to address cost and risk issues associated with a differentially priced expansion
- provide greater clarity and transparency to the operation of the access transfer provisions
- provide for DBCTM to develop a Template Funding Agreement.

Differential pricing

DBCTM's 2015 DAU proposes to introduce a form of differential pricing of expansions, where an expansion is clearly 'separable' from the existing Terminal. This is the same approach DBCTM proposed as part of the assessment of its February 2015 differential pricing draft amending access undertaking (DAAU).

Our draft decision proposes to maintain the position we expressed in the August 2015 final decision on the differential pricing DAAU. This is to introduce differential pricing based on a general 'incremental up/average down' principle—with a set of criteria for determining when this principle may not apply.

We have also proposed a number of consequential changes to the negotiation and investment framework, not proposed by DBCTM or other stakeholders, but which we consider are appropriate in order to implement a differential pricing framework for new expansions.

Ring-fencing

DBCTM's 2015 DAU proposal is to introduce a set of ring-fencing arrangements, and related matters, into the access undertaking—based on its October 2015 ring-fencing DAAU. However, we note this DAAU was superseded by the November 2015 ring-fencing DAAU.

Our draft decision is to require the provisions proposed in our recent (February 2016) draft decision on the November 2015 ring-fencing DAAU, to be included in the 2015 DAU. We note this is consistent with commitments previously made by DBCTM.

However, we also note that DBCTM has recently withdrawn the November 2015 ring-fencing DAAU, and indicated its preferred position is now that the 2015 DAU should no longer include amendments corresponding to the October or November 2015 DAAUs. Given this, we seek stakeholders' views on the best way forward for dealing with ring-fencing arrangements, and related matters, in the final decision on the 2015 DAU.

Scope and administration

DBCTM's 2015 DAU proposes some amendments to the scope and administration provisions contained in the 2010 AU, particularly relating to the roles of the Operator and DBCTM, the Terminating Date and reviews of the undertaking.

Our draft decision is to require the amendments to the scope and administration provisions proposed in our February 2016 draft decision on DBCTM's November 2015 ring-fencing DAAU, to be included in the 2015 DAU.

Other matters

DBCTM's 2015 DAU proposes a series of other changes to the drafting in the 2010 AU, including to the: reporting requirements; and definitions and interpretation in Schedule H of the undertaking.

Our draft decision is to require the reporting requirements proposed in our February 2016 draft decision on DBCTM's November 2015 ring-fencing DAAU to be included in the 2015 DAU; and to require some amendments to definitions, particularly to facilitate our differential pricing approach for expansions of the Terminal.

Submissions invited

In reviewing DBCTM's 2015 DAU and stakeholder submissions and preparing this draft decision, the QCA had regard to its obligations under section 138(2) of the QCA Act.

However, it is important to be clear that this document is not a draft version of a final decision, and it has no force of itself. There should be no expectation that it presents views and recommendations as to how to amend the 2015 DAU which will prevail to the end of the decision making process. This document represents the QCA's preliminary view and is intended to give stakeholders an insight into that view to encourage further contributions. The QCA's application of section 138(2) of the QCA Act and its thinking may change towards its final decision, which will be informed by submissions made in response to this draft decision.

The QCA encourages stakeholders to comment on this draft decision. Submissions are invited by 5 pm on 10 June 2016.

THE ROLE OF THE QCA—TASK, TIMING AND CONTACTS

The Queensland Competition Authority (QCA) is an independent statutory authority to promote competition as the basis for enhancing efficiency and growth in the Queensland economy.

The QCA's primary role is to ensure that monopoly businesses operating in Queensland, particularly in the provision of key infrastructure, do not abuse their market power through unfair pricing or restrictive access arrangements.

Task, timing and contacts

On 12 October 2015, Dalrymple Bay Coal Terminal Management (DBCTM) submitted a draft access undertaking (the 2015 DAU) to the QCA for approval. DBCTM intends for the 2015 DAU to replace its approved 2010 access undertaking (2010 AU), which is due to expire on 30 June 2016.

The QCA commenced an investigation into the 2015 DAU in accordance with section 146 of the *Queensland Competition Authority Act 1997* (the QCA Act).

The QCA is required to either approve, or refuse to approve, the 2015 DAU. We have assessed the 2015 DAU, in the context of the statutory access regime in the QCA Act and, in particular, the object of Part 5 (section 69E) and the other criteria for review of undertakings in section 138(2) of the QCA Act. This includes taking into account the pricing principles in section 168A of the QCA Act.

These criteria include promoting economically efficient operation of, use of and investment in regulated infrastructure with the effect of promoting competition in related markets. They also encompass the legitimate business interests of DBCTM and current Terminal users, the interests of access seekers and, more broadly, the public interest. A detailed discussion of the legislative framework applying to the 2015 DAU and our approach to assessment is in Chapter 2 of this draft decision.

In assessing the 2015 DAU, we have considered the arguments and information put forward by DBCTM, DBCT users and other stakeholders, and have undertaken our own analysis.

The QCA commenced a public consultation process on the 2015 DAU and has:

- published DBCTM's 2015 DAU on its website
- sought submissions from interested parties—initial submissions were received from the DBCT User Group and Vale, and supplementary submissions from the DBCT User Group and DBCTM
- released this draft decision, which proposes to refuse to approve DBCTM's 2015 DAU and suggests amendments DBCTM should make in order to have the DAU approved.

Key dates

In accordance with section 147A(2) of the QCA Act, the QCA must use its best endeavours to decide whether to approve, or refuse to approve, the 2015 DAU within the specified time periods. We gave notice of those time periods on 13 October 2015 and invited interested parties to make submissions with a closing date of 24 November 2015.

We have determined a proposed timetable for developing our final decision, as outlined in Table 1 below. Meeting this timetable will depend on the scope and complexity of issues raised by stakeholders in response to this draft decision, as part of the consultation and submission phases.

Table 1 Indicative timetable

Step	*Indicative date*
QCA issues Initial Undertaking Notice (IUN)	23 June 2015
Deadline for response to IUN extended to 19 October 2015	18 September 2015
Submission of October 2015 ring-fencing DAAU	9 October 2015
Submission of 2015 DAU by DBCTM	12 October 2015
Submission of November 2015 ring-fencing DAAU	10 November 2015
Submissions on 2015 DAU due	24 November 2015
Release of draft decision on November 2015 ring-fencing DAAU	29 February 2016
Withdrawal of November 2015 ring-fencing DAAU	24 March 2016
Release of draft decision	18 April 2016
Submissions on draft decision due	10 June 2016
Release of final decision	30 September 2016

Way forward

This draft decision explains our indicative views at this stage on DBCTM's 2015 DAU.

In coming to a final decision on this matter, our views may change having regard to issues raised by stakeholders with this draft decision.

Submissions

We invite written submissions on this draft decision. Submissions must be received by no later than 10 June 2016. We will consider all submissions received within this timeframe.

Contacts

Enquiries regarding this project should be directed to:

ATTN: Leigh Spencer
Tel (07) 3222 0532
www.qca.org.au/Contact-us

1 INTRODUCTION

1.1 Background

On 12 October 2015, Dalrymple Bay Coal Terminal Management (DBCTM) submitted a draft access undertaking (the 2015 DAU) to the Queensland Competition Authority (QCA) for approval. This section provides background on the operations of the Dalrymple Bay Coal Terminal (DBCT or the Terminal), as context for the assessment of the 2015 DAU.

1.1.1 Dalrymple Bay Coal Terminal

DBCT, located 40 kilometres south of Mackay, is Queensland's largest multi-user coal export terminal. Since its commissioning in 1983, the Terminal has provided coal handling services[1] to the coal industry in central Queensland.

The Terminal operates 24 hours a day, seven days per week and 365 days per year. Its nameplate capacity is 85 million tonnes per annum (mtpa). The Terminal consists of three rail in-loading facilities, on-shore stockyard, large stockyard machines, four coal loading berths, three shiploaders and multiple jetty-supported conveyor systems which transport coal along the 3.8-kilometre jetty to the wharf to allow for deep water loading of ships. The Terminal's stockyard covers nearly 67 hectares and provides eight rows of stockpiles with a combined live capacity of 2.28 million tonnes. Coal can be blended from the Terminal's stockpiles, as two reclaimers[2] are required to feed each shiploader.[3]

The Terminal is an integral part of the Dalrymple Bay Coal Chain (DBCC).[4] Coal is transported to the Terminal from 26 coal producing mines at 23 load points on the Goonyella System rail network[5] that extends over 300 kilometres (see Figure 1). Currently, two rail operators (Aurizon Operations and Pacific National) compete to provide rail haulage services to coal producers whose coal is handled at the Terminal.[6]

In an operational sense, the Terminal plays an important coordination role within the DBCC, helping to ensure the deliveries of coal by rail meet the demands of users in terms of the shipping movements and scheduled arrivals.

[1] Coal-handling services include unloading, stockpiling, coal blending, cargo assembly and out-loading handling services to the mines using the Terminal. The term is defined in section 250(5) of the QCA Act.

[2] A coal reclaimer is a large machine used to recover coal from a stockpile. Use of two reclaimers means coal can be blended from different parts of the stockpile.

[3] DBCT Pty Ltd website.

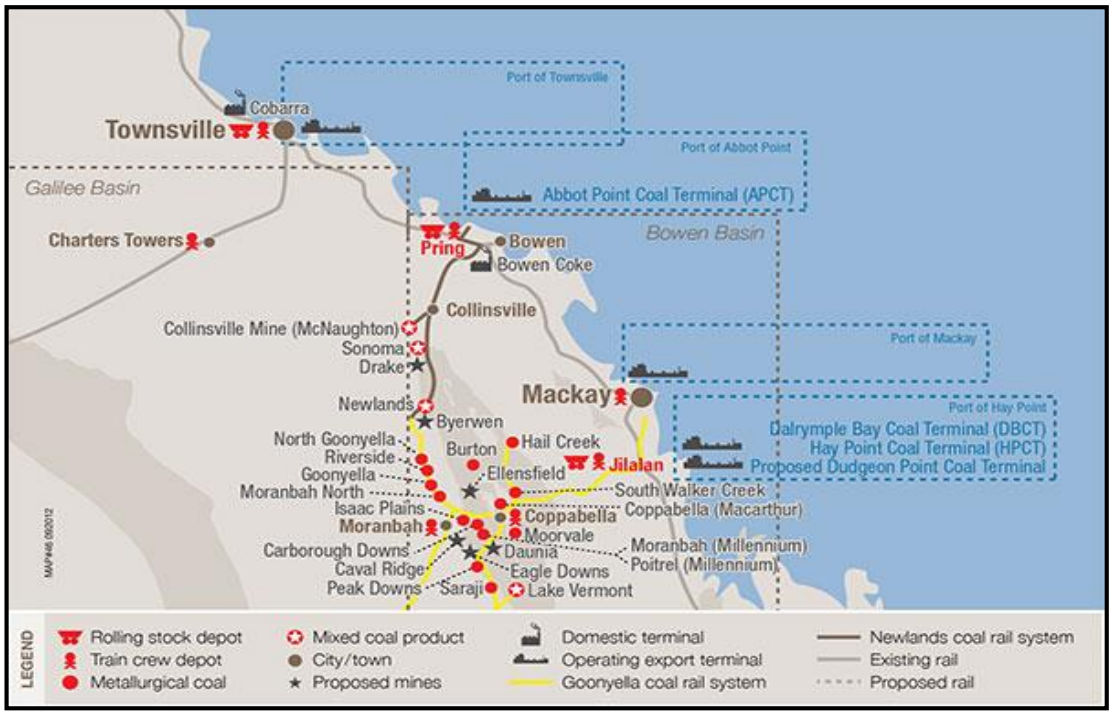
[4] See also DBCTM's website (http://www.dbctm.com.au) and the Integrated Logistics Company's website (https://ilco.com.au).

[5] The Goonyella System is a regulated multi-user and multi-directional rail network that can be used by mines to transport coal to any of the five coal terminals operating in the Bowen Basin. The vast majority of train services on the Goonyella System deliver coal to the Terminal and Hay Point Coal Terminal (HPCT), but some mines do use the Goonyella System to transport coal north to Abbot Point Coal Terminal (APCT), and south to RG Tanna Coal Terminal and the Wiggins Island Coal Export Terminal (WICET) at the Port of Gladstone.

[6] BMA Rail is the third rail operator that operates on the Goonyella System. However, BMA Rail is a dedicated rail operator that provides services only to coal mines owned by BHP Billiton Mitsubishi Alliance (BMA) and BHP Billiton Mitsui Coal (BMC).

Coal producers contract directly with rail operators and the Terminal for relevant rail and Terminal 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.

Figure 1 Central Queensland Coal Rail Network map



Source: Aurizon Network website.

1.2 Structural arrangements

The following sections describe the key structural arrangements that underpin the operation of the Terminal.

1.2.1 Terminal ownership

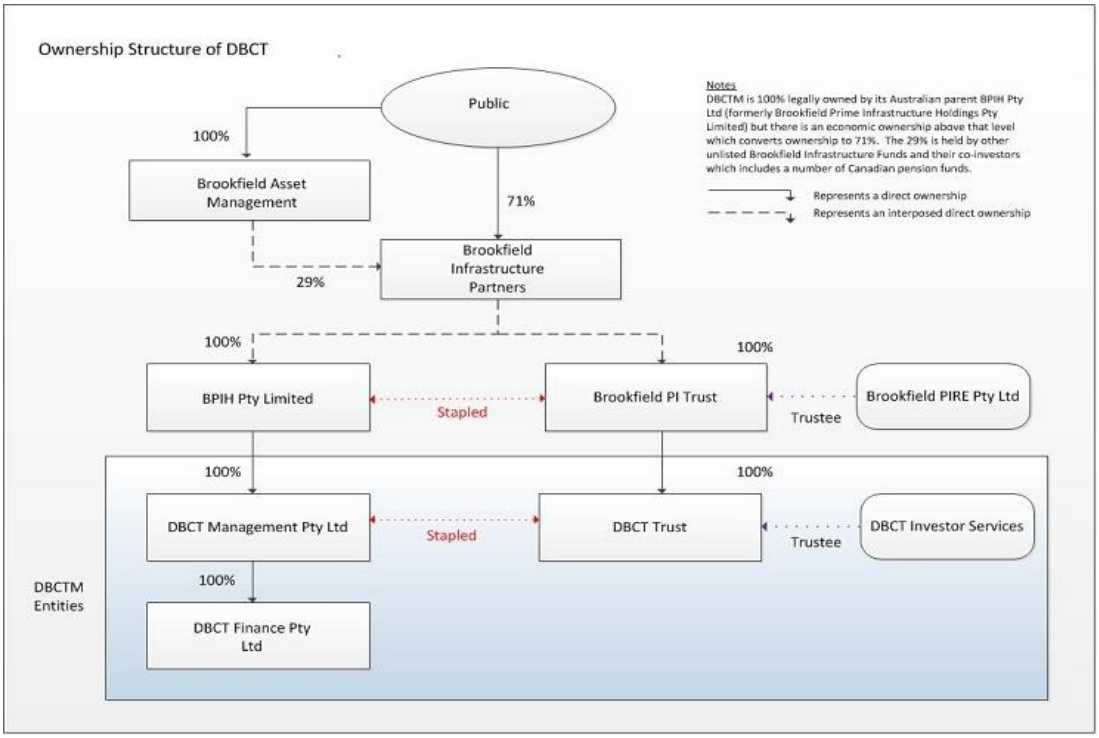
The Terminal is owned by the Queensland Government through a wholly government-controlled entity, DBCT Holdings Pty Ltd (DBCT Holdings). In 2001, DBCT Holdings leased the Terminal to DBCT Management Pty Ltd and the DBCT Trustee (collectively referred to as DBCTM in this draft decision). DBCTM has the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

DBCTM is 100 per cent legally owned by its Australian parent, BPIH Pty Ltd (formerly Brookfield PIH Pty Limited).[7] BPIH Pty Ltd is in turn 100 per cent 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 (see Figure 2). BAM is 100 per cent publicly listed on the New York and Toronto stock exchanges.[8]

[7] Information on the Terminal's ownership structure was provided to the QCA by email from DBCTM, dated 12 January 2016.

[8] References to 'Brookfield' or the 'the Brookfield Group' in the remainder of this draft decision relate to BAM, BIP or related entities.

Figure 2 Ownership structure of DBCT



Source: DBCTM, email dated 19 January 2016.

BIP is a global alternative asset manager with a focus on property, renewable energy, infrastructure and private equity. BIP groups its businesses into four operating 'segments' based on similarities in their underlying economic drivers (see Table 2).[9]

Table 2 Summary of BIP's operating platform

Operating Segment	Asset Type*	Primary Location*
Utilities *Regulated or contractual businesses that earn a return on their rate base*	•Regulated Terminal [DBCTM] •Electricity Transmission •Regulated Distribution	•Australia [Queensland] •North and South America •Europe and South America
Transport *Provide transportation for freight, bulk commodities and passengers, for which we are paid an access fee*	•Rail [Westnet Rail] •Toll Roads •Ports	•Australia and South America [Western Australia] •South America •Europe and North America
Energy *Systems that provide transmission, distribution and storage services*	•Transmission, Distribution and Storage •District Energy	•North America and Europe •North America and Australia [New South Wales, Victoria and Tasmania]
Communications Infrastructure *Provides contracted transmission services and tower access rights*	•Tower Infrastructure Operations	•Europe

* Australian assets and location identified

1.2.2 Terminal operating arrangements

DBCTM's operation of, use of, and investment in the Terminal are subject to legislative and contractual arrangements put in place by the Queensland Government, just prior to the lease of the Terminal in 2001 (see Table 3).

[9]Brookfield Infrastructure Partners, *2014 Annual Report*, p. 51.

Table 3 Structural and regulatory arrangements underpinning the 2001 lease arrangements

Structural and regulatory arrangements underpinning the Terminal	
Third party access	In March 2001 the Queensland Government passed a regulation under which the handling of coal at the Terminal was made a "declared service" for the purposes of the QCA Act. The declaration gave rise to a range of rights and obligations in relation to the negotiation of the terms and conditions of access to the declared service. Those rights and obligations vest in the Terminal owner and access provider, access seekers and access holders.
Lease agreements	Under the leasing arrangements, DBCTM entered into a number of agreements with DBCT Holdings and Ports Corporation of Queensland (PCQ). The key agreement was the Port Services Agreement (PSA).
PSA	The PSA assigned to DBCTM: a. all duties and obligations held under the lease agreements with DBCT Holdings b. the Operation and Maintenance Contract (OMC) which engaged DBCT PL to be the Operator of the Terminal for the contract term c. the Terminal Regulations which detail the protocols and procedures that DBCTM and DBCT PL must comply with to ensure the Terminal is operated and maintained in accordance with Good Operating and Maintenance Practice d. the user agreements which require DBCTM to deliver coal handling services to users and requires users to comply with the Terminal Regulations when using the Terminal's coal handling services. e. the access principles that are to apply to the Terminal, including the principle of non-discrimination between users, the obligation to submit an access undertaking to the QCA for approval and the specified matters that are to be included in an approved access undertaking.
OMC	The OMC was originally executed between PCQ and DBCT PL. The contract was assigned to DBCTM in 2001. The assigned OMC contract included the right for DBCT PL to renew the contract for an additional term.
Terminal Regulations	Terminal Regulations were originally established by PCQ as the port authority responsible for the Terminal under the *Transport Infrastructure Act 1994* (TIA). The Terminal Regulations set out the detailed protocols and procedures for: a. operating and maintaining the Terminal b. interactions to occur between DBCTM, DBCT PL and users c. scheduling and unloading of coal trains at the Terminal.
2010 Undertaking	In September 2010, the QCA approved the 2010 access undertaking (2010 AU). It is due to expire on 30 June 2016. In October 2015, DBCTM submitted a draft access undertaking (2015 DAU) to the QCA. The 2015 DAU is intended to replace the 2010 AU, and is the subject of this draft decision.

The Port Services Agreement (PSA) between DBCTM and DBCT Holdings establishes the rights and responsibilities of DBCTM with respect to the operation, management and expansion of the Terminal. Among other things, it requires that DBCTM maintain an access undertaking with the QCA[10] and gives DBCTM responsibility for managing access applications (including any capacity queue) and expenditure of the Terminal (including any capital expenditure associated with expansions of capacity).

The day-to-day operational management of the Terminal is sub-contracted to DBCT Pty Ltd (DBCT PL) as the Operator under the Operations and Maintenance Contract (OMC). The Operator is an independent service provider owned by a majority of the existing users of the Terminal. Neither Brookfield nor DBCTM has any ownership interest in the Operator.

The Operator is contracted by DBCTM under the OMC to oversee the day-to-day operations and maintenance of the Terminal. In accordance with the OMC, the Operator is also responsible for some long-term asset management and maintenance planning.

[10] ACCC 2015, para 166, p. 26

1.2.3 Terminal Regulations

The OMC and the 2010 AU require that both DBCTM and the Operator comply with the Terminal Regulations, which give detailed requirements of the day-to-day operations at the Terminal. The Terminal Regulations must be adhered to by all access holders (according to the terms of their access agreements), and may be amended by the Operator with the consent of DBCTM.

DBCTM may only consent to Terminal Regulations and amendments if it reasonably considers the amendments operate equitably among access holders and access seekers, as far as practicable. The Terminal Regulations provide for conditions of access, scheduling and coal handling services for users at the Terminal, including:

- scheduling of access holders' railing in and handling of coal to promote efficiency
- temporarily reducing the tonnage of coal to be handled where capacity of the Terminal becomes restricted
- prescribing requirements for unloading of trains, stockpiling and cargo assembly, arrival and loading of vessels, pre-loading requirements, order of loading and other matters to promote the efficient, safe and equitable use of capacity at the Terminal
- allowing the Operator to exercise discretion in limited cases to optimise the Terminal's efficiency.

1.2.4 Terminal users

Coal companies holding User Agreements at the Terminal refer to themselves as users and comprise the following seven coal companies: Anglo American Coal; BHP Billiton Mitsui Coal (BMC); Glencore; Issac Plains Coal Management; Peabody Energy; Rio Tinto; and Vale. The Terminal's user agreements provide users with the ability to ship coal through the Terminal, assign some or all of their access rights to a third party and/or permit another user or third party to ship coal through the Terminal using their access rights. Importantly, the agreements give users an evergreen right to renew their contract on expiry.

The 2010 access undertaking (2010 AU) also provides the ability for users and third parties to apply for access to the Terminal through the:

- negotiation framework—allows access seekers to be placed in an access queue, and requires DBCTM to allocate any access rights according to the queue
- capacity expansion process—allows access seekers to trigger DBCTM's general obligation to undertake Terminal capacity expansions.

1.2.5 Terminal capacity trading

In 2012, DBCTM established a Trading Supply Chain Business (Trading SCB) to manage unused capacity entitlements at the Terminal. The Trading SCB provides an access arbitrage service ('secondary access market') for access holders, access seekers and third parties wishing to ship through the Terminal. The service is established via side agreements with participating users.

The establishment of the Trading SCB by DBCTM was initially considered by the QCA in early 2012. While we did not formally object to the establishment of a Trading SCB or require a DAAU to be lodged implementing further ring-fencing under the 2010 AU in respect of the Trading SCB, we noted at the time that:

- we had not reached a final view

- we would continue to monitor the implementation and operation of the secondary access market
- if we found that intervention was required, we would reconsider the matter in the future and may require it to be addressed with a DAAU to the 2010 AU.

1.3 Overarching issues

The following sections describe overarching issues raised by DBCTM and/or other stakeholders in the context of DBCTM's 2015 DAU. These issues are discussed in greater detail in later chapters of this draft decision.

1.3.1 Coal market climate

In its supporting submission to its 2015 DAU, DBCTM highlighted deteriorating coal market conditions and an uncertain industry outlook as forming an important backdrop to the assessment of the DAU.[11] Specifically, DBCTM stated that:

- Metallurgical coal spot prices have declined significantly since 2011 (by over 60% for premium grades).
- Several mines have scaled back production or ceased operations since 2011.
- The position of Australian coal producers on the global cost curve is deteriorating, as new lower-cost competitors emerge.
- Australian coal producers could emerge from the recent downturn with a considerably lower market share.
- The uncertain industry outlook means it cannot be assumed that all contracts at the Terminal maturing in the next regulatory period will be renewed.[12]

In response, the DBCT User Group said that, while some unfavourable short-term market conditions are evident, market evidence suggests demand growth will occur in the world coal market in the medium to long term. It added that, despite market conditions, coal exports are expected to continue to grow in the short term for both metallurgical and thermal coal.[13] The DBCT User Group also indicated that:

- Australian coal exports are predicted to increase from 310 mtpa in 2013 to 425 mtpa by 2040.
- The outlook for metallurgical coal, which accounts for the majority of coal handled at DBCT, is more positive than for thermal coal.
- Australia's exports of metallurgical coal are expected to increase at 2.6 per cent per annum from 2016–17 to 2019–20.
- The outlook for coal exports through DBCT remains positive.[14]

We accept DBCTM's view that coal market conditions have deteriorated over recent years, noting the significant decline in metallurgical (and thermal) coal prices since 2011. However, we agree

[11] DBCTM, sub. 2: 10.
[12] DBCTM, sub. 2: 10–11.
[13] DBCT User Group, sub. 11: 6.
[14] DBCT User Group, sub. 11: 6–10.

with the DBCT User Group that the short-term and long-term outlook for coal exports through DBCT is positive. We note the following:

- Prices of seaborne metallurgical coal have fallen in nominal terms only to the levels predominant through the first half of the last decade, suggesting the period of particularly high prices leading up to and just after the Global Financial Crisis (GFC) may be an anomaly.[15]
- Chinese steel production is expected to undergo modest recovery in the immediate future, and Indian production is expected to continue growing at steady rates as urbanisation processes continue to occur.[16]
- Evidence suggests Australian producers of metallurgical coal are at the lower end of the international cost curve.[17]
- Coal market forecasts from a number of sources all expect the current downturn to be transitory, with stronger growth expected in the medium to long term.[18]
- DBCTM's consultant (Wood Mackenzie) estimates global demand for seaborne metallurgical coal will increase over the next 20 years at a compound annual growth rate of 1.6 per cent.[19]
- Australia is expected to provide much of the worldwide growth in seaborne metallurgical coal over the next 20 years, due to the combined advantages of political stability, high quality coal, cost advantages and incumbency.[20]
- The available evidence suggests that mines in the DBCT catchment area are well placed to capture much of the growth in Australian metallurgical coal exports.[21]
- While some individual customers of DBCT are facing challenging financial circumstances due primarily to their international operations, this does not mean DBCT's customer base is at risk of long-term closure—rather, production of metallurgical coal from the DBCT catchment area is likely to continue to grow at modest levels, whatever ownership and structural arrangements apply to individual mines.[22]

Our view of the short-, medium- and long-term outlook for metallurgical coal shipped through DBCT is discussed in greater detail in the context of our assessment of DBCTM's weighted average cost of capital (WACC) (see Chapter 4) and depreciation (see Chapter 5) proposals.

1.3.2 Competition between ports

In its supporting submission to its 2015 DAU, DBCTM highlighted its view that investment in infrastructure triggered by the coal boom in the latter part of the last decade means DBCT is now clearly exposed to competition from alternative ports and supply chains—including the Abbot Point Coal Terminal (APCT) and Wiggins Island Coal Export Terminal (WICET).[23] Specifically, DBCTM said that:

[15] Incenta 2016: 21.
[16] Incenta 2016: 21–22.
[17] Incenta 2016: 22.
[18] See, for example, Incenta 2016: 22–24; DBCTM, sub. 3: 1; RMI 2015: 14.
[19] DBCTM, sub. 3: 1
[20] DBCTM, sub. 3: 1
[21] International Energy Agency, *WEO 2015*, p. 297.
[22] Incenta 2016: 27.
[23] DBCTM, sub. 2: 7.

- Completion of the Goonyella to Abbot Point Expansion (GAPE) rail infrastructure has linked producers in the northern Bowen Basin to APCT.
- WICET will have the potential to secure tonnage from users in DBCT's catchment in the southern Bowen Basin.
- Given the significant cost of installing capacity and uncertainty of future demand, the owners of APCT and WICET will be incentivised to price access competitively in order to maximise revenue recovery.
- Significant latent capacity now exists within Queensland coal supply chains.
- There is nothing to prevent BMA from opening its Hay Point Coal Terminal (HPCT) to third party access.
- As DBCT is the only port subject to 'heavy-handed' regulation, the commercial reality for DBCTM is that this regulation places it on a different competitive footing to other ports.[24]

In response, stakeholders (the DBCT User Group and Vale) strongly disagreed with DBCTM's view, and suggested there is no economic or practical evidence of significant competition—existing or contemplated—between ports. The stakeholders suggested that any competition to DBCT is severely limited by practical constraints on users switching to other terminals.[25] Specifically, the stakeholders said that:

- Services at DBCT are provided at lower prices than services at other terminals.
- Additional capacity at other terminals is unlikely to be available in the next regulatory period.
- The multi-cargo and coal blending options available at DBCT are not available at other terminals, particularly for metallurgical coal.
- For most mines on the Goonyella system, the additional distance to alternative terminals (and materially higher below-rail and above-rail costs) means these alternatives are unviable.
- There is insufficient below-rail capacity on parts of the network to allow switching to occur on a long-term basis for material volumes.
- Electrified rolling stock operated by above-rail operators cannot be used in the Newlands system.
- Significant capital investment in mine-specific rail infrastructure would be required, to allow switching on any significant basis.
- There is no evidence that BMA has any intention to provide third party access to HPCT.
- Long-term take-or-pay commitments (both below-rail and above-rail) severely restrict users' ability to switch terminals during the term of these agreements.[26]

We agree with stakeholders that the potential for DBCT to face significant competition from other terminals is limited. We consider the significant costs that would be faced by users attempting to

[24] DBCTM, sub. 2: 7–9.
[25] DBCT User Group, sub. 11: 10; Vale, sub. 10: 4.
[26] DBCT User Group, sub. 11: 10–13; Vale, sub. 10: 4–6.

switch significant tonnages from DBCT to other terminals (i.e. differences in port charges, below-rail costs and above-rail haulage costs) mean that switching is not likely to be a commercially viable option for many users. This lack of competition is reinforced by the other factors identified by stakeholders, including infrastructure capacity constraints (port and rail) and the long-term take-or-pay commitments.

In addition, we do not consider that regulation is necessarily a negative factor for DBCTM in terms of its competitive footing. We consider that, in reality, the fact that DBCTM is a regulated port may act as a pro-demand factor for services at the Terminal because *inter alia*, users are protected by regulation from exploitation of their sunk investments. Furthermore, we note the evidence suggests that DBCTM's cost-based form of regulation provides DBCTM with advantages, particularly through providing relatively fixed revenues compared with unregulated ports, thereby buffering DBCTM's cash flows in times of market volatility.[27]

Our view of the potential for competition between ports is discussed in greater detail in the context of our assessment of DBCTM's WACC (see Chapter 4), depreciation (see Chapter 5) and differential pricing (see Chapter 11) proposals.

We also note that our position on this issue is consistent with the views expressed by the:

- QCA in our final decision (August 2015) on DBCTM's February 2015 differential pricing draft amending access undertaking (the differential pricing DAAU)
- Australian Competition and Consumer Commission (ACCC) in its October 2015 Statement of Issues (SOI) in relation to the proposed acquisition of Asciano Limited (Asciano) by a Brookfield consortium.

1.3.3 Pricing for terminal expansions

Given our view of the long-term positive outlook for seaborne metallurgical coal exports from the DBCT catchment area, and the limited potential for competition between ports, we consider expansions of the infrastructure at DBCT are likely to occur over time—though we expect these expansions will be occasional and incremental.

We note that pricing arrangements for future expansions at DBCT have become somewhat contentious in recent times. This is reflective of changes, and forecast future changes, in the per tonne cost of capacity created by expansions of the Terminal.

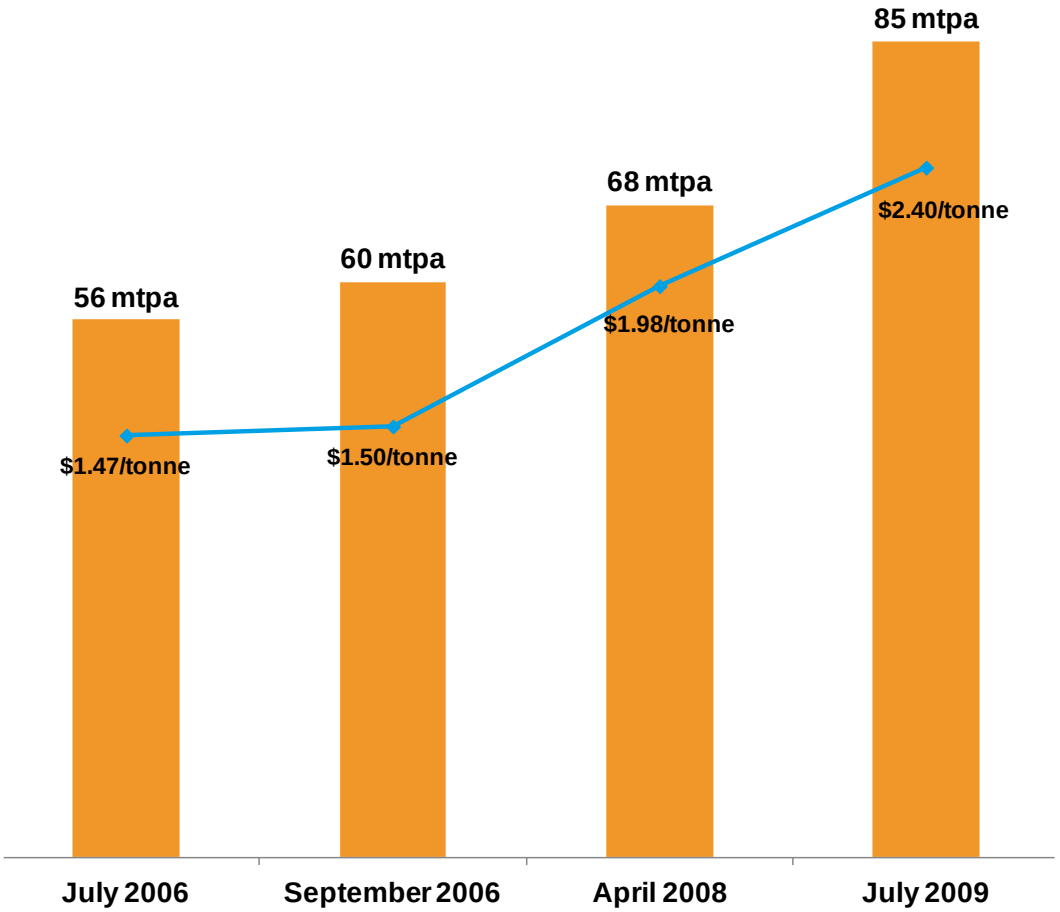
DBCT's capacity has been expanded from time to time to service the growth in demand for coal. Consequently, its capacity has increased to 85 mtpa from its initial capacity of 15 mtpa (in 1983). At the same time, Terminal expansions have become progressively more costly on a per tonne basis.

For instance, the major expansions in DBCT's capacity from 56 mtpa to 85 mtpa have increased the access charge, known as the terminal infrastructure charge (TIC), from $1.47/tonne to $2.40/tonne (in July 2006 dollars)—an increase of 63 per cent (see Figure 3).

Therefore, pricing arrangements for capacity expansions at DBCT are of particular interest to both non-expanding and expanding users.

[27] Incenta 2016: 33.

Figure 3 Capacity expansions and terminal infrastructure charge (July 2006 dollars)



Sources: QCA, June 2007; December 2009; September 2010a.

In this context, in February 2015, DBCTM submitted to the QCA for approval its differential pricing DAAU—proposing to introduce a form of differential pricing into the 2010 AU. In May 2015, we released a draft decision to refuse to approve the DAAU, and identified how the DAAU should be amended in order to be approved.[28] In August 2015, we released a final decision to refuse to approve the DAAU, and again identified how the DAAU should be amended to be approved—with only minor changes made between the draft and final decisions on the DAAU.[29]

DBCTM has not resubmitted the DAAU in response to the August 2015 final decision. However, it has revisited the issue of differential pricing in its 2015 DAU—proposing to introduce differential pricing in the form it argued for as part of the assessment process for the DAAU. Our consideration of this proposal is discussed in Chapter 11 of this draft decision. As part of our consideration, we have had regard to our draft and final decisions on the previous DAAU.

1.3.4 Evergreen contracts

In its supporting submission to its 2015 DAU, DBCTM highlighted that the contracts for 75 per cent of total capacity at the Terminal are due to expire during the next regulatory period, unless renewed. DBCTM said that, given the current level of uncertainty for the industry, especially in the short to medium term, it cannot be assumed that all contracts maturing in the 2016-20 period

[28] QCA 2015a.
[29] QCA 2015c.

will be renewed. Alternatively, if they are renewed, it could be for a lower tonnage, noting the ability and willingness of producers to scale back production until market conditions improve.[30]

In a supplementary submission provided to the QCA on 22 January 2016, the DBCT User Group discussed the incentives for existing users to renew their user agreements that are created by the term and renewal option structure in existing User Agreements.[31] Specifically, the DBCT User Group said that:[32]

- Existing agreements are effectively 'evergreen', with an option for users to extend the term in five-year increments, exercisable upon 12 months' prior notice.
- Any perceived 'drop-off' in the contracted tonnage profile over the next five years is a function of the five-year renewal terms. The theoretical drop-off in contracted tonnages is not new—it exists under the 2010 AU, but continues to 'move out' into the future as renewal rights are exercised.
- As the DBCT User Group considers that no other coal export terminal competes with DBCT, every user has an extremely strong incentive to continue to renew existing User Agreements for (at an absolute minimum) the current life of their mine.
- Even where mines of a user have temporarily closed (e.g. Isaac Plains), users have continued to pay access charges for the Terminal, with a view to being able to sell the mine with port access in place.
- For major mining companies with multiple mines (which characterises most users of DBCT), renewable access to the Terminal facilitates future development of their portfolio of mines.
- Even for the minority of companies that cannot themselves use future access rights, it is likely that either merger and acquisition activity will result in them becoming part of larger users with greater prospects of renewing access rights, or they will seek a commercial arrangement for assignment of access rights to third parties who can use them.

In a supplementary submission provided to the QCA on 11 March 2016, DBCTM submitted that the 'theoretical' incentives for users to continually extend User Agreements do not necessarily hold true.[33] More specifically, DBCTM said:

- The DBCT User Group's arguments were only valid for so long as demand for Terminal throughput exceeds Terminal capacity. The recent softening of the global coal market had reduced incentives for users to renew agreements.
- Users were more likely to relinquish capacity they do not immediately require if the demand outlook softens to the point where there is no unmet demand. This is because costs and delays associated with accessing capacity in future are less likely, meaning users will be less willing to bear the ongoing take-or-pay costs of holding capacity.
- An existing user has informed DBCTM that it would not exercise its option to renew 2.7 mtpa of contracted capacity at the Terminal. The capacity was to become available from 1 April 2016 and had been offered to the queue, but no access seekers in the queue had yet offered to take up the capacity.

[30] DBCTM, sub. 2: 11.
[31] DBCT User Group, sub. 29: 1.
[32] DBCT User Group, sub. 29: 3–5.
[33] DBCTM, sub. 30: 1.

- DBCTM faces a significant drop-off in contracted capacity from 2018 onwards—from 78.7 mtpa contracted in 2017–18 to 54.0 mtpa in 2018–19 and 24.0 mtpa in 2019–20. The magnitude of this drop-off did not exist for the 2010 AU—DBCTM illustrated that the expected drop-off in 2010 was only from around 80 mtpa to 70 mtpa over five years.
- In the current demand environment, the short remaining contract terms constituted a significant risk to DBCTM. This was exacerbated by recent downgrading, restructuring and divestments by users—including Peabody, Glencore, Anglo American and Isaac Plains.[34]

We note that DBCTM's supplementary submission was provided to the QCA relatively late in the process of developing this draft decision. While we have reviewed the contents of DBCTM's supplementary submission, the limited time available has limited the weight we have been able to afford this material. We will give the material further consideration, and would welcome any additional stakeholder input on these issues, in response to this draft decision.

At this stage, while we acknowledge a degree of short-term uncertainty in the coal sector, it is not clear to us that circumstances have materially altered in such a way as to significantly reduce the incentive for users to continue to maintain their contractual position at the Terminal through the continuing exercise of renewal rights. This is because, as discussed above, our view of the short, medium and long-term outlook for metallurgical coal exported through DBCT remains positive, and the incentive and ability of users to redirect production using the Terminal to other ports appears limited.

Given this, the QCA encourages all stakeholders to consider the issue of 'evergreen' contracts and the associated incentives further, and provide any additional relevant information in submissions to this draft decision.

We also note that the availability of 2.7 mtpa of capacity relinquished by a user, and offered to the access seekers in the queue for take-up from 1 April 2016, is a reasonably recent development. The QCA will be interested to see whether this capacity remains uncontracted well beyond April 2016, or whether it is taken up by another user reasonably quickly.

Our view of the incentives associated with 'evergreen' contracts is discussed further in the context of our assessment of DBCTM's WACC (see Chapter 4) and depreciation (see Chapter 5) proposals.

1.4 History of access undertakings for DBCT

In June 2006, the QCA approved the first access undertaking (the 2006 AU) for the declared services at DBCT. This followed an extensive consultation and assessment process that included the submission of two draft access undertakings (DAUs) by DBCTM, the release of draft and final decisions by the QCA, and lengthy discussions between DBCTM and the users of the Terminal (as represented by the DBCT User Group).

In September 2010, the QCA approved the second access undertaking (the 2010 AU) for the declared services at DBCT. This undertaking replaced the 2006 AU and took effect from 1 January 2011. The 2010 AU reflected a package of arrangements that had been negotiated between DBCTM and the DBCT User Group. The QCA's assessment of this undertaking thus focused on the public interest and the interests of access seekers that were not members of the DBCT User Group and, therefore, not a party to the negotiated package of arrangements.

[34] DBCTM, sub. 30: 5–8.

DBCTM's 2010 AU is scheduled to terminate on 30 June 2016. With this in mind, in June 2015, we issued DBCTM with an initial undertaking notice (IUN) under section 133 of the QCA Act, requiring DBCTM to submit a proposed replacement DAU to the QCA for approval. The IUN initially required DBCTM to submit a replacement DAU by 21 September 2015; however, the QCA subsequently agreed to extend this period to 19 October 2015.

On 12 October 2015, DBCTM submitted the 2015 DAU to the QCA, in accordance with the IUN. We published the 2015 DAU on the QCA's website, and sought submissions from stakeholders by 24 November 2015. We also commenced an investigation into the 2015 DAU, in accordance with section 146 of the QCA Act, to assess the 2015 DAU against the statutory criteria in section 138(2) of the QCA Act.

Separately, on 10 November 2015, DBCTM submitted a ring-fencing DAAU to the QCA for approval. This replaced an earlier (October 2015) ring-fencing DAAU. We were assessing the November 2015 ring-fencing DAAU as part of a separate process to our assessment of the 2015 DAU (noting the DAAU was withdrawn in March 2016). Given that, until its withdrawal of its November 2015 ring-fencing DAAU, DBCTM had indicated that it wished for the position in that DAAU to also be reflected in our consideration of the 2015 DAU, we have had regard to our assessment of the DAAU, including the draft decision released on 29 February 2016, in our assessment of the 2015 DAU. Among other things, this is in accordance with section 138(2)(h) of the QCA Act.

We note that both the 2015 DAU and the November 2015 ring-fencing DAAU included ring-fencing arrangements and related provisions; however, these differ in some respects (i.e. at the time the 2015 DAU was submitted, it reflected the earlier ring-fencing drafting in the original October 2015 ring-fencing DAAU). When it submitted the November 2015 ring-fencing DAAU, DBCTM committed to accepting the replacement of the arrangements proposed in the 2015 DAU with any arrangements that are approved as part of the assessment of the DAAU.[35] Ring-fencing arrangements are discussed in more detail in Chapter 9 of this draft decision.

1.5 Submissions on DBCTM's 2015 DAU

The QCA received initial submissions on DBCTM's 2015 DAU from the DBCT User Group and Vale. We also received a supplementary submission from the DBCT User Group, and a response submission from DBCTM. In addition, we have had regard to submissions received on DBCTM's October and November 2015 (ring-fencing) DAAUs, and the assessment process for the February 2015 (differential pricing) DAAU.

Stakeholders expressed concerns about a number of aspects of DBCTM's 2015 DAU, for instance, about the proposals related to:

- return on investment—that the 2015 DAU proposal represented a view based on selectively choosing regulatory precedents for the various WACC parameters to provide the largest benefit to DBCTM
- return of investment (i.e. depreciation)—that the 2015 DAU proposed a significant (13 year) decrease in the remaining useful life of the Terminal, and a consequent increase in the depreciation allowance

[35] DBCTM, sub. 27: 2.

- site remediation allowance—that the 2015 DAU proposal provided for a very significant increase in the annual allowance provided to account for DBCTM's obligations to remediate the Terminal site at the end of its useful life (from approximately $950,000 per annum to $12.8 million per annum)
- corporate overhead costs—that the 2015 DAU proposal provided for a significant increase in the corporate overheads cost allowance
- ring-fencing arrangements—that the proposed acquisition of Asciano Limited (which owns the Pacific National above-rail business) by Brookfield raised the prospect that ring-fencing provisions may need to be included in DBCTM's access undertaking—this matter has also been considered as part of the assessment of DBCTM's November 2015 (ring-fencing) DAAU
- reporting requirements—that the inclusion of ring-fencing arrangements in DBCTM's access undertaking necessitates the inclusion of appropriate reporting requirements related to these arrangements
- capital processes (related to both expansion and non-expansion capital expenditure (NECAP))—that these processes need to provide for efficient and prudent capital expenditure to be incurred, to allow the Terminal to continue to effectively deliver the declared services
- differential pricing—that the potential for future expansions to be differentially priced should be introduced into the access undertaking in an appropriate manner
- modelling issues—that there are a number of issues relating to the proposed modelling approach, including the treatment of working capital, inflation and residual value, that may artificially increase DBCTM's annual revenue requirement (ARR).

1.6 The QCA's considerations

The QCA has considered DBCTM's DAU and stakeholder submissions in accordance with the assessment criteria in section 138(2) of the QCA Act (see Box 1). More detail on the approach which the QCA has adopted to its application of the legislative framework, when considering the 2015 DAU, is set out in Chapter 2 (Legislative Framework).

Box 1 The assessment criteria

Assessment criteria in s. 138(2) and related provisions

s.138 Factors affecting the approval of draft access undertaking

(2) The Authority may approve a draft access undertaking only if it considers it appropriate to do so having regard to each of the following —

- *(a) the object of this part;*
- *(b) the legitimate business interests of the owner or operator of the service;*
- *(c) if the owner and operator of the service are different entities – the legitimate business interests of the operator of the service are protected;*
- *(d) the public interest, including the public interest in having competition in markets (whether or not in Australia);*
- *(e) the interests of persons who may seek access to the service, including whether adequate provision has been made for compensation if the rights of users of the service are adversely affected;*
- *(f) the effect of excluding existing assets for pricing purposes;*
- *(g) the pricing principles mentioned in section 168A;*
- *(h) any other issues the authority considers relevant.*

s.69E Object of pt 5

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

s.168A Pricing principles

The pricing principles in relation to the price of access to a service are that the price should—

- *(a) generate expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved; and*
- *(b) allow for multi-part pricing and price discrimination when it aids efficiency; and*
- *(c) not allow a related access provider to set terms and conditions that discriminate in favour of the downstream operations of the access provider or a related body corporate of the access provider, except to the extent the cost of providing access to other operators is higher; and*
- *(d) provide incentives to reduce costs or otherwise improve productivity.*

s.137 Contents of access undertakings

It is not open to the QCA to approve an access undertaking that does not include the matters required by s.137. These are:

- *(1) an expiry date (s. 137(1))*
- *(2) provisions for identifying, preventing and remedying conduct by an access provider that provides, or proposes to provide, access to itself or a related body corporate that unfairly differentiates in a material way between access seekers (in negotiations (s. 137(1A)(a)(i)) and access holders (in providing the service (s. 137(1A)(a)(ii)))*
- *(3) provisions preventing an access provider that provides, or proposes to provide, access to itself or a related body corporate recovering, through the price of access, costs that are not reasonably attributable to the provision of the service (s. 137(1A)(b)).*

Sections 137(2) and 138A set out matters that may be included in an access undertaking.

1.7 Draft decision

Our draft decision proposes to refuse to approve DBCTM's 2015 DAU.

In this draft decision, we explain our views and set out those amendments we consider necessary before we can approve DBCTM's 2015 DAU.

The full required amendments are contained in Appendices A and B to this draft decision.

Draft decision 1.1

(1) After considering DBCTM's proposed 2015 DAU, our draft decision is to refuse to approve DBCTM's DAU.

(2) We consider it appropriate that DBCTM amend its 2015 DAU in accordance with the amendments detailed in Appendix A and Appendix B to this draft decision, and as otherwise set out in this draft decision.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out in this document.

1.8 Structure

This draft decision focuses on the key differences between DBCTM's proposal and the views of stakeholders, including:

- Chapter 2: Legal framework—the way we have applied our legislative obligations in making this draft decision
- Chapter 3: Scope and administration—the provision of the declared services, role of the Operator, development of Terminal Regulations, term of the undertaking and review mechanisms
- Chapter 4: Rate of return—determination of the WACC and its underlying parameters
- Chapter 5: Depreciation—return of investment, including assessment of DBCTM's proposed weighted average mine life (WAML) approach
- Chapter 6: Site remediation allowance—consideration of an appropriate allowance to provide for DBCTM to meet its rehabilitation obligations in the PSA
- Chapter 7: Corporate overhead costs—an assessment of DBCTM's proposed increase in these costs
- Chapter 8: Tariffs and modelling—the build-up of DBCTM's terminal infrastructure charge (TIC), and consideration of associated modelling issues and approaches
- Chapter 9: Ring-fencing matters—including the interaction between the 2015 DAU and DBCTM's November 2015 (ring-fencing) DAAU
- Chapter 10: Negotiation and investment framework—including the operation of the queuing mechanism, and consideration of processes related to both expansion capital expenditure and NECAP
- Chapter 11: Differential pricing—consideration of the appropriate way to introduce the potential for differential pricing of future expansions into the access undertaking
- Chapter 12: Other matters—including reporting and dispute resolution.

1.9 Consultation on the draft decision

The QCA invites submissions on this draft decision, to be received no later than 5 pm on Monday 30 May 2016.

The QCA will consider the comments and submissions from DBCTM and other stakeholders, as well as our own analysis.

The QCA will consider any submissions it receives in the context of the assessment criteria in section 138(2) of the QCA Act, including the relative importance of matters where the application of the assessment criteria leads to conflicting or inconsistent conclusions.

2 LEGISLATIVE FRAMEWORK

This chapter outlines how we have interpreted and applied the statutory framework governing our draft decision under the QCA Act.

2.1 Part 5 of the QCA Act

Part 5 of the QCA Act establishes an access regime to provide a legislated right for third parties to acquire services provided using significant infrastructure with natural monopoly characteristics.

When the Bill to establish the QCA Act was introduced, the accompanying Explanatory Notes said:

> *The underlying rationale of creating third party access rights to significant infrastructure is to ensure that competitive forces are not unduly stifled in industries which rely upon a natural monopoly at some stage in the production process, especially where ownership or control of significant infrastructure is vertically integrated with upstream or downstream operations…*
>
> *…*
>
> *The purpose of third party access is therefore to provide a legislated right to use another person's infrastructure. This should prevent owners of natural monopolies charging excessive prices. It should also encourage the entry of new firms into the potentially competitive upstream and downstream markets which rely on a natural monopoly infrastructure in the production process, and thereby enable greater competition in those markets. This in turn would promote more efficient production and lower prices to consumers.*[36]

Part 5 of the QCA Act is modelled generally on the national access regime set out in Part IIIA of the *Competition and Consumer Act 2010* (Cth) (CCA), although with a number of material differences. The national access regime was established to enable third party access to identified bottleneck infrastructure, where economic efficiency would be enhanced by promoting competition in markets dependent on access to that infrastructure.

Since its introduction in 1995, Part IIIA has played a limited direct role in regulating bottleneck infrastructure. More often, the regime has provided a framework to support the development of consistent state-based arrangements and, at times, has acted as a regulatory 'backstop' supporting commercial negotiations in respect of infrastructure that is not otherwise the subject of sectoral regimes. Within this context, the continued relevance and importance of state-based regimes such as Part 5 of the QCA Act were recently recognised in the Competition Policy Review (Harper Review) which noted that:

> *Distinct access regimes have emerged for these different types of infrastructure, reflecting their distinct physical, technical and economic characteristics. Those regimes appear to be achieving the original policy goals identified by the Hilmer Review such that, today, Part IIIA plays only a limited role in regulating that bottleneck infrastructure.*
>
> *…state and territory agencies should continue to have responsibility for those sectors with which they are, by geography and institutional arrangements, better placed to deal.*[37]

While Part 5 resembles elements of Part IIIA, there are also material differences, a number of which are relevant to the current process. For example, the QCA Act provides the QCA with a

[36] Queensland Competition Authority Bill 1997, Explanatory Notes: 3–4.
[37] Competition Policy Review Panel, *Competition Policy Review,* 2015: 72–3, 475.

range of oversight and enforcement options which are not available to the ACCC or any other body under Part IIIA. This includes ability for the QCA to:

- require an owner or operator of a declared service to provide a draft access undertaking (or a draft amending access undertaking)—sections 133 and 139
- if the owner or operator does not comply with a requirement to prepare a draft access undertaking or draft amending access undertaking, the QCA may itself prepare, and approve, a draft access undertaking (or a draft amending access undertaking)—sections 135 and 141.

These powers do not exist under Part IIIA in respect of the ACCC.

In the present process, the QCA issued an initial undertaking notice to DBCTM under section 133 of the QCA Act on 23 June 2015.

2.2 The object of Part 5 of the QCA Act

The object of Part 5 of the QCA Act is set out in section 69E:

> *The object of this part is to promote the economically efficient operation of, use of and investment in significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets.*

The Queensland Government inserted this object clause as part of its commitment under the Council of Australian Governments (COAG) Competition and Infrastructure Reform Agreement 2006 (CIRA) that all states and territories would introduce a nationally consistent object clause to support consistency in access regulation across Australia.

2.2.1 Economically efficient outcomes for the operation of, use of and investment in, the declared service

Section 69E is principally directed at promoting economic efficiency and, in particular, the economically efficient operation, use of, and investment in facilities.

We consider economically efficient outcomes are facilitated, among other things, by an access framework that mitigates the potential exercise of market power by the owner of a facility with monopoly characteristics (such as those which are declared under Part 5 of the QCA Act).

In the context of DBCT, the framework should be directed at the following:

(a) promoting non-discriminatory treatment between users, access seekers and, where appropriate, other market participants (such as rail operators)

(b) preventing the Terminal from being used to restrict or delay efficient entry or competition in upstream and downstream markets, including by providing appropriate incentives for efficient investment in new capacity

(c) providing an opportunity for DBCTM to recover its efficient costs, including a return on investment that appropriately reflects the commercial and regulatory risks commensurate with providing access

(d) providing appropriate protections of the interests of access seekers and access holders, including in respect of confidentiality, disputes and access rights

(e) providing incentives to reduce costs or otherwise improve productivity

(f) preventing cost-shifting or cross-subsidisation between regulated and unregulated activities

(g) providing a stable, transparent and predictable regulatory framework, with appropriate oversight and enforcement.

More information on our view of economic efficiency under the QCA Act is set out in Chapter 3 of the Statement of Regulatory Pricing Principles, published by the QCA in August 2013.[38]

2.2.2 Promoting effective competition in upstream and downstream markets

By mitigating the potential exercise of market power by DBCTM and thereby promoting efficient use of and investment in infrastructure by which services are provided, competition in related markets will also be promoted consistent with the second element of the object in section 69E. The declared service at DBCT is declared under the QCA Act (under the transitional provisions in s. 250) and relates to the handling of coal through the provision of Terminal services to access holders at DBCT (s. 250 of the QCA Act). The coal-handling service promotes competition in a range of dependent markets, which we consider includes:

- the coal export market, including various commercial activities associated with the development, operation and expansion of coal mines
- markets for access to and use of other infrastructure services necessary to export coal through the Terminal, including above-rail and below-rail services
- shipping services associated with the delivery of coal to export customers.

2.3 Assessment approach

As noted above, on 23 June 2015, we issued an initial undertaking notice under section 133 of the QCA Act requiring DBCTM to submit a DAU for the services declared under section 250(1)(c) of the Act. In response to our initial undertaking notice, DBCTM lodged the 2015 DAU for our consideration on 12 October 2015.[39]

Section 134 of the QCA Act requires us to consider the 2015 DAU given in response to the section 133 notice and either approve or refuse to approve the 2015 DAU. If we refuse to approve the DAU, we must give DBCTM a written notice that states the reasons for the refusal and asks DBCTM to amend the DAU in the way we consider appropriate (s. 134(2)).

2.4 Factors affecting approval of DAU (s. 138(2))

We may approve the 2015 DAU only if we consider it appropriate to do so having regard to a number of statutory factors. The statutory factors guiding our decision-making process are set out in section 138(2) of the QCA Act (Box 2.1).

[38] QCA, Statement of Regulatory Pricing Principles, August 2013 (available here: http://www.qca.org.au/getattachment/239b5385-ad9f-4717-8fce-ec437111dbc6/Statement-of-Regulatory-Pricing-Principles-(Aug-20.aspx)

[39] On 18 September 2015, we extended the period referred to in the initial undertaking notice to 19 October 2015, at the request of DBCTM.

Box 2.1: Section 138(2) of the QCA Act

The QCA may approve the 2015 DAU only if the QCA considers it appropriate to do so having regard to each of the matters set out in section 138(2) of the QCA Act:

> *The Authority may approve a draft access undertaking only if it considers it appropriate to do so having regard to each of the following —*
>
> *(a) the object of this part;*
>
> *(b) the legitimate business interests of the owner or operator of the service;*
>
> *(c) if the owner and operator of the service are different entities—the legitimate business interests of the operator of the service are protected;*
>
> *(d) the public interest, including the public interest in having competition in markets (whether or not in Australia);*
>
> *(e) the interests of persons who may seek access to the service, including whether adequate provision has been made for compensation if the rights of users of the service are adversely affected;*
>
> *(f) the effect of excluding existing assets for pricing purposes;*
>
> *(g) the pricing principles mentioned in section 168A;*
>
> *(h) any other issues the Authority considers relevant*

The matters listed in section 138(2) give rise to different and, at times, competing considerations which need to be weighed by us in deciding whether it is appropriate to approve the DAU. For instance, there may be some tension between the legitimate business interests of DBCTM (as the operator of the Terminal) and the interests of access seekers and access holders, or other stakeholders.

In the absence of (as is the case in the QCA Act) any statutory or contextual indication of the weight to be given to factors to which a decision-maker must have regard, it is generally for the decision-maker to determine the appropriate weight to be given to them.[40] We consider that this approach generally applies here.

Where, after having regard to the statutory factors, we have identified that it is not appropriate for us to accept particular terms of the 2015 DAU without amendment, we have proposed alternative drafting which asks DBCTM to amend the DAU in a way we consider appropriate (s. 134 of the QCA Act). We acknowledge that in doing so we have not refused to approve the DAU simply because we consider a minor and inconsequential amendment should be made to a particular part of the 2015 DAU (ss. 138(5) and (6)).

The remainder of this chapter sets out our approach to the criteria listed in section 138(2)(b)–(h) of the QCA Act in relation to the 2015 DAU. Our consideration of section 138(2)(a) is already addressed above.

2.5 Legitimate business interests of the owner or operator (ss. 138(2)(b) and (c))

Section 138(2)(b) of the QCA Act requires us to have regard to the 'legitimate business interests' of the owner, DBCT Holdings, or operator of the service, DBCTM. Where the owner and operator

[40] Minister for Aboriginal Affairs v Peko-Wallsend Ltd (1986) 162 CLR 24 [41] (Mason J).

of the service are different entities, section 138(2)(c) requires us to have regard to whether the legitimate business interests of the operator of the service are protected.

Relationship between DBCT Holdings and DBCTM

As a result of the corporate history and associated lease arrangements at the Terminal, the Terminal owner and the operator are separate entities.

The 'owner' of a service is defined in the QCA Act as the owner of the facility used, or to be used, to provide the service. Under long-term lease arrangements, the Queensland Government retains ownership of the Terminal, through a wholly government-owned entity, DBCT Holdings.

The term 'operator' is not defined in the QCA Act, and therefore it is appropriate to give effect to the plain meaning of the term, taking into account the purpose and object of the QCA Act and the manner in which the term is used in the access provisions in Part 5, in particular. We note the question of whether DBCTM is the appropriate entity to be treated as the operator of DBCT was recently considered in some detail in our draft decision in relation to DBCTM's November 2015 ring-fencing DAAU.

In that draft decision, we determined that various features of the DBCT contractual arrangements supported the view that DBCTM is the appropriate 'operator' for the purposes of Part 5 of the QCA Act, including because it is DBCTM—and not DBCT PL (the entity responsible for day-to-day operations at the Terminal)—which is the party that gives access to the Terminal by negotiating and entering into the access agreements which specify the commercial terms that apply to access.

We note there may be occasions where the interests of DBCTM, as the operator and DBCT Holdings (the state-owned entity which is the lessor of the Terminal), as the owner of the Terminal, are conflicting or are otherwise in tension.

In balancing the respective interests of DBCTM and DBCT Holdings, we have given particular consideration to DBCTM's role as the operator under the QCA Act and the significant capital investment DBCTM has made in the Terminal. In saying this, we nonetheless accept that where broader economic considerations are raised that may touch upon state ownership of the Terminal, such as the importance of the operation of DBCT to the state or regional economies, these may be relevant in our assessment of the public interest criterion (s. 138(2)(d)), as discussed below.

The meaning of legitimate business interests

'Legitimate business interests' is not a defined term under the QCA Act.

We consider the 'legitimate business interests' of DBCTM include the commercial interest in having an opportunity to recover the efficient costs for providing the relevant service and in earning a commercial return on investment commensurate with the regulatory and commercial risks involved in supplying the declared service.

As well as tariff and revenue issues, we recognise that DBCTM may have a range of other legitimate business interests including to:

- promote incentives to maintain, improve and invest in the Terminal and the efficient provision of the declared services
- meet its contractual obligations to existing users
- seek to attract and contract for additional tonnage from new and existing coal producers within the relevant region

- improve commercial returns, where these returns are generated from, for example, innovative investments or improved efficiencies
- ensure the Terminal is maintained and operating to meet legal requirements, including providing for its safe operation
- comply with other contractual or regulatory requirements such as the Port Services Agreement (PSA)—recognising that contractual arrangements cannot bind or constrain us in exercising our discretion to approve or refuse to approve the DAU.[41]

The legitimate business interests of DBCTM is one of the factors to be weighed up by the QCA pursuant to section 138(2).

2.6 The public interest (s. 138(2)(d))

Section 138(2)(d) of the QCA Act requires us to have regard to the public interest, including the public interest in having competition in markets—whether or not in Australia.

The term 'public interest' is not defined in the QCA Act, and any assessment of the public interest will necessarily be shaped by its context.

In the present circumstances, we consider the public interest will be served by an access undertaking that promotes the sustainable and efficient development of the Queensland coal industry. This continued investment will, in turn, provide a stimulus to the Queensland economy and local employment.

The nature of our assessment of the public interest

DBCTM, in its 2015 DAU submission, referred to several recent QCA decisions in relation to public interest and expressed a concern that 'the QCA has applied inconsistent interpretations of the public interest … therefore [there is] some uncertainty as to how the public interest will be applied by the QCA in each decision'.[42]

DBCTM noted that in our final decision on its 2015 differential pricing DAAU we considered the public interest related to:

- economically efficient expansion in the central Queensland Coal Region (CQCR)
- efficient and sustainable development of the Queensland coal industry.[43]

DBCTM contrasted this with our draft decision on Wiggins Island Rail Project (WIRP) pricing, where we considered it in the public interest for there to be '… an efficient and competitive coal industry'.[44]

We do not consider that the approaches adopted in the two decisions above are inconsistent. For example, we consider that it is necessary for the coal industry to be 'competitive' and 'efficient', in order for it to be 'sustainable' over the long term. Therefore, we do not accept there has been any inconsistency in our approach to the criterion in the examples referred to by DBCTM.

We also note that any assessment of the public interest will be shaped by its context, and will vary over time. For example, when the coal market is experiencing a period of growth, it may be

[41] The role of the PSA and its constraints on DBCTM is discussed further in Chapter 11 of this draft decision.
[42] DBCTM, sub. 2: 67
[43] QCA 2015c: iv, 11, 22.
[44] QCA 2014: 9.

that the public interest requires particular attention be paid to facilitating efficient investment in new or expanded capacity. During periods of contraction, the public interest may be served through a heightened focus on the efficient operation of the Terminal, and facilitating greater coal supply chain efficiency, in order to reduce supply chain costs.

2.7 Interests of persons who seek access (s. 138(2)(e))

Section 138(2)(e) of the QCA Act requires us to have regard to the interests of persons who may seek access to the service, including whether adequate provision has been made for compensation if the rights of users of the service are adversely affected.

We consider the rights of existing access holders (users) are relevant under section 138(2)(h), to the extent they are not also access seekers under section 138(2)(e).

We acknowledge that, in having regard to this criterion, we are also required to consider and seek to achieve an appropriate balance between different users, including over time.

More generally, we consider the interests of access seekers may also include:

- the provision of access on reasonable commercial terms, including through the availability of standard access agreements that represent an appropriate risk allocation (including appropriately protecting existing contractual entitlements)
- being treated in a fair, equitable and non-discriminatory manner
- tariffs that do not exceed the efficient costs of access, provided that tariffs (and the tariff structure) also provide appropriate incentives to DBCTM and the operator of the Terminal to increase efficiency over time
- clear and transparent information about access to and use of the declared service, which supports a principled negotiation framework and an effective dispute resolution process
- a clear and effective framework for capacity expansion decision-making
- the reasonable protection of an access seeker's confidential information
- effective transitional arrangements as one undertaking replaces another.

2.8 The effect of excluding existing assets for pricing purposes (s. 138(2)(f))

Section 138(2)(f) of the QCA Act requires us to have regard to the effect of excluding existing assets for pricing purposes. We have had regard to this criterion as part of our assessment of the revenues and tariffs appropriate for the declared service.

2.9 The pricing principles in section 168A of the QCA Act (s. 138(2)(g))

Section 138(2)(g) of the QCA Act requires us to have regard to the pricing principles in section 168A. These principles indicate that the price of access to the declared service should achieve all of the following:

- generate expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved
- allow for multi-part pricing and price discrimination when it aids efficiency

- not allow a related access provider to set terms and conditions that discriminate in favour of the downstream operations of the access provider or a related body corporate of the access provider, except to the extent the cost of providing access to other operators is higher
- provide incentives to reduce costs or otherwise improve productivity.

The intent of the pricing principles is to provide guidance in determining the revenue requirements and regulatory tariffs under the QCA Act, including the structure of access charges and associated pricing matters.

In particular, the pricing principles state that regulated access prices should provide the operator with an opportunity to generate revenue which is at least enough to meet the efficient costs of providing access to the regulated service, including an appropriate risk-adjusted return on capital.

In determining the efficient level of cost, it has long been recognised that in utility industries with significant fixed costs (i.e. the level of cost is not affected by intensity of use), a problem arises if the recovery of efficient costs is limited to marginal costs.[45] This is because in this case, the full efficient economic cost of providing the service is unlikely to be recovered by the access provider, which may adversely impact new investment.

We have previously observed in this regard:

> *One role of a regulator whose objective is to promote economic efficiency in natural monopoly markets is to set prices, or provide the regulated firm with incentives to set prices, that achieve economic efficiency objectives. Various means to accomplish these objectives in the face of the constraints caused by sunk costs and natural monopoly conditions are discussed below.*
>
> *...*
>
> *As discussed above, where there are sunk costs, and capacity investment is lumpy, marginal cost generally lies below average cost. Prices set to recover only marginal cost would prevent the regulated firm from recovering all of its costs, which the Act requires. If the firm is not allowed to recover total costs, it will not have appropriate incentives to operate and invest.*[46]

The pricing principles also recognise that pricing can be used to aid efficiency. For example, differential pricing in appropriate circumstances may provide a direct and cost-reflective signal to users of the costs of expansion, and in doing so, incentivise owners and users to explore alternative productivity measures.

While given significant weight by the QCA, the nature of the pricing principles and the context in which they are relevant means that in respect of some matters there may be other considerations which are in tension, and which require us to undertake a balancing or weighing exercise.

Asymmetric consequences of error in assessing efficient costs

DBCTM submitted that regulatory errors in setting a weighted average cost of capital (WACC) have asymmetric consequences. That is, the consequences of setting a WACC too low, thereby discouraging investment, is considered worse than setting it too high. This position is commonly supported by comments made by the Productivity Commission both in its periodic reviews of the National Access Regime and reviews of electricity regulation.[47]

[45] See for example: Productivity Commission 2001, *Review of the National Access Regime*, report no. 17, September: p. 323.
[46] QCA 2013, Statement of Regulatory Pricing, final report, August:p. 10.
[47] See for example: Productivity Commission, 2013, *Review of the National Access Regime*, report no 66 *p.* 104.

Therefore, DCBTM said that choosing a higher WACC from the distribution of possible estimates may act as insurance against this underinvestment problem and should be given regard as:

> *...the consequences of setting WACC too low, and discouraging efficient investment in essential infrastructure, is considered worse than setting it too high. Given the imprecise nature of WACC estimation, the probability of regulatory error is high.*[48]

We addressed this issue in our consolidated draft decision on Aurizon Network's 2014 DAU, as follows:

> *Efficient investment is also an important objective—and does not include under- or overinvestment. While underinvestment in the rail infrastructure has negative implications for Aurizon Network and its investors (and the coal industry through potential lack of future capacity), overinvestment also has negative implications as it may lead to underinvestment at other functional levels of the coal supply chain, including mine development.*[49]

We consider this position, which recognises the importance of efficient investment, applies to investment in DBCT, and the Dalrymple Bay Coal Chain (DBCC) more generally.

As discussed in Chapter 4 of this draft decision, we note that our methodology for determining the WACC is based on established regulatory practice using generally accepted finance theory. The QCA does not agree with DBCTM that selecting values for WACC inputs that are consistently biased towards a higher cost of capital reflects an appropriate balancing of the factors under section 138(2) of the QCA Act, including:

- providing incentives for efficient investment in the Terminal and the provision of declared services
- the legitimate interests of DBCTM in having an opportunity to recover the efficient costs of providing the declared service (together with a risk-adjusted return on capital)
- the legitimate interests of access holders (and access seekers) and the public interest which are promoted by providing for the cost of access to reflect, and to not exceed, efficient costs
- the object of Part 5 of the QCA Act, which is to promote the economically efficient operation of, use of and investment in the Terminal.

2.10 Any other issues the QCA thinks relevant (s. 138(2)(h))

Section 138(2)(h) of the QCA Act allows us to have regard to any other issues we consider relevant.

We set out below a number of the matters which we have considered relevant in our consideration of the 2015 DAU.

2.10.1 Access holders

We consider the interests of the Terminal's users are relevant. The interests of users will generally coincide with the interests of access seekers, as all access seekers who sign contracts will become users.

However, we consider the interaction between existing users and future access seekers has an inter-generational dimension, where the interests of current access holders and future access

[48] DBCTM sub. 2: 16.
[49] QCA 2015d, Aurizon Network 2014 Draft Access Undertaking—Volume IV Maximum Allowable Revenue, consolidated draft decision, p. 189.

seekers may differ. For example, the approach to pricing capacity expansions can give rise to tension between the interests of current and future Terminal users. Depending on whether expansions are uniformly priced[50] or differentially priced, a pricing decision may favour a category of access seekers, but have equity impacts on other users over time. For example, if an expansion is uniformly priced, some users may pay more than the costs associated with their use of a service, while another group may pay less.

Other parts of this draft decision, such as the approach taken to determining asset lives and depreciation can also affect the timeframe over which DBCTM recovers certain costs—and this can therefore also impact differently upon existing users and future access holders.

2.10.2 The role of the 2010 access undertaking

We consider the 2010 AU as relevant to our consideration of the 2015 DAU.

The 2010 AU represents a negotiated package of arrangements, which stakeholders are familiar with and have accepted.

In our final decision, we said:

> *Indeed, both DBCT Management and the terminal's users have emphasised that the DAU reflected a negotiated package of arrangements that was satisfactory to both parties – but that those parties did not necessarily agree on every individual aspect of the DAU.*
>
> *The Authority has considered the DAU in this context. In particular, the Authority notes that DBCT Management has used a methodology for determining the weighted average cost of capital (WACC) that is not consistent with the Authority's current WACC methodology. That the Authority has approved the revenues and tariffs based on this alternative methodology should not be seen as the Authority endorsing that methodology. Rather, the Authority accepts that the WACC methodology proposed was part of the negotiated package of arrangements agreed with users.*[51]

Nonetheless, we consider the 2010 AU (as varied through approved DAAUs over the last regulatory period) provides an appropriate starting point from which to assess the context of the 2015 DAU and Standard User Agreement (User Agreement). We also recognise that users and other stakeholders, through their experience interacting with the 2010 AU , may have identified aspects of the 2010 AU that have functioned well and aspects that require improvement. Furthermore, there may be other relevant considerations which are not adequately reflected in the 2010 AU.

We also recognise as a relevant consideration under section 138(2)(h) that, unless there is an appropriate case for change, providing stability and predictability in the regulatory framework such as between relevant parts of the 2010 AU and 2015 DAU is likely to promote investment confidence.

2.10.3 DBCTM draft amending access undertakings (DAAUs)

Differential Pricing DAAU

We consider DBCTM's 2015 differential pricing DAAU is relevant to our consideration of the 2015 DAU. In February 2015, DBCTM submitted the DAAU to amend its 2010 AU to consider pricing future expansions of the declared service on a differential basis. In broad terms, the DAAU

[50] Uniform pricing refers to circumstances where the costs of expansions are paid for by all users, not just users seeking expanded capacity.
[51] QCA 2010: iii.

proposed that expanding users of the declared service should pay a higher price that reflects the full costs of the additional capacity in particular circumstances.

In August 2015, we released our final decision on this DAAU. While accepting the principle of differential pricing, we refused to approve the DAAU based on the proposed implementation of that pricing approach, and indicated the ways in which we considered DBCTM would need to amend the DAAU in order for it to be approved.

Ring-fencing DAAUs

We consider the ring-fencing DAAUs submitted by DBCTM in 2015 to also be relevant to our consideration of the 2015 DAU. In October and November 2015, DBCTM submitted DAAUs which proposed ring-fencing provisions for the 2010 AU, as a result of a Brookfield consortium's proposed acquisition of Asciano Limited.

Specifically, the DAAUs sought to address actual or potential concerns of users and stakeholders regarding the potential vertical integration of Brookfield (as the owner of DBCTM) and Asciano's businesses, which include Pacific National.

We released our draft decision on the November 2015 ring-fencing DAAU in February 2016. Our draft decision was to refuse to approve the DAAU, and require necessary amendments. We consider our draft decision on this matter to also be relevant to our consideration of the 2015 DAU.

We note that DBCTM withdrew its November 2015 ring-fencing DAAU in March 2016. In its letter to the QCA on 24 March 2016, DBCTM said:

> *In light of the changed circumstances and DBCTM's decision to withdraw the October and November 2015 DAAUs, it is DBCTM's preferred position that the 2015 DAU no longer include the corresponding amendments.*[52]

Given the late point in the process at which we received the request from DBCTM, we are requesting further comments from stakeholders as part of this draft decision as to whether, given the proposed acquisition of Pacific National by Brookfield may no longer occur, any or all of the relevant provisions are still appropriate. This issue is discussed in more detail in Chapter 9 (Ring-fencing) of this draft decision.

The relevance of our previous DAAU decisions

While we consider relevant and have taken into account - and at times adopted - the reasoning and conclusions as expressed in earlier DAAU decisions, we note that we have done so in this process only after separately considering the appropriateness of those matters in the context of the 2015 DAU.

2.10.4 Other relevant QCA decisions and positions

Some of the issues and themes considered in this draft decision are not unique to the DBCT access regime and have been discussed in other QCA decisions. Therefore, where we have considered similar issues in other decisions, we consider those decisions are also relevant under section 138(2)(h) of the QCA Act.

These include:

[52] DBCTM, 2016: 1.

- our consolidated draft decision on Aurizon Network's 2014 DAU (and related component decisions)—which provides useful context on, for example, WACC. We note many of the issues raised by stakeholders with regard to the calculation of the WACC, such as market parameters like the market risk premium (MRP) and gamma, have also been raised in relation to the 2015 DAU.
- the QCA cost of capital research papers[53] —these papers provide substantial and relevant guidance on our approach to setting a return on capital, which provides adequate opportunity for a regulated entity to recover efficient costs while protecting users from excessive prices. In addition, these research papers were the product of extensive stakeholder consultation and expert review, and provide further insight into the interests of relevant parties.

We consider the public interest is promoted by us seeking to adopt a consistent and predictable approach to the regulatory oversight of declared services under Part 5 of the QCA Act, where issues raised in respect of different services are substantially similar and it is otherwise appropriate to do so, given the context.

2.10.5 The negotiate–arbitrate model and the primacy of commercial negotiations

The QCA Act's third party access regime incorporates the 'primacy of contractual negotiations' principle by adopting a 'negotiate–arbitrate model'. That is, parties should endeavour to negotiate a mutually beneficial outcome before resorting to arbitration. We note the 2010 AU was a negotiated package of arrangements that was supported by DBCTM and the DBCT User Group. We also supported this outcome, and approved the negotiated package of arrangements.

However, we consider arbitration to be an appropriate means for resolving disputes in the absence of commercial agreement, due to the bargaining power asymmetries between DBCTM and the users of the declared service.

If the arbitration process is not credible, there would not be a viable mechanism to deal with asymmetry in bargaining power. This asymmetry could result in negotiations unduly favouring DBCTM. For these reasons, we have considered how the 2015 DAU:

- affects the role of customer engagement
- affects the balance of negotiation strength
- impacts on barriers to participation, whether real or perceived
- affects the timely flow of information
- provides for effective and practicable dispute resolution processes, accountability and transparency.

Indeed, if the above matters are not appropriately accounted for, this could diminish the credibility and reputation of the access regime and as a consequence, Queensland's future economic prospects. We consider that failing to account for these matters would not be consistent with the object of Part 5 of the QCA Act (s. 69E).

Finally, we note where the QCA is constrained as to its power to make an access determination in relation to a matter if it was referred to us as part of an access dispute (s. 119), that is also a

[53] QCA 2014, Cost of capital—Market parameters, final decision, August; QCA 2014, Cost of debt estimation methodology, final decision, August; QCA 2015, Trailing average cost of debt, final decision, April.

matter which we consider relevant in assessing the appropriate scope and nature of matters which the QCA can reasonably require to be included in the 2015 DAU.

2.10.6 Supply chain improvements and coordination

We consider supply chain coordination is an important factor for achieving the object of Part 5 of the QCA Act. We consider there is a strong relationship between an efficient and effective DBCC and the competitiveness of Queensland coal producers.

Therefore, we consider the regulatory framework should not unnecessarily restrict or prevent supply chain improvements or innovations that could help facilitate the more efficient development and coordinated operation of the supply chain. It should also facilitate, to the extent possible, flexibility to facilitate the alignment of contractual requirements at different parts of the supply chain.

This may include participants having access to information necessary to make informed coordination and contracting decisions, providing opportunity for users to trade access rights (on both a short- and long-term basis), promoting efficient investment in the relevant Terminal capacity expansions through differential pricing where appropriate, as well as having an efficient queue for users to obtain new or additional access rights.

2.11 Section 134

Where, after having regard to each of the statutory factors in section 138(2) of the QCA Act, we have identified that it is not appropriate for us to approve particular terms of the 2015 DAU, we have proposed alternative drafting which asks DBCTM to amend the DAU in a way we consider appropriate (s. 134 of the QCA Act).

We acknowledge that in doing so we have not refused to approve any element of the DAU, or proposed alternative drafting, simply because we consider a minor and inconsequential amendment should be made to a particular part of the 2015 DAU (ss. 138(5) and (6)).

3 SCOPE AND ADMINISTRATION

This chapter discusses the scope and administration provisions included in clauses 1 to 4 of the 2015 DAU. These clauses include proposals related to matters such as the identity of the access provider, the scope of the undertaking and the nature and role of relevant parties.

Our draft decision is to refuse to approve the scope and administration arrangements proposed in DBCTM's 2015 DAU. We have proposed a number of amendments to the scope and administration provisions—largely to reflect our recent draft decision on DBCTM's November 2015 ring-fencing DAAU and we affirm and adopt the analysis set out in that draft decision.

On 24 March 2016, the QCA received a late submission from DBCTM that indicated that it no longer wished to have any of the October or November 2015 DAAU amendments included in the 2015 DAU, because the proposed acquisition of Pacific National by Brookfield was not proceeding. Given the late point in the process at which we received this request, and consistent with our approach elsewhere in this draft decision, we seek further comments from stakeholders as part of this draft decision as to whether any or all of the 2015 DAU provisions relating to scope and administration and which reflect changes originally proposed in the October or November 2015 ring-fencing DAAUs remain appropriate, given the change in circumstances.

Table 4 provides an overview of the proposals considered in this chapter.

Table 4 Scope and administration overview

2015 DAU proposal	*Stakeholders' comments*	*QCA comments*
Proposals relating to the October and November 2015 ring-fencing DAAUs		
Proposed amendments to reflect DBCTM's October 2015 ring-fencing DAAU.	The DBCT User Group suggested the undertaking include the provisions proposed in the November 2015 ring-fencing DAAU.	Refer to section 3.1
Terminating date of the access undertaking		
Proposed that the access undertaking terminates on the earliest of the following: (a) 1 July 2021 (b) when DBCT Pty Ltd ceases to be the operator (c) the date that handling of coal at the Terminal ceases to be a declared service.	The DBCT User Group accepted (a) and (b). It did not accept (c) as the proposal does not support regulatory certainty and is inconsistent with the Port Services Agreement.	Refer to section 3.2
Review of the access undertaking		
Proposed to remove the one and three year reviews. If an inequity or unfairness in the undertaking become apparent during the term, DBCTM proposed to address the relevant issue by submission of a DAAU.	The DBCT User Group said the provisions should be amended to: • prevent DBCTM from withdrawing a DAAU • require DBCTM to resubmit a DAAU which reflects the final decision by the QCA.	Refer to section 3.3

3.1 Proposals relating to the October and November 2015 ring-fencing DAAUs

3.1.1 DBCTM's proposal

DBCTM's 2015 DAU proposes to retain many of the provisions on the application and scope of the undertaking included in the 2010 AU.[54] However, DBCTM has included a number of additional proposals to reflect its ring-fencing DAAU submitted in October 2015. These additional proposals seek to:

- clarify the role of DBCT Pty Ltd (DBCT PL) as the Operator of the Terminal
- acknowledge the Operator's obligations under the Operation and Maintenance Contract (OMC).[55]

As noted above, DBCTM withdrew its October 2015 ring-fencing DAAU and submitted an updated proposal in its November 2015 ring-fencing DAAU. Prior to its most recent request to withdraw this DAAU, DBCTM's preferred position on the scope and administration provisions is set out fully in the relevant sections of our February 2016 draft decision on that DAAU. In summary, DBCTM proposed to include additional amendments to provide for processes that:

- DBCTM will follow if it decides to terminate or permit the assignment of the OMC, or if DBCTM decides to permit a change in control of the Operator
- will apply to DBCTM should the Operator seek to amend the Terminal Regulations during the regulatory period.

3.1.2 Stakeholders' submissions

The DBCT User Group:

- supported the provisions proposed by DBCTM regarding the role of the Operator
- suggested the DAU include the provisions proposed in the November 2015 ring-fencing DAAU, relating to the independence of the Operator
- proposed additional amendments regarding the independence of the Operator, consistent with its submission on the November 2015 ring-fencing DAAU
- were concerned with the provision of the Services (Schedule E of the 2015 DAU) being modified by the provisions of the OMC.[56]

3.1.3 QCA analysis and draft decision

DBCTM said the above-mentioned 2015 DAU proposals reflected the ring-fencing DAAU submitted by DBCTM in October 2015. However, in November 2015, DBCTM submitted a revised

[54] These provisions are included in cl. 1–4 of the 2015 DAU, except for the provisions relating to the Terminal Regulations, which are in cl. 6 of the 2015 DAU.
[55] DBCTM 2015 DAU, p. 5. cl. 3.
[56] DBCT User Group, sub. 11: 31, 38. Our draft decision on the November 2015 ring-fencing DAAU provides a summary of the DBCT User Group's and Vale's key concerns in relation to the scope and administration provisions set out, see QCA 2016: 24–25.

version of its ring-fencing DAAU, which included further amendments relating to the scope and administration of the access undertaking.[57]

We note that we are required to assess the proposals originally submitted by DBCTM as part of the 2015 DAU, for the purposes of this draft decision and any subsequent final decision. However, in doing so, we consider it appropriate to also have regard to the contents of DBCTM's November 2015 ring-fencing DAAU in the assessment of the 2015 DAU as an additional consideration under section 138(2)(h) of the QCA Act. In particular we have taken the approach adopted by DBCTM in the November 2015 ring-fencing DAAU into account when considering whether, or how, it may be appropriate to amend the 2015 DAU.

In our February 2016 draft decision on DBCTM's November 2015 ring-fencing DAAU, we reviewed and considered the matters raised by the DBCT User Group which are similar to those proposed in the 2015 DAU. Relevantly, in our draft decision on the DAAU, we had concerns with the way in which the DAAU's scope and administration provisions operated.

In our draft decision on the November 2015 ring-fencing DAAU we proposed a number of changes to DBCTM's proposal, so as to:

- clearly delineate the scope of the access undertaking as covering negotiation and provision of the declared services, together with appropriate separation measures
- enable the scope to cover all services required to provide access, in accordance with DBCTM's obligations under the QCA Act
- maintain the independence of the Operator, and provide for it to be majority owned by users
- provide a summary of key terms of the OMC that will be included in any replacement OMC
- provide greater clarity and transparency around the processes for changing Terminal Regulations.

We affirm and adopt our analysis on these matters, as contained in our draft decision on the November 2015 ring-fencing DAAU, for the purposes of this draft decision on DBCTM's 2015 DAU. We do note that, in March 2016, DBCTM withdrew its November 2015 ring-fencing DAAU. However, we consider the amendments we proposed in the draft decision on that DAAU to the scope and administration provisions to still be relevant. We welcome comments from stakeholders on this matter.

Our draft decision is therefore to refuse to approve the scope and administration provisions[58] proposed by DBCTM in its 2015 DAU. Given our analysis included in the draft decision on the November 2015 ring-fencing DAAU, we consider it appropriate for the 2015 DAU to be amended to include the scope and administration requirements proposed in our draft decision on the November 2015 ring-fencing DAAU and referred to above.

3.1.4 Way forward

On 24 March 2016, DBCTM notified the QCA that it wished to withdraw its November 2015 ring-fencing DAAU. As for other matters raised by the ring-fencing DAAUs, and discussed in Chapter 9

[57] Chapter 9 of this draft decision discusses ring-fencing matters and the related DAAUs. See also DBCTM, sub. 27: 5–6.
[58] Cl. 1–4 of the 2015 DAU.

(Ring-fencing), a question arises as to whether all the scope and administration amendments proposed by the QCA in its draft decision in respect of the November 2015 ring-fencing DAAU remain appropriate, given that the proposed Pacific National/Brookfield transaction is no longer likely to proceed.

As for other parts of the 2015 DAU impacted by this late change of circumstances, the QCA specifically requests stakeholders provide feedback as to whether any, or all, of the proposed scope and administration provisions for DBCTM's 2015 DAU remain appropriate in this regard.

3.2 Terminating date of the access undertaking

3.2.1 DBCTM's proposal

DBCTM's 2015 DAU proposes that the access undertaking terminate on the earliest of the following:

(a) 1 July 2021

(b) the date that DBCT PL ceases to be the Operator

(c) the date that handling of coal at the Terminal ceases to be a declared service for the purposes of the QCA Act.

3.2.2 Stakeholders' submissions

The DBCT User Group accepted the first two dates ((a) and (b)) in the proposed definition of 'terminating date'. However, regarding clause (c), the DBCT User Group said:

- there is no justification for the undertaking terminating if the handling of coal at the Terminal ceases to be a declared service
- the terminating date definition is not consistent with how undertakings in respect of the service have operated and harms regulatory certainty
- the Port Services Agreement (PSA) between DBCTM and the State requires DBCTM to seek to have a current access undertaking in place.[59]

3.2.3 QCA analysis and draft decision

We note clause (a) of DBCTM's proposed definition of terminating date represents a five-year term—that is, to 1 July 2021. However, the declaration of DBCT referred to in clause (c) expires on 8 September 2020—approximately 10 months earlier.

We consider a five-year regulatory period, as proposed in (a), is appropriate, as it is similar to previous undertaking periods and note this clause was accepted by the DBCT User Group. However, until the review of the declaration is completed, it is unclear whether the services at DBCT will continue to be declared (for the purposes of Part 5 of the QCA Act) beyond 8 September 2020. Therefore, we consider it appropriate for the access undertaking to provide for both potential eventualities.

While the DBCT User Group raised concerns regarding the impact of clause (c) on regulatory certainty, we note this impact is unlikely to be material for two reasons:

[59] DBCT User Group, sub. 11: 40–41.

- The PSA requires DBCTM to use its best endeavours to ensure that an access undertaking is in force throughout the DBCT lease term.[60]
- Should the service cease to be declared, the QCA Act (s. 95) provides protections for existing rights. These include preserving the rights for mediation or arbitration of an access dispute, the operation of an access agreement and the operation and enforcement of an access determination (provided relevant notices and rights were in place before the expiry of the declaration).
- Given the above, we propose to accept clauses (a) and (c) of the terminating date definition.

We do not consider it is appropriate to approve clause (b) of the terminating date definition—that is, the trigger for terminating the access undertaking upon DBCT PL ceasing to be the Operator.

As discussed in our draft decision on DBCTM's November 2015 ring-fencing DAAU, we consider clause (b) potentially creates a regulatory 'gap' between when the undertaking terminates (which occurs immediately upon DBCT PL ceasing to be the Operator) and the appointment of a new Operator—and the approval of a new DAU or DAAU.

Therefore, our draft decision is to refuse to approve the terminating date proposal in the 2015 DAU. We affirm and adopt our analysis in our draft decision on the November 2015 ring-fencing DAAU and propose to remove clause (b) from the 2015 DAU's proposed terminating date.[61]

3.3 Review of the access undertaking

3.3.1 DBCTM's proposal

DBCTM's 2015 DAU has proposed to remove the one- and three-year review triggers that were in the 2010 AU. DBCTM considers it unnecessary to prescribe these reviews in the 2015 DAU, given these reviews did not take place in the 2010 AU regulatory period.

If an inequity or unfairness in the undertaking becomes apparent during the term of the next undertaking, DBCTM proposed that it should be required to address the relevant issue by submission of a DAAU to the QCA.

3.3.2 Stakeholders' submissions

The DBCT User Group said:

- The review trigger mechanism included in the 2010 AU provided an important protection and the need for this protection has heightened due to the introduction of differential pricing and potential for greater vertical integration in the Goonyella Coal Supply Chain.
- The review mechanisms proposed do not ensure that changes will be made, given DBCTM's recent refusal to submit a revised version of the differential pricing DAAU.
- The provisions should be amended to:
  - prevent DBCTM from withdrawing a DAAU

[60] While we do not consider DBCTM's contractual obligations constrain or bind its responsibilities as a regulated entity under the QCA Act, we do consider they are relevant to our consideration of DBCTM's legitimate business interests. This issue is discussed further in Chapter 11 of this draft decision.

[61] Refer to our draft decision on DBCTM's November 2015 ring-fencing DAAU for further analysis of this issue.

– require DBCTM to resubmit a DAAU which reflects the final decision by the QCA (if the QCA refuses to approve a DAAU submitted under the review provisions).[62]

3.3.3 QCA analysis and draft decision

While the DBCT User Group expressed concern over the capability for the QCA to require an amendment of the approved access undertaking, we do not agree. We consider DBCTM's proposal provides an appropriate means for amendment of an approved undertaking and are comfortable the 2015 DAU's reference to a 'significant inequity or significant unfairness suffered' provides a clear standard for DBCTM when submitting a DAAU for approval by the QCA.

Furthermore, we note this trigger for requiring DBCTM to submit a DAAU goes beyond the consistency provisions included in section 139 of the QCA Act, should an amendment be necessary to ensure consistency with the QCA Act.

Therefore, after considering the 2015 DAU, our draft decision is to accept the amended review mechanism proposed by DBCTM.

Draft decision 3.2

(1) After considering DBCTM's proposed scope and administration provisions in the 2015 DAU, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is as follows:

(a) The scope and administration requirements proposed in our draft decision on DBCTM's November 2015 ring-fencing DAAU should be included.

(b) Clause (b) of the definition of terminating date in Schedule H should be removed.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

[62] DBCT User Group, sub. 11: 30–31.

4 RATE OF RETURN

The return on investment is a significant component of the Terminal infrastructure charge. The return on investment is calculated using a regulatory WACC, which comprises three benchmark components: cost of equity, cost of debt, and capital structure.

DBCTM's 2015 DAU proposal is for an indicative WACC of 7.46 per cent per annum, comprising a benchmark:

- *cost of equity of 10.8 per cent per annum*
- *cost of debt of 5.23 per cent per annum*
- *capital structure of 60 per cent gearing.*

Our draft decision is to refuse to approve DBCTM's 2015 DAU WACC proposal. We require DBCTM to amend its 2015 DAU to apply an indicative regulatory WACC of 6.10 per cent per annum, comprising a benchmark:

- *cost of equity of 7.76 per cent per annum*
- *cost of debt of 5.00 per cent per annum*
- *capital structure of 60 per cent gearing.*

4.1 Background

The allowed rate of return on the coal export terminal is a key input into determining the annual revenue requirement (ARR) for the purposes of the 2015 DAU.

The allowed rate of return is calculated using a benchmark weighted average cost of capital (WACC) for DBCTM.

The WACC for DBCTM comprises three primary components:

- cost of equity—typically estimated with reference to the Capital Asset Pricing Model (CAPM)
- cost of debt—observed or estimated from the current debt rate
- capital structure—appropriate levels of debt and equity finance for a comparable, benchmark firm providing the regulated service.

While some elements of the WACC are firm-specific benchmarks (e.g. the asset beta and capital structure), other components, such as the risk-free rate (RFR), market risk premium (MRP) and value of dividend imputation credits (i.e. gamma), are more general in nature and are unlikely to differ from business to business. These 'market parameters' are key drivers of the WACC.

Separately, we have recently undertaken a review of some of the WACC parameters as they apply to services regulated under the QCA Act in Queensland (the QCA cost of capital methodology review). The resulting analysis contained in two of our research papers on the cost of capital (the 'market parameters decision'[63] and 'cost of debt decision'[64]) informs our assessment of certain WACC parameters proposed by DBCTM in the 2015 DAU, consistent with the requirements of the

[63] See QCA 2014b, *Cost of capital: market parameters*, final decision, August.
[64] See QCA 2014a, *Cost of debt estimation methodology*, final decision, August.

QCA Act. We have taken into account that analysis for the purpose of this draft decision, and we have updated parameter estimates where appropriate.

We have drawn on our cost of capital methodology review and stakeholders' submissions to it, to the extent these are relevant to our consideration of DBCTM's proposal. We have also taken into account the submissions and evidence from DBCTM and stakeholders in this review process in relation to the matters addressed in our cost of capital methodology review and other matters relevant to the rate of return for DBCTM. Our full consideration of the matters raised by DBCTM and stakeholders, and of the statutory factors in section 138(2) of the QCA Act, is set out in this draft decision.

4.2 Overview of WACC proposals

4.2.1 DBCTM's proposal

DBCTM proposed a nominal, post-tax 'vanilla' WACC of 7.46 per cent per annum, based on a cost of equity of 10.8 per cent, a cost of debt of 5.23 per cent and a capital structure of 60 per cent debt finance. Where applicable, these values are based on an indicative averaging period of the 20 business days up to 21 August 2015. Notably, DBCTM's proposal:

- uses a 10-year term to estimate the RFR, compared to our standard methodology of matching the term of the RFR to the term of the regulatory period
- applies a MRP estimate of 8.0 per cent, compared to our estimate of 6.5 per cent, as applied in recent decisions
- maintains the equity beta estimate of 1.0 from the 2006 and 2010 AUs
- uses a gamma estimate of 0.25, compared to our estimate of 0.47, as applied in our recent decisions.

DBCTM considered its proposed WACC of 7.46 per cent to be reasonable, noting it is over 2.0 per cent less than the WACC agreed with users for the current access undertaking period (9.86%).[65]

DBCTM stated that the proposed, lower WACC principally reflects an expected return on debt that is materially lower (5.23% versus 9.04%), given the decreases in the RFR and the debt risk premium since the 2010 AU estimates were agreed. However, DBCTM proposed a similar return on equity to the allowed rate under the 2010 AU arrangements (10.8% versus 11.08%) on the basis that investors' expectations of equity returns likely remain relatively stable over time.[66]

4.2.2 Stakeholders' submissions

The DBCT User Group proposed a nominal, post-tax 'vanilla' WACC of 5.84 per cent, comprising a return on debt of 4.75 per cent, a return on equity of 7.47 per cent and 60 per cent debt in the benchmark capital structure.

The DBCT User Group said it believes DBCTM's proposed WACC of 7.46 per cent is based on DBCTM selectively choosing the various WACC parameter estimates to provide the largest benefit to DBCTM. In this regard, the DBCT User Group noted if it had taken a similar approach—that is, ignoring the QCA's preferred WACC methodology and selectively estimating a very low WACC—it would have yielded a 'lower bound' WACC estimate at 4.84 per cent. The DBCT User Group

[65] DBCTM, sub. 2: 50.
[66] DBCTM, sub. 2: 49–50.

noted that, even in constructing this estimate, values of certain parameters could be justified by reference to established regulatory precedents:

- a MRP of 6.0 per cent, as applied in the current regulatory arrangements for Aurizon Network and DBCT
- an asset beta of 0.35 as acknowledged by the QCA as the benchmark asset beta for DBCT, in arriving at an asset beta estimate for Aurizon Network
- gearing of 35 per cent, based on the market evidence presented by the DBCT User Group's consultant, PwC.[67]

However, the DBCT User Group chose not to propose its 'lower bound' WACC. Rather, it relied on the analysis of its consultant, PwC, for its submission.

Table 5 summarises DBCTM's proposal, as compared to the 2006 and 2010 AUs, and the DBCT User Group's proposal.

[67] DBCT User Group, sub. 11: 14–15.

Table 5 Comparison of WACC parameters

Parameter	*DBCT 2006 AU*	*DBCT 2010 AU*[68]	*DBCTM's 2015 DAU proposal*	*DBCT User Group submission*
Averaging period (20 business days up to DD/MM/YY)		Sept. 2010	21/08/15 (indicative)	21/08/15 (indicative)
Risk-free rate	5.84%	5.08%	2.8%	2.17%
Market risk premium	6.0%	6.0%	8.0%	6.5%
Asset beta	0.50	0.50	NA[69]	0.43
Equity beta	1.0	1.0	1.0	0.81
Gamma	0.50	0.50	0.25	0.47
Capital structure (% debt)	60%	60%	60%	60%
Credit rating	BBB+	BBB+	BBB	BBB
Debt risk premium (raw)	1.175%	NA	2.32%	2.32%
Debt issuance costs			0.108%	0.108%
Interest rate swap costs		NA	NA	0.150%
Total debt risk premium (including transaction costs)	1.30%	3.96%	2.43%	2.58%
Cost of debt	7.14%	9.04%	5.23%	4.75%
Cost of equity	11.84%	11.08%	10.8%	7.47%
Equity premium	6.0%	6.0%	8.0%	5.27%
WACC premium (above risk-free rate)	3.18%	4.78%	4.66%	3.67%
WACC	9.02%	9.86%	7.46%	5.84%

4.3 Framework issues

4.3.1 Legislative context

In the context of assessing DBCTM's proposal, we must have regard to the factors listed in section 138(2) of the QCA Act and weigh them appropriately, as identified in Chapter 2 of this draft decision. In the absence of any statutory or contextual indication of the weight to be given to factors to which a decision-maker must have regard (as is the case in the QCA Act), it is generally for the decision-maker to determine the appropriate weight to be given to them.[70]

[68] Our consideration of DBCTM's calculation of revenues and prices for the 2010 AU occurred in the context where DBCTM and the Terminal's existing users agreed to roll forward existing cost parameters and the resultant revenues and tariffs. At that time, the DBCT User Group indicated it accepted that, as a package, the proposed terms and conditions of access were reasonable, without necessarily accepting the merits of each individual element of those arrangements. The primary focus of our assessment was on whether the proposed arrangements discriminated against future users of the Terminal and whether DBCTM had accurately described its calculation of proposed revenues and tariffs.

[69] DBCTM did not propose an asset beta value.

[70] *Minister for Aboriginal Affairs v Peko-Wallsend Ltd* (1986) 162 CLR 24, 41 (per Mason J).

DBCTM's proposed WACC—including the various parameters for determining the WACC—is to be applied over the term of the DAU for the purposes of calculating the ARR. In assessing this WACC proposal, we have had regard to all the factors in section 138(2) of the QCA Act, but we consider:

- Sections 138(2)(a), (b), (c), (d), (e), (g) and (h) should be given more weight, as identified below.
- Section 138(2)(g) refers to the pricing principles mentioned in section 168A, of which we consider sections 168A(a), (c) and (d) should be given more weight, as identified below.
- Sections 138(2)(f) and 168A(b) should be given less weight, as they are less practically relevant to our assessment.

Efficient costs

Section 138(2)(a) of the QCA Act requires that we have regard to the object of Part 5 of the QCA Act as set out in section 69E, namely to promote the economically efficient operation, use of and investment in the Terminal, as the significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets.

Section 138(2)(g) requires that we have regard to certain pricing principles set out in section 168A, including that the price for access to the declared service should generate expected revenue for the service that is at least enough to meet the efficient cost of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved.

In broad terms, we consider, pursuant to section 138(2)(c) of the QCA Act, that the legitimate business interests of DBCTM will be met if the WACC is determined so that DBCTM can earn a return on capital enabling it to attract efficient debt and equity investment. We note the theory behind the CAPM is that investors should be compensated for systematic risk, but not non-systematic risk, as the latter can be diversified by investors holding a prudent investment portfolio.

Conversely, section 138(2)(e) and (d) require us to have regard to the interests of access seekers and the public interest. We also consider that the rights of existing access holders are relevant under section 138(2)(h), to the extent they are not already 'access seekers' under section 138(2)(e). As identified earlier, consideration of all of these interests leads to a conclusion that DBCTM should be permitted to recover expected revenue for the service that is at least enough to meet the efficient costs of providing the access service, including a return on investment commensurate with the regulatory and commercial risks involved, as identified in section 168A(a). However, consideration of all those interests also leads to the conclusion that DBCTM should be permitted to recover expected revenue that is no more than enough to meet such efficient costs, including the risk-adjusted return on investment. In this manner, effective competition in markets upstream and downstream of the Terminal will be promoted, as contemplated by the object of Part 5 specified in section 69E of the QCA Act.

Moreover, if DBCTM is permitted to recover only its efficient costs and risk-adjusted return on investment (i.e. at least enough and no more than enough) it will have incentives to incur costs efficiently for the purposes of section 168A(d) and will have reduced scope to discriminate in favour of downstream operations—which could otherwise raise concerns under section 168A(c).

4.3.2 DBCTM's proposal

DBCTM highlighted the two following concerns for us to consider in the context of estimating the WACC for the 2015 DAU:

- the interpretation of the pricing principles in section 168A of the QCA Act and their implications for the treatment of uncertainty
- the application of our WACC methodology, leading potentially to material variations in outcomes across regulatory periods and a relatively low return on equity.

Pricing principles and uncertainty

In its 2015 DAU proposal, DBCTM referred to the pricing principles in the QCA Act. In particular, DBCTM's focus is on section 168A(a), which provides that the price of access should:

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

DBCTM submitted that 'the legislation entitles DBCTM to "at least" be compensated for its efficient costs, including a return that is commensurate with its commercial and regulatory risks.'[71]

DBCTM submitted that achieving this outcome is of fundamental importance to its investors, as Brookfield's strategy is based on maintaining investments in high-quality assets that meet its rate of return targets for its growing global portfolio of infrastructure assets. In addition, DBCTM noted that achieving an outcome that is at least enough to meet the efficient costs of providing access also supports the object of Part 5 of the QCA Act, which seeks to promote economically efficient operation, use of, and investment in significant infrastructure by which services are provided.[72]

DBCTM submitted that, in practice, the regulatory outcome effectively establishes a revenue allowance that DBCTM can earn 'at most', not 'at least'. As a principal example of this, DBCTM cited our application of the NPV=0 principle. DBCTM's consultant, Frontier, submitted that the NPV=0 principle is not a legislative requirement and that our application of it implies we are actually setting a rate of return that DBCTM could earn 'at most'.[73] Frontier also said we contend we are not legally required to set allowed returns that are commensurate with what commercial investors require.[74]

In the context of applying the pricing principles, DBCTM submitted that the regulatory process has insufficient regard for uncertainty, and this factor creates the risk the regulatory outcome is not 'at least' sufficient to compensate it for its efficient costs, including a reasonable return on capital.

DBCTM said the regulator's treatment of uncertainty is particularly important if regard is given to the asymmetric consequences of regulatory error.[75] DBCTM quoted the Productivity Commission on the consequences of over- versus undercompensation and the Commission's view that the

[71] DBCTM, sub. 2: 6.
[72] DBCTM, sub. 2: 6.
[73] DBCTM, sub. 2: 30.
[74] DBCTM, sub. 4: 19 [59].
[75] DBCTM, sub. 2: 16.

consequences of setting the WACC too low, and thereby discouraging efficient investment in essential infrastructure, is likely to result in a worse outcome than setting the WACC too high.[76]

DBCTM said the New Zealand Commerce Commission (NZCC) formally acknowledges this issue by setting the WACC above the midpoint of a range, recently at the 67th percentile.[77] DBCTM said choosing a WACC above the midpoint from the distribution of possible WACC estimates is seen as insurance against underinvestment. DBCTM considered such an outcome as essential, as the WACC is set in challenging market conditions and will remain fixed over the next five years.[78]

DBCTM said the QCA has never acknowledged or considered the implication of 'regulatory risk' in setting the rate of return, even though it is required under the legislation.[79]

WACC methodology

Related to concerns with our application of the pricing principles, DBCTM also considered our approach to WACC estimation to be prescriptive and formulaic. DBCTM said two key implications arise for the allowed return on equity due to the alleged inflexibility of our approach:

- It produces a highly variable return on equity, which changes materially with the RFR.
- It does not properly reflect the current challenging market conditions—suggesting, in recent decisions, it has produced record-low returns on equity.

DBCTM considered that, notwithstanding our recent cost of capital methodology review, our current approach combines the prevailing RFR, which is near historical lows, with an estimate of the MRP that largely reflects historical averages. DBCTM said the result is a return on equity that varies materially with the RFR.[80] DBCTM considered this outcome to be inappropriate and cited commentary by Reserve Bank Governor, Glenn Stevens, as evidence:

> *[A]nother feature that catches one's eye is that, post-crisis, the earnings yield on listed companies seems to have remained where it has historically been for a long time, even as the return on safe assets has collapsed to be close to zero (Graph 2). This seems to imply that the equity risk premium observed ex post has risen even as the risk-free rate has fallen and by about an offsetting amount.*[81]

As a result, DBCTM did not view our approach to estimating the return on equity as fully addressing post-GFC conditions, as the approach currently produces a lower return on equity in less favourable economic conditions.[82] DBCTM's consultant, Frontier, said such a return on equity outcome is neither reasonable nor plausible:

> *The QCA's revised approach continues to imply that since the onset of the GFC the required return on equity has been lower than at any time since World War II. Our view is that it is unreasonable to suggest that the GFC and European debt crises served to lower the required return on equity capital to levels never before seen in the post-war period.*[83]

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[76] DBCTM, sub. 2: 16.
[77] DBCTM referred to a detailed review by the NZCC in the context of a merits appeal in the High Court and said experts highlighted the lack of precision in WACC-setting and supported the selection of the WACC above the midpoint of an established range (DBCTM, sub. 2: 16–17).
[78] DBCTM, sub. 2: 18.
[79] DBCTM, sub. 2: 30.
[80] DBCTM, sub. 2: 14.
[81] DBCTM, sub. 2: 15.
[82] DBCTM, sub. 2: 14.
[83] DBCTM, sub. 5: 29.

4.3.3 Stakeholders' submissions

Pricing principles and uncertainty

The DBCT User Group did not agree with the central importance that DBCTM ascribed to section 168A(a) of the QCA Act and submitted legal advice from Allens Linklaters (AL) to support this view. In particular, AL said that none of the pricing principles in section 168A(a) constitutes a requirement or entitlement. Rather, AL noted that the only requirement of the QCA Act is that the pricing principles be considered in making an appropriate decision to approve or refuse to approve an undertaking.[84] Similarly, the DBCT User Group said that, while section 168A(a) has a place in the QCA's consideration of an undertaking, it is merely one of multiple factors we must have regard to and weigh in our considerations in determining an appropriate outcome.[85]

Further, AL said we must balance the factors and a particular factor may be given less weight or departed from, noting there is often a clear tension between the factors. Therefore:

> *it is possible for the QCA to determine the appropriate position for the draft access undertaking as being one that is not consistent with a particular section 138(2) factor, including each of the section 168A pricing principles.*[86]

Outside of certain requirements, AL also noted we have a very wide discretion as to how we determine an appropriate form of access undertaking.[87]

On the issue of uncertainty, the DBCT User Group interpreted DBCTM's commentary on section 168A(a) to mean the WACC should be set in such a way that the approved WACC is always higher than what a 'spot' WACC estimate would produce during the regulatory period. However, the DBCT User Group and AL said that setting the WACC at the highest anticipated spot estimate over the regulatory term would be, among other factors, inconsistent with the object of Part 5 of the QCA Act.[88] This is because setting prices in this way would yield monopoly profits, resulting in inefficient use of, and overinvestment in, infrastructure. Moreover, they also considered there is no way of estimating what that anticipated spot estimate should be and, therefore, any adjustment to the approved WACC to allow for this uncertainty would be arbitrary.

The DBCT User Group disagreed with aspects of DBCTM's submission on the potential asymmetric consequences of error. Noting there will be times during the regulatory term the actual WACC would be lower than the approved WACC (as is the case under the current undertaking), the DBCT User Group and AL stated there is no evidence regulators' decisions disadvantage regulated entities more than they advantage them. Measured over the regulatory period or the longer term, they considered it would be expected any effect of 'uncertainty' is revenue neutral.[89]

Finally, the DBCT User Group and AL also disagreed with DBCTM's submission that the WACC should be set higher as 'insurance' against underinvestment. AL said DBCTM assumed the results of underinvestment are worse than the results of overinvestment. However, even accepting that an underestimated WACC reduces incentives to invest, AL said that pricing is only one element of the regulatory framework and should not be considered in isolation from the other (non-pricing) elements. In this regard, AL highlighted the non-financial parts of that framework, which provide

[84] DBCT User Group, sub. 12: 2.
[85] DBCT User Group, sub. 11: 4.
[86] DBCT User Group, sub. 12: 2-3.
[87] DBCT User Group, sub. 12: 1–2.
[88] DBCT User Group, sub. 11: 5; DBCT User Group, sub. 12: 3–4.
[89] DBCT User Group, sub. 11: 5.

'insurance' against underinvestment by DBCTM, such as clauses 12.3 and 12.10(a) of the 2015 DAU.[90]

Vale did not comment specifically on the legislative framework and pricing principles, but generally endorsed the DBCT User Group's submission.[91]

WACC methodology

Vale commented that our WACC methodology has generally and consistently been applied to estimating the allowed WACC since DBCT was first regulated.[92]

The DBCT User Group noted DBCTM has 'proposed significant changes in methodology for determining many parameters (most having significant commercial benefits for DBCTM and adverse impacts on DBCT Users)'.[93] While DBCTM's proposed, lower WACC is below the current WACC, Vale noted this outcome was due to the reduction in the market parameters due to current market conditions. Vale disagreed with DBCTM that we should alter our approach to estimating certain parameters simply because the market parameters are now in the lower part of the range, which benefits DBCT's customers.[94]

In this context, the DBCT User Group said regulatory certainty is about certainty of process rather than the outcomes of applying the processes (such as the equity beta, WACC or TIC). The DBCT User Group said, while stability of the regulatory framework is important, 'this should not prevent the normal reconsideration of inputs and assumptions applied by an economic regulator from time-to-time.'[95]

4.3.4 QCA analysis and draft decision

Pricing principles and uncertainty

As set out in Chapter 2 of this draft decision, our interpretation of the section 138(2) criteria including the pricing principles, is that we must consider and weigh the competing factors in deciding whether it is appropriate to approve the undertaking. In that sense, our interpretation aligns with AL's advice submitted by the DBCT User Group—that is, while section 168A(a) has an important place in our consideration of an undertaking, in absence of any statutory directive to the contrary, it is one of multiple factors we must have regard to in determining an appropriate outcome and in respect of some matters there may be other considerations which are in tension, and which require us to undertake a balancing or weighing exercise.[96]

That said, in our determination of the appropriate WACC for the 2015 DAU, we did consider section 138(2)(g), which refers to the pricing principles referenced in section 168A, of which we consider sections 168A(a), (c) and (d) should be given more weight.

We consider the legitimate business interests of DBCTM will be met if the WACC is determined so that DBCTM can earn a return on capital enabling it to attract efficient debt and equity investment, consistent with the pricing principles in the QCA Act. Specifically, section 168A(a) states that the price of access should generate expected revenue 'at least' enough to meet the

[90] DBCT User Group, sub. 12: 4.
[91] Vale, sub. 10: 1.
[92] Vale, sub. 10: 7.
[93] DBCT User Group, sub. 11: 6.
[94] Vale, sub. 10: 7.
[95] DBCT User Group, sub. 11: 6.
[96] DBCT User Group, sub. 11: 4.

efficient cost of providing the regulated service. The purpose of the words 'at least' is merely to qualify this requirement so that the relevant measure of cost enables the access provider to recover its efficient costs,[97] the intention is not to enable an access provider to set prices that are inefficiently high. The methods we have used to estimate WACC, including its parameters, provide an outcome consistent with DBCTM's legitimate business interests and this pricing principle. Our methods are discussed in detail in the remainder of this chapter.

We consider efficient investment does not include underinvestment or overinvestment. This is because while underinvestment in the Terminal infrastructure could have negative implications for DBCTM (and the coal industry through potential lack of future capacity), overinvestment could also have negative implications as it may lead to underinvestment at other functional levels of the coal supply chain—such as underinvestment in expansion of mines or development of new mines.

As identified in Chapter 2, sections 138(2)(e) and (d) require us to have regard to the interests of access seekers and the public interest. Consideration of all of these interests leads to a conclusion that DBCTM should also be permitted to recover no more than its efficient costs, including a return on investment. In this manner, effective competition in markets upstream and downstream of the Terminal will be promoted as contemplated by the object of Part 5 specified in section 69E of the QCA Act.

We note Frontier's comment that the NPV=0 principle is not a legislative requirement. However, we consider the application of the NPV=0 principle in regulatory price-setting (e.g. by matching the term of the RFR to the term of the regulatory cycle) to be consistent with DBCTM recovering its efficient costs, including a return on investment. This matter is further discussed in Section 4.4.

We disagree with Frontier that we have contended we are not legally required to set allowed returns that are commensurate with what commercial investors require.[98] On the contrary, we consider our assessment of WACC proposals should involve consideration of the investor's perspective. (We note we have previously acknowledged this obligation with regard to Aurizon Network's 2014 DAU.)[99] We consider this to be consistent with the requirement for us, in deciding whether to approve a DAU, to have regard to the legitimate business interests of the operator of the relevant declared service (in accordance with s. 138(2)(c) of the QCA Act). This is because the interests of the firm's investors (i.e. debt and equity holders, or potential debt and equity holders) could be considered to normally align with the legitimate business interests of the firm.

With regard to DBCTM's view that we have never acknowledged the implications of regulatory risk in setting the rate of return, we disagree. Our recent decisions on the market parameters and the cost of debt aimed at establishing the methodological framework we would follow, thus creating a substantial degree of regulatory certainty for regulated entities and their customers to be able to estimate expected rates of return.

As set out in Chapter 2 of this draft decision, we consider regulatory certainty in decision-making can encourage upstream and downstream investment. We also consider it is in the public interest, as it provides a stimulus to the Queensland economy and local employment. This is

[97] Revised explanatory memorandum, *Trade Practices Amendment (National Access Regime) Bill 2005* (Cth), p. 65.
[98] DBCTM, sub. 4: 19.
[99] QCA 2014b, draft decision on MAR, p. 188.

because the development of new, or replacement, coal mines may be at risk if there is material pricing uncertainty about Terminal access. Regulatory certainty can have flow-on impacts on regional economic development. In addition, we consider the non-pricing components of the undertaking also aim to establish a degree of regulatory certainty about the processes we follow, for example the procedures established for approving NECAP.

We do not accept DBCTM's view that the asymmetric consequences of error should be addressed via 'choosing a higher WACC from the distribution of possible WACC estimates as insurance against underinvestment'.[100] Rather, we consider WACC (and its parameters) should be determined by carefully assessing all available evidence and using our best judgement to calculate the point estimates that will give rise to an estimate of the WACC that best meets the pricing principles and the other factors in section 138(2) of the QCA Act.

As we said in relation to Aurizon Network's 2014 DAU, the formulation of our WACC is based on established regulatory practice using generally accepted finance theory. The WACC rewards investors for bearing the systematic risk of their investments. A return on investment more or less than this could lead to inefficient investment decisions and adverse economic outcomes.[101] In addition, we agree with the DBCT User Group there will be times during the regulatory term when the contemporaneously estimated WACC would be higher or lower than the approved WACC—as is the case presently under DBCTM's 2010 AU. We agree with the DBCT User Group that, measured over the longer term, any difference between a contemporaneously estimated WACC and the approved WACC would be expected to be revenue neutral.[102]

This is the approach we have followed for the purposes of calculating DBCTM's WACC for the 2015 DAU period (the details of which are discussed in the remainder of this chapter).

WACC methodology

DBCTM claimed that, by combining a prevailing RFR (which is near historical lows) with an estimate of the MRP that largely reflects historical averages, our WACC methodology produces a return on equity that varies materially if the RFR varies.[103] By implication, a material reduction in the cost of equity due to currently low RFRs is inappropriate.

Ultimately, this argument is about whether or not the return on equity is more stable than the MRP. We addressed this issue at length in our market parameters decision and cited analysis by Lally that indicates the MRP is relatively more stable over time than the return on equity for Australia.[104] We do not consider DBCTM has presented any evidence to cause us to alter our view on this matter. Further, and as discussed in Section 4.7 on the MRP, we do not agree with the proposed MRP of 8.0 per cent, which is DBCTM's proposed mechanism for maintaining a relatively constant return on equity.[105] In particular, for the reasons discussed in that section, we consider an estimate of the MRP of 8.0 per cent to be neither reasonable nor plausible.[106]

[100] DBCTM, sub. 2: 18.
[101] QCA 2015d, Aurizon Network 2014 DAU, consolidated draft decision, vol 4: 192.
[102] DBCT User Group, sub. 11: 5.
[103] DBCTM, sub. 2: 14.
[104] QCA 2014b: 78–81; 86–87.
[105] In addition, we note that, during the pre-GFC period, when the market was more buoyant, regulated firms' consultants did not argue for a reduction in the MRP below the historical average of 6.0 per cent (based on the low MRP estimates from dividend growth models) in order to maintain a relatively stable return on equity.
[106] DBCTM, sub. 2: 36.

Notwithstanding this finding, we recognised in our market parameters decision that our market parameters conclusion does not preclude a possible, negative relationship between the RFR and MRP. Accordingly, we concluded that reducing the return on equity one-for-one with a reduction in the RFR was inappropriate at that time. This analysis, in combination with evidence from a range of estimation methods and consideration of the possibility of heightened investor risk aversion, were factors that led us to increase the MRP from 6.0 to 6.5 per cent.[107]

Further, while worldwide and Australian risk-free rates are below historical averages, there is reason to believe that current rates could reflect the 'new normal' for the economy. As noted by Dimson, Marsh and Staunton:

> *Today's low yields partly reflect the quest for safe havens, are heavily influenced by central bank policies, and may be affected by regulatory pressure on pension-fund and insurance-company asset allocations. They may also be impacted by demographic factors, such as dissaving by retiring baby boomers, but the evidence here is, at best, weak (see Poterba, 2001) Should we be concerned that today's long bond yields may be artificially low?*
>
> *This question is hard to resolve conclusively, but two points are relevant. First, many alleged 'distortions' are likely to be permanent. Regulatory pressures on insurers and pension funds are unlikely to diminish; pension funds are maturing and should lean towards higher bond weightings; baby-boomer retirement is ongoing; and, with a stock market that could easily see an increase in volatility … the safe-haven demand for bonds could even increase.*
>
> *Second, these factors are all common knowledge.* ***While the impact of quantitative easing (QE) and other unconventional monetary policies may be hard to measure, the policies themselves are disclosed and transparent. It would be curious, therefore, if the market prices of bonds of different maturities failed to incorporate expectations of the impact of these factors. We should therefore expect bond market prices and yields to provide a reasonable guide to prospective returns*** *[emphasis added].*[108]

Therefore, while applying our WACC methodology might produce a return on equity that is lower than recent, historical levels, it is not necessarily inconsistent with prevailing market conditions.

Finally, a resulting lower return on equity is also not correctly characterised as the lowest at any time since World War II, as suggested by Frontier. We note SFG Consulting (SFG) previously made a very similar statement in its advice to Aurizon Network in the context of our cost of capital methodology review. In our market parameters decision, we noted that, for about half of the period examined by SFG, inflation rates were materially higher than at present—averaging 9.2 per cent in comparison to a more recent average of two to three per cent. However, while the effect of inflation resulted in higher RFRs and costs of equity, this effect was mitigated by higher growth in the value of regulatory asset bases.[109] Therefore, after taking inflation into account, we consider Frontier's argument (repeating SFG here) to be spurious.

4.4 Risk-free rate

4.4.1 Introduction

The RFR is the rate of return on an asset with zero default risk.

The rate of return on a risk-free asset compensates the investor for the time value of money. As such, it is the base rate to which the investor adds a premium for risk. The current rate of return

[107] QCA 2014b: 78–81.
[108] Dimson et al. 2013: 7.
[109] QCA 2014b: 35–36.

on the risk-free asset reflects the latest market information and expectations and is, therefore, the relevant benchmark. The current RFR is used as an input to estimate both the cost of equity and the cost of debt components of the WACC.

Full details of our analysis for estimating the RFR is set out in our consideration of the market parameters decision.[110] That analysis serves as an input to this draft decision.

Our preferred approach to estimating the RFR is to:

- use Commonwealth Government bonds as a proxy for a risk-free asset
- apply a 'current' rate, as proxied by a short-term average over 20 business days close to the start of the regulatory period
- align the term of the RFR with the term of the regulatory cycle.

4.4.2 DBCTM's proposal

DBCTM proposed an indicative estimate of the RFR of 2.8 per cent per annum based on the prevailing 10-year Commonwealth Government bond yield.[111]

DBCTM accepted the advice of its consultant Frontier Economics (Frontier) that the term of the RFR should be 10 years, rather than a term aligned to the term of the regulatory period, for the following reasons:[112]

- Setting the term of the RFR equal to the term of the regulatory period is not consistent with the net present value (NPV) = 0 principle because the market value of the regulated asset at the end of the regulatory period is uncertain rather than known at the start of the period. Therefore, a long-term RFR, which is consistent with the long-term uncertain cash flows, should be used.[113]
- The term of the RFR should be 10 years because that is the term used in commercial valuation practice. This was supported by independent expert evidence including a 2013 survey by Incenta on the valuation of regulated businesses by investment analysts.[114]
- We should use a 10-year term for the RFR because this is representative of current regulatory practice in Australia.
- We should use a 10-year term for the RFR in both the first and second components of the CAPM (i.e. RFR and the equity premium) because to do otherwise applies the CAPM in an internally inconsistent manner, and results in a cost of equity which is too low.

4.4.3 Stakeholders' submissions

Vale Australia Pty Ltd (Vale)

Vale submitted that it:

[110] QCA 2014a, section 3 and Appendix B.
[111] DBCTM, sub. 2, section 3.4.2: 32. DBCTM's proposal did not specify the period used for the RFR estimation. However, it stated the debt risk premium averaging period is the 20 days to 21 August 2015 (sub. 2: 46). Also, the consultant to the DBCT User Group (PwC) stated that the 10-year bond yield was averaged over this same period (sub. 13: 16).
[112] DBCTM, sub. 2, section 3.4.2; DBCTM, sub. 4.
[113] DBCTM, sub. 4, section 2.
[114] DBCTM, sub. 4, section 3.

- generally endorsed the submission of the DBCT User Group
- considered that the approach and methodologies used by us in our market parameters decision remained relevant for this draft decision
- believed that continued use of the previously adopted approaches and methodologies benefitted all stakeholders, as it provided predictability and consistency within the regulatory environment.[115]

DBCT User Group

The DBCT User Group submitted an indicative RFR estimate of 2.17 per cent per annum, based on the yield on five-year Commonwealth Government bonds averaged over the 20 trading days to 21 August 2015, consistent with our current WACC methodology and the advice of its consultant (PwC).[116]

4.4.4 Advice to the QCA

Frontier's advice to DBCTM on the RFR is similar in many respects to that provided to Aurizon Network by its consultant, SFG, in submissions responding to our discussion paper on the RFR and MRP (leading to our market parameters decision)[117] and to our draft decision on Aurizon Network's maximum allowable revenue (Aurizon Network MAR draft decision).[118]

We commissioned Associate Professor Martin Lally (Lally) to advise us on the above submissions[119], and Lally's comments that are also relevant to Frontier's advice to DBCTM are summarised below:

- SFG's contention that the NPV = 0 principle was violated (because the value of the business at the end of the regulatory cycle was uncertain rather than known at the start of the period), was not supported. In previous work, Lally demonstrated that the NPV = 0 principle implies that the appropriate term of the RFR is the term of the regulatory period because valuation uncertainties are allowed for by adding a risk premium to the discount rate used to value the cash flows—and therefore also to the cost of equity allowed by the regulator—not by altering the term for the RFR.[120]
- SFG's argument that the term of the risk-free rate should have been 10 years—because that was the term used in commercial valuation practice—was not supported. The setting of the regulatory rate of return is an unrelated exercise whose purpose is to cover a regulated entity's efficient costs. This is equivalent to satisfying the NPV = 0 principle by matching the term of the RFR to the term of the regulatory period.[121]
- SFG's reference to the results of a 2013 survey by Incenta on the valuation of regulated businesses by investment analysts, which suggested that we should adopt the 10-year term for the RFR, was previously disputed by Lally who concluded that the Incenta survey results

[115] Vale, sub. 10: 7.
[116] DBCT User Group, sub. 11: 14–15; DBCT User Group, sub. 13: 16.
[117] QCA 2012; SFG 2013; SFG 2014.
[118] QCA 2014b; Aurizon Network 2014 (SFG's advice on the RFR is Attachment 1—SFG Consulting Report 1).
[119] Lally 2013a; Lally 2015b.
[120] Lally 2004a.
[121] Lally 2015b, section 2.1: 5.

did not suggest that we should have used the 10-year RFR.[122] SFG had not responded to Lally's analysis.

- SFG's view that we should have used a 10-year term for the RFR—because this was representative of current regulatory practice in Australia—was not supported on the grounds that not all regulators use the 10-year term (e.g. in addition to us, the ERA uses the regulatory period), and our approach must rest upon its inherent merits rather than mere conformity with existing practice.[123]
- Although the QCA's approach of using different terms for the RFR in the first and second components of the CAPM (i.e. RFR and the equity premium) was inconsistent, so was SFG's proposed use of the same fixed term for the RFR (i.e. 10 years) in both components of the CAPM and applying that same fixed term to all regulatory situations—including to those with fixed terms other than 10 years. Inconsistency in applying the CAPM to practical problems, such as the regulatory situation, is unavoidable as not only is the same risk-free term required throughout the model but also the model needs to be applied to relevant future regulatory periods.[124] Therefore, SFG's approach was considered inferior to ours. Not only was SFG's approach inconsistent with the CAPM, but also would violate the NPV = 0 principle whenever the term of the regulatory period differs from the fixed maturity assumed.
- SFG's assertion that our approach of using different terms of the RFR in the CAPM resulted in a cost of equity that was 'too low' was not supported. Lally demonstrated that SFG's contention relies on several assumptions that are not plausible.[125]

4.4.5 QCA analysis and draft decision

We have considered the issues raised by DBCTM's proposal and initial submissions by stakeholders. We believe that no new evidence has been presented that demonstrates our approach to estimating the RFR is inappropriate and, therefore, no issue raised by submissions has caused us to revise our conclusions in our market parameters decision about our approach to estimating the RFR.

In particular:

- Commercial valuation practice is not a suitable basis for determining the appropriate term of the RFR for regulatory purposes.
- By themselves, general Australian regulatory practice and related precedent are not sufficient for determining the term of the RFR. In particular:

[122] Lally 2014: 26–28.
[123] Lally 2015b, section 2.1: 9.
[124] The only consistent way to apply the CAPM in this situation is to define it to apply to a fixed period (e.g. 10 years), apply a RFR with that term throughout the model and only apply that model to (regulatory) problems with this fixed term (e.g. 10 years). Of course, regulatory situations often involve time periods (e.g. five years) that do not match the fixed term assumed. Therefore, the model must be adapted (with minimal change) to apply to the relevant situation—in the present case, the context is a regulatory term of five years.
[125] Lally 2015b, section 2.1: 7–9.

  - Not all Australian regulators use a 10-year term for the RFR. For example, for its gas decisions, the ERA(WA) matches the term of the RFR to the term of the regulatory period.[126]
  - A recent decision by the Australian Competition Tribunal makes it clear that matching the term of the RFR with the regulatory period can be appropriate.[127]
- In any event, our approach should be assessed on its inherent merits rather than on mere observation of existing practice.
- As pointed out in our market parameters decision, the systematic risk associated with uncertain asset values at the end of a regulatory period is compensated through beta, and the use of a RFR with a term that exceeds the regulatory period will therefore overcompensate the regulated entity in the usual situation of a rising yield curve.
- Inconsistent use of the term for the RFR in the CAPM is unavoidable. For the same reasons set out in the Aurizon Network 2014 DAU consolidated draft decision and our market parameters decision, we consider that setting different terms for the RFR in the first and second parts of the CAPM—in order to combine satisfaction of the NPV=0 principle with long-term estimates of the MRP—is the most appropriate option for regulatory purposes. We also note that we had regard to this apparent inconsistency in using our judgement to determine our estimate of the MRP.
- In relation to the contention by DBCTM that we are setting the allowed return below the return that commercial investors would require for efficient financing and investment[128]:
  - Our use of a 10-year term for the debt risk premium, together with our allowances for the transactions costs of interest rate swap contracts and debt-raising costs, provides appropriate compensation for the cost of debt of a regulated benchmark entity which uses efficient debt management practices.
  - At the start of every regulatory period, and consistent with new information, we set a regulated rate of return consistent with that of assets with similar systematic risk. As discussed in our market parameters decision and Aurizon Network 2014 DAU MAR and consolidated draft decisions[129], our assessment is that applying a RFR with a term matching the regulatory period satisfies the relevant provisions of the QCA Act.

Therefore, we are not satisfied that estimating the RFR based on the prevailing 10-year Commonwealth Government bond yield would be appropriate, having regard to the factors set out in section 138(2) of the QCA Act. In light of the submissions and evidence referred to above and in the market parameters decision, we consider that it is appropriate to apply the approach to estimating the RFR set out in the market parameters decision.

Our approach to estimating the RFR is consistent with the expert advice we have received from Associate Professor Lally. We also note that Vale and the DBCT User Group supported our approach to estimating the RFR.

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[126] ERA 2013, *Explanatory Statement for the Rate of Return Guidelines*, December, pp. 84–85. The ERA's use of a 10-year RFR term for its rail decisions is due to different statutory requirements between its gas and rail codes (see Aurizon Network MAR Draft Decision, Table 84: 208).
[127] *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14; Market Parameters Decision: 42.
[128] DBCTM, sub. 2, section 3.4.2: 30–31.
[129] QCA 2015.

4.4.6 Conclusion

We are not persuaded that the arguments put forward in the submissions of DBCTM and its consultant provide sufficient grounds for changing our view that the appropriate term for the RFR is the term of the regulatory period.

We therefore refuse to approve the indicative estimate of the 10-year RFR proposed by DBCTM of 2.8 per cent per annum.

Our calculation of the return on investment has followed our normal practice of applying the post-tax nominal ('vanilla') version of Officer's WACC based on appropriate and consistent point estimates of constituent parameters, including the RFR.

Our view is that an appropriate indicative estimate for the RFR is 2.10 per cent per annum, based on the average of five-year Commonwealth Government nominal bond yields over the 20 business days up to and including 30 October 2015.

We consider that our estimate for the RFR has regard to the relevant factors set out in the QCA Act and weighs them appropriately, thereby achieving an appropriate balance between the competing interests of the various stakeholders.

Draft decision 4.3

(1) After considering DBCTM's indicative estimate of the RFR of 2.8 per cent per annum, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its draft access undertaking is to set an indicative RFR of 2.10 per cent per annum.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

4.5 Capital structure and credit rating

4.5.1 Introduction

Capital structure and credit rating are two related inputs to the assessment of the WACC.

We adopt a benchmark, or notional, capital structure to determine the relative weights to attach to the debt and equity components of the cost of capital. In doing so, we seek to estimate the allowed rate of return based on an efficient benchmark capital structure, which allows the business to vary its actual capital structure if it believes there are benefits in doing so.

Our assessment of the credit rating is based on this benchmark capital structure. Companies that face less risk in their operating environment are generally able to sustain higher levels of gearing for a given rating category. Although the rating itself is not a direct input into the WACC calculation, it is used to determine the debt risk premium.

The benchmark gearing level for DBCTM since the 2006 AU has been 60 per cent with a notional credit rating of BBB+.

4.5.2 DBCTM's proposal

DBCTM proposed to maintain the benchmark gearing level of 60 per cent for the 2016–21 regulatory period.[130]

However, DBCTM said its notional credit rating should be downgraded to BBB.[131] DBCTM said the recent credit ratings applied to DBCT Finance Pty Ltd[132] by the rating agencies were direct and relevant evidence to support a lower benchmark credit rating for DBCTM. The main factors affecting DBCT Finance Pty Ltd's credit ratings were the:

- industry outlook and deteriorating coal market conditions
- risk profile and creditworthiness of DBCT Finance Pty Ltd's customer base
- prospect of DBCT being subject to lower regulatory returns in the next period.[133]

DBCTM said rating agencies responded to these factors as follows:

- Standard & Poor's (S&P) downgraded DBCT Finance Pty Ltd from BBB+ to BBB in July 2014
- Moody's placed a negative credit watch on DBCT Finance Pty Ltd's Baa2 credit rating in August 2015.[134]

DBCTM stated it was reasonable to expect that an efficient benchmark firm—a stand-alone coal terminal of a similar scale of operation to DBCT—would be assessed in a similar way to DBCT Finance Pty Ltd. DBCTM noted Adani's Abbot Point Coal Terminal (APCT) is rated BBB–.[135] DBCTM said the benchmark credit rating would impact on the return on debt that would be set for DBCT:

> *If a notional credit rating is assumed to be BBB+, where the efficient benchmark firm could support a credit rating of no higher than BBB, the return on debt will be set too low. This would therefore fail to satisfy the Pricing Principles under the QCA Act, which entitles DBCTM to "at least" a return on capital that provides compensation for its regulatory and commercial risks.*[136]

4.5.3 Stakeholders' submissions

While Vale did not specifically comment on DBCTM's proposal for a BBB benchmark credit rating and 60 per cent gearing level, it generally endorsed the DBCT User Group's submission.[137]

The DBCT User Group accepted DBCTM's proposal for the BBB notional credit rating and 60 per cent gearing level[138], although it noted it could have proposed a lower bound gearing level of 35 per cent based on market evidence provided by its consultant, PwC.[139]

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[130] DBCTM, sub. 2: 32.
[131] DBCTM, sub. 2: 43.
[132] According to Bloomberg, DBCT Finance Pty Limited is a subsidiary of DBCTM: 'It finances for the acquisition of leasehold interest over the Dalrymple Bay Coal Terminal, to fund expansion works and ongoing non-expansion capital works.' (Bloomberg 2016)
[133] DBCTM, sub. 2: 42.
[134] We understand a Moody's Baa2 credit rating is equivalent to an S&P BBB rating. We note Moody's subsequently downgraded DBCT Finance's credit rating to Baa3 (equivalent to BBB–) on 21 December 2015 and Ba2 (equivalent to BB) on 14 March 2016
[135] DBCTM, sub. 2: 42.
[136] DBCTM, sub. 2: 42.
[137] Vale, sub. 10: 1.
[138] DBCT User Group, sub. 11: 15.[139] See DBCT User Group, sub. 13: 8.
[139] See DBCT User Group, sub. 13: 8.

PwC agreed with DBCTM that ratings agencies' assessments of the credit rating applied to DBCT Finance Pty Ltd were direct and relevant evidence of how the agencies would assess the credit rating for an efficient benchmark coal terminal and that this rating would be linked directly to the overall credit quality of DBCTM's customers.

PwC noted a BBB rating was a lower rating than those of Hutchinson Port Holding Trust and Brookfield Infrastructure Partners, Aurizon and Queensland Rail, which PwC considered to be relevant comparators. However, PwC noted the sample of port-related businesses for which credit ratings were available was limited, and that a BBB rating was broadly consistent with the overall ratings of the comparator firms identified in its total sample. Overall, PwC considered DBCTM's proposed credit rating of BBB was reasonable.[140]

PwC also considered DBCTM's proposed gearing level of 60 per cent to be reasonable, noting there was strong regulatory precedent for gearing levels of at least 50 per cent across multiple industries, including rail and ports. PwC noted we applied a benchmark gearing of 55 per cent for Aurizon Network in our 2014 MAR draft decision on Aurizon Network's 2014 DAU.[141]

4.5.4 Incenta's advice

We commissioned Incenta Economic Consulting (Incenta) to assess DBCTM's submission on its benchmark capital structure and credit rating, stakeholders' comments on that submission, and advise us on the appropriate values for these parameters. Incenta's comments are summarised below.

Incenta examined the volatility of cash flows and the associated gearing levels of firms in related industries: ports (21%), coal companies (23%), Class 1 railroads (25%), toll roads (53%), regulated energy (44%) and water (41%). Incenta noted that the commercial ports, coal companies, and Class 1 railroads have relatively high cash flow volatility and cannot support high gearing levels. However, Incenta considered DBCTM has relatively stable cash flows and shares many financial characteristics with regulated energy and water entities. As a result, Incenta concluded that 60 per cent gearing was an appropriate capital structure for DBCTM, noting this gearing level has been almost universally applied to energy and water entities by Australian regulators.

Incenta did not consider the credit ratings provided by S&P and Moody's on DBCT Finance to necessarily be indicative of the credit rating of a benchmark entity for DBCTM with 60 per cent gearing.[142]

Incenta noted that DBCT Finance's higher gearing of close to 80 per cent reflects a finance structure that includes features that are not shared by benchmark corporates, such as a set of debt covenants that are more restrictive than those used in standard corporate debt arrangements (e.g. provision for a 'cash sweep' if credit ratios breach certain limits).[143] Given these considerations, Incenta recommended continuing to set DBCTM's benchmark gearing level at 60 per cent.

To establish DBCTM's benchmark credit rating, Incenta undertook forward-looking analysis that applied a range of WACC parameters to the QCA's regulatory revenue model to generate

[140] DBCT User Group, sub. 13: 9.
[141] DBCT User Group, sub. 13: 11.
[142] Incenta 2016: 49.
[143] Incenta 2016: 27.

expected cash flows for the 2015 DAU regulatory period. From the forecast cash flows, Incenta estimated the following benchmark credit metrics:

- FFO/debt = funds from operations / total borrowings
- FFO/interest cover = (FFO plus interest paid) / interest paid,

where FFO = operating profits after tax (i.e. cash after tax paid that is not adjusted for imputation), plus depreciation and amortisation, plus deferred income tax plus other major non-cash items.

Incenta considered three scenarios in its analysis: a 'high' scenario modelled on DBCTM's proposal, a 'low' scenario based on the DBCT User Group's submission, and a 'medium' scenario based on our draft decision estimate (see summary of scenarios in Table 6).

Table 6 Credit metrics scenario assumptions

Scenarios	*High*	*Medium*	*Low*
WACC	7.46%	6.10%	5.84%
Remaining asset life	25 years	38 years	38 years
Remediation allowance	$12.8 million/year	$5.5 million/year[144]	$6 million/year[145]
Capital structure	60%	60%	60%

Incenta calculated the annual credit metrics for the regulatory period—Table 7 summarises the resulting forecast average credit metrics over the five years. The high scenario has an average FFO/debt ratio cover of 16.7 per cent and FFO/interest cover of 4.19 times, which are materially higher than for the other two scenarios. The medium/low scenarios have an average FFO/debt ratio of 11.8 per cent/11.5 per cent, with average FFO/interest cover of 3.22 times/3.06 times.

Table 7 Forecast credit metrics results

	High	*Medium*	*Low*
Average FFO/debt	16.7%	11.8%	11.5%
Average FFO/interest	4.19 times	3.22 times	3.06 times
Resulting credit rating	BBB+	BBB	BBB

Source: Incenta 2016.

Incenta considered the business risk profile and financial risk profile matrix used by S&P to determine what would be the resulting credit ratings for DBCTM in each scenario. Incenta considered ratings agencies would be likely to assess DBCTM's benchmark gearing level of 60 per cent to represent a 'significant' financial risk. Incenta considered DBCTM's business risk to be 'strong' and similar to Aurizon Network, which operates in the same coal chain.

At benchmark 60 per cent gearing, Incenta considered it likely DBCT would attract a BBB credit rating if its FFO/debt ratio was between nine and 13 per cent. Since both the medium and low

[144] This reflects an indicative estimate of the remediation allowance. The allowance has since increased to $5.7 million per annum due to a change in the assumed timing of payments each year. This change is relatively minor and not expected to affect the credit rating analysis here.

[145] This figure makes the same cost and economic life assumptions as the medium scenario but is based on the DBCT User Group's lower WACC of 5.84%.

scenarios considered above had average FFO/debt ratios within that band (i.e. 11.8% and 11.5%), Incenta found both scenarios consistent with a BBB credit rating.

However, the high scenario had an average forecast FFO/debt ratio of 16.7 per cent, which Incenta found was consistent with a BBB+ credit rating.

Based on its assessments of DBCTM's business and financial risks and its forecasts of DBCTM's FFO/debt ratios under the medium and low scenarios, Incenta agreed with DBCTM and the DBCT User Group that DBCTM's benchmark credit rating was likely to be BBB.

4.5.5 QCA analysis and draft decision

When assessing DBCTM's proposal, we are required to have regard to the factors set out in section 138(2) of the QCA Act and weigh them appropriately in our draft decision. We discussed our approach to the weighing of these factors, and their application, earlier in this chapter and in Chapter 2.

Benchmark capital structure

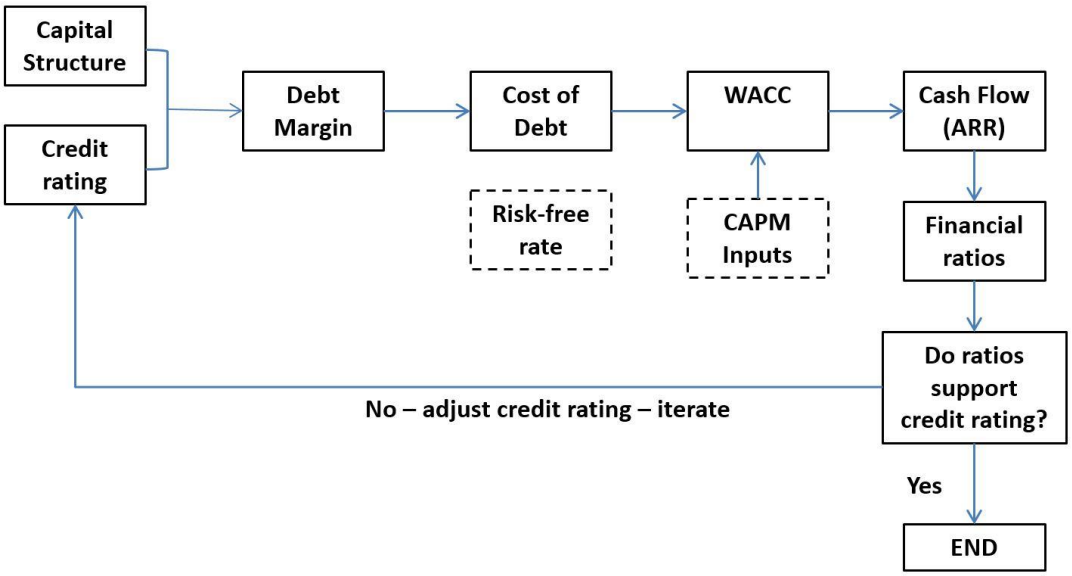
In considering the benchmark capital structure for DBCTM for the 2015 DAU, we note Incenta found that 60 per cent gearing has been generally applied to regulated energy and water businesses by Australian regulators, and that DBCTM shares many financial characteristics with those industries. Incenta also considered DBCTM's cash flows are sufficiently stable to support 60 per cent benchmark gearing, noting its actual gearing level is closer to 80 per cent of the RAB value.

Based on our assessment of the evidence and analysis, we accept Incenta's recommendation to continue to set DBCTM's benchmark gearing level at 60 per cent. We note this is consistent with DBCTM's proposal, which was also accepted by the DBCT User Group.

Benchmark credit rating

Consistent with past practice, we consider the credit rating and capital structure are endogenous to determining the rate of return. That is, rather than establishing a 'target' credit rating for the regulated firm and adjusting the benchmark capital structure and WACC accordingly to achieve that target, we establish a benchmark credit rating and capital structure that are internally consistent with the underlying regulatory pricing parameters. We then calculate the credit metrics (ratios) to verify they support the benchmark credit rating. This endogenous process is illustrated in Figure 4.

Figure 4 Credit rating and capital structure as endogenous to WACC estimation



Consistent with this process, we estimated the forecast, regulatory cash flows (ARR) for DBCTM, using a WACC of 6.10 per cent, a benchmark capital structure of 60 per cent and a benchmark credit rating of BBB. The cash flow analysis also took into account our positions in this draft decision on other pricing-related matters (e.g. depreciation and remediation). As explained above, Incenta then calculated the credit metrics (ratios) and found the resulting credit rating to be consistent with BBB for the cash flows generated by a 6.10 per cent WACC (medium scenario).

We therefore consider this evidence and analysis support a BBB benchmark credit rating for DBCTM. We note this benchmark credit rating is consistent with DBCTM's proposal, the DBCT User Group's submission and Incenta's findings.

4.5.6 Conclusion

Our draft decision is to approve DBCTM's proposed benchmark capital structure of 60 per cent and benchmark BBB credit rating. In doing so we note DBCTM's proposal was supported by the DBCT User Group and confirmed by Incenta's analysis.

In reaching this decision, we have also taken into account Incenta's independent advice that our WACC estimates and other pricing-related positions determined in this draft decision result in expected revenues that are consistent with a benchmark credit rating of BBB and a benchmark capital structure of 60 per cent.

We consider our decision is consistent with the application and weighing of the factors set out in section 138(2) of the QCA Act, including the pricing principles in section 168A, and appropriately balances the various competing interests of stakeholders.

Draft decision 4.4

(1) After considering DBCTM's proposed benchmark capital structure of 60 per cent and BBB benchmark credit rating, our draft decision is to approve the proposal.

(2) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

4.6 Cost of debt

Along with the cost of equity and the capital structure, the cost of debt is one of the three key components comprising the total WACC.

DBCTM's 2015 DAU cost of debt proposal and the DBCT User Group's proposal are shown in Table 8 below:

Table 8 Cost of debt proposal

Parameter	*2015 DAU (%)*	*DBCT User Group submission (%)*
Risk-free rate	2.8	2.17
Debt risk premium	2.32	2.32
Debt-raising transaction costs	0.108	0.108
Interest rate swap costs	NA	0.15
Cost of debt (total)	5.23	4.75

Note: DBCTM used a 10-year term for the RFR while the DBCT User Group used a five-year term. Both DBCTM and the DBCT User Group used an indicative averaging period of 20 business days up to 21 August 2015.

4.6.1 Risk-free rate

The RFR is a term that appears in both the cost of equity and the cost of debt in the WACC. Discussion of our views on the methodology and estimation of the RFR is contained in Section 4.4 of this chapter. Based on our preferred methodology, our estimate of the RFR is 2.10 per cent over an indicative averaging period of 2–30 October 2015.

4.6.2 Debt risk premium

Introduction

The debt risk premium is the amount above the RFR a business has to pay to acquire debt funding from financial markets and is related to, among other factors, a firm's credit rating. The debt risk premium increases in line with the riskiness of the business and varies over time in line with market circumstances.

DBCTM's proposal

DBCTM proposed a 2.32 per cent debt risk premium as a 'placeholder estimate', based on a 20-day averaging period to 21 August 2015 using the PwC simple portfolio econometric estimation methodology ('PwC econometric method'). DBCTM intends to submit an updated estimate, based on a subsequent averaging period for the purpose of setting the final cost of debt following our

draft decision.[146,147] DBCTM assumed a 10-year term of debt[148] and a BBB benchmark credit rating to arrive at this estimate.

DBCTM said it has some issues with the PwC econometric methodology and its implementation. In particular:

- availability of the UBS bond data—it could not fully replicate the methodology at the time of submission, because it could not obtain the six months of daily UBS bond data needed to perform a Quandt-Andrews Breakpoint Test.[149,150] UBS data is only available to UBS institutional customers and historical daily data is not available. DBCTM noted the ERA solely relies on Bloomberg bond yield data.
- availability of long-term interest swap rate data—the Australian Financial Markets Association (AFMA) is discontinuing its interest rate swap data series (required to estimate the fixed rate equivalent of UBS floating rate note data) in December 2015.[151]
- sample bias—DBCTM is concerned the inclusion of neighbouring credit ratings in the sample of bonds could lead to sample bias, depending on the relative number of bonds in each credit rating category and the weights attributed.[152] DBCTM suggested two alternative methods for dealing with this issue—that is, correctly weight the credit ratings using an indicator variable in the regressions, or estimating the debt risk premium using only the target credit rating, if the sample size is large enough.[153]
- availability of data to estimate a 10-year BBB debt risk premium—Reserve Bank of Australia (RBA) data is monthly and tends to reflect terms shorter than 10 years; while Bloomberg only recently commenced publishing its BVAL series, which limits the historical data available.[154,155]

Stakeholders' submissions

Based on the advice of its consultant, PwC, the DBCT User Group proposed a total debt risk premium of 2.58 per cent per annum as at 21 August 2015, comprising a raw debt risk premium (i.e. excluding transactions costs) of 2.32 per cent, interest rate swap costs of 0.15 per cent, and debt issuance costs of 0.108 per cent.[156]

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[146] DBCTM, sub. 2: 46.

[147] This averaging period has been agreed between DBCTM and the QCA and is confidential at this time, to enable DBCTM to implement its hedging arrangements.

[148] DBCTM, sub. 2: 46.

[149] DBCTM, sub. 2: 46.

[150] The quality of the bond data should be tested to confirm it reflects the market's opinion and is not 'stale'. The Quandt-Andrews Breakpoint Test tests for the presence of one or more structural breaks in a sample of data. If the test detects such breaks in the data, the assumption is that the bond yield data have most likely been updated and therefore are not stale. (See PwC 2013: 37–39.)

[151] DBCTM, sub. 2: 44.

[152] DBCTM was concerned with Incenta's past practice of using a cardinal approach (i.e. the numbers 1, 2 and 3) to weighting the A–, BBB+ and BBB ratings respectively. DBCTM said this approach assumes changes in bond spreads attributable to credit rating are equidistant over the range of credit ratings. (DBCTM, sub. 2: 45.)

[153] DBCTM, sub. 2: 45.

[154] DBCTM, sub. 2: 46.

[155] Bloomberg's BVAL service provides daily estimates of the fair value yields for Australian corporate bonds rated BBB– to BBB, up to a term to maturity of 30 years. However, Bloomberg's actual methodology for determining its BVAL estimates is proprietary, which we consider to be a weakness of the method.

[156] DBCT User Group, sub. 11: 15; DBCT User Group, sub. 14: 17.

Vale did not comment on the debt risk premium in its submission, but generally endorsed the DBCT User Group's submission.[157]

Incenta's advice

We engaged Incenta to provide advice on an appropriate value for the debt risk premium for DBCTM's 2015 DAU, including considering issues raised in submissions by DBCTM and other stakeholders.

Incenta considered the issues raised by DBCTM and responded to each of them:

- UBS data—Incenta said in the past that any regulated business that is an issuer of bonds would have immediate access to UBS data. However, Incenta noted very recent changes to UBS's distribution policy mean UBS will now only provide the data to a restricted audience. Given this circumstance, Incenta agreed with DBCTM, and considered that future estimation of the cost of debt using the PwC econometric method should rely solely on Bloomberg bond yield data.[158] Regarding the need to collate six months of historical daily data to test the staleness of the bonds in the sample, Incenta noted recent tests have shown the data to be relatively 'fresh' and concluded the data only needs to be tested periodically.
- swap rate data—Incenta noted several sources are available that provide interest swap rates (apart from AFMA) and recommended using Bloomberg swap rate data to estimate equivalent fixed rate bond yields for the 20-day averaging period.[159] Incenta confirmed Bloomberg has no intention of discontinuing this service; therefore, the AFMA's decision to discontinue publication of its swap rate data was not critical to the estimation of fixed rate equivalents of floating rate note trading margins.
- sample composition—Incenta disagreed with DBCTM's claim about sample bias. While Incenta noted there is some potential for bias in the pooled approach, Incenta considered there was greater potential for bias if only the bonds in the target band are used. This is because the latter approach uses a much smaller sample of bonds than the PwC econometric method, which pools the bonds across the relevant credit rating bands in the sample. Furthermore, Incenta found the estimate using the econometric method was similar to that found by applying a dummy variable approach. Incenta also found it was valid to infer the debt risk premium associated with the pooled sample of BBB, BBB+ and A– bonds would reflect the average credit rating of the sample (BBB+ in this example). Incenta noted both RBA and Bloomberg BVAL data series use a pooled data sample in applying their approaches.[160]

Consistent with the QCA's cost of debt final decision[161], we requested Incenta to use the PwC econometric method for estimating the cost of debt, and cross-check the estimate against the Bloomberg BVAL estimates[162] and RBA estimates.

Consistent with our cost of debt framework, Incenta assumed a benchmark firm would:

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[157] Vale, sub. 10: 1.
[158] Incenta 2016: 54.
[159] Incenta 2016: 55.
[160] Incenta 2016: 10.
[161] See QCA 2014a, *Cost of debt estimation methodology*, final decision, August.
[162] This is the Bloomberg proprietary BVAL estimate, which is different to the Bloomberg bond yield data we propose to use in the PwC (2013) econometric method (to replace the UBS data which now has restricted access).

- issue debt with an efficient term (i.e. consistent with prudent financial management) and incur transaction costs associated with issuing this debt
- use interest rate swap contracts to convert the base interest rate element of its cost of debt from the raw term to a term that matches the length of the regulatory period, which would ordinarily reduce its cost of debt (among other factors), and incur the associated transaction costs.[163]

If a sufficiently liquid market for credit default swaps was available, a rational regulated firm would also be expected to use credit default swaps to convert the debt risk premium element of its cost of debt from the raw term to the term matching the length of the regulatory period.[164] However, at present, there is a lack of depth in the credit default swap market to enable large, regulated businesses to align their debt risk premium to the term of the regulatory period. Given this context, Incenta estimated the:

- appropriate benchmark term of debt to apply to DBCTM
- debt risk premium, given the benchmark term and the appropriate benchmark credit rating.[165]

Benchmark term of debt

Incenta recommended using a 10-year benchmark term of debt at issuance for DBCTM, because it is consistent with the empirical evidence that highly geared infrastructure businesses tend to issue long-term debt to manage their refinancing risk. Incenta noted this is consistent with the practice of Australian regulators generally and the QCA's previous practice.[166]

Benchmark debt risk premium

At the beginning of the consultancy, Incenta estimated a 10-year BBB+ benchmark debt risk premium using the indicative averaging period of the 20 business days from 2 October to 30 October 2015 inclusive. It also estimated a 10-year BBB benchmark debt risk premium based on the average deviations from the pooled regression line.[167] Later in the consultancy, Incenta confirmed a benchmark credit rating of BBB, proposed by DBCTM and accepted by the DBCT User Group, is appropriate for DBCTM.

As the debt risk premium will need to be updated for the (confidential) averaging period, it is expected a 10-year BBB benchmark debt risk premium for the agreed averaging period will be estimated prior to the QCA making its final decision, using the PwC econometric method and Bloomberg bond yield data.

To estimate the cost of debt, Incenta built a sample of bonds by selecting bonds from the BBB+ credit rating band, as well as from the credit rating bands immediately higher (A–) and lower

[163] Incenta 2016: 58.
[164] For a five-year regulatory period, if credit default swap contracts were available, then the appropriate (total) cost of debt would comprise: the five-year RFR, the five-year debt risk premium, a transaction cost allowance for credit default swaps, a transaction cost allowance for interest rate swaps and a transaction cost allowance for debt refinancing costs.
[165] Incenta 2016: 59.
[166] Incenta 2016: 59.
[167] Incenta 2016: 64.

(BBB). From an original group of 431 identified bonds, Incenta derived a sample of 78 fixed or floating bonds[168], by applying the following selection criteria:

- *Australian issuance by an Australian entity*
- *Investment grade credit rating by Standard & Poor's…*
- *The issuing entity is not a financial entity*
- *The corporate bond is senior (i.e. not subordinated)*
- *Standard corporate bonds without special features such as call options attached*
- *A term to maturity greater than one year, and*
- *Yields reported by either Bloomberg or UBS.*[169]

The 78-bond sample comprised:

- 29 BBB bonds with an average term to maturity of 4.8 years
- 16 BBB+ bonds with an average term to maturity of 3.8 years
- 33 A– bonds with an average term to maturity of 4.2 years.[170]

Incenta used linear regression to estimate the debt risk premium, as the linear form was found to be superior by PwC (2013) when developing the methodology.[171]

However, Incenta noted the distribution of the sample data showed the Glencore bond to be an outlier. After undertaking further investigations of the Glencore bond, Incenta decided to remove it from the sample[172] (leaving 77 bonds).[173] Based on the revised 77-bond sample, Incenta considered the resulting pooled regression estimate of 2.48 per cent for the 10-year BBB+ debt risk premium to be reasonable because the average deviation (residuals) from the pooled regression line showed the BBB+ bonds were on average approximately halfway between the BBB and A– bonds.[174]

Incenta noted the average deviation from the pooled regression line for the 28 BBB bonds (excluding the Glencore bond) was 19.8 basis points higher than the 2.48 per cent pooled regression estimate. This translated to an estimated 10-year BBB debt risk premium of 2.68 per cent (2.48% plus a 0.20% BBB premium, obtained by rounding up the 19.8 basis point average differential between the 28 BBB bonds and the pooled regression line).[175] At a benchmark BBB credit rating, Incenta considered 2.68 per cent to be the best estimate of DBCTM's 10-year debt risk premium.[176]

[168] Incenta 2016: 60.
[169] Incenta 2016: 59.
[170] Incenta 2016: 62.
[172] Incenta 2016: 63.
[172] Incenta 2016: 63.
[173] The Glencore bond's yield spiked in September 2015, after the firm lost 43% of its equity value in the previous quarter due to liquidity and credit risk concerns (i.e. potential downgrading to sub-investment grade). However, investment bank, J.P. Morgan Cazenove questioned the market's reaction to Glencore's financial situation, noting credit default swap pricing had risen from approximately 300 to 840 basis points, the latter of which was higher than the peak during the Global Financial Crisis.
[174] Incenta 2016: 64.
[175] Incenta 2016: 64.
[176] Incenta 2016: 67.

As per the QCA's standard approach[177], we requested Incenta to compare its estimated debt risk premium with the Bloomberg BVAL estimates and the RBA estimates, as a cross-check.

Incenta said the Bloomberg BVAL estimated 10-year BBB debt risk premium was 2.45 per cent, based on an underlying sample of 22 bonds with an average credit rating of BBB.[178] Incenta considered Bloomberg's smaller and different sample, as well as different estimation method, applied when estimating the Bloomberg BVAL series would have caused the 23 basis point difference with the debt risk premium estimated by Incenta (i.e. 2.68 per cent).[179] However, Incenta preferred its sample because it is larger and includes a larger proportion of longer-dated bonds that improve the debt risk premium estimate at a term of 10 years.[180]

Incenta calculated an estimated RBA 10-year BBB debt risk premium of 2.78 per cent, based on the RBA sample of 85 bonds for October 2015, which had an average credit rating of BBB.[181] Incenta noted while the RBA method targets a 10-year term to maturity, it consistently produces estimates for an effective term to maturity of approximately nine years. [182,183] Incenta applied the recommended AER method to extrapolate the RBA data to a 10-year term. In addition, Incenta interpolated the RBA data for the last business days of September and October to the 20 days from 2 October to 30 October 2015 inclusive, then annualised the yields, and averaged the results to calculate the RBA 10-year BBB debt risk premium.[184]

The results of Incenta's debt risk premium analysis are summarised in Table 9.

Table 9 Estimated 10-year debt risk premiums using various methodologies

Method	*Estimate (%)*	*Benchmark credit rating*
PwC (2013) simple portfolio econometric	2.68	BBB
Bloomberg BVAL data series	2.45	BBB
RBA	2.78	BBB

The RBA-based estimate of 2.78 per cent is only 10 basis points higher than Incenta's estimate of 2.68 per cent, but 33 basis point higher than Bloomberg's BVAL estimate of 2.45 per cent. Incenta considered the RBA estimate validated its econometric estimate, but indicated the Bloomberg BVAL estimate appeared to be too low.[185,186]

[177] The QCA's standard approach is to use the PwC simple portfolio econometric method (described in QCA 2014a, *Final Decision: Cost of debt estimation methodology*) and to cross-check the resulting estimate with other estimates, such as the Bloomberg BVAL and the RBA.
[178] Incenta 2016: 66.
[179] Incenta 2016: 66.
[180] Incenta 2016: 66.
[181] Incenta 2016: 67.
[182] Incenta 2016: 66.
[183] Incenta also said a problem with the RBA method is its tendency to imply a negative debt risk premium between seven and 10 years, which is not generally plausible.
[184] Incenta 2016: 67.
[185] Incenta 2016: 67.
[186] This result also suggests that using the RBA's BBB estimate as a proxy for a BBB+ yield will overestimate the latter.

Therefore, Incenta recommended a benchmark debt risk premium of 2.68 per cent for a benchmark credit rating of BBB with a 10-year term of debt (for the indicative averaging period).[187]

QCA analysis and draft decision

As identified above, when assessing DBCTM's proposal, we are required to have regard to the factors set out in section 138(2) of the QCA Act and weigh them appropriately in our decision. We identified our approach to the application and weighing of these factors earlier in this chapter and we have applied this approach.

We note there is general agreement between DBCTM and stakeholders on most aspects of the methodology for estimating the debt risk premium. As noted above, both DBCTM and the DBCT User Group proposed a 'raw' debt risk premium of 2.32 per cent, based on a 'placeholder' 20-day averaging period to 21 August 2015. Both DBCTM and the DBCT User Group applied the PwC econometric method using the same benchmark term and credit rating assumptions.

We accept Incenta's benchmarking analysis and conclude an efficient term of debt is 10 years. Incenta has also advised credit default swaps are not available at this time to convert the debt risk premium component. As a consequence, we consider applying a 10-year term to determine the benchmark cost of debt is reasonable in this instance. This term of debt is consistent with the term proposed by DBCTM, and with the term of debt assumption used by the DBCT User Group to estimate its proposed debt risk premium.

In addition, we agree that Incenta's analysis supports a benchmark credit rating of BBB for DBCTM at this time. This benchmark credit rating is also consistent with the credit rating proposed by DBCTM.

We reviewed our cost of debt estimation approach, as part of our wider review of our overall cost of capital methodology. We considered whether to continue with our previous practice of using fair value yield curves estimated by third-party data providers or to move to an alternative approach, such as the simple portfolio econometric approach developed by PwC.

Our decision was to use the PwC simple portfolio econometric method. We affirm and adopt our analysis on this issue for the purposes of this draft decision, as set out in our cost of debt decision.

Our cost of debt decision outlined the advantages and disadvantages of these two methodologies.[188] As the PwC econometric method is transparent, robust and replicable, the final decision on the methodology was that we will use the econometric approach as the primary method for estimating the debt risk premium in future regulatory reviews. However, we will continue to use estimates from the Bloomberg BVAL or similar approaches as 'cross-checks' on estimates from the econometric approach, but not as the main estimates.[189]

Given this, we intend to use the PwC econometric approach as the main method for estimating the debt risk premium for DBCTM.[190] This is consistent with the submissions of DBCTM and the DBCT User Group and with our prior analysis and the expert advice that we have received. This is

[187] Incenta 2016: 68.
[188] QCA, August 2014a, *Final Decision: Cost of debt estimation methodology.*
[189] QCA, August 2014a, *Final Decision: Cost of debt estimation methodology*, pp. 9–10.
[190] In assessing the final WACC to apply to DBCT for the 2015 DAU, the Bloomberg bond yield data will be used instead of the UBS data, because of the recent change in availability of UBS data. In addition, we intend for the econometric approach to then be applied to a sample around the BBB band bonds, that is, including BBB– and BBB+ bonds in the sample (for the nominated averaging period).

also consistent with our consolidated draft decision on Aurizon Network's 2014 DAU. As noted earlier, the approach indicates a BBB debt risk premium of 2.68 per cent for the indicative averaging period for DBCTM.

We have also considered the Bloomberg BVAL data series and RBA estimates as 'cross-checks' to the econometric estimate. We agree with Incenta that the RBA estimate (see Table 9 above) appears to confirm a 10-year BBB debt risk premium of 2.68 per cent as being reasonable, while the Bloomberg BVAL estimate appears anomalously low.

Thus, we propose to use an indicative debt risk premium of 2.68 per cent for calculating the cost of debt for DBCTM. We note the proposed debt risk premium is higher than DBCTM's placeholder estimate and the DBCT User Group's estimate of 2.32 per cent, which is based on a different averaging period than the one used by Incenta.

Conclusion

We consider Incenta's proposed debt risk premium takes into account and appropriately balances the various factors under section 138(2) of the QCA Act, as identified earlier in this chapter.

In forming this view, we note the econometric approach utilises a detailed methodology developed for us by PwC. We consider the use of this approach is most likely to provide an estimate of the current debt risk premium that has regard to the factors set out in section 138(2) of the QCA Act, and most appropriately balances them. We also refer to our detailed analysis of this issue set out in our cost of debt decision.

Draft decision 4.5

(1) After considering DBCTM's proposed placeholder debt risk premium estimate of 2.32 per cent per annum, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to apply an indicative debt risk premium of 2.68 per cent per annum.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

4.6.3 Debt-raising transaction costs

Our cost of debt decision identified debt-raising transaction costs of 0.108 per cent per annum as reasonable.

DBCTM, the DBCT User Group and its consultant, PwC, all applied the QCA's revised allowance for debt-raising costs of 0.108 per cent per annum.[191]

QCA analysis and draft decision

Given this, we consider applying debt-raising transaction costs of 0.108 per cent per annum (i.e. 10.8 basis points) for the 2015 DAU is appropriate. We are satisfied this decision represents an appropriate balancing of the various factors under section 138(2) of the QCA Act, as identified earlier in this chapter.

[191] DBCTM, sub. 2: 46; DBCT User Group, sub. 11: 15; DBCT User Group, sub. 13: 17.

Draft decision 4.6

(1) After considering DBCTM's proposed debt-raising transaction costs of 0.108 per cent per annum, our draft decision is to approve DBCTM's proposal.

(2) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

4.6.4 Interest rate swap transaction cost allowances

DBCTM proposed to use a 10-year term to maturity to estimate the RFR and debt risk premium and therefore has not proposed an interest rate swap cost allowance.[192]

The DBCT User Group and its consultant, PwC, applied an indicative interest rate swap transaction cost of 0.15 per cent per annum to their estimated cost of debt, noting it was broadly consistent with the 0.113 per cent per annum swap cost allowance included in our 2014 MAR draft decision on Aurizon Network's 2014 DAU.

QCA analysis and draft decision

As discussed earlier, we consider a 10-year term of debt is efficient, given refinancing risks. In addition, Incenta has determined credit default swaps are not available at this time to convert the debt risk premium component of the 10-year cost of debt to a term matching the term of the regulatory period. On this basis, we have accepted a 10-year term of debt and benchmarked an appropriate 10-year debt risk premium. Accordingly, we consider it reasonable that an allowance should be made for the transactions costs associated with interest rate swap contracts to convert the base rate component of the 10-year cost of debt to five years.

As part of our consideration of Aurizon Network's 2014 DAU, we asked Incenta to estimate the transaction costs required to swap the base interest rate component of a BBB+, 10-year (fixed rate) bond yield into a four-year (fixed rate) yield. Incenta obtained a market quotation of 11.3 basis points to undertake the swap transactions required.[193] We consider this market quotation to also be an appropriate estimate of the interest swap transaction cost allowance for DBCTM.

As identified above, when assessing DBCTM's proposal, we are required to have regard to the factors set out in section 138(2) of the QCA Act and weigh them appropriately in our decision. We identified our approach to the application and weighing of these factors earlier in this chapter and we have applied this approach.

We consider the interest rate swap cost allowance of 11.3 basis points (i.e. 0.113% per annum) recommended by Incenta is appropriate for DBCTM for the 2015 DAU. The allowance we have proposed takes into account and appropriately balances the various factors under section 138(2) of the QCA Act, as identified earlier in this chapter.

[192] DBCTM, sub. 2: 46.
[193] Incenta, April 2014: 41.

Draft decision 4.7

(1) After considering DBCTM's proposed interest rate swap cost (or, more accurately, absence thereof), our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to set the interest rate swap costs at 11.3 basis points per annum.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

4.7 Market risk premium

4.7.1 Introduction

The MRP is the additional return an equity investor requires to be compensated for the additional risk of investing in a market portfolio of risky assets as against purchasing a risk-free asset.

The MRP is a key component of the cost of equity and, in turn, the WACC.

We have adopted an estimate of 6.5 per cent per annum for the MRP after addressing both the conceptual and measurement issues involved.

Full details of our analysis for estimating the MRP is set out in our market parameters decision.[194] That analysis serves as an input to this draft decision. In addition, we have considered stakeholder submissions. We have also taken into account the submissions and evidence from DBCTM and stakeholders in this review, and our consultant's analysis, and have considered whether any change to the approach set out in the market parameters decision is warranted in light of those submissions and evidence and that analysis.

We have also updated our estimates for the individual methods for the time period ending 30 October 2015 and taken into account additional information (e.g. implied volatility measures), consistent with the framework set out in our market parameters decision.

4.7.2 DBCTM's proposal

DBCTM proposed a MRP estimate of 8.0 per cent per annum calculated as the (rounded) weighted average of the estimates obtained by Frontier from the methods listed in Table 10. These estimates use a contemporary 10-year government bond yield of 2.8 per cent per annum, a gamma of 0.25, and a utilisation rate (theta) of 0.35.[195]

[194] QCA 2014a.

[195] Estimates of gamma and theta parameters are relevant to MRP estimates where the effects of dividend imputation on the returns to equity capital, and therefore the return on the market portfolio, need to be taken into account.

Table 10 Frontier Economics estimate of MRP

Method	*MRP (%)*	*Required return on the market (%)*	*Weight (%)*[196]
Historical excess returns (Ibbotson)	6.6	9.4	20
Historical real returns (Wright)	8.8	11.6	20
Dividend discount model	8.6	11.4	50
Independent expert valuation reports	7.4	10.2	10
Weighted average	8.1	10.9	

Source: DBCTM (Attachment C—Frontier), sub. 5, Table 5: 54.

Based on Frontier's advice, DBCTM agreed with our use of the Ibbotson approach, but otherwise did not accept the assumptions and methodology used in our market parameters decision and Aurizon Network MAR draft decision to arrive at our MRP estimate of 6.5 per cent per annum, for the following reasons[197]:

- Our approach to estimating the MRP from the four methods adopted was not transparent. We should have clarified how we applied our judgement in deriving the MRP range and point estimate of 6.5 per cent, including the nature and magnitude of the weights applied to the estimates obtained from the different methods used. In particular:
  - The method we applied to determine the (asymmetric) lower and upper bounds of our MRP range is not apparent.
  - We appear to have simply used an equally-weighted mean of our four conventional methods and rounded to the nearest half percentage point, rather than to the nearest whole percentage point.[198]
- Our approach resulted in historically low required returns on equity capital, and this was implausible in the market conditions that have existed since the onset of the global financial crisis (GFC).[199]
- Our use of the Siegel method was not acceptable because this method is not used by other Australian regulators, practitioners or academics; the data needed to put it into effect is not readily available; and the methodology relies on future expected real yields on government bonds remaining at 1980s levels, whereas the reverse has occurred.[200]

[196] Frontier has given the dividend discount estimate relatively more weight (50%) on the basis that it is a recognised estimate of the forward-looking MRP consistent with prevailing market conditions. The evidence from historical stock returns has received slightly less weight (40%) because, although it is statistically reliable, it necessarily reflects average market conditions over the historical period that will likely differ from prevailing conditions. The independent expert valuation reports are given a relatively small weight (10%) because this evidence is less relevant to our regulatory approach.

[197] DBCTM, sub. 2, section 3.4.4: 36.

[198] DBCTM, sub. 5, section 4.2: 23–28.

[199] DBCTM, sub. 5, section 4.3: 20–30.

[200] DBCTM, sub. 5, section 4.5: 30–34.

- Our recent adjustments when applying the Cornell Dividend Growth Model (DGM)[201] were not acceptable. In particular[202]:
  - A downward adjustment should not have been made to gross domestic product (GDP) growth forecasts as this was based on dated US empirical data that has reversed since the mid-1990s.
  - The use of one discount rate period for cash flows over the next 10 years and a different discount rate for all subsequent cash flows (i.e. the 'dual rate adjustment') should not have been used. These adjustments are contrary to the standard application of the Cornell DGM, which applies a single discount rate to equate forecast dividends to a prevailing share price.
  - For comparison purposes, Frontier estimated that, other things equal, if we had estimated a single discount rate, our MRP estimate would have been 8.7 per cent; if we had set long-run dividend growth equal to long-run GDP growth, our MRP estimate would have been 9.8 per cent; and if neither adjustment had been made (i.e. Frontier's preferred version of the Cornell approach), our estimate of the MRP would have been 9.3 per cent.[203] Frontier's preference was for a dividend discount MRP estimate of 8.6 per cent based on the AER's three-stage dividend discount specification, no downward adjustment to the GDP growth forecast, the contemporaneous 10-year government bond yield of 2.8 per cent, a gamma of 0.25, and a theta estimate of 0.35.[204]
- We should have had proper regard to the Wright method and clarified how we took this method into account in arriving at our MRP estimate. In this regard, Frontier noted that Lally supported the formal consideration of the Wright approach.[205]
- We should not have used survey evidence as an input to our estimate of the MRP because there is a lack of clarity and reliability around survey questions and responses; the responses do not reflect the views or requirements of investors; the data does not adequately reflect changing market conditions; and it is unclear whether or not imputation credits are included in survey participants' estimates of the MRP.[206]
- We should have used the same term for the RFR as used in independent expert reports to estimate the cost of equity (i.e. 10 years or more), rather than the term matched to the regulatory period. Moreover, we should have used the mean rather than the median

[201] The key features of our Cornell-type DGM are outlined in our market parameters decision (QCA 2014a, Appendix C: 67–73). Although there are several differences between the original Cornell DGM and our Cornell-type DGM, the essential distinctions are between the market return on equity and GDP growth rate assumptions used. Whereas the Cornell DGM assumes that the market return on equity is the same in all future years of the analysis, our method allows for the possibility that the market return on equity reverts to a long-term average value (i.e. a 'two discount rates' approach). In addition, the Cornell DGM does not adjust the assumed expected long-run growth rate in GDP whereas our method applies a downward adjustment to the expected long-run growth rate of GDP to accommodate new equity issues and the formation of new companies over time.

[202] DBCTM, sub. 5, section 4.9: 50–54.

[203] These estimates are based on a 10-year RFR of 2.8% per annum.

[204] The AER's three-stage approach is discussed in AER 2013b, Appendix E.

[205] DBCTM, sub. 5, section 4.8: 46–50.

[206] DBCTM, sub. 5, section 4.6: 34–38.

estimate as the latter was statistically misleading where no observations lie below the median and 41 per cent lie above it.[207]

4.7.3 Stakeholders' submissions

Vale Australia Pty Ltd (Vale)

Vale submitted that it:

- generally endorsed the submission of the DBCT User Group
- considered that the approach and methodologies used by us in our market parameters decision remained relevant for this draft decision
- believed that continued use of the previously adopted approaches and methodologies benefitted all stakeholders as it provided predictability and consistency within the regulatory environment.[208]

DBCT User Group

The DBCT User Group submitted an MRP estimate of 6.5 per cent consistent with the advice of its consultant (PwC) and our current WACC methodology.[209]

4.7.4 Advice to the QCA

Frontier's advice to DBCTM on the MRP is similar in many respects to that provided by SFG to Aurizon Network's submissions on our discussion paper on the RFR and MRP (leading to our market parameters decision)[210] and on our Aurizon Network MAR draft decision.[211]

We commissioned Lally to advise us on the above submissions[212], and Lally's comments that are also relevant to Frontier's advice to DBCTM are summarised below:

- Our approach of exercising our judgement to determine an estimate for the MRP from the various methods considered, and the estimate reached on this basis, were considered reasonable.[213]
- By suggesting that it was implausible for the cost of equity to have decreased since the onset of the GFC, SFG implied that the MRP must have risen by at least as much as the RFR had fallen during this time. Although this contention may be plausible, no proof was offered by SFG. Even if our use of the Ibbotson and Siegel approaches underestimates the current MRP (because Ibbotson and Siegel estimates may not be very sensitive to changes in the MRP), by placing significant weight on the Ibbotson and Siegel approaches, the estimate of the MRP was likely to be improved not only at the present time in terms of minimising mean squared error (MSE), but also in terms of producing a good estimate of the long-run average MRP.[214]
- SFG's criticisms of the Siegel method were not supported because:

[207] DBCTM, sub. 5, section 4.7: 39–45.
[208] Vale, sub. 10: 7.
[209] DBCT User Group, sub. 11: 14–15; DBCT User Group, sub. 14: 17–19.
[210] QCA 2012; SFG 2013; SFG 2014.
[211] QCA 2014a; Aurizon Network 2014 (SFG's advice on the MRP is Attachment 3—SFG Consulting Report 3).
[212] Lally 2013a; Lally 2015a.
[213] Lally 2015a: 24–25.
[214] Lally 2015a: 25–26.

- Contrary to SFG's claims, we did not maintain that the Siegel method is not used by other regulators or a high proportion of survey respondents, but only that these views were presented in some submissions. Moreover, the choice of a particular method must rest on its inherent merits rather than solely on whether or not it is widely used.
- SFG's claim that sufficient data was not available to implement the Siegel approach failed to acknowledge that our estimate of the average long-term yield of the real RFR (3.7%) is corroborated by the estimated average realised real return of 3.5 per cent over the period 1883–1939.
- Siegel did not base his methodology on future expected real yields on government bonds remaining at about 4.0 per cent, which SFG claimed was inconsistent with yields below 3.0 per cent over the last 10 years and below 2.0 per cent for the past three years. Rather, Siegel predicted only that future long-term real yields are likely to be higher than that estimated on earlier data, and this prediction has empirical support. However, Siegel's more important point was that the future MRP is likely to be below the Ibbotson estimate because the average realised real return on government bonds was unusually low for much of the 20th century due to high unexpected inflation, and this effect is unlikely to recur.[215]

- SFG's contention that we should not have made adjustments to the DGM was not supported because:
  - Our deduction for dilution (due to new share issues and formation of new companies) is warranted. Some dilution is necessary because the long-run expected growth rate in earnings for all shares in all companies (existing and future) must match that for GDP.[216] Therefore, the long-run expected growth rate of earnings per share (EPS) for existing companies must be less than that of GDP. On this basis, the 1990–2013 estimation period used by SFG is unsuitable, as the real growth rate for EPS was 5.0 per cent versus 3.4 per cent for GDP. On the other hand, for the period 1969–2013 (the longest period available for EPS growth rate data) the real GDP growth rate exceeded that for EPS (3.2% versus 1.5%) suggesting a dilution deduction of 1.7 per cent. Our deduction for dilution of 1.0 per cent is therefore probably conservative.
  - Our 'two discounts' modelling assumption is reasonable. SFG did not provide support for its view that a constant cost of equity over all forecast years to perpetuity was superior to our approach, which assumes a market value of equity after 10 years that corresponds to the long-run average market return on equity.
- SFG correctly commented that Lally supported formal consideration of the Wright approach. However, SFG failed to mention that Lally also supported consideration of results from other markets, and the latter results in a downward effect on the MRP estimate. The net effect of taking into account both factors is downward. In addition—and in contrast to SFG—our use of the Siegel method, which is seen to address the same problem as the Wright method (albeit in a different way), was supported; SFG's explanation of the difference between the

[215] Lally 2015a: 26–28.
[216] If this were not the case, the earnings share of GDP would eventually either converge to zero or exceed 100%.

Wright and Siegel methods was not supported; and, although the Wright and Siegel estimates were shown to differ, each is superior under certain conditions.[217]

- SFG's view that we should not have used survey evidence was not supported. As discussed in our market parameters decision[218], we agreed with the contention that surveys have weaknesses. However, we considered that certain surveys remain a useful source of information to inform an estimate of the MRP despite potential issues of survey design—provided they are timely, reflect results in other markets, and are carefully assessed on a case-by-case basis.[219]
- SFG's view that we should have used the same term for the RFR as used in independent expert reports as an input to determining the cost of equity—that is, a term longer than the term of the regulatory period—was not supported. Our objectives in setting the regulatory rate of return are not related to those of commercial valuers.[220] Moreover, SFG's contention that the mean value of the MRP, rather than the median, should have been used was not supported because our preferred practice is to adopt the median to avoid the influence of outliers, and our use of the median in this context is consistent with this.[221]

4.7.5 QCA analysis and draft decision

Assessing proposed estimates of the MRP requires us to exercise our regulatory judgement. The MRP is not directly observable and there is no single econometric modelling or other technique that is capable of delivering a 'correct' estimate for the MRP.[222] Each of the available techniques has strengths and weaknesses, and therefore we must weigh up the evidence from each estimation technique having regard to these strengths and weaknesses.

We have considered the concerns raised by DBCTM's proposal and initial submissions by other stakeholders. We believe that no new evidence has been presented that demonstrates that our approach to estimating the MRP is inappropriate and, therefore, no issue raised by submissions has caused us to revise the methods and analysis set out in our market parameters decision.

However, in order to verify that our overall MRP estimate remains valid, we updated our estimates for the individual methods underlying our overall MRP estimate for the time period ending 30 October 2015, with the following results:[223]

- Ibbotson estimates range from 5.7 to 6.4 per cent over all sample periods analysed, with an estimate of 6.4 per cent for the period 1958–2015.
- Siegel estimates range from 3.9 to 6.2 per cent, with an estimate of 5.4 per cent for the period 1958–2015.

[217] Lally 2015a: 29–31.
[218] QCA 2014: 64–66.
[219] Lally 2014: 6–7.
[220] Lally 2014: 28–29.
[221] Lally 2014: 29.
[222] *Applications by Public Interest Advocacy Service Ltd and Ausgrid Distribution* [2016] ACompT 1, [800]; *Application by WA Gas Networks Pty Ltd [No 3]* [2012] ACompT 12, [105]-[110].
[223] Our estimate for the Wright method increased to 8.9% over the preferred sample period of 1958–2015; however, given the very low weight afforded to this method, this increase has no effect on the overall MRP estimate.

- Survey evidence supports an estimate of 5.1 per cent (excluding imputation credits), and 6.0 per cent (including imputation credits).
- Cornell dividend growth estimates range from 7.3 to 9.0 per cent, with a median estimate of 8.2 per cent.

Our assessment of these estimates, together with additional sources of information, confirm that our preferred MRP estimate of 6.5 per cent remains a valid estimate for this draft decision.

In response to DBCTM:

- We consider that the Siegel method is a relevant method for estimating the MRP. We note that Lally has undertaken analysis that confirms the method's validity, and DBCTM has not demonstrated otherwise. Further, the data used to apply the method has been corroborated, and the fact that other Australian regulators do not currently apply it is not, by itself, determinative for our decision.
- We do not accept DBCTM's proposed DGM estimate because it does not allow for mean reversion towards a long-term growth rate for the cost of equity and makes no adjustments for dilution (due to new share issues and formation of new companies). The information and evidence considered supports the adjustments we have made to the standard DGM methodology as reasonable and appropriate.
- We did give due regard to the Wright method in the process of determining an MRP estimate of 6.5 per cent for the market parameters decision.[224] Our estimate was 7.4 per cent over the preferred sample period of 1958–2013. We note that the Wright estimate was one factor considered in arriving at the decision to change our estimate of the MRP from 6.0 per cent to 6.5 per cent.
- We consider that the Ibbotson and Siegel methods are likely to provide better estimates of the desired long-term average MRP, even though these estimates may not be sensitive to short-term changes in the true MRP at particular times—such as during the period affected by the GFC.
- In our view, use of independent expert reports as a source of MRP data does not imply that the same RFR term used in these reports should be used to determine the cost of equity, because our regulatory objectives are unrelated to those of commercial valuers.
- In relation to DBCTM's discussion of the approaches of other Australian regulators to estimating the MRP (including the AER, IPART, and ERA)[225], we acknowledge that different regulators may use different methodologies and a particular regulator may vary its methodology through time based on its perception of changing circumstances. However, as pointed out in our market parameters decision, although we consider the arguments of other regulators when formulating our estimate of the MRP, these arguments are not determinative for our decision. Our view is that, based on our chosen methodology, updated evidence and changes in market circumstances have justified an increase in the MRP from 6.0 per cent to 6.5 per cent.

We considered DBCTM's concerns about the lower and upper bounds of the range of 5.0 to 7.5 per cent, which guided our determination of a point estimate for the MRP. As stated in the market

[224] QCA 2014, Technical Annex, Appendix C: 88.
[225] DBCTM, sub. 2: 33–35.

parameters decision, the lower and upper bounds were set marginally below and above the Siegel and Cornell estimates respectively. We note those bounds were determined as at December 2013, at which time the AER also concluded that the same range was reasonable.[226]

In relation to DBCTM's concerns about how we arrived at our MRP estimate of 6.5 per cent, we did not apply an equally-weighted mean (of our four primary methods) and round the result to the nearest half percentage point. As stated in our market parameters decision, we have examined our traditional methods and also considered a broader range of information, some of which does not lend itself readily to an averaging procedure.

Our view is that applying our judgement to assess the strengths and weaknesses of the estimates obtained from several different methods, as well as to assess other relevant information, to arrive at a final estimate for the MRP, was appropriate. Our determination of an overall MRP estimate included an examination of the methods of Ibbotson, Siegel, Cornell and Wright as well as other sources such as survey evidence, independent expert reports, and additional information to reflect current conditions (e.g. volatility measures, corporate debt premiums, and liquidity premiums on government bonds). We also took into account the relationship between the RFR and the MRP.

We considered some of these methods and sources warranted greater emphasis than others due to their perceived objectivity, reliability and fitness for purpose, for the reasons documented in our market parameters decision.

In our view, arguments against our use of particular methods or techniques, or for alternative methods, are not sufficiently persuasive.

We also note that Vale and the DBCT User Group supported our approach to estimating the MRP.

4.7.6 Conclusion

We are not persuaded that the arguments put forward in submissions provide sufficient grounds for changing our view that an appropriate estimate for the MRP is 6.5 per cent per annum at this time.

We therefore refuse to approve the MRP estimate proposed by DBCTM of 8.0 per cent per annum.

Our calculation of the return on investment has followed our normal practice of applying the post-tax nominal ('vanilla') version of Officer's WACC based on appropriate and consistent point estimates of constituent parameters, including the MRP.

We consider our estimate for the MRP has had regard to the relevant factors set out in the QCA Act and weighed them appropriately, thereby achieving an appropriate balance between the competing interests of the various stakeholders.

[226] AER 2013a: 93.

Draft decision 4.8

(1) After considering DBCTM's proposed market risk premium of 8.0 per cent per annum, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its draft access undertaking is to set a market risk premium of 6.5 per cent per annum.

(3) After having regard to each of the matters set out in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

4.8 Beta

The asset beta (or unlevered beta) of an entity is a relative measure of the underlying business risk of the entity relative to the risk of the market as a whole.[227] The levered beta (or equity beta) reflects not only this business risk but also the financial risk borne by equity holders from the use of debt to partially fund the business.

In past regulatory decisions, we have used the Conine de-levering/re-levering formula to convert equity betas to asset betas and vice versa. The Conine formula requires an estimate of the debt beta.

4.8.1 Debt beta

The debt beta reflects the systematic risk of a firm's debt.

Estimating the debt beta is empirically difficult and prone to uncertainties. In past regulatory decisions, we have used a debt beta of 0.12. This estimate was based on the midpoint between a range of values where the lower bound was zero and the upper bound was the debt risk premium divided by the market risk premium.

We note PwC, on behalf of the DBCT User Group, used a debt beta of 0.12 to estimate the equity beta for DBCT[228] while DBCTM did not propose a debt beta (or an asset beta).

We propose to use a debt beta of 0.12 as it is consistent with our previous position, including on Aurizon Network's 2014 DAU.

Draft decision 4.9

(1) After considering DBCTM's proposed debt beta (or, more accurately, absence thereof), our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to set the debt beta at 0.12.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

[227] More formally, the asset beta is defined as the covariance of the entity's returns (in the absence of debt) with the returns on the market portfolio of all risky assets, expressed as a proportion of the variance of the returns on the market portfolio.

[228] DBCT User Group, sub. 13: 16.

4.8.2 Equity beta

Introduction

For the 2006 AU, we approved an equity beta of 1.0, as proposed by DBCTM, as an incentive to undertake major investment in expansion of the Terminal. This was in the context of a large capital expenditure program that would significantly increase the size of the facility from 56 mtpa to 85 mtpa, and increase the value of the RAB from $850 million to over $2.2 billion in a relatively short period of time. As part of a negotiated package of arrangements, DBCTM and the DBCT User Group agreed to maintain the equity beta of 1.0 in the 2010 AU.

DBCTM's proposal

DBCTM proposed the equity beta for the 2015 DAU should be at least 1.0.[229] Its proposal was based on a first principles analysis (i.e. a qualitative assessment of systematic risk) and an associated empirical analysis of beta. DBCTM's position on these matters was supported by a report from Frontier on the return on equity for DBCT.

The 2015 DAU context

Frontier's first principles analysis focussed principally on key changes in the risk profile of DBCT since the agreement with users on the 2010 AU, namely:

- change in the industry environment—DBCTM submitted that falling benchmark coal prices and inherent volatility in the industry have increased its systematic risk:
  - DBCT's performance is inextricably linked to the Queensland coal export industry and following the end of the 'supercycle', the market outlook is uncertain.[230]
  - As market conditions improve and coal prices begin to rise, Australian producers could emerge from the current downturn with considerably lower market share.[231]
- change in competitive environment—DBCTM also said it now faces competitive pressure, and this will have the effect of increasing its systematic risk:
  - DBCTM faces the threat of increased competition for its services, including from APCT (now connected via GAPE), from WICET, and also possibly from the Port of Gladstone, which is a potential competitor for southern Bowen Basin volumes.[232]
  - BMA's adjacent Hay Point Coal Terminal (HPCT) could make a commercial decision to open its terminal to third party access; if it were to become a multi-user facility[233], this would reduce DBCT's market power (thereby increasing its systematic risk).
- credit rating changes—DBCTM said that it is now exposed to greater systematic risk due to deteriorating coal market conditions adversely affecting the credit ratings of related parties:

[229] DBCTM, sub. 2: 41.
[230] DBCTM, sub. 2: 5.
[231] DBCTM, sub. 2: 11.
[232] DBCTM, sub. 5: 8-9.
[233] DBCTM, sub. 5: 9; DBCTM, sub. 2: 8.

- DBCTM's customers are wholly exposed to the coal market and some have deteriorating credit quality; Peabody Energy, which represents 25 per cent of DBCT's throughput, was recently downgraded to Caa1 (i.e. 'speculative' grade).[234]
- DBCT Finance Pty Ltd (DBCTM's financing entity) was downgraded by S&P based on the deteriorating credit quality of DBCTM's major customers.[235]
- As ratings agencies consider the risk of coal port debt securities has increased recently, it must be the case that the risk of the residual equity in the same firm has also increased.[236]

- term of take-or-pay contracts—DBCTM considered that it faces higher systematic risk than in previous undertaking periods and higher risk than commercial ports on the basis of its current contractual situation:
  - Around 75 per cent of DBCTM's contracts are maturing in the 2016–21 regulatory period (they are coming to the end of their initial 10 years and are up for a five-year renewal), and there is no guarantee the contracts will be renewed. Alternatively, if users renew them, the contract tonnage could be lower.
  - By comparison, other coal export ports in Australia (e.g. WICET and Newcastle Coal Infrastructure Group (NCIG)) have take-or-pay contracts with longer average terms (10 to 12 years) than DBCTM is allowed to offer in its access undertaking (five years), and those contracts require users to extend them every 12 months (so that the contracts always have 10 years to maturity).[237,238]
  - Frontier said that, given current market conditions, the loss 'socialisation' feature of DBCTM's user contracts is less effective:
    - If default occurs because coal prices have fallen, other users might not be able to pay higher tariffs to fully socialise the lost revenue.
    - The interaction between the loss socialisation provisions of user contracts and the regulatory framework means there is a delay from a default and recovery from other customers.
    - The socialisation of losses occurs under commercial contract terms, rather than through an unders-and-overs mechanism, the latter of which is a key feature of electricity transmission and distribution regulation.[239]

In conclusion, Frontier noted the QCA previously selected an equity beta estimate of 1.0 to reflect the systematic risk of the expanded port. Based on its assessment of the changes in DBCTM's risk profile due to the above factors, Frontier stated the systematic risk of DBCTM is now likely to be higher than 1.0.[240]

[234] DBCTM, sub. 2: 12.
[235] DBCTM, sub. 2: 12.
[236] DBCTM, sub. 5: 13.
[237] Some also have a notice period allowing amortisation of a shipper's share of debt over a shorter period.
[238] DBCTM, sub. 5: 14.
[239] DBCTM, sub. 5: 14–16.
[240] DBCTM, sub. 5: 19.

First principles analysis

Frontier also assessed DBCTM's risk profile against energy network businesses on the basis that the QCA has previously considered energy networks to be relevant comparators for *Aurizon* Network. Frontier said its first principles analysis indicated DBCTM is likely to be in a different risk class than energy and water.[241] The Frontier report highlights differences between DBCTM and energy network businesses, leading DBCTM to conclude energy network businesses 'are of no relevance whatsoever' in estimating the beta of a coal export terminal:[242,243,244]

- *elasticity of demand*—Frontier said the essential nature of energy services implies a low income elasticity of demand (and therefore, low asset beta), while DBCTM faces a more elastic demand curve (and therefore, has a higher asset beta) because its service depends on the profitability of local mines.[245]
- *nature of customer*—Frontier said electricity distribution has a large number of residential customers, which implies a lower asset beta. By comparison, DBCTM has a small number of corporate customers, which implies a higher asset beta.[246]
- *regulation*—Frontier said firms with long reset periods (five years) have higher betas than otherwise identical, unregulated firms due to a greater exposure to cost shocks arising from the regulatory process, and the QCA's current approach to the allowed return on equity magnifies this regulatory effect.[247]
- *pricing structure*—Frontier said electricity distribution businesses have largely fixed revenues, leading to lower asset betas, while DBCTM's pricing structure is similar to the commercial pricing structure of other ports.[248]
- *monopoly power*—firms with greater market power may have a lower beta if their market power shields their cash flow from economy-wide shocks. Frontier said DBCTM's monopoly power has diminished since the last QCA determination, which implies a relatively higher asset beta for DBCTM.[249]

Empirical analysis

Frontier stated ‘finding an appropriate set of comparators for DBCT has proved a difficult task’, noting the only comparator identified in the 2006 DBCT AU process that is still in existence is the Port of Tauranga (equity beta of 1.24 at 60% gearing).[250] Frontier criticised the independent expert firm, Grant Samuel, for assessing an equity beta range of 0.7 to 0.8 for DBCT (on the grounds DBCT is regulated and has a stable cash flow), because Grant Samuel’s only comparator was Asciano (equity beta of 2.92 at 60% gearing). Frontier estimated betas for 16 ports (including

[241] DBCTM, sub. 5: 19.
[242] DBCTM, sub. 2: 39.
[243] Frontier's analysis is based on considering a set of firm characteristics that are conceptually related to the systematic risk of the firm's cash flows, as set out by Lally2004b.
[244] Lally 2004b: 80–82.
[245] DBCTM, sub. 5: 16.
[246] DBCTM, sub. 5: 16.
[247] DBCTM, sub. 5: 17.
[248] DBCTM, sub. 5: 16–17.
[249] DBCTM, sub. 5: 17.
[250] DBCTM, sub. 5: 20, sub. 2: 39.

the Port of Tauranga and Asciano[251]) that Grant Samuel examined but ultimately did not rely upon.

While Frontier considered that none of these firms is a perfect comparator for DBCT, Frontier considered they are the best available set of comparators.[252] In summary, equity beta estimates for DBCTM's proposed comparators (i.e. 16 ports including Asciano) are:

- Asciano 2.92 (60% gearing)
- Port of Tauranga 1.24 (60% gearing)[253]
- all firms in sample 1.08 (29% gearing).[254,255]

DBCTM concluded that, based on this evidence, DBCT's equity beta can be no less than 1.0.[256] In addition, Frontier considered the available evidence points to an equity beta of *at least* 1.0:

> - *The QCA originally selected an equity beta estimate of 1.0 to reflect the systematic risk of the expanded port. That expansion is now complete;*
> - *In setting the equity beta to 1.0, the QCA noted that the coal price was an important driver of systematic risk for DBCT. Since its previous decision, the coal price has declined materially. Other things equal, this would have the effect of increasing systematic risk – at lower coal prices, DBCT's cash flows will be even more sensitive to further declines in the coal price;*
> - *Port users have agreed to an equity beta of 1.0 as part of commercial arrangements with DBCT …*[257]

Further, DBCTM said the Frontier analysis supports an equity beta of no less than 1.0, but that it was willing to roll forward its existing equity beta of 1.0 to provide some level of certainty to customers.[258]

Finally, DBCTM noted the QCA approved an equity beta of 1.0 for the 2006 AU having regard to the major expansions contemplated at the time. DBCTM said it committed to these investments based on the expectation that an equity beta of 1.0 would continue to be applied and its risk profile would not materially increase. DBCTM said it 'did not contemplate that this beta might subsequently be lowered after the capital had been committed and the investment becomes a sunk cost'.[259]

[251] We note both Grant Samuel and Frontier classify Asciano as a port business, although an important share of its business comes from its Pacific National rail operations.
[252] DBCTM, sub. 5: 20.
[253] The Asciano and Port of Tauranga equity betas of 2.92 and 1.24 (respectively) are based on Frontier's re-levering assumptions: a statutory corporate tax rate of 30%, gamma of 0.47, a debt beta of 0.20 and a target gearing of 60%.
[254] DBCTM, sub. 2: 40.
[255] Frontier and DBCTM do not present the mean equity beta (re-levered at 60%) of all firms in the sample, but we estimate it at 1.66.
[256] DBCTM, sub. 2: 40.
[257] DBCTM, sub. 5: 21–22.
[258] DBCTM, sub. 2: 41.
[259] DBCTM, sub. 2: 40.

Stakeholders' submissions

The DBCT User Group proposed an asset beta of 0.43 and equity beta of 0.81 at 60 percent gearing[260], based on the analysis of its consultant, PwC.

The 2015 DAU context

The DBCT User Group disagreed that DBCTM's risk profile had increased[261] due to:

- changes in the Australian coal market outlook—the DBCT User Group quoted various coal market analyses demonstrating an increasing demand for Australian coal exports and a strong demand for metallurgical coal[262]
- increased competition from existing and potential new coal terminals at the ports of Abbot Point and Gladstone[263]—the DBCT User Group considered the following constraints limit the incentive or ability for DBCT's users to switch terminals:
  - DBCT's terminal infrastructure charges are lower than other Queensland coal export terminals.
  - There is insufficient available capacity at other terminals such as APCT and WICET. The DBCT User Group also noted the imminent closure of Barney Point.
  - The other terminals do not offer the same blending for thermal coal and multi-cargo blending options for metallurgical coal because DBCT handles a larger volume and range of qualities of metallurgical coal.
  - The additional below-rail access charge and above-rail premium for a mine on the Goonyella system to ship to APCT or Gladstone would make the export economically unviable.
  - The lack of below-rail capacity on parts of the network would not allow switching to occur on a long-term basis for material volumes without costly expansions to the network.
  - The need to use diesel trains on the (non-electrified) Newlands system to get to APCT could require additional above-rail investment in the fleet, to be passed on to users.
  - The cost of reconfiguring the turnout from a mine's rail loop to allow the coal to be hauled in a different direction would be prohibitive.
  - The constraints imposed by long-term (10 years plus) take-or-pay rail access agreements would mean a user could only switch to another terminal at the point of recontracting both rail and port access simultaneously.[264]
  - There was no indication the HPCT would be open to third-party access or the Dudgeon Point Coal Terminal proposal would proceed during the next undertaking period.[265]

[260] PwC said it used a 30% corporate tax rate, 0.47 gamma and 0.12 debt beta. With these parameters, we estimated an equity beta of 0.82.
[261] DBCT User Group, sub. 11: 10.
[262] DBCT User Group, sub. 11: 10.
[263] DBCT User Group, sub. 11: 10.
[264] DBCT User Group, sub.11: 10–12.
[265] DBCT User Group, sub. 11: 12–13.

- The ACCC considered these competition issues in its assessment of Brookfield's proposed acquisition of Asciano and concluded the relevant market was 'the supply of coal handling services at DBCT'[266] (not a wider market involving other coal terminals).[267]

The DBCT User Group also noted DBCTM was proposing changes to other arrangements as part of the DAU that could affect DBCTM's risk profile. The DBCT User Group said the equity beta calculated by PwC would need to be revised if the QCA were inclined to approve DBCTM's proposed changes[268] to:

- the calculation of the remaining useful life (RUL) for DBCT—where DBCTM proposes to base the RUL on the weighted average mine life (WAML) rather than the lease period of DBCT, thus reducing the maximum assumed remaining useful life for depreciation purposes[269]
- the term of access agreements—where DBCTM proposes to extend the term of the future standard access agreements from 10 to 15 years, with a five-year evergreen extension option[270]
- the notional contracted tonnages definition—where DBCTM proposes to change the definition to immunise itself from the revenue consequences of an early termination of an access agreement.[271]

Similarly, Vale highlighted the need for the determination of the equity beta to consider the final position reached on the following pricing-related parameter changes proposed by DBCTM:

- introducing a significant remediation premium and the assessment of a shorter period of time for the recovery of that premium
- reducing the gamma estimate (that is, from 0.47 to 0.25)
- increasing the working capital allowance
- depreciating spares
- removal of prudency caps for NECAP expenditure
- applying an updated and increased corporate overhead benchmark allowance.[272]

Empirical analysis

As a starting point for estimating DBCTM's systematic risk, PwC constructed a sample of 43 firms across the energy, ports, water, infrastructure[273], airport and toll-road sectors in Australia and internationally.[274] According to PwC, the regulated energy and water businesses in the sample had the lowest observed systematic risk relative to the market overall (asset beta of 0.45 and 0.52 respectively).[275] The toll roads and airports had moderate systematic risk (asset beta of 0.50 and

[266] ACCC 2015: 14.
[267] DBCT User Group, sub. 11: 13.
[268] DBCT User Group, sub. 11: 19, 38, 39.
[269] DBCT User Group, sub. 11: 19; Vale, sub. 10: 8.
[270] DBCT User Group, sub. 11: 38; Vale, sub. 10: 8.
[271] DBCT User Group, sub. 11: 39.
[272] Vale, sub. 10: 8.
[273] The firms in the 'infrastructure' class in the sample include: Asciano Ltd, Aurizon Holdings Ltd, Macquarie Atlas Roads Group and APA Group (DBCT User Group, sub. 13: 7).
[274] DBCT User Group, sub. 13: 7.
[275] The asset betas in PwC's sample are weighted averages over firms by their market capitalisation.

0.56 respectively) and the infrastructure and port logistics industries showed the highest systematic risk (asset beta of 0.61 and 0.62 respectively). The asset beta range, including all firms in the sample, therefore was 0.45 to 0.62.

However, PwC considered ports and logistics firms are not necessarily close comparators to DBCT. PwC said, while these businesses provide some insight into the riskiness of businesses broadly related to DBCTM, they do not share the same specific characteristics as DBCTM, which govern its overall risk profile. PwC said this is because:

- DBCTM is completely isolated from volume risk—given the take-or-pay contracts it has with its users.
- Existing users are largely constrained by commercial and economic factors from shipping through other coal terminals.
- As DBCT PL is owned by users, its owners have a financial incentive to utilise the Terminal rather than to seek out alternative export options.[276]

PwC used the average asset beta from its sample of toll-road businesses for the upper bound of its range (0.50).

PwC considered the 2010 independent expert report by Grant Samuel to be informative. In particular, PwC noted that, in estimating an equity beta of 0.7–0.8 for DBCT[277], Grant Samuel did not view commercial ports as appropriate comparators for DBCT. Further, PwC highlighted Grant Samuel's view that the regulated nature of the asset and the certainty of its cash flows warrant a lower beta. However, as the coal market has softened since 2010, PwC considered there is some evidence to indicate the systematic risk of DBCT might have increased moderately. Accordingly, PwC considered Grant Samuel's implied asset beta of 0.35 to be the lower bound of a possible range.

Given the lower and upper bound estimates of 0.35 and 0.50, PwC recommended an asset beta of 0.43, based on a midpoint estimate.[278] Using the Conine formula and combining the recommended asset beta of 0.43 with a debt beta of 0.12, gamma of 0.47 and 60 per cent gearing, PwC estimated an equity beta of 0.81 for DBCT.[279]

Other evidence

PwC also submitted two other pieces of evidence to support its contention that the systematic risk of DBCTM is low relative to the overall market.

PwC said that, over the period March 2012 to June 2015, DBCTM's financial performance was not strongly correlated with the market. In particular, while the world coal price declined and volumes varied considerably over this period, DBCTM's revenue remained stable.[280]

In addition, PwC looked at the sales price multiples of earnings before interest, taxes, depreciation and amortisation (EBITDA) of four port transactions over the period 2010 to 2015. PwC found these sales prices to be between 17x to 27x EBITDA over this period. PwC concluded the very high and relatively constant sale price multiples suggest that the 'market is not factoring

[276] DBCT User Group, sub. 13: 9.
[277] PwC noted Incenta translated this range into an implied asset beta of 0.35.
[278] DBCT User Group, sub. 13: 11.
[279] DBCT User Group, sub. 13: 16.
[280] DBCT User Group, sub. 13: 13.

any material "coal" or "port" risk premium in these privatisations' and that the market considers these businesses likely to generate significant value in the future.[281]

In summary, PwC did not agree with Frontier that DBCTM faced a level of systematic risk equivalent to the market overall (that is, an equity beta of 1.0).

Vale submitted the asset beta for DBCTM should be 0.35 with a resulting equity beta in the range of 0.7 to 0.8, consistent with the independent advice of Grant Samuel's assessment of DBCT and the robust debate regarding the asset/equity beta methodology to be applied to Aurizon Network.[282]

Incenta's advice

We commissioned Incenta to assess DBCTM's submission on its asset and equity betas, stakeholders' comments on that submission, and to provide advice on the appropriate values for these parameters. Incenta's comments are summarised below.

The 2015 DAU context

Incenta disagreed with DBCTM's and Frontier's assessment of the current conditions for DBCTM's systematic risk and highlighted the following aspects:

- Change in the industry environment—while Incenta agreed with the DBCTM/Frontier view that the seaborne coal market has deteriorated over the past three years, Incenta highlighted the fact the majority of Australian metallurgical coal production lies at the lower end of the international cost curve[283] and therefore is highly competitive—current export volumes are expected to be secure over the coming regulatory period. As a result, Incenta disagreed that deterioration in the world coal trade or coal prices would materially impact DBCTM's asset (and hence equity) beta.[284]
- Change in the competitive environment—Incenta disagreed with DBCTM that its systematic risk would be higher during the upcoming regulatory period due to new competitive pressures from other ports. Rather, Incenta agreed with the DBCT User Group's and Vale's detailed analysis identifying a number of factors contributing to DBCTM's strong monopoly position over the course of the next regulatory period.[285] Incenta said:
  - DBCT is the lowest cost coal terminal in the most efficient coal export industry in the world, which underpins its strong market and financial position.[286]
  - DBCT's volumes have been rising even as the coal price has been falling, are close to capacity, and are expected to stay close to capacity in the foreseeable future.[287]
- Credit rating changes—Incenta also disagreed DBCTM's *systematic* risk would be higher due to adverse credit rating changes:
  - The recent credit rating downgrades of some DBCTM customers will not have a material effect on systematic risk because what matters is that the underlying prospects of the

[281] DBCT User Group, sub. 13: 15.
[282] Vale, sub. 10: 8.
[283] Incenta 2016: 22.
[284] Incenta 2016: 24.
[285] Incenta 2016: 26.
[286] Incenta 2016: 4.
[287] Incenta 2016: 4.

Goonyella system's metallurgical coal industry are sound. That is, even if an individual coal shipper was to default due to poorly performing operations in other countries, the Queensland assets would be sold or restructured and would continue operations, due to very sound economic fundamentals.[288]

- While DBCT Finance Pty Ltd's credit rating was downgraded by both S&P and Moody's, Incenta did not consider this factor to be direct evidence that the systematic risk of DBCTM has risen materially because DBCT Finance Pty Ltd is a highly geared project finance vehicle (close to 80%) and, as a result, not necessarily indicative of a benchmark corporate (60%).[289]
- The relationship between the cost of equity and the cost of debt is complex and controversial.[290] However, Incenta concluded, while there no doubt has been a deterioration in the creditworthiness of some of DBCTM's customers, part of this effect has resulted from over-gearing and margins being squeezed in their international operations. As the economic fundamentals of the Goonyella metallurgical coal industry remain sound, the credit downgrades of DBCTM's customers will not impact systematic risk.[291]

- Take-or-pay contracts—Incenta acknowledged a large percentage of DBCTM's take-or-pay contracts are due to expire in the course of the regulatory period but disagreed with DBCTM's analysis about the potential effects on systematic risk:
  - Incenta noted that the economic fundamentals of DBCT's Bowen Basin catchment remain positive over the coming regulatory period and in the longer term. Incenta noted the DBCT User Group's supplementary submission, which argued the users have strong incentives to sign contract renewals.[292]
  - Incenta considered Frontier's emphasis on WICET's and NCIG's longer contract terms and 'rolling' contract renewal features to be misplaced. WICET and NCIG do not have the protection of DBCTM's regulatory framework, and these ports compensate for this through a contractual structure that locks in the ports' users.[293]
  - Incenta did not agree with Frontier's concern about the potential ineffectiveness of the loss socialisation mechanism:
    - Incenta disagreed a user's default would necessarily trigger subsequent defaults due to the higher prices from socialisation. Again, Incenta considered Goonyella metallurgical coal industry fundamentals to be sound and that neither S&P nor Moody's had demonstrated a significant portion of DBCTM's customer base is at risk of long-term closure.[294]

[288] Incenta 2016: 26–27.
[289] Incenta 2016: 27.
[290] As evidenced by the ERA's recent deliberations on the access arrangement for the Goldfields Gas Pipeline.
[291] Incenta 2016: 27–28.
[292] Incenta 2016: 29.
[293] Incenta 2016: 29.
[294] Incenta 2016: 28.

- Even with a delay in receiving revenue, any effect on equity risk would be minor because DBCTM's future revenue stream is secure, and it is changes in this value that impact systematic risk.[295]
- In response to Frontier's point that socialisation for DBCTM occurs under commercial contract terms rather than via an unders and overs mechanism, Incenta noted that what matters for determining beta is the market's expectation of returns, not the particular mechanism by which those returns are delivered.

First principles analysis

Incenta conducted a first principles analysis to identify relevant comparators for DBCTM. Incenta concluded regulated energy and water businesses are appropriate comparators for DBCTM, whereas container ports are not. This is because the underlying economic and financial characteristics of container ports—which determine their systematic risks—are fundamentally different to the determinants for DBCTM. Incenta's commentary on key systematic risk determinants in this context are as follows:

- *elasticity of demand*
  - There is no relationship between DBCTM's contracted capacity and coal shipments and Australian income levels (GDP) because the growth in the seaborne metallurgical coal trade is being driven by industrialisation and urbanisation in Asia (particularly China and India)[296], while the demand for container ports' services is linked to the Australian economic cycle.
  - Incenta rejected Frontier's claim that regulated energy has a lower asset beta than DBCT because regulated energy has a more inelastic demand. Incenta said Frontier provided no supporting evidence for this assertion and that switching costs and other factors indicate DBCTM has a high degree of monopoly power.[297] Incenta concluded that, based on relative income elasticity of demand, DBCT is likely to be closer to regulated energy and water businesses than to container ports.[298]
- *nature of the customer*
  - Incenta considered the fundamental principle behind this factor was not the number of customers per se, but whether there is demand sensitivity to changes in market returns or real GDP.[299] In the case of DBCTM, even if the economic cycle turns against coal miners and the price of coal falls, as long as the miners are at the lower end of the international cost curve, they have an incentive to continue shipments as long as they are still making a surplus over cash costs.[300] Therefore, despite its small number of customers, DBCTM is relatively insensitive to the economic cycle, indicating a low asset beta.[301]

[295] Incenta 2016: 4.
[296] Incenta 2016: 30.
[297] Incenta 2016: 29
[298] Incenta, 2016: 30.
[299] Incenta 2016: 30.
[300] Incenta 2016: 30–31.
[301] Incenta 2016: 31.

- In the case of regulated energy and water distribution, domestic consumption is relatively insensitive to market/GDP changes, as it is linked to the standard of living. As commercial and industrial demand is more sensitive to the economic cycle, the betas of water or energy businesses whose customers are primarily commercial/industrial are therefore likely to be higher than the betas of water or energy businesses supplying a large number of domestic customers.[302] However, while there is a stronger relationship to beta in this latter case, it is the sensitivity of returns to the economic cycle that is important.[303]

- *regulation*
  - Incenta disagreed with Frontier's interpretation of Lally (2004b) on the effects of regulation. Specifically, Lally (2004b) compared regulated firms with longer reset periods to regulated firms with shorter reset periods, not to otherwise unregulated firms. Lally's point was, all else being equal, price regulation would be expected to result in lower systematic risk, but if regulatory resets are farther apart, this could expose the firm to more volume risk than if the resets are closer to each other.[304]
  - Moreover, Frontier does not relate this factor to DBCTM's specific circumstances. Cost-based regulation provides DBCTM with relatively fixed revenues compared with unregulated commercial ports, as demonstrated by Incenta's analysis of earnings before interest and taxes (EBIT) during the GFC for DBCT, ports, toll roads and energy businesses.[305] Incenta said that from a systematic risk perspective, DBCTM's revenue cap regulatory framework makes its asset beta fundamentally the same as regulated energy and water businesses.[306]

- *pricing structure*
  - DBCTM has take-or-pay contracts and a cost-based regulatory framework (with a revenue cap), while container ports have unregulated prices and considerable cyclical volume risk.[307] For example, Westshore Terminals has a loading rate linked to the price of coal in US dollars.[308]
  - Incenta disagreed with Frontier that energy distributors with more fixed revenues are likely to have a lower asset beta than DBCTM, as DBCTM has a commercial pricing structure similar to other ports. Incenta said, while DBCTM's pricing structure is similar to other ports, the key issue is whether this results in a smooth revenue stream—under DBCTM's revenue cap framework, price flexibility will not have a material impact on DBCTM's systematic risk.[309]

- *monopoly power*

[302] Commercial and industrial demand is more sensitive to the economic cycle because it depends on the demand for goods and services produced, including luxury items.
[303] Incenta 2016: 30.
[304] Incenta 2016: 32.
[305] Incenta 2016: 33–34.
[306] Incenta 2016: 33.
[307] Incenta 2016: 32.
[308] Incenta 2016: 38.
[309] Incenta 2016: 32.

- Incenta considered DBCTM's monopoly position relative to shippers remains strong: 'the cost of switching from shipment through DBCT, to other more expensive options where sufficient and secure capacity is not readily available.'[310] Incenta said commercial ports are subject to greater or lesser degrees of competition from other ports depending on distances and the relative costs of alternative transport networks, including road and rail.[311]
- Incenta considered DBCT has more market power than a toll road, for which alternatives generally exist. Hence, Incenta concluded both DBCT and regulated energy businesses have more market power than commercial ports and toll roads.[312]

As a result, Incenta's first principles analysis suggested DBCTM's asset beta should be similar to the asset beta of regulated energy and water businesses[313] and therefore, relatively low. Incenta summarised key conclusions drawn from its first principles analysis as follows:

- DBCTM is provided with a rate of return on its RAB which is updated at periodic reviews in line with current market evidence, thereby limiting its exposure to cost risk and interest rate risk. Incenta found DBCTM's revenues and EBIT have been closely correlated with its RAB in the past. [314]
- DBCTM's sound underlying economics means there is a high degree of confidence the revenues promised by the regulatory regime will be received by investors:
  - Long-term demand for the service is assured because Queensland's export coal industry is at the low-cost end of the international cost curve. Both the IEA in the US and Australia's Chief Economist are forecasting continuing growth of Queensland coal exports and continuing domination of world trade up to 2040.[315]
  - All of DBCT's traffic is under long-term take-or-pay contracts. While DBCTM has fewer customers, and a less diverse mix of customers than the typical regulated energy or water business, all of its contracted capacity is based on take-or-pay contracts. The users have little viable alternative to shipping through DBCT, and much of this port capacity is already subject to 10- or 15-year take-or-pay contracts for railing to DBCT with Aurizon Network.[316]
  - Any shortfalls in DBCTM's revenue are to be shared among remaining shippers (socialisation).[317] Incenta considered that while the socialisation feature is less useful for debt (because delays in cash under debt covenants trigger default), 'it is protective of the equity value of the business, because the NPV of the delayed cash flow will not be markedly different from an immediate receipt of the cash.'[318]

[310] Incenta 2016: 34.
[311] Incenta 2016: 34.
[312] Incenta 2016: 34.
[313] Incenta 2016: 29.
[314] Incenta 2016: 43.
[315] Incenta 2016: 44.
[316] Incenta 2016: 44.
[317] Incenta 2016: 44.
[318] Incenta 2016: 26.

Therefore, Incenta considered DBCTM's financial characteristics are more closely aligned to regulated energy and water businesses than to container ports, rail or coal companies, which are much more sensitive to the economic cycle.[319]

When looking at characteristics of these industries, Incenta concluded:

> *Our conclusion based on this analysis is that DBCT's closest comparator industries are the regulated energy and water industries. While these industries do not share physical similarities with DBCT, it is the financial characteristics of firms and industries that determine their systematic risks. Two very different industries or firms can have the same or similar systematic risks, which will depend on such factors as regulation, contracting, revenue and opex risk, and stranding risk.*[320]

Other commentary

Incenta agreed with PwC that toll roads are likely to provide a reasonable upper bound for the asset beta of DBCT[321]; however, Incenta took the view DBCT is likely to exhibit a level of systematic risk similar to regulated energy and water businesses. Incenta was sceptical that PwC's analysis of the relative stability of EBITDA bid multiples in four trade sales should be considered evidence that the asset beta of DBCT has remained stable over the same period.[322] Incenta said this is because many factors determine EBITDA multiples paid in trade sales, including growth prospects and the number and nature of bidders. Accordingly, any relative stability is just as likely to be the outcome of a combination of these factors rather than being (solely) attributable to a stable cost of equity.[323]

Incenta also did not agree with aspects of the approach used by PwC, which averaged the implied 0.35 asset beta estimate of Grant Samuel and PwC's 0.50 asset beta estimate for toll roads to obtain a midpoint asset beta estimate of 0.43. While Incenta agreed that the upper and lower bounds identified by PwC are reasonable, Incenta did not recommend simply averaging these to obtain an estimated asset beta for DBCT. Rather, Incenta said the values represent two pieces of information that can be drawn upon to assist in estimating the asset beta for DBCT.[324]

Empirical analysis

Incenta examined a number of industries as potential comparators for DBCT: coal mining, rail, container ports, toll roads, regulated energy, and regulated water. Incenta expanded the port sample to include Westshore Terminals in addition to the 16 ports identified by Frontier because it is a coal-loading terminal.[325,326] The asset betas estimated by Incenta for these industries are presented in Table 11.

[319] Incenta 2016: 44.
[320] Incenta 2016: 39.
[321] Incenta 2016: 43.
[322] Incenta 2016: 42.
[323] Incenta 2016: 42.
[324] Incenta 2016: 43.
[325] Incenta 2016: 39.
[326] While Westshore Terminals is a very close comparator to DBCT on a physical basis, Incenta said there are several reasons for rejecting it as an appropriate comparator. Specifically, Westshore Terminals is unregulated, exposed to some contracts linked to the price of coal, and dependent on the Canadian coal industry, which is higher on the international cost curve than the mines serviced by DBCT (Incenta 2016: 39).

Table 11 Asset beta estimates[327]

Industry	*Number of firms*	*Average asset beta*	*Median asset beta*
Regulated energy	68	0.37	0.36
Regulated water	7	0.36	0.35
Toll roads	7	0.50	0.54
Ports	17	0.91	1.00
Class 1 railroads	7	0.92	1.01
Coal	8	1.07	1.16

Source: Incenta 2016.

Having reviewed the empirical evidence, Incenta considered a point estimate of 0.40 is appropriate for DBCT.[328] While the current Bloomberg beta estimates for regulated energy and water businesses span 0.35 to 0.37 (including both mean and median), Incenta's previous review of Aurizon Network's asset beta resulted in estimates that were one to three basis points higher.[329] Hence, Incenta's preferred asset beta estimate for DBCT is 0.40.[330] Incenta said its preferred asset beta point estimate is:

- lower than toll roads—Incenta considered toll roads, with an asset beta estimate of 0.50 to 0.54 (mean/median) have higher systematic risk than DBCT. Generally, the tolls for toll roads are prescribed but are not subject to periodic regulatory review. They are therefore subject to more cyclical economic activity than DBCT.[331]
- consistent with the estimated asset beta of 0.41 Incenta assessed for Aurizon Network—which Incenta considered to have very similar characteristics to DBCT.[332]
- consistent with the implied asset beta of 0.42 applied by the QCA's adviser, The Allen Consulting Group (ACG) in 2005.[333]

As a result, Incenta concluded it would be highly unlikely that the equity beta of DBCT would be as high as 1.08, which is the re-levered Incenta asset beta for toll roads.[334] Rather, Incenta agreed with the principle employed by Grant Samuel, namely, that in the absence of direct comparators, one needed to 'look through' the physical characteristics of the operations to the financial characteristics and, in particular, how the firm's cash flows are likely to be affected by systematic

[327] These estimates are based on raw Bloomberg betas estimated with 10 years of monthly observations (120 observations), de-geared using the Conine formula (debt beta of 0.12) and using long-term estimates of effective tax rates.
[328] Incenta 2016: 45.
[329] These beta estimation methods used statutory rather than effective tax rates, and countered the 'end-of-month effect' by running simulated month estimates.
[330] Incenta 2016: 45.
[331] Incenta 2016: 45.
[332] Incenta 2016: 45.
[333] Incenta noted ACG considered an equity beta of 0.8 (with 60% gearing) to be appropriate if DBCT was not engaged in material capacity expansion, but that a higher asset beta would be justified otherwise. The QCA took this advice into account when setting the equity beta at 1.0 in the context of the large expansion which took the value of the RAB from $850 million to $2.2 billion in a short period of time.
[334] Incenta 2016: 46.

risk.[335] Consequently, Incenta agreed with Grant Samuel's conclusion that DBCTM's underlying systematic risk characteristics reflect those of a regulated utility.[336]

In summary, Incenta concluded an appropriate asset beta for DBCT is 0.40, which converts to an equity beta of 0.76[337] (using the Conine formula with a benchmark gearing level of 60%, a debt beta of 0.12 and a gamma of 0.47).

QCA analysis and draft decision

When assessing DBCTM's proposal, we are required to have regard to the factors set out in section 138(2) of the QCA Act and weigh them appropriately in our decision. We identified our approach to the application and weighing of these factors earlier in this chapter, and we have applied this approach.

Assessing proposed estimates of the equity beta requires us to exercise our regulatory judgement. Estimating the equity beta involves numerous methodological choices about which there are competing expert views. In assessing DBCTM's proposal having regard to the factors set out in section 138(2) of the QCA Act, we have carefully considered and weighed up all of the expert evidence and stakeholder submissions in relation to the various methodological choices which bear on the final equity beta estimate.

Our draft decision is to set an asset beta for DBCTM of 0.45, which results in an equity beta of 0.87 at 60 per cent gearing (using the Conine levering formula and a debt beta of 0.12).

Table 12 summarises the proposed asset and equity beta estimates proposed by DBCTM, the DBCT User Group, Incenta and this draft decision to apply to DBCTM. DBCTM proposed to maintain the equity beta of 1.0 from its 2006 and 2010 AUs. The DBCT User Group proposed an equity beta of 0.81 (which it said was based on an asset beta of 0.43 and 60% gearing), and Incenta recommended an equity beta of 0.76 (asset beta of 0.40; 60% gearing).

Table 12 Beta estimates proposed—at 60 per cent gearing

	DBCTM's 2015 DAU	***DBCT User Group submission***	***Incenta report***	***QCA draft decision***
Asset beta	NA[338]	0.43	0.40	0.45
Equity beta	1.0	0.81	0.76	0.87

We consider an asset beta of 0.45 is appropriate for DBCTM for the reasons set out below.

Previous regulatory decisions

DBCTM noted the QCA approved an equity beta of 1.0 for the 2006 AU having regard to the major expansions contemplated at the time. DBCTM said it committed to these investments based on the expectation an equity beta of 1.0 would continue to apply and did not contemplate this beta might subsequently be lowered after the investment becomes a sunk cost.[339]

[335] Incenta 2015: 40.
[336] Incenta 2016: 46.
[337] Incenta 2016: 45.
[338] While DBCTM did not propose an asset beta, we consider its equity beta proposal of 1.0 would be consistent with an asset beta of 0.53.
[339] DBCTM, sub. 2: 40.

We have considered DBCTM's point. In 2005, we considered that while an equity beta of 0.80 would reasonably reflect the underlying risk associated with the existing Terminal capacity, any major expansion of Terminal capacity would likely require a higher rate of return.[340] This was based on the advice from our consultant at the time, ACG, which noted (among other factors) the demand underpinning any significant growth in DBCT's capacity was unlikely to be as secure as the demand for existing capacity.[341]

Accordingly, we set the equity beta at 1.0 for the 2006 AU, as 'an adequate incentive to expand the terminal'.[342] This uplifted equity beta was provided in the context of a very large capital expenditure program, which would materially increase the size of the facility from 56 mtpa to 85 mtpa, and increase the value of the RAB from $850 million to more than $2.2 billion over a short period of time.

Notably, at the time we contemplated adopting a 'two-tier' approach to DBCTM's rate of return under which a lower WACC would have applied until DBCT had been substantively expanded, at which point the WACC would have increased (to an equity beta of 1.0).[343] However, rather than applying that approach, we ultimately provided a single (higher) WACC to apply for the whole 2006 AU period. As a consequence, DBCTM has received the higher returns associated with the uplifted equity beta on the full RAB, not just on the incremental investment. Further, we note this arrangement has been in place for the last two undertakings (i.e. 10 years).[344]

In summary, while we recognised in 2005 that an equity beta of 1.0 would promote investment in expansion and a materially lower equity beta was appropriate for the existing assets, we approved an equity beta of 1.0 to apply to both sets of assets. In other words, we allowed a single uplifted WACC to apply to the existing RAB and to the expansion assets.

Key considerations

The 2015 DAU context

We have reviewed submissions from stakeholders and their consultants, as well as the advice from Incenta, on an appropriate estimate of the asset beta for DBCTM.

We do not agree with DBCTM's arguments that current conditions support an equity beta of at least 1.0 for the 2015 DAU regulatory period, for several reasons.

While the seaborne coal market has deteriorated over the past several years, we agree with Incenta that this development has not impacted DBCTM's asset beta. Approximately 85 per cent of DBCT's throughput is metallurgical coal, and Australia's position in this world market is at, or

[340] QCA 2005: 148.
[341] ACG 2005: vi.
[342] QCA 2005: 150.
[343] QCA 2005: 150.
[344] The equity beta of 1.0 was agreed between DBCTM and the DBCT User Group and approved by the QCA as part of a larger package of arrangements in the 2010 AU. Our consideration of DBCTM's calculation of revenues and prices for its 2010 AU occurred in the context where DBCTM and the Terminal's existing users agreed to largely roll forward the existing access undertaking arrangements, including the revenues and tariffs (but with the time-varying elements of the WACC updated). The DBCT User Group indicated it accepted that, as a package, the proposed terms and conditions of access were reasonable, without accepting the merits of each and every aspect of those arrangements. The principal focus of our assessment was whether the proposed arrangements discriminated against future users of the terminal and whether DBCTM had accurately described its calculation of proposed revenues and tariffs.

near, the very low end of the international cost curve. Australia's Office of the Chief Economist summarises the situation for metallurgical coal as follows:

> *Australia's production of metallurgical coal is projected to increase at an average annual rate of 2.1 per cent to 215 million tonnes in 2019–20. This will be supported by a number of projects that are scheduled to be completed over the outlook period…Despite price pressures, Australia managed to increase its share of world metallurgical coal exports from 52 per cent in 2013 to 56 per cent in 2014 as higher cost production, particularly in North America, was closed. In 2014–15, Australia's exports of metallurgical coal increased by 3.9 per cent to 188 million tonnes…From 2016–17, Australia's exports of metallurgical coal are projected to increase at an average annual rate of 2.6 per cent to 211 million tonnes in 2019–20.*[345]

Notwithstanding Australia's strong position in the metallurgical coal industry, given the revenue cap form of regulation, DBCTM is insulated from coal price fluctuations. This protection is demonstrated by the close correlation between DBCTM's EBIT and the growth in its RAB over time.[346] Indeed, notwithstanding the past three years' decline in world coal market prices, DBCT's EBIT has remained steady and highly correlated with changes in DBCT's RAB.

We agree with the DBCT User Group, Vale and Incenta there is no evidence DBCT is facing increased competition. On the contrary, the evidence suggests there are many practical and economic barriers to access holders transferring capacity to alternative terminals. These barriers include:[347]

- It is cheaper to rail coal from a Goonyella mine to Hay Point than to other ports.
- There might not be sufficient below-rail capacity to allow long-term terminal switching.
- Rail take-or-pay contracts would need to be aligned with alternative port contracting.

We note the ACCC recently reached the same conclusion on this matter.[348]

We also agree with Incenta's conclusion that the credit rating downgrades for DBCTM's customer(s) and also, for DBCT Finance, do not necessarily affect DBCTM's asset beta. The fundamental point here is that, if an individual shipper defaults due to deteriorating economic conditions in other countries—but its Queensland operations have sound economics—those operations can be either sold or restructured to continue operations. We would not expect the deteriorating credit quality of customers with international operations to have a material effect on DBCTM's asset beta.

We also note the socialisation feature of DBCTM's regulation protects the equity value of the business because in the event of a shipper's default, the other users will make up for the missing revenues. The NPV of the delayed cash flow will not be markedly different from an immediate receipt of the cash.

[345] Office of the Chief Economist (Sept 2015), p. 43 *in* Incenta 2016: 22.

[346] See Figure 3.9 in Incenta 2016: 43.

[347] We note the contradiction highlighted by the users between DBCTM's arguments that coal markets are sufficiently depressed that the Terminal's asset stranding risk is increasing and the Terminal's useful life is decreasing, while also suggesting multiple greenfield coal terminals might compete with DBCT, such as the proposed Dudgeon Point Coal Terminal (Vale, sub. 10: 5; DBCT User Group, sub. 11: 13). Dudgeon Point Coal Terminal was proposed by Adani and Brookfield, (Brookfield being the lessor of DBCT).

[348] ACCC 2015: 14.

In addition, the additional debt and commensurate financial risk of DBCT Finance are not relevant in assessing equity risk for the DBCTM benchmark, which is a corporate with 60 per cent gearing.[349]

In reaching this conclusion on the relevance of credit ratings, however, we accept some aspects of DBCTM's total risk have increased since the previous undertaking, due to changes in non-systematic risk. We have considered these factors in assessing DBCTM's benchmark credit rating, noting our draft decision to lower that rating from BBB+ to BBB.

We have also considered DBCTM's concern that 75 per cent of its take-or-pay contracts expire over the forthcoming regulatory period. However, we believe several considerations mitigate this concern in respect of DBCTM's systematic risk. The most important is that the underlying economic fundamentals of the Goonyella system remain sound. We note that, in S&P's assessment of the creditworthiness of DBCT Finance, S&P concluded that it assumes '...the continued renewal of existing take-or-pay contracts and pass through of operating costs to the customers.'[350]

On the matter of contract renewals, we agree with the DBCT User Group that users have strong incentives to renew their contracts, including:

- Where mines have been temporarily closed, the user has continued to pay the Terminal access charge in order to be able to sell the mine with port access in place (Isaac Plains for example).[351]
- Major miners with multiple mines (which describes most DBCT users) require Terminal access for future development of their mine portfolios, and will hold on to that access (renew the contract) with a view to using the capacity with new mines in the future, even if the current mine that uses it is being wound down (Clermont and Blair Athol mines for example).[352]
- A company without an alternative use for the access would be likely to seek a commercial arrangement for the assignment of its access rights to a third party miner who would use those rights, rather than forfeit them by failing to renew a User Agreement.[353]

DBCTM responded to the DBCT User Group's supplementary submission with its own supplementary submission on 'evergreen' agreements. DBCTM said the 'theoretical' incentives for users to continually extend User Agreements do not hold true. In particular, DBCTM said the incentive for users to continue to hold DBCT capacity is subject to users' perceptions of strength of demand relative to the capacity of the Terminal. In circumstances of softening demand in global coal markets, DBCTM considers users of the Terminal are less willing to bear the ongoing obligations of take-or-pay capacity and will instead access available capacity ad hoc.[354,355]

[349] Incenta 2016: 27.
[350] Incenta 2016: 28.
[351] DBCT User Group, sub. 29: 4.
[352] DBCT User Group, sub. 29: 4.
[353] DBCT User Group, sub. 29: 3–4.
[354] DBCTM, sub. 30: 5, 7.
[355] DBCTM said an existing user had informed DBCTM it would not exercise its option to renew 2.7 mtpa of contracted capacity at the Terminal. The capacity was to become available from 1 April 2016 and has been offered to the queue, but no access seekers in the queue have yet offered to take up the capacity.

Given the arguments above, we consider the DBCT User Group has made a solid case as to why strong incentives exist for users to renew 'evergreen' agreements when the Terminal is capacity constrained. We are not convinced at this stage that circumstances have materially altered in such a way as to significantly reduce these incentives for users. This is with the knowledge that, as discussed in Chapter 1, our view of the short-, medium- and long-term outlook for metallurgical coal exported through DBCT remains positive.

However, we note DBCTM provided its supplementary submission to us on 11 March 2016—shortly before the release of this draft decision. While we have reviewed the contents of the supplementary submission, we have had not had the opportunity to give full regard to its arguments. We will provide further consideration of this issue in our final decision.

Incenta's first principles and comparator analysis

Incenta's recommended asset beta of 0.40 (equity beta of 0.76 at 60% gearing) is based on both a qualitative first principles analysis and an associated empirical analysis. Fundamental to Incenta's approach, in the absence of direct comparators, is its emphasis on the need to 'look through' the physical characteristics of the operations to the financial fundamentals and, in particular, how the firm's cash flows are likely to be affected by systematic risk.[356]

Incenta summarised its approach, stating 'while these industries do not share physical similarities with DBCT, it is the financial characteristics of firms and industries that determine their systematic risks.'[357] By using this approach, Incenta identified firms that most closely match DBCTM on the basis of similar systematic risk. Our view is that Incenta has found significant supporting evidence for its proposition that regulated energy and water businesses are appropriate comparators for DBCTM.[358]

In contrast, Frontier asserts that commercial ports are the best comparators available for DBCT on the basis of those firms being ports, but without undertaking even a first principles analysis to test the similarity of the systematic risk of those ports to the systematic risk of DBCT. We do not agree with this approach, as it is not based on the underlying economic fundamentals. Our view is that placing weight on such companies is likely to result in a spurious estimate of the asset beta for DBCT.

Consequently, we accept Incenta's conclusion, based on its comprehensive analysis, that regulated energy and water utilities are the closest available comparators for DBCTM in the context of systematic risk at this time. As discussed previously, key considerations underlying this view are that both DBCTM and these firms have similar regulatory frameworks that align revenue with cost at periodic intervals and minimise revenue risk during a regulatory period. Further, the soundness of the underlying economics means there is a high degree of certainty that DBCTM will receive the revenues expected under the revenue cap.

In this regard, the DBCT User Group and Vale said that we should take into account material changes to key pricing-related inputs when we assess the asset beta for DBCTM. Accordingly, in reaching our view on an appropriate estimate of the asset beta, we have considered these

[356] For example, see also Incenta 2015: 40.
[357] Incenta 2016: 39.
[358] We note that Incenta's approach is not novel. Rather, it is consistent with the approach taken by a leading market practitioner, Grant Samuel, which—when estimating the beta for DBCT—placed no weight on the substantially higher betas of general cargo ports which (among other factors) are not regulated in the same manner as DBCT.

changes. Our view is that changes in the corporate overhead cost allowance and the removal of prudency caps for NECAP expenditure are not relevant to DBCTM's systematic risk. While our acceptance of the proposed change in the definition of Notional Contracted Tonnage is potentially relevant to systematic risk, we note that any effect—to the extent it is material—is already reflected in the empirical beta estimate. This is because the latter is based on the observed equity betas of regulated energy firms that are subject to revenue caps. The effect of this mechanism is to provide a certain expected revenue independent of volume risk. The change in the Notional Contracted Tonnage definition aims to achieve a similar effect.

Accordingly, our view is that Incenta's recommendation of an asset beta of 0.40 (equity beta of 0.76 at 60% gearing) reflects the most appropriate empirical estimate of DBCTM's beta available at this time.

QCA judgement

Our best estimate must also be informed by our judgement, including an appropriate consideration, and weighing of, all of the factors we must have regard to in accordance with section 138(2) of the QCA Act.

In our consolidated draft decision on Aurizon Network's 2014 DAU, we accepted Incenta's recommended asset beta for Aurizon Network (0.41) as being the 'best empirical' estimate available. However, we then applied our judgement, taking into account a broader range of factors, to determine a final estimate of 0.45 (equity beta of 0.80; 55% gearing)—similar to the approach the QCA uses to determine some other parameters, such as the MRP.

In summary, while current market conditions are not as buoyant as at previous regulatory resets, given the considerations discussed above, we do not believe current market-related factors are key determinants of DBCT's systematic risk at this time. In this regard, we agree with Incenta that DBCTM's systematic risk situation at present is more comparable to its pre-expansion situation in 2005:

> *ACG's concern was centred on the process of a material expansion in DBCT's assets (from a capacity of 56 Mtpa to 85 Mtpa). This rapid growth was expected to increase systematic risk during the coming regulatory period (2005 to 2010) owing to the greater asset stranding risk of the new assets, whose ultimate value depended on a significant growth in demand. This higher systematic risk did not relate to the existing assets, which already had proven demand and were covered by take-or-pay contracts. Since the completion of the expansion in 2010, and the subsequent full contractual take-up of the new capacity (i.e. take-or-pay contracts), the expanded DBCT is now in a similar position to the original assets in 2005 (i.e. prior to the expansion). That is, ACG's conclusions on the beta of DBCT's existing assets in 2005 (i.e. a 60 per cent geared equity beta of 0.8) are more relevant to DBCT in 2016 than its recommendations about the systematic risk associated with DBCT's material expansion during the 2005 to 2010 period.*[359]

We note ACG's implied asset beta of 0.42 (equity beta of 0.8) for the existing assets (pre-expansion) in 2005 is consistent with Incenta's point estimate of 0.40 for DBCT's asset beta for the Terminal today (i.e. for the 2016–21 reset). We also note our advisor in 2005, ACG, considered an asset beta of 0.40 to be sufficient to support continued investment in the existing capacity at DBCT or small, incremental growth that is fully contracted. In this regard, we understand DBCTM is not contemplating any sizeable expansion over 2016–21.

However, while we view 0.40 as the best technical estimate available, we recognise a reduction of the asset beta from 0.50 to 0.40 would represent a significant change for all stakeholders.

[359] Incenta 2015: 46.

Therefore, we have decided to take a more measured approach and have exercised our judgement in applying an asset beta of 0.45 to DBCTM for the forthcoming regulatory period.

In making this decision, we also took into account that an asset beta of 0.45 is the same estimate as provided recently for Aurizon Network. We consider the two businesses face very similar systematic risk profiles. In particular, they are both part of the same coal supply chain and are subject to the same type of regulatory framework, which is applied by the same regulator. While there are differences between the two businesses, we do not consider them to be empirically distinguishable at this time. This position is also consistent with Incenta's view on this matter.[360]

In summary, we consider an asset beta of 0.45 for DBCTM is justified, based on the following:

- DBCTM's systematic risk situation at present is more comparable to its pre-expansion situation in 2005—therefore an uplifted equity beta of 1.0 is no longer justified.
- We view that while 0.40 is the best technical estimate available, a reduction of the asset beta from 0.50 to 0.40 would represent a significant change for all stakeholders—therefore 0.45 is considered to represent a more measured approach.
- This is the same as the asset beta proposed for Aurizon Network—which is subject to similar regulation by the same regulator, and operates in the same coal chain as, DBCTM.
- Estimating betas with a high degree of precision is inherently difficult, so some caution should be shown in making significant changes to previous estimates.

Conclusion

Taking into account all of the above factors, we propose an asset beta of 0.45 for DBCTM's 2015 DAU. Applying the Conine levering formula with 60 per cent leverage, a debt beta of 0.12, and a gamma of 0.47 results in an equity beta of 0.87.

We consider this value has regard to the factors set out in section 138(2) of the QCA Act, taking into consideration the specific points we have identified above, and weighs them appropriately in the manner previously indicated in this chapter, achieving an appropriate balance between the competing interests of the various stakeholders.

Draft decision 4.10

(1) After considering DBCTM's proposed equity beta of 1.0, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to set an asset beta of 0.45 (equity beta of 0.87).

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

[360] Incenta 2016: 12.

4.9 Gamma

4.9.1 Introduction

The Australian tax system allows companies to provide their shareholders with credits (i.e. dividend imputation credits) to reflect company taxes paid on profits that are distributed as dividends. Shareholders then use these credits to reduce their own tax liabilities. Therefore, imputation credits effectively reduce a company's cost of capital.

The value of dividend imputation credits is captured by a parameter known as 'gamma', which is the product of:

- the distribution rate—the ratio of distributed imputation credits to company tax paid
- the utilisation rate—the value-weighted average over the utilisation rates of imputation credits of all investors in the market.

Our policy is to use a post-tax nominal form for the cost of capital and to take account of the tax deductibility of debt and the tax credits available under the imputation system in the cash flows of the firm.

We have adopted a gamma estimate of 0.47 comprising a distribution rate of 0.84 and utilisation rate of 0.56, after addressing both the conceptual and measurement issues involved. Full details of our analysis for estimating the gamma parameter is set out in our market parameters decision.[361] That analysis serves as an input to this draft decision. In addition, we have considered stakeholder submissions and our consultant's analysis.

4.9.2 DBCTM's proposal

DBCTM did not accept the assumptions and methodology used in our market parameters decision to arrive at our gamma estimate of 0.47. Instead, consistent with the advice of its consultant, Frontier, it proposed a gamma value of 0.25, comprising a distribution rate of 0.7 and utilisation rate (theta) of 0.35.[362]

Distribution rate

Based on Frontier's advice[363], DBCTM rejected our value of 0.84 for the distribution rate and instead proposed a value of 0.7, as it considers:

- A value of 0.7 is consistent with submissions by stakeholders to our Aurizon Network MAR Draft Decision[364], and is the empirical estimate of the distribution rate most commonly applied by regulators in Australia, including the AER.
- Our view that the Australian Taxation Office (ATO) data that underlies the 0.7 estimate is unreliable, has not been supported by the evidence or by regulatory practice.
- The definition of the distribution rate used by Lally is inconsistent with our definition. Frontier stated that Lally used the ratio of distributed credits to created credits as his measure of the distribution rate, whereas our measure uses the ratio of distributed credits to corporate tax paid. These two measures would be equivalent only if the value of created

[361] QCA 2014a.
[362] DBCTM, sub. 2: section 3.4.11: 49.
[363] DBCTM, sub. 6.
[364] QCA 2014a; QCA 2014b.

credits equalled corporate tax paid, which is not the case for Lally's sample comprising 20 large multinationals that pay tax to foreign governments. Frontier estimated that our definition applied to Lally's sample yields a lower estimate of 0.5 for the distribution rate.[365]

- Consistent with the views of the AER, Frontier stated that the benchmark efficient entity should not be assumed to be a large listed multinational company, but rather a regulated entity operating within Australia. For these domestic regulated entities, all profits are taxed in Australia so that all tax payments generate imputation credits. This is also consistent with the assumption of the post-tax revenue model (PTRM) used for regulatory valuation purposes. However, Lally's top 20 listed firms differ from the benchmark entity in that they generate material foreign-sourced profits which give rise to a higher distribution rate.[366] Therefore, Lally's sample of firms results in an upward bias in the distribution rate as smaller firms not included in the sample have lower distribution rates.[367]

Utilisation rate

Based on Frontier's advice, DBCTM rejected our value of 0.56 for the utilisation rate and instead proposed a value of 0.35 for the following reasons:

- The definition of the utilisation rate should have reflected the value of imputation credits in the hands of investors (i.e. a market value) rather than the proportion of imputation credits redeemed (the 'redemption rate'), as used by us, because:
  - The mathematical formulae set out in Officer (1994) support a market-value interpretation.[368] In particular, because the formula for the value of equity includes a term for the present value of imputation credits, then this present value must be a market value. Therefore, gamma does not represent the proportion of imputation credits that might be redeemed but rather the extent to which imputation credits increase the market value of equity.[369]
  - It is preferable to estimate the utilisation rate from observed market prices in the same way that other WACC parameters are estimated, rather than to define the utilisation rate as the redemption rate based on conceptual, theoretical concepts as has been attempted by the AER and us. Empirical estimation recognises that the outcome of the complex interaction of trading among investors can be observed from market prices, whereas attempts to conceptualise the utilisation rate requires strong assumptions to be made which have resulted in contradictory advice to regulators.[370] Observed prices from financial markets can be used to estimate parameters as they are, rather than conceptualising what they would be under a particular set of assumptions.
  - If investors value imputation credits at less than face value, a gamma based on face value will under-compensate them for the risks they bear.[371] Given this market-value view of the utilisation rate, the redemption rate could not be used to provide a point estimate of

[365] DBCTM, sub. 6, sections 3.3, 3.4, and 3.5.
[366] An example is provided in DBCTM, sub. 6, section 3.4.
[367] DBCTM, sub. 6, section 3.6.4.
[368] Officer 1994.
[369] DBCTM, sub. 6, section 4.10.
[370] DBCTM, sub. 6, sections 4.7, 4.8, and 4.9.
[371] DBCTM, sub. 6, section 4.3.

the utilisation rate—at best it would provide an upper bound.[372] Current estimates of the redemption rate support this view.[373]

- Although several different interpretations of the 'value' of distributed credits have been used in the Australian regulatory context[374], the redemption rate is not a measure of value and therefore any estimate of gamma based on the redemption rate is not an estimate of the value of imputation credits.
- The standard treatment of imputation credits in Australian finance textbooks is to interpret gamma in terms of market value rather than the redemption rate. These sources cite evidence to suggest that investors value credits materially below face value and this could be explained by the limited effect of imputation tax on equilibrium rates of return in a small open economy like Australia and that, in practice, firms have little regard to imputation effects when estimating the cost of capital they use for project evaluation purposes. Therefore, the treatment of imputation credits in practice contrasts with the regulatory approach, which simply 'aggregates' the credits distributed to domestic investors; assumes these investors value all credits at full face amount; and reflects this value in the equilibrium share price and cost of capital.[375]

- Frontier did not agree that Lally's 'conceptual test' established a reasonable range for the utilisation rate, and rejected our consideration of the test for the following reasons:
  - We acted inconsistently in adopting a utilisation rate outside of the bounds established by Lally's conceptual test, while giving weight to that test.
  - There is no precedent for adopting an estimate of the utilisation rate from within the range established by the Lally test. The test has been rejected by every regulator that has considered it.
  - The test range relies on estimates of CAPM parameters in perfectly segmented and perfectly integrated worlds. It is not possible to obtain these estimates because of the obvious unavailability of data.
  - The test has a very low level of statistical precision because of the assumption that the MRP in every country equals the same multiple of stock market variance.
  - The test relies on government bonds having the same yield whether or not foreign investors are allowed to buy them, which is untenable.[376]
- Frontier stated that, as SFG, it had previously addressed a range of econometric issues of concern to us in relation to the unreliability of utilisation rate estimates obtained using dividend drop-off analysis[377], and that our recent determinations had not acknowledged this previous assessment by SFG.

[372] DBCTM, sub. 6, section 4.11.
[373] DBCTM, sub. 6, sections 6.2 and 6.3.
[374] DBCTM, sub. 6, sections 4.4, 4.5, and 4.6 discuss alternative interpretations of the value of distributed credits used in the National Electricity Rules (NER); and in the AER's regulatory guidelines and decisions, including advice to the AER by Handley.
[375] DBCTM, sub. 6, section 4.12.
[376] Lally 2015a, section 2.3: 14–18.
[377] These issues are listed in DBCTM (Attachment D—Frontier), sub. 6, section 7.3.1.

- Frontier reiterated SFG's earlier view that evidence of unreliability in the estimates of Vo, Gellard and Mero (2013)—the ERA study—could not be extended to SFG's work because of differences in the models used. Frontier argued that the SFG model should be given greater weight because it is superior to that used in the ERA study, and therefore our conclusion that dividend drop-off studies are generally unreliable because of certain differences between the ERA and SFG results is false.[378]

4.9.3 Stakeholders' submissions

Vale Australia Pty Ltd (Vale)

Vale submitted that it:

- generally endorsed the submission of the DBCT User Group
- considered that the approach and methodologies used by us in our market parameters decision remained relevant for this draft decision
- believed that continued use of the previously adopted approaches and methodologies benefitted all stakeholders as it provided predictability and consistency within the regulatory environment.[379]

DBCT User Group

The DBCT User Group submitted a gamma estimate of 0.47 consistent with the advice of its consultant (PwC) and our current WACC methodology.[380]

4.9.4 Advice to the QCA

Frontier's advice to DBCTM on gamma is similar in many respects to that provided by SFG to Aurizon Network's submission on our Aurizon Network MAR Draft Decision.[381]

We commissioned Lally to advise us on the submissions to our Aurizon Network MAR draft decision.[382] Lally's comments that are also relevant to Frontier's advice to DBCTM are summarised below.

Distribution rate

In relation to the distribution rate, Lally advised that:

- It is not sufficient for SFG to reject our assumptions and methodology for estimating the distribution rate merely because they differ from the practice followed by other Australian regulators. Our methodology should be assessed on its merits.[383]
- SFG did not adequately address our concerns about the reliability of NERA's estimate of 0.7. Based on ATO data, NERA estimated the distribution rate using two methods that should

[378] DBCTM, sub. 6, section 7.3.2: 50–51.
[379] Vale, sub. 10: 7.
[380] DBCT User Group, sub. 11: 14–15; DBCT User Group, sub. 14: 19.
[381] QCA 2014a; Aurizon Network 2014 (SFG's advice on gamma is Attachment 6—SFG Consulting Report 6).
[382] Lally 2015a.
[383] By way of analogy, Lally noted that SFG supported the trailing average cost of debt at a time when no regulator supported such an approach. Naturally, SFG supported the trailing average based on its perceived merits. We have applied the same principle as SFG (i.e. assessment on the basis of merit) with respect to the distribution rate (Lally 2015a: 4). While we considered the practice of other regulators, by itself, this was not determinative to our decision.

have yielded the same result. However, these methods produce significantly different results (0.7 and 0.53), which puts into question the ATO data used. Moreover, if SFG was correct in arguing that the points raised by NERA were immaterial, then other factors should have been identified to explain the discrepancy between the figures of 0.7 and 0.53, and this was not done. This questions the credibility of both of NERA's estimates.

- SFG did not address the advantages of using financial statement data to obtain our estimate of 0.84, as previously pointed out by Lally. These advantages include that:
  - The financial statement data is audited.
  - It is possible to personally identify data for particular firms rather than relying on ATO data, which is aggregated and therefore subject to double-counting and other aggregation problems.
  - There are no unexplained discrepancies in the financial statement data whereas the ATO data contains major inconsistencies.
- SFG's contention that the definitions of the distribution rate used by the QCA and Lally are different is incorrect. The two definitions are equivalent if company tax paid is defined, consistent with Officer's model, as payments to the ATO only (which equates to franking credits created), rather than payments to both the ATO and foreign tax authorities.
- The claim by Aurizon Network in the context of our Aurizon Network MAR draft decision (reiterated by Frontier) that Lally's sample of firms resulted in an upward bias in the distribution rate, because smaller firms not included in the sample had lower distribution rates, is rejected. The effect of doubling the sample size from 10 to 20 companies is an immaterial reduction in the estimated distribution rate from 0.85 to 0.84. Although it is not efficient to include every ASX200 company in the sample, Lally's estimate, based on conservative assumptions, suggests a market-wide distribution rate of around 0.79, should these remaining companies be included in the sample—a number closer to Lally's estimate of 0.84 than to the generally applied estimate of 0.70.[384]

Utilisation rate

In relation to the utilisation rate, the following comments by Lally are also relevant to Frontier's advice to DBCTM:

The market-value versus redemption rate issue

With regard to the issue of the 'market-value' versus the 'redemption rate' interpretation of the utilisation rate, Lally advised that:

- It is not possible to determine with certainty how gamma is defined in Officer (1994)—that is, market value or redemption rate—because Officer uses ambiguous wording and more importantly, he provides no formal derivation of gamma. However, published papers by Monkhouse (1993) and Lally and van Zijl (2003)—which are not considered by SFG—provide rigorous derivations of the Officer model, and they define gamma as the product of a distribution rate and a utilisation rate, where the latter is a weighted average of the

[384] Lally 2015a, section 2.1: 4–7.

utilisation rates of individual investors.[385] This latter definition is a market-wide, but not a market-value, concept. As a consequence, SFG claimed incorrectly that the equations in Lally for equity value show that imputation credits reflect a market value, rather than the extent to which investors are entitled to the credits or actually redeemed them.[386]

- Even though some (but not all) of SFG's claims that the market value of imputation credits is less than the empirical redemption rate are correct, this does not mean that market value is the better estimator of a weighted-average utilisation rate. As both the empirical redemption rate and market value are simply two approaches to estimating the weighted average utilisation rate, the correct comparison is between each of these estimators and the weighted average utilisation rate. SFG did not undertake such a comparison.
- As a consequence, several issues raised by SFG are not relevant and serve only to highlight deficiencies in the Officer CAPM that give rise to the market value being less than the redemption rate. For example, the Officer CAPM does not take into account the different taxation treatment of dividends and capital gains; it does not allow for investment in foreign assets; it does not model the delays in receiving the benefit of imputation credits; and it uses (like most models) assumptions abstracted from reality (e.g. it does not allow for administrative costs).
- In relation to claims about market practice (e.g. evidence to suggest that firms have little regard to imputation effects when estimating the cost of capital that they use for project evaluation purposes), Lally[387] provided contrary arguments which have not been addressed by SFG.[388]

Lally's 'conceptual test'

With regard to the application of the 'conceptual test', Lally advised that:

- We did not act inconsistently in adopting a utilisation rate outside of the bounds established by Lally's conceptual test, while giving weight to that test. Lally stated that he did not establish numerical bounds for his conceptual test, and we weighed estimates of the utilisation rate obtained using several methods to arrive at our estimate of 0.56—that is, dividend drop-off studies (0.35); redemption rates (0.53); equity ownership (0.56); practitioner behaviour (0.75); and Lally's conceptual test (at or close to one).
- While our consideration of the conceptual test should be assessed on its merits rather than rejected merely because this practice differs from that followed by other Australian regulators, we note that the exclusion of Lally's conceptual test estimate would have had little or no impact on our estimate because we had applied a low weight to Lally's test.
- Contrary to SFG's claim, it was not impossible to estimate values of beta and the MRP required for Lally's conceptual test because these estimates rely on normal regression analysis against appropriate market portfolios in the case of beta, and empirical evidence

[385] The utilisation rate of an individual investor is the extent to which imputation credits can be redeemed with the ATO.
[386] See SFG 2014: 18 and Lally 2015: 8–9. The same error in interpretation was made when SFG derived an equation of equity value (which is a special case of Lally's equation) consistent with the work of Officer—see SFG 2014: 24–26 and Lally 2015: 13. SFG's contention is reiterated in DBCTM, sub. 6: 34–35.
[387] Lally 2013a: 50.
[388] Lally 2015a, section 2.2: 7–14.

and some plausible assumptions in the case of the MRP. Although the range of estimates provided by Lally may be debatable, SFG offered no alternatives for consideration.

- In relation to statistical precision in converting real-world to theoretical-world estimates, SFG's previous advice—in contrast to its claims—recognised that estimation errors were taken into account. In relation to model error, the onus was on SFG to present alternative, plausible models, and to assess their implications for the conceptual test. However, SFG did not do this.
- The claim by SFG that the test needed to recognise different government bond yields was rejected because the risk-free rate within the Officer CAPM is an exogenous parameter and therefore the observed value of it should be used regardless of how it is determined.[389]

SFG's previous responses to our concerns about econometric estimates of the utilisation rate using dividend drop-off studies

With regard to SFG's previous responses relating to concerns with dividend drop-off studies, Lally advised that:

- SFG had not adequately addressed the potential effect of increases in trading volume around ex-dividend dates—in particular, the possibility that the inclusion of unrepresentative investors (e.g. tax arbitrageurs) could distort the estimate of a value-weighted average of the utilisation rate across the market. SFG's argument that the effect of tax arbitrageurs would be to raise the dividend drop-off estimate of the utilisation rate above the estimates from other empirical techniques—that is, an upward bias—is not supported by the evidence. Even if correct, the presence of upward bias is not the point at issue, and moreover, the upward bias supports our concerns about the reliability of the results.
- SFG had not addressed Lally's subsequent arguments against SFG's earlier views on the following matters:
  - use of a constant term in the regressions
  - interaction between the value of cash dividends and the value of imputation credits
  - deletion of small-cap companies.
- SFG's views on the following matters were not located in the references that SFG provided:
  - reliability of the estimates from the regressions
  - comparison between the ERA and SFG studies.
- SFG claimed that evidence of unreliability in the estimates of Vo, Gellard and Mero (2013) could not be extended to its own work because of differences in the models examined. However, Lally was not satisfied that SFG's claim was supported by its analysis. Although SFG did re-run Vo et al.'s sensitivity tests on SFG's preferred model with ex-dividend returns adjusted for market movements, SFG used generalised least squares (GLS), rather than robust regression; progressively deleted only the 20 most extreme observations, rather than 30; and did not examine the sensitivity of its results to the tuning coefficient.[390]

[389] Lally 2015a, section 2.3: 14–18.
[390] Lally 2015a, section 2.4: 18–20.

4.9.5 QCA analysis and draft decision

We have considered DBCTM's proposal and initial submissions by other stakeholders. We believe that no new evidence has been presented that demonstrates that our approach to estimating gamma is inappropriate and, therefore, no issue raised by submissions has caused us to revise our conclusions in our market parameters decision about our gamma estimate of 0.47.

Distribution rate

With regard to the distribution rate:

- We do not agree with DBCTM that a robust estimate of the distribution rate can be obtained from the ATO data. We consider the ATO data contains major, unexplained discrepancies which cast doubt upon the reliability of the data. Our view is that these discrepancies have not been adequately addressed by stakeholders.
- The empirical approach used by Lally to estimate the distribution rate (based on annual report data) is superior to those relied on by DBCTM (based on tax data). In particular:
  - Lally provided empirical support for his view there is a strong positive association between the equity values of Australian listed companies and their tax payments to the ATO.
  - There are strong advantages of using annual report data over ATO tax data to estimate the distribution rate, which have not been adequately addressed or refuted by stakeholders or their consultants—for example, the financial statement data is audited; it is possible to personally identify data for particular firms rather than relying on the ATO data, which is aggregated and therefore subject to double-counting and other aggregation problems; and there are no unexplained discrepancies in the financial statement data, whereas the ATO data contains major inconsistencies.
  - A further increase in the number of ASX200 companies is unlikely to result in a significant change to the distribution rate estimate.
- Our definition of the distribution rate is consistent with that used by Lally because, in both cases, company tax paid is defined as the tax paid only to the ATO, rather than the tax paid to both the ATO and foreign tax authorities.
- We note that, since the AER released its Rate of Return Guideline, it has considered additional arguments and evidence on the distribution rate and now applies a range of 0.7–0.8, where the 0.8 estimate is based on listed equity.[391] The ERA has adopted a similar analytical approach.[392] The listed-equity estimate of 0.8 applied by the AER and ERA is much closer to our preferred estimate of 0.84 than to DBCTM's proposed estimate of 0.7.
- In relation to Frontier's view that Australian regulatory precedent, including previous decisions by the Australian Competition Tribunal (the Tribunal), supports the use of an estimate of 0.7 for the distribution rate, we note that:
  - There is no conceptual or practical consensus on the estimate of the distribution rate among Australian regulators.[393]

[391] AER 2015, Attachment 4, Table 4-2: 4-18.
[392] ERA 2015: 411–414.
[393] AER 2015, Attachment 4, Table 4-4: 4-32—4-33.

  - In its 2010 decision, the Tribunal stated there was no empirical evidence currently available supporting a distribution ratio higher than 0.7. However, the Tribunal also noted that estimation of a parameter such as gamma is an ongoing intellectual and empirical endeavour and its decisions are based on the case evidence before it.[394] Consistent with this view, we have based our estimate of the distribution rate on the merits of the evidence before us.
  - Since 2010, the Tribunal has considered the value of imputation credits in several proceedings.[395] Although the Tribunal has expressed views in these proceedings on appropriate estimates, the merits of different evidence, and the appropriate exercise of discretion by regulators, the Tribunal's comments in each case referred to the lack of expert consensus regarding the value of imputation credits and the scope that existed for future assessments of the evidence.[396]
- Our methodology should not be rejected solely because it differs from the practice of some Australian regulators, particularly when that practice involves limitations, as discussed in our market parameters decision.

In our view, the arguments put forward in submissions do not provide sufficient grounds for changing our market parameters decision that an appropriate estimate for the distribution rate is 0.84.

Utilisation rate

With regard to the utilisation rate:

- We do not accept the contention that the utilisation rate should be defined as a market-value concept. Rigorous derivations of the Officer CAPM unambiguously define the utilisation rate as the weighted average of the utilisation rates of individual investors (i.e. the extent to which imputation credits can be redeemed with the ATO). Therefore, dividend drop-off studies have limited relevance for estimating the utilisation rate.
- Several of our primary concerns about drop-off estimates have not been adequately addressed in submissions, including the effect of increases in trading volume around ex-dividend dates; the use of a constant term in the regressions and the reliability of regression-based estimates; the interaction between the value of cash dividends and the value of imputation credits; the deletion of small cap companies; and the comparison between the studies by the ERA and SFG.
- A number of other contentions about the utilisation rate are incorrect. In particular:
  - Contrary to Frontier/SFG's claim, we have explained that we applied a low weight to a utilisation rate of one based on the conceptual test because of the uncertainty about the range of estimates of that test.

[394] *Application by Energex Limited (Gamma)* [*No 5*][2011] ACompT 9, May 2011.

[395] *Application by Energex Limited [No 2]*[2010] ACompT 7, October 2010; *Application by Energex Limited (Distribution Ratio (Gamma)) [No 3]*[2010] ACompT 9*; Application by Energex Limited (Gamma) (No 5)* [2011] ACompT 9, May 2011; *Application by WA Gas Networks Pty Ltd [No 3]*[2012] ACompT 12, June 2012; *Application by DBNGP (WA) Transmission Pty Ltd [No 3]*[2012] ACompT 14, July 2012.

[396] AER (2015), Attachment 4, Table 4-5: 4-35–4-37. However, also see our comments on the Tribunal's latest decision in what follows.

- Contrary arguments were provided by Lally about market practice, but these have not been addressed in submissions by SFG or Frontier.
- It was claimed that we acted inconsistently in our application of Lally's conceptual test. Although we considered the test to have some merit in evaluating the reasonableness of a particular utilisation rate, the test was given low weight because of the uncertainty about what the range of estimates should be.

As set out in our market parameters decision, we have adopted an estimate of 0.56 for the utilisation rate following a considered evaluation of several estimation methods, including an appropriate weighing of the conceptual and practical issues involved.

Most emphasis was given to the equity ownership approach, as it is based on the correct conceptual concept—a weighted average of utilisation rates across investors, with weights reflecting ownership shares in Australian listed companies. It is also transparent, based on reliable data and relatively easy to estimate. Of the methods analysed, we believe the equity ownership approach provides the most robust and reliable estimate of the utilisation rate at this time.

As discussed in Section 4.3 of this chapter, we have also had regard to the relevant factors set out in the QCA Act. We therefore believe we have achieved an appropriate balance between the competing interests of the various stakeholders.

In our view, the arguments put forward in submissions do not provide sufficient grounds for changing our market parameters decision that an appropriate estimate for the utilisation rate is 0.56.

The product of the distribution rate of 0.84 and the utilisation rate of 0.56 is a gamma of 0.47.

In reaching our decision that this estimate of gamma is appropriate for DBCTM, we note that it sits within the range of gamma estimates (0.25–0.50) established by Australian regulators (Table 13). Specifically, our estimate is marginally above the median estimate.

Table 13 Regulatory estimates of gamma

Regulator	***Gamma***
AER	0.40
ACCC	0.45
ERA (WA)	0.40
ESC (Vic)	0.50
IPART (NSW)	0.25
QCA	0.47
Median	**0.43**

The outlier of these estimates is the value of 0.25 currently applied by IPART; otherwise, the range is 0.40–0.50. In this regard, we note that the divergence in IPART's estimate (and likewise DBCTM's estimate) from the other regulatory estimates is primarily due to the apparent reliance on a single piece of evidence (i.e. the SFG dividend drop-off study) to determine an estimate of 0.35 for the utilisation rate. In contrast, all other regulators, including us, give that estimate materially lower weight in arriving at a final estimate of the utilisation rate (and therefore, of gamma).

We also note that Vale and the DBCT User Group supported our approach to estimating gamma.

Notwithstanding current regulatory practice, we note the Australian Competition Tribunal (the Tribunal) has recently decided to set aside and remit the AER's 2015 determinations for each of the appeals brought by the NSW and ACT electricity distributors.[397] Among other matters, the AER is required to remake its decision on the cost of corporate income tax in accordance with the Tribunal's reasons including by reference to a gamma of 0.25.

We have considered the Tribunal's decision in relation to gamma and found there is nothing in the Tribunal's reasoning that demonstrates that our approach to estimating gamma is inappropriate. In particular, we note that the Tribunal's reasoning was based on a 'market value' definition of the utilisation rate, and reliance on dividend drop-off studies for estimating the utilisation rate in that context.

On the other hand, as outlined above, our definition of the utilisation rate is the value-weighted average over the utilisation rates of imputation credits of all investors in the market, where several different estimators are used to estimate the weighted average utilisation rate. Rigorous derivations of the Officer CAPM unambiguously define the utilisation rate in this way and, therefore, we believe that, whereas the utilisation rate is a market-wide concept, it is not a market value concept. Because of this, dividend drop-off studies have limited relevance for estimating the utilisation rate.

4.9.6 Conclusion

We acknowledge there are alternative views and interpretations for estimating gamma and its components—that is, the distribution and utilisation rates. However, we are not persuaded that the considerations put forward in submissions, or in the Tribunal's PIAC–Ausgrid determination (26 February 2016), provide sufficient grounds for changing our view—established in our market parameters decision—that a reasonable estimate for gamma is 0.47, comprising a distribution rate of 0.84 and a utilisation rate of 0.56.

We therefore refuse to approve the gamma estimate proposed by DBCTM of 0.25.

We consider our estimate for gamma has regard to the relevant factors set out in the QCA Act and weighs them appropriately, thereby achieving an appropriate balance between the competing interests of the various stakeholders.

[397] *Applications by Public Interest Advocacy Centre Ltd and Ausgrid* [2016] ACompT 1.

Draft decision 4.11

(1) After considering DBCTM's proposed gamma of 0.25, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its draft access undertaking is to set a gamma of 0.47.

(3) After having regard to each of the matters set out in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

4.10 Conclusion—WACC

Based on the parameter estimates discussed in this chapter, we consider an appropriate post-tax nominal (vanilla) WACC for DBCTM is 6.10 per cent per annum. This figure incorporates a cost of debt of 5.00 per cent, and a cost of equity of 7.76 per cent, and is based on 60 per cent gearing.

Values for all parameter estimates, as compared to the 2006 and 2010 AUs, DBCTM's proposal, and the DBCT User Group's position, are contained below.

Table 14 Comparison of WACC parameters

Parameter	*DBCT 2006 AU*	*DBCT 2010 AU*[398]	*DBCTM's 2015 DAU proposal*	*DBCT User Group submission*	*QCA draft decision*
Averaging period (20 business days up to DD/MM/YY)		Sept. 2010	21/08/15 (indicative)	21/08/15 (indicative)	30/10/15 (indicative)
Risk-free rate	5.84%	5.08%	2.8%	2.17%	2.10%
Market risk premium	6.0%	6.0%	8.0%	6.5%	6.5%
Asset beta	0.50	0.50	NA[399]	0.43	0.45
Equity beta	1.0	1.0	1.0	0.81	0.87
Gamma	0.50	0.50	0.25	0.47	0.47
Capital structure (% debt)	60%	60%	60%	60%	60%
Credit rating	BBB+	BBB+	BBB	BBB	BBB
Debt risk premium (raw)	1.175%	NA	2.32%	2.32%	2.68%
Debt issuance costs			0.108%	0.108%	0.108%
Interest rate swap costs		NA	NA	0.150%	0.113%
Total debt risk premium (including transaction costs)	1.30%	3.96%	2.43%	2.58%	2.90%
Cost of debt	7.14%	9.04%	5.23%	4.75%	5.00%
Cost of equity	11.84%	11.08%	10.8%	7.47%	7.76%
Equity premium	6.0%	6.0%	8.0%	5.27%	5.66%
WACC premium (above risk-free rate)	3.18%	4.78%	4.66%	3.67%	4.00%
WACC	9.02%	9.86%	7.46%	5.84%	6.10%

[398] Our consideration of DBCTM's calculation of revenues and prices for its 2010 AU occurred in the context where DBCTM and the terminal's existing users agreed to rolling forward existing cost parameters and the resultant revenues and tariffs. At that time, the DBCT User Group indicated it accepted that, as a package, the proposed terms and conditions of access were reasonable, without necessarily accepting the merits of each individual element of those arrangements. The primary focus of our assessment was on whether the proposed arrangements discriminated against future users of the Terminal and whether DBCTM had accurately described its calculation of proposed revenues and tariffs.

[399] DBCTM did not propose an asset beta value.

Draft decision 4.12

(1) After considering DBCTM's proposed post-tax nominal (vanilla) WACC of 7.46 per cent per annum, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to set a post-tax nominal (vanilla) WACC of 6.10 per cent per annum, incorporating:

- **(a) a cost of equity of 7.76 per cent per annum**
- **(b) a cost of debt of 5.00 per cent per annum**
- **(c) benchmark gearing of 60 per cent.**

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

5 DEPRECIATION

Depreciation (or the return of capital) is included in the building blocks model so that asset owners can recover their initial investment. The 2015 DAU proposes to apply a depreciation profile to the regulated asset base (RAB) that matches the weighted average mine life (WAML) of mines that DBCTM services. In addition, DBCTM proposes to review the WAML of mines in the DBCT catchment at each undertaking reset.

Our draft decision is to refuse to approve DBCTM's depreciation proposal. We consider DBCTM should amend its proposal to maintain the current remaining economic life of its Terminal of 38 years (from 2016). We do not consider that DBCTM has provided sufficient evidence to justify a change at this time, partly because DBCTM has failed to satisfy us, given all of the available evidence, that asset stranding risk has materially increased—noting the positive, longer-term outlook for coal and the practical barriers to significant competition between ports.

However, we are proposing to approve DBCTM's separate proposal to depreciate spares attributed to the original RAB over 15 years. We consider it will provide consistency with the way spares associated with expansions are treated, and allow DBCTM to recover its original capital invested in spares.

5.1 Overview

Citing material changes in the industry environment, DBCTM shortened the depreciation profile of the RAB for the 2015 DAU. DBCTM said it faces an asymmetric asset stranding risk—as DBCTM can only ever recover an amount equivalent to the RAB value, but there is no limit to its downside exposure.[400]

DBCT exports a single, non-renewable resource, and the Terminal does not have an alternative use. Given these characteristics, DBCTM considers there is considerable stranding risk associated with committing capital over a long timeframe and under an uncertain demand outlook.

DBCTM said the 'only mechanism that [it] has available to mitigate the impact of stranding risk is to adjust its depreciation profile.'[401] DBCTM has therefore proposed an updated estimate of the economic life of the Terminal that it said better reflects the asset stranding risk of DBCT (outlined in Table 15).

DBCTM also proposed to depreciate spares that formed part of its initial DORC valuation over a period of 15 years, in order for it to recover a return of capital for these assets.

We have concluded that DBCTM has not sufficiently established that the asset stranding risk has increased materially enough to justify shortening the economic life of the assets and, therefore, justifying a change to the depreciation profile of the Terminal. However, the QCA does accept the proposal to depreciate the spares associated with the original assets, as this allows DBCTM to receive a return which is at least commensurate with the costs of providing access.

[400] DBCTM sub. 2: 22.
[401] DBCTM, sub. 2:26.

Table 15: DBCTM 2015 DAU depreciation overview

2015 DAU proposal	*2010 access undertaking*	*Stakeholders' comments*	*QCA comments*
Straight-line depreciation based on economic life to 2041, calculated using a weighted average mine life (WAML) methodology.	Straight-line depreciation profile based on an economic life to 2054.	Did not support the proposed change to economic life methodology and disagreed that there has been a justifiable change in asset stranding risk.[402]	Refer to section 6.1
Depreciating spares that formed part of its original DORC over a period of 15 years.	Spares are indexed for inflation. DBCTM does not recover a return of capital for these assets.	Spares should remain undepreciated as they are considered to be held and used as new.[403]	Refer to section 6.2

5.2 Depreciation—weighted average mine life approach

5.2.1 Background

Since the first access undertaking was approved in 2006, a 50-year economic constraint has been applied to the lives of the Terminal assets. As a result, an asset with an estimated useful life exceeding 50 years is depreciated over a residual period of 50 years, while an asset with an estimated useful life less than 50 years is depreciated over its useful life (less its age).[404]

The 50-year economic constraint was based on the economic life of the coal reserves in the catchment area. Our position on this matter at the time was informed by two consultants' reports, which supported a 50-year economic constraint for the Terminal's assets.[405]

The 2010 AU continued to apply the 50-year economic constraint (to 2054) to DBCT's depreciation profile. However, the economic life assumption was not considered in isolation. The pricing matters included in the 2010 AU reflected a commercially negotiated 'package' between DBCTM and the DBCT User Group, that was considered by the QCA as a whole rather than considering each parameter separately.[406]

5.2.2 DBCTM's 2015 DAU proposal

DBCTM proposed a 25-year economic life for depreciating the Terminal assets, commencing with the forthcoming regulatory period—that is, from 2016 to 2041. This proposal represents a reduction in the original depreciation profile of 13 years (i.e. from 2054 to 2041).

[402] DBCT User Group, sub. 11: 18–19; Vale, sub. 10: 8–9.
[403] DBCT User Group, sub. 11: 21.
[404] QCA 2005: 133–134.
[405] DBCTM's consultant, Barlow Jonker (2004:6), estimated there were sufficient coal reserves to supply DBCT for 49.8 years, excluding mines owned by BHP Billiton Mitsubishi Alliance (BMA). The QCA's consultant, Energy Economics (2005: 13), considered that, while proven reserves would last for 32 years, the risk of structural decline in coal exports via DBCT was small.
[406] QCA 2010: ii.

The proposed 25-year economic life is intended to align the depreciation profile of the RAB with the WAML that DBCT services, based on an estimate provided by its consultant, Wood Mackenzie.[407]

DBCTM proposed to review the WAML at each regulatory reset and to update it, if applicable. This review will allow the economic life to account for changes in market conditions and any changes to the reserve base of mines in the DBCT catchment. DBCTM noted that the application of a WAML will not always imply a shortening of the economic life and in an improving market, 'the WAML may well be extended as new reserves are proven.'[408]

The impact of the WAML proposal is outlined in Table 16.

Table 16: Depreciation proposed in the 2015 DAU ($ '000s)

Forecast depreciation	*2016–17*	*2017–18*	*2018–19*	*2019–20*	*2020–21*
DBCTM proposal (2015 DAU)	108,781	110,893	112,432	113,688	116,530
2010 access undertaking approach	83,758	85,245	86,142	86,741	88,909

DBCTM has proposed the revised economic life on the basis of a perceived increase in asset stranding risk, which DBCTM attributed to two major sources:

- material changes in DBCTM's industry environment
- increased competition among ports for new and existing tonnages.

DBCTM stated that it is 'inextricably linked to the coal industry' and said the industry outlook 'is considerably more uncertain'. DBCTM also said the industry is not just facing another downturn in the cycle given the emergence of new, lower-cost competitors in an oversupplied market. When market conditions improve, and coal prices begin to rise, Australian producers could emerge with considerably lower market shares.[409]

Given the uncertainties described above, DBCTM said that:

> *it cannot be assumed that all contracts maturing in the 2016-20 period will be renewed. Alternatively, if they are renewed, it could be for a lower tonnage, noting the ability and willingness of producers to scale back production until market conditions improve, as evidenced above.*[410]

DBCTM also considered that it is 'exposed to competition for new and existing tonnages' and that 'regulation constrains DBCTM's ability to compete with unregulated terminals'.[411] DBCTM said it may face increased competition for coal tonnages—given latent capacity exists in the coal terminals at Abbot Point, Hay Point and the Port of Gladstone.[412] Furthermore, DBCTM could also have to compete against a number of potential new coal export terminals or expansions at Abbot Point, Balaclava Island, Dudgeon Point, Fitzroy Terminal, and Yarwun.

[407] DBCTM, sub. 3: 1.
[408] DBCTM, sub. 1: 22, 26.
[409] DBCTM, sub. 2: 11, 12, 21.
[410] DBCTM, sub. 2: 11.
[411] DBCTM, sub. 2: 7–9, 21.
[412] DBCTM, sub. 2: 7–8.

Further, and notwithstanding these concerns, DBCTM suggested that its proposal stood on its own merit, independent of the current market environment:

> *Indeed, this must remain the case as it is too late to apply a shorter depreciation profile if and when demand conditions deteriorate to the point where asset stranding becomes a real prospect, as the consequent increase in prices is only likely to compound that risk ... Stranding risk is asymmetric in nature given there is downside, but no upside. That is, DBCTM can only ever recover an amount equivalent to the RAB value of the asset via regulated prices, but there is no limit to its downside exposure.*[413]

For these reasons, DBCTM stated that it 'no longer considers that the lease term is the most appropriate basis to measure economic life as this has no direct relationship with the lives of the mine operations the Terminal is servicing.'[414]

Rather, DBCTM considered its proposal is more appropriate, as it complements the economic life of the mines that are the source of demand for its services and will provide a stable depreciation profile that assists in reducing its asset stranding risk.[415]

5.2.3 Proposed WAML methodology

DBCTM engaged Wood Mackenzie to calculate the economic life of the mines serviced by DBCT. Wood Mackenzie developed four different methods for estimating the WAML:

(1) weighted average mine life by average production

(2) weighted average mine life by marketable reserves

(3) weighted average implied mine life by average production

(4) weighted average implied mine life by company reported reserves.

From the four scenarios above, DBCTM proposed that the WAML estimated using marketable reserves[416] is the most appropriate estimate of economic life. In making this decision it said:

> *DBCTM favours the estimates that use data from Wood Mackenzie's Coal Supply Service (scenarios 1 and 2), as this is seen to be the most up-to-date data and it is provided by an independent third party. Second, it proposes to use the marketable reserves estimate, not the shorter production-based estimate, as it considers this provides for an appropriate balance between the high prices that may be experienced with a production-weighted average and the current (essentially arbitrary) economic life that is based on the lease term. Production levels are also likely to be more volatile in the short term.*[417]

The proposed WAML weighted by marketable reserves would be calculated at each reset by:

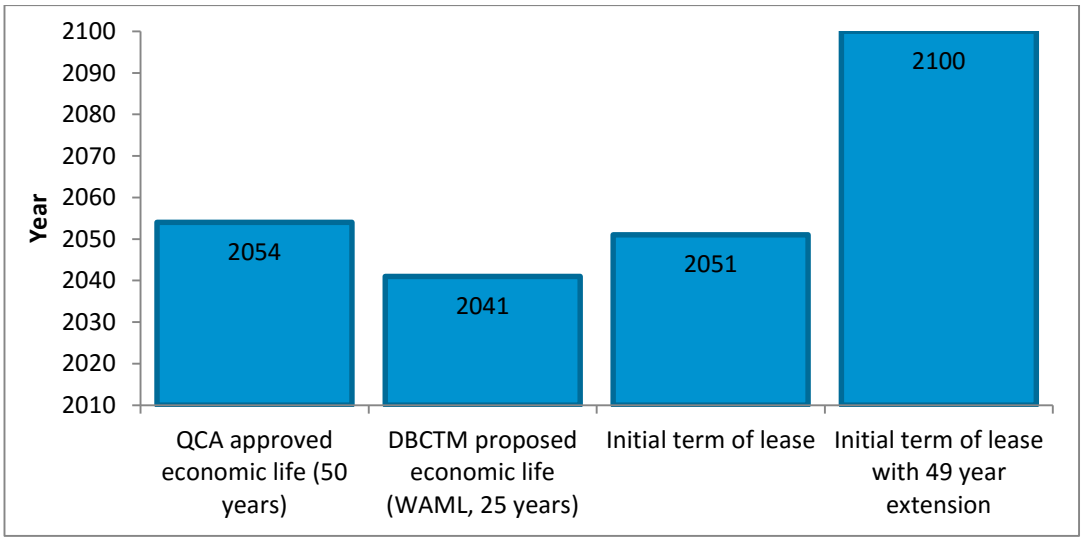
$$\text{WAML} = \frac{\sum(Mine\ Life \bullet Total\ Marketable\ Reserves)}{\sum(Total\ Marketable\ Reserves)}$$

As a consequence of adopting the WAML based on marketable reserves, the economic life of DBCT would reduce by 13 years.[418] However, as discussed, DBCTM proposed to review the WAML

[413] DBCTM, sub. 2: 22.
[414] DBCTM, sub. 2: 25.
[415] DBCTM, sub. 2: 22.
[416] Wood Mackenzie defines marketable reserves 'as the commercially viable level of reserves representing the sum of future marketable production sold over the remaining life of the mine' (DBCTM, sub. 3: 23).
[417] DBCTM, sub. 2: 27.
[418] The 2006 and 2010 AUs assume an economic life of 50 years (to 2054), while the WAML reduces this economic life assumption to 2041— hence, by 13 years.

at each regulatory reset. Therefore, the economic life could increase or decrease in future regulatory periods. A comparison of the various estimates of life for DBCT viewed in the context of the terms of the lease is at Figure 5.

Figure 5: DBCT economic life comparison



Source: DBCTM, sub. 1: 58; QCA analysis.

5.2.4 Stakeholders' submissions

Vale Australia Pty Ltd (Vale)

Vale[419] did not support DBCTM's proposed change to the economic life methodology and disagreed that there has been a justifiable change in asset stranding risk since the last regulatory reset. In particular, Vale submitted that:

- The 25-year WAML does not reflect the growth in seaborne coal forecasted by Wood Mackenzie.
- It is 'likely' that the marketable reserve position has not changed since 2010, as mines will explore and evaluate new areas over time to evenly spread the costs of exploration.
- Low coal prices have not appeared to affect the utilisation of DBCT, with throughput increasing year-on-year.
- Competition between terminals is limited, as there are many practical barriers to access holders transferring capacity to alternative terminals.
- The 2014 Queensland Port Strategy paper developed by the Queensland Department of State Development, Infrastructure and Planning, proposes to restrict development to five priority port areas including Hay Point. In Vale's view this 'must benefit' DBCT.
- Existing mechanisms within the current undertaking are designed to reduce asset stranding risks. Introducing a new mechanism would result in an over-recovery of revenue compared to the regulatory and commercial risks involved.

[419] Vale, sub. 10:8.

DBCT User Group

The DBCT User Group did not support the WAML proposal and submitted that:[420]

- The risk of asset stranding is significantly less than inferred by DBCTM.
- Adopting a WAML based on marketable reserves will always be based on relatively short-term assumptions.
- The WAML estimate is unnecessarily shortened, given it excludes future mining projects.
- Adopting an economic life of 25 years does not appropriately balance the risks between DBCTM and the DBCT users.
- Take-or-pay contracts reduce the risk that DBCTM's revenues will fall short of expectations. Where actual throughput volumes do not meet the total capacity of the Terminal, the rate per tonne charged to customers is increased.[421]

5.2.5 QCA consultant's advice

The QCA engaged Resource Management International (RMI) to independently assess DBCTM's WAML and to undertake an independent review of the mine lives within the DBCT catchment area. The report's key findings are summarised below (a copy of RMI's report is also available on the QCA's website).

Review of coal market

RMI agreed with Wood Mackenzie's assessment that:

- although coal prices have dropped since 2011, Australian mines, including those in the catchment area, have generally been successful in reducing operating costs
- historical and forecast metallurgical coal demand is being driven by continued urbanisation and construction in China and India, with the majority of long-term global growth expected to be driven by India
- world demand for metallurgical coals will increase over the forecast period to 2035.[422]

RMI considered Wood Mackenzie underestimated the metallurgical coal demand from South East Asian countries, which do not have their own sources of metallurgical coal. RMI suggested that growth in metallurgical coal demand is likely to persist beyond 2035.

While thermal coals represent a small proportion of material handled at DBCT, RMI agreed with Wood Mackenzie's forecast that:

- world demand for thermal coal will steadily increase due to steady demand for energy in China and a growing demand for energy in India and developing countries
- Australia, particularly the Bowen Basin, has a competitive advantage in higher quality thermal coals. RMI noted these coals are necessary for high-efficiency, low-carbon, coal-fired power station technology.[423]

[420] DBCT User Group, sub. 11: 17–19.
[421] DBCT User Group, sub. 14: 4.
[422] RMI 2015: 14.
[423] RMI 2015: 14.

However, RMI noted that projects involving only thermal coal production have a lower level of viability than equivalent metallurgical coal projects, with sufficient long-term uncertainty to cast some doubt over the viability of some long-term, thermal coal projects.[424]

Review of DBCTM's proposal

RMI generally agreed with the set of operating mines that Wood Mackenzie used to estimate the WAML in its analysis. However, RMI said DBCTM's proposed asset life period 'may significantly underestimate' the viable supply of coal to DBCT for three principal reasons[425]:

- **Tail tonnage**— the methodology disregards a significant 'tail tonnage' from mines with a mine life longer than the weighted average.
- **Exclusion of measured and indicated resources**— the estimate uses only 'marketable reserves' and appears to disregard measured and indicated resources under the JORC code[426], which may legitimately be used for mine-planning purposes.

  The expenditure for mining and processing feasibility investigations that support estimation of 'marketable reserves' is typically delayed by mine management until it is required. Therefore, reserve estimates will not represent the tonnage of economically extractable coal over a longer time period.
- **Exclusion of projects**—the estimate excludes all projects that are unlikely to commence in the next regulatory period from the economic life analysis. RMI disagreed the regulatory period should constrain the economic life assessment and suggested that viable new projects potentially arising beyond the next regulatory period should be included. Further, projects in the DBCT catchment are likely to become viable as the market improves and lower-cost reserves are depleted given Wood Mackenzie's demand forecast for Queensland metallurgical coals.

  RMI also noted that the inclusion of marketable reserves from BMA's mines—which are mostly delivered to Hay Point Coal Terminal (HPCT)—is likely to overestimate the supply of coal to DBCT. However, the net effect of including BMA reserves against the three factors above results in a significant underestimation of the supply of coal to DBCT.

RMI illustrated its concerns with the DBCT proposal in Figure 6, which graphs Wood Mackenzie's forecast total Australian seaborne metallurgical coal exports with the WAML-derived coal deliveries to HPCT and DBCT.

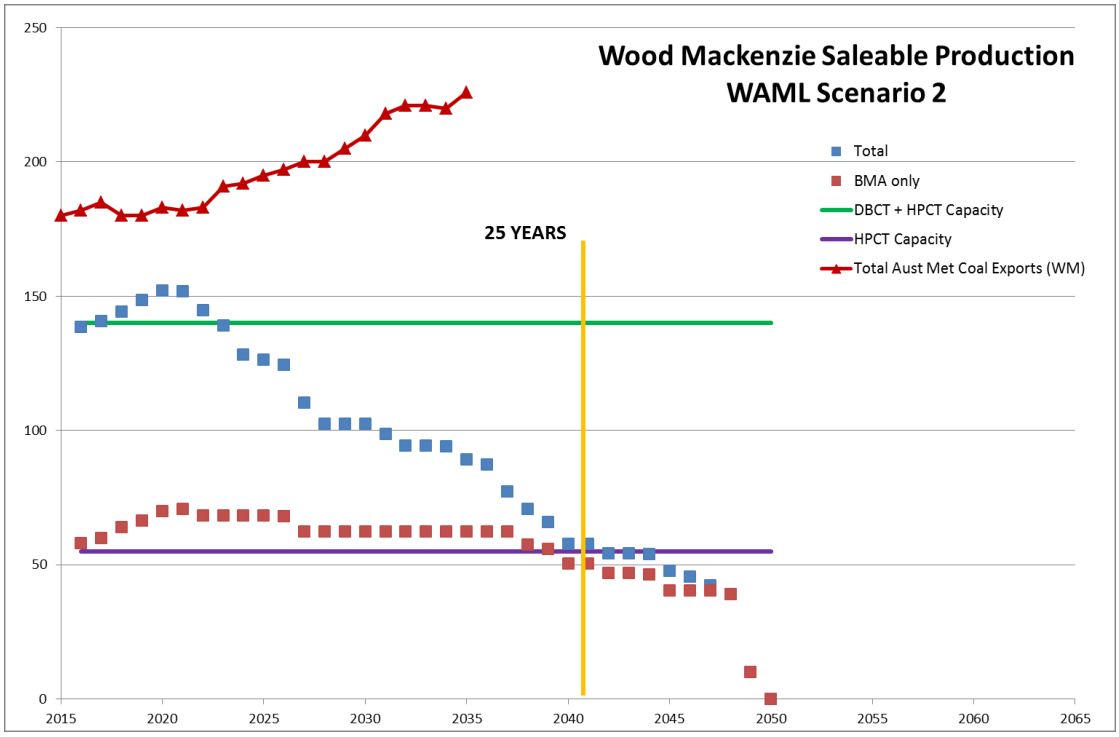
The declining trend of the WAML is contrary to Wood Mackenzie's coal export forecast. According to RMI, the decline in coal supply to the Hay Point terminals does not represent the likely export demand for Bowen Basin coals within the DBCT catchment, and instead, it simply represents a depletion of currently defined stock of JORC marketable reserves. [427]

Given the above, RMI concluded that:

[424] RMI 2015: 14.
[425] RMI 2015: 17–18.
[426] The Joint Ore Reserves Committee Code (JORC Code) provides a globally recognised convention for referring to coal resources and reserves.
[427] RMI 2015: 17.

none of the WAML estimates are appropriate for determination of the economic life of DBCT assets, including the preferred WAML estimate of 25 years average mine life used in the 2015 DAU. (RMI 2016, p. 19)

Figure 6: WAML against Wood Mackenzie Australian coal export forecasts



Note: The Y-axis in Figure 6 is in million tonnes of coal per annum.

Source: RMI 2015: 19.

Independent mine life estimate

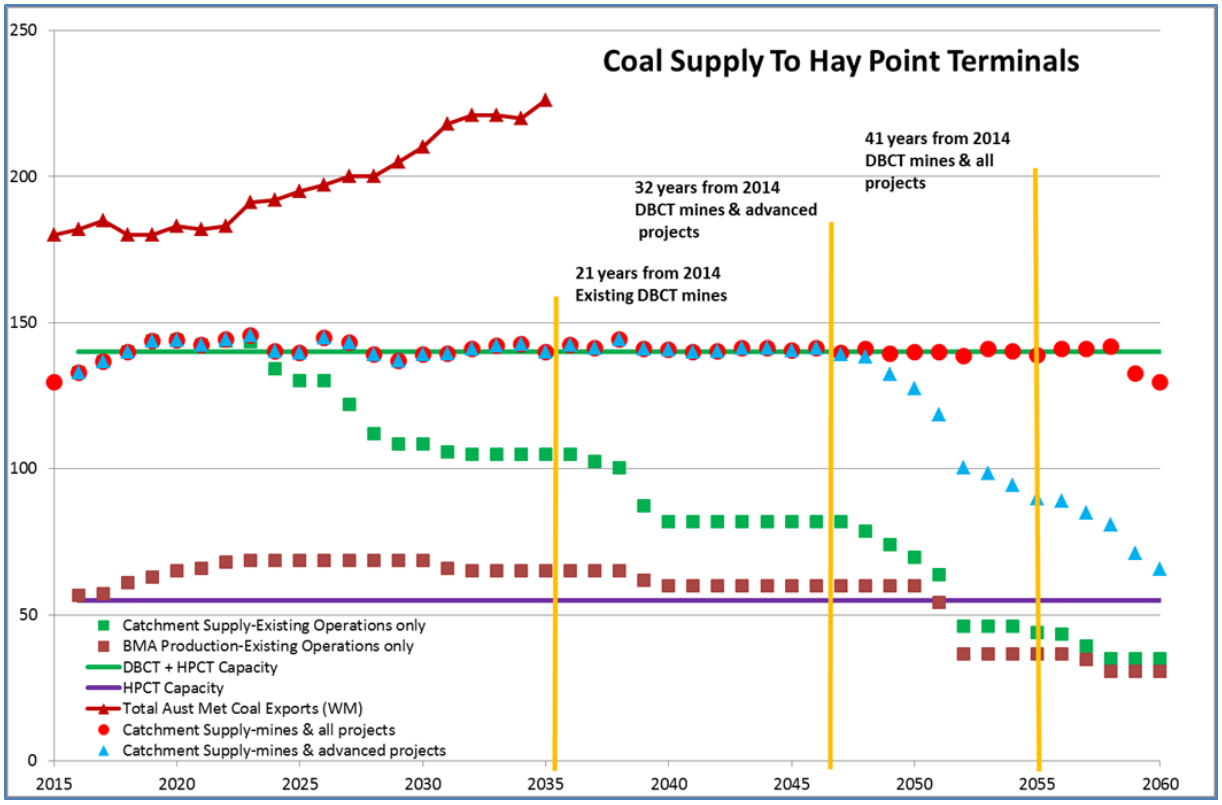
RMI independently reviewed the mine lives within the DBCT catchment area and estimated DBCT's economic life to be 40 years, to 2055 (from 2015)—14 years longer than Wood Mackenzie's estimate of 25 years to 2041 (from 2016). RMI employed a similar methodology to that used in the 2005 access undertaking review by Energy Economics[428]—where the economic life is calculated by dividing the indicative marketable reserves by the capacity at DBCT.

RMI concluded there are sufficient indicative marketable reserves from existing operations and advanced projects alone to supply coal to DBCT for 31 years from 2015.

In addition, RMI identified a number of greenfield coal projects with significant quantities of measured and indicated JORC resources. RMI included these greenfield coal projects in the mine life analysis, given Wood Mackenzie's positive medium to long-term outlook for the seaborne metallurgical coal trade. Including these greenfield projects extends RMI's economic life estimate to 40 years from 2015—one year longer than assumed in the 2006 and 2010 AUs (see Figure 7). A list of the projects included in the mine life analysis is available in RMI's report.

[428] Energy Economics 2005, Economic life of DBCT Assets.

Figure 7: RMI estimate of coal supply to Hay Point Terminals



Note: The Y-axis in Figure 7 is in million tonnes of coal per annum.

Source: RMI 2015: 24.

5.2.6 QCA analysis and draft decision

The approach in the 2015 DAU is similar to the approach applied in the 2006 and 2010 AUs, in that it proposes to apply an economic constraint to the Terminal's depreciation profile.[429] However, in the 2015 DAU, DBCTM has proposed a different methodology for estimating the economic life of DBCT and updating the economic life assumption at each regulatory reset.

DBCTM stated in its 2015 DAU that DBCT's depreciation profile was previously based on the lease term.[430] However, we disagree that the lease term provided the basis for our final decision on the depreciation profile for the Terminal. Rather, our final decision on depreciation in the 2006 undertaking recognised the potential for asset stranding at DBCT and sought to address DBCTM's concern by imposing a 50-year constraint.

Specifically, a 50-year constraint was applied to the economic life of the Terminal's assets to recognise that the uncertainty associated with the demand for, and supply of, coal increases substantially beyond 50 years:

> *However, even with a 50 year constraint in place, DBCT Management would still bear some risk, but without such a constraint, DBCT Management would certainly be exposed to even more. As a consequence, a 50 year economic constraint on asset lives more evenly balances the potential risks of asset stranding between DBCT Management and terminal users (QCA 2005, p. 134).*

[429] The proposal also maintains the use of straight-line depreciation, consistent with the approach applied to date.

[430] DBCTM, sub. 2: 25.

We have considered DBCTM's supporting arguments for this proposal. We agree it is appropriate to use an economic life for depreciation where it can be demonstrated that an economic constraint is likely to arise. This allows DBCTM to receive a return commensurate with the regulatory and commercial risks involved, consistent with sections 138(2)(c) and (g) of the QCA Act. We also note that we reached this conclusion in the final decision on the 2006 undertaking:

> *... the Authority considered that, in order for an economic constraint to be placed on the life of the terminal site, it must be demonstrated that such limitation is reasonably likely to arise during the period in question (i.e. 50 years). In light of the evidence presented, the Authority considers that, on balance, there is sufficient justification for a 50 year economic constraint and this period is reasonable for the recovery of capital.* [431]

The matter before us is whether or not a further reduction in the economic life of the Terminal is warranted at this time. However, based on submissions and other evidence before us, including the relevant expert evidence, we are not persuaded that reducing the economic constraint, as called for in DBCTM's proposal, is justified at this time.

The remainder of this chapter sets out our reasoning for this conclusion, based on a range of considerations:

- independent coal market forecasts and growth in the DBCT catchment area
- competition among ports
- estimates of mine life in the DBCT catchment area
- related regulatory precedent.

Independent coal market forecasts

A large majority of the material handled at DBCT is metallurgical coal. As a consequence, the economic life of DBCT is largely influenced by changes in the metallurgical coal market.

We accept that coal exports are facing short-term challenges; however, the coal market forecasts from a number of sources all expect the current downturn to be transitory, with stronger growth expected in the medium to long term.

We also note that, despite the downturn in the coal market over the past few years, the utilisation of DBCT has increased, with record throughput achieved in 2014. Furthermore, Vale noted that 'year to date throughput figures suggest this will be surpassed in 2015'.[432]

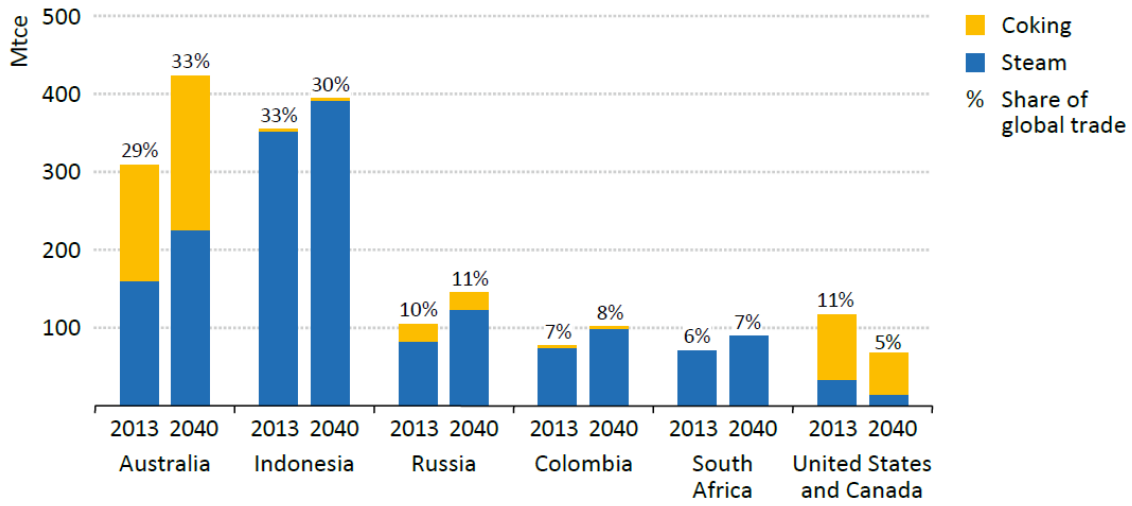
Wood Mackenzie estimated the global demand for seaborne metallurgical coal will increase over the next 20 years to reach more than 405 mtpa by 2035—a compound annual growth rate (CAGR) of 1.6 per cent.[433]

Australia is expected to supply much of this demand growth. According to Wood Mackenzie, Australian supply of metallurgical coal is forecast to grow at a CAGR of 1.1 per cent from 2015 to 2035—due to the 'political stability, high coal quality, cost advantage and incumbency'.[434] We note Wood Mackenzie's forecasts are supported by RMI.[435]

[431] QCA 2005: 134.
[432] Vale, sub. 10: 6.
[433] DBCTM, sub. 3: 1.
[434] DBCTM, sub. 3: 1.
[435] RMI 2015: 14.

The DBCT User Group referred to similar positive forecasts provided by the International Energy Agency (IEA). The IEA's central outlook scenario—the New Policies Scenario—estimates that Australia will be the largest coal exporter in the world by 2040 (see Figure 8). Similar to the Wood Mackenzie forecast, Australia is forecast to increase its market share in the metallurgical coal trade to nearly two-thirds by 2040.[436]

Figure 8: Major net exporters of coal by type in the New Policies Scenario



Note: Mtce refers to million tonnes of coal equivalent.

Source: International Energy Agency, World Energy Outlook 2015, p. 297.

DBCT also handles thermal coal, although thermal coal represents a smaller proportion of material handled at the Terminal. Wood Mackenzie also expects Australian exports of thermal coal to grow from 210 million tonnes in 2015 to 491 million tonnes in 2035, a CAGR of 4.3 per cent.

Forecast growth to be replicated across the DBCT catchment area

The available evidence suggests mines in the DBCT catchment area are well placed to capture much of the growth in Australian metallurgical coal exports. Both RMI and Wood Mackenzie's analyses said mines in the DBCT catchment are favourably located, of higher quality, and have relatively superior mining conditions and costs.[437]

These favourable conditions are illustrated in Wood Mackenzie's margin and cost curves, which place the metallurgical coal mines in the DBCT catchment area in the lower sections of the cost curve (see Figure 9). Indeed, Wood Mackenzie stated that:

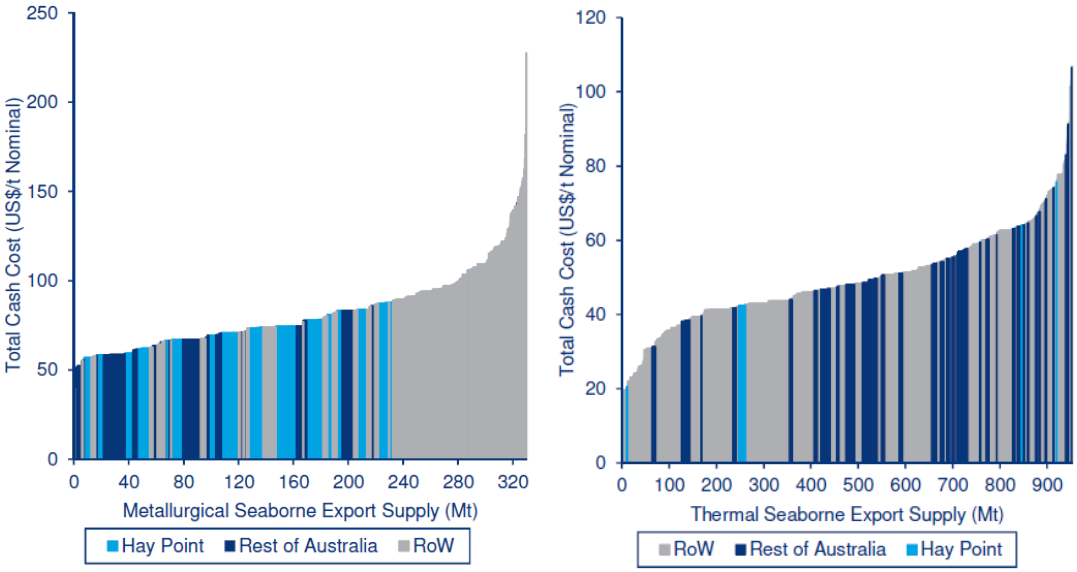
> *Compared to other global seaborne metallurgical operations, a majority of operations within the Hay Point Catchment are cost competitive and running at positive margins.*[438]

Meanwhile, for thermal coal mines in the DBCT catchment, we note there are both high-cost and low-cost operators. However, the majority of export supply is located within the first and second quartile of the cost curve, with smaller tonnages in the fourth quartile of the cost curve (see Figure 9).

[436] International Energy Agency, WEO 2015: p. 297.
[437] RMI 2016, 15; DBCTM, sub. 3: 30.
[438] DBCTM, sub. 3: 28.

Therefore, given the cost-competitive positions, and positive medium- to long-term outlook for coal exports including DBCT, we have no reason to conclude that current economic conditions have materially increased asset stranding risk.

Figure 9: Wood Mackenzie 2016 global seaborne export coal total cash costs (nominal US$ terms)



Source: DBCTM, sub. 3:30.

Competition among ports and asset stranding

In its 2015 DAU submission, DBCTM said that it is 'exposed to competition for new and existing tonnages' and that 'regulation constrains DBCTM's ability to compete with unregulated terminals'. DBCTM considers this 'clearly demonstrates that DBCTM is actually in a riskier position than its other major industry counterparts'.[439]

We accept there is potential for DBCT to compete with other terminals for coal tonnages in some circumstances. In our 2015 final decision on DBCTM's differential pricing DAAU, we acknowledged that, depending on the location of mines, other coal terminals, such as APCT, WICET and RG Tanna, may compete with DBCT for new expansion tonnage.[440]

RMI also recognised that, in some circumstances, export tonnages may be able to move between DBCT and other terminals. RMI said the Blackwater System provides a potential link to the RG Tanna export terminal and WICET, particularly for mines in the southern end of the DBCT catchment area. Similarly, in the northern end of the catchment area, some mines could potentially access APCT.

However, as identified in our differential pricing final decision[441], other cost relativities—such as the relatively higher terminal charges at WICET and cost of railing to APCT—reduce the likelihood of mines and/or new projects in the DBCT catchment area preferring future expansions at other ports to expansions at DBCT.

[439] DBCTM, sub. 2: 9.
[440] QCA 2015c: 20.
[441] QCA 2015c: 20.

Vale noted other practical barriers to access holders transferring capacity to alternative terminals including:

- the cost advantages of DBCT
- insufficient uncontracted capacity at other coal terminals to provide long-term capacity
- the extent of multi-cargo and coal-blending services available at DBCT
- DBCT's favourable rail cost differentials
- a lack of spare below-rail capacity
- incompatible above-rail infrastructure[442]
- the investment in rail infrastructure required to rail to alternative ports, such as modifications to rail balloon loops
- the long-term take-or-pay commitments that have been made on rail haulage and infrastructure.[443]

Similarly, the DBCT User Group said that:

> *even if it was physically possible for a DBCT User to send coal to a different terminal the costs in term [sic] of below rail, above rail, port costs; and consequences regarding matters like blending, co–shipping and other rail infrastructure arrangements, make it uneconomic and impractical to do so.*

And as a consequence:

> *every DBCT User has an extremely strong incentive to continue to renew the existing User Agreement for the current life of their mine at the absolute minimum. Such life may lengthen significantly over time (beyond that originally estimated at the time of initial contracting) as incremental mine expansions and extensions are made based on new resources being discovered or being proved up as economic.*[444]

Further, renewable access to the Terminal facilitates future development, as:

> *…companies commonly plan to use existing access rights at the Terminal beyond the life of current mines for new mining projects and expansions of other mines within their portfolio.*[445]

We note the same concerns expressed by the DBCT User Group and Vale have also been identified by the Australian Competition and Consumer Commission (ACCC) in its Statement of Issues on the Brookfield Consortium's proposed acquisition of Asciano Limited. The ACCC noted that coal producers considered the coal terminals at Abbot Point and Gladstone are not close substitutes for DBCT, for the following reasons:

> *(a) The distance from mine to port is a significant factor in selecting a coal export terminal - DBCT is the closest terminal to the mines and rail haulage costs are therefore significantly cheaper;*
>
> *(b) Capacity constraints at other terminals and on connecting rail networks prevent coal producers from utilising terminals other than DBCT;*

[442] Vale (sub. 10:5) noted that the Goonyella system is fully electrified while the Newlands system (which services Abbot Point) is not.
[443] Vale, sub. 10: 4–5.
[444] DBCT User Group sub. 19: 4.
[445] DBCT User Group sub. 19: 4.

> *(c) The long-term 'take-or-pay' nature of both below rail and port access contracts limit switching between terminals;*
>
> *(d) Transporting coal to Abbot Point requires coal producers to use the Goonyella to Abbot Point system (which, unlike the Goonyella coal rail system, is a non-electrified rail system and is therefore only suitable for diesel locomotives).*[446]

As noted above, we accept that DBCTM may compete for tonnages with other coal terminals in some circumstances. However, we consider DBCTM is likely to be shielded from significant competition with other terminals due to incompatible infrastructure, cost advantages of DBCT, the extent of services available at DBCT, and the long-term take-or-pay commitments across the supply chain.

Given the arguments above, we are not currently persuaded that asset stranding risk has increased due to increased competition among terminals. However, the potential for competition between ports is discussed in greater detail in Chapter 11 of this draft decision.

DBCTM's supplementary submission

In its own supplementary submission, DBCTM responded to the DBCT User Group's supplementary submission above. In particular, DBCTM said the:

> *DBCT User Group's argument in relation to the strength of the incentive for existing users to renew current contractual agreements fails to take into account the impact of the recent softening of the global coal market on users' perceptions of demand relative to Terminal capacity and the subsequent impact on DBCTM's demand risk.*[447]

In this context, DBCTM said the incentive for users to continue to hold DBCT capacity is subject to users' perceptions of strength of demand relative to the capacity of the Terminal. In circumstances of softening demand in global coal markets, DBCTM considers users of the Terminal are less willing to bear the ongoing obligations of take-or-pay capacity and will instead access available capacity ad hoc.[448] DBCTM point to an imminent 'drop off' in contracted tonnes over coming years, which they say has not been a feature of previous resets.[449]

We note DBCTM provided its supplementary submission to us on 11 March 2016—shortly before the release of this draft decision. While we have reviewed the contents of the supplementary submission, we have been limited in the weight which we have been able to afford it, in relation to these issues. We intend to give it further consideration in our final decision.

We therefore encourage stakeholders to review the contents of DBCTM's supplementary submission and provide any further comments as part of their submission on this draft decision.

Estimating the mine life in the DBCT catchment area

While the evidence above indicates the asset stranding risk at DBCT has not materially increased, it is still relevant for us to consider DBCT's economic life. We consider it is reasonable to reconsider the economic life of DBCT, as it has been more than 10 years since the first economic life assessment was undertaken. Indeed, reviewing the economic life assumption will allow us to provide DBCTM with a depreciation allowance that is consistent with the pricing principles in the QCA Act (s. 168A).

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[446] ACCC 2015: [88].
[447] DBCTM, sub. 30: 8.
[448] DBCTM, sub. 30: 5, 7.
[449] DBCTM, sub. 30: 6.

We note the difference between the Wood Mackenzie and RMI economic life estimates is significant and is largely driven by the treatment of projects, the inclusion of coal resources in the analysis and the application of a weighted average methodology.

One of the key drivers of this difference is the treatment of future coal projects in mine life analysis. Specifically, Wood Mackenzie excluded 13 projects from its calculation, noting the projects are unlikely to commence operating during the forthcoming regulatory period (i.e. over the next five years). We consider that excluding projects, where there is credible information about their commencement, is not consistent with the pricing principles in the QCA Act (s. 168A) as it is likely to inappropriately accelerate the recovery of depreciation. While such prospective mines may not contribute to the recovery of depreciation during the next regulatory period, they might be expected to do so over the lives of the relevant assets—which is the pertinent issue.

In addition, DBCTM's mine life estimate does not achieve an appropriate balance between the interests of DBCTM, present access holders and future access holders and seekers (ss. 138(2)(c)(e) and (h)). In particular, the depreciation profile (and any constraint on it) has implications for inter-generational equity. If that profile is inappropriately weighted towards short term cost recovery, when the economic life of the Terminal is longer, then current Terminal users will pay depreciation charges that are too high, while future access holders and seekers will pay depreciation charges that are too low, all else being equal.

The estimate of economic life should consider the forecast coal supply over the entire potential life of mines within the DBCT catchment. Therefore, the mine life analysis should include all projects that are likely to commence in the catchment, rather than those likely to commence only in the next undertaking term.

Other jurisdictions have considered the inclusion of project reserves in mine life estimates. ARTC's Hunter Valley Coal Network has used a WAML methodology for depreciation purposes since 1998. Following the transfer of regulatory responsibility to the ACCC, the ACCC accepted a WAML methodology as part of ARTC's Hunter Valley Coal Network access undertaking.

DBCTM highlighted the ACCC's 2010 draft decision which considered:

> *In relation to new mines that are not yet in production and are highly uncertain, it does not seem inappropriate to exclude these mines from the mine calculation as there is no guarantee these will ever come into production. To the extent these do come on line in future years, these could be considered in future mine life estimates.*[450]

We agree with the ACCC that it is appropriate to exclude *highly uncertain* projects in the economic life estimate. But that does not justify excluding all projects from economic life analysis. Given RMI's advice that new projects within the DBCT catchment will become viable as market conditions improve, we consider it appropriate to include those projects as part of a mine life estimate.

In its 2014 final decision on the NSW Rail Access Undertaking, IPART arrived at a similar conclusion:

> *We consider that prospective mines should be taken into account where credible information about their reserves, production capacity and commencement date is available. As new mines commence operations or extensions to existing mines are granted, the remaining life of the*

[450] ACCC Draft Decision 2010: 588.

> *longest-lived mine may increase. Failure to take this into account may lead to the rail operator over-recovering depreciation.*[451]

Aurizon Network's weighted average mine life proposal

DBCTM highlighted that Aurizon Network receives accelerated depreciation on new assets to account for asset stranding risk. Furthermore, DBCTM said the QCA has previously considered a similar proposal as part of our assessment of Aurizon Network's 2014 DAU.[452]

Similar to DBCTM, we note that some of Aurizon Network's assets are depreciated over a period less than the physical lives of the assets. For example, since the approval of its 2010 access undertaking (UT3), Aurizon Network applies depreciation using:

- a rolling 20-year life for assets included in the RAB post 1 July 2009[453]
- physical lives for assets included prior to 1 July 2009.

When the QCA approved the rolling 20-year life, we considered that:

> *QR Network has proposed a significant capital expenditure program in order to provide increased and more secure capacity for its customers. Indeed, the capital expenditure proposed over the term of the 2009 undertaking of $1.35 billion represents around 42% of the opening asset value for the 2009 regulatory period, and this does not include significant allowances for expenditure on major projects such as GAPE, Wiggins Island or Surat Basin. As such, the Authority can understand, to an extent, QR Network's reasons for wanting to reduce the risk that it will not recover such costs.*[454]

However, we note the rolling 20-year life proposal was not considered in isolation:

> *but rather has had regard to it as part of its overall assessment of the balance of the risks and rewards proposed by QR Network in the 2009 DAU.*[455]

In its 2014 DAU, Aurizon Network proposed applying a 25-year cap to the life of all its assets for depreciation purposes. The 25-year period was calculated by considering the marketable reserves and production rates of mines in the central Queensland coal region (i.e. a significantly wider area than the Hay Point catchment).

However, the QCA refused to approve Aurizon Network's proposal in its 2014 draft decision on maximum allowable revenue (MAR), as it was:

> *unconvinced by Aurizon Network's case that there has been a material change of risk from UT3 which would support changing the depreciation approach again.*[456]

We note that, in response, Aurizon Network accepted the draft decision and proposed to re-evaluate the suitability of the approach in future regulatory periods.[457]

More recently, the QCA's consolidated draft decision reaffirmed this position:

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[451] IPART 2014: 30.
[452] DBCTM sub. 2: 22, 24–25.
[453] The rolling 20-year life operates by capping the useful lives of assets included in the RAB post 1 July 2009 at 20 years. Where an asset is capped at 20 years in one undertaking, it would have depreciation calculated in the next undertaking on the basis of their remaining useful life or 20 years—whichever is least.
[454] QCA 2009: 36.
[455] QCA 2009: 35.
[456] QCA 2014, Aurizon Network 2014 DAU, MAR draft decision, p. 177.
[457] Aurizon Network, 2014 DAU, sub. 59: 160.

> *[W]e do not think that changed conditions since UT3 justify a change to the depreciation method. Specifically, we continue to consider that asset stranding risk is acknowledged through the rolling 20-year depreciation for new assets.*[458]

We consider our MAR draft decision and consolidated draft decision on the Aurizon Network proposal highlight some of the factors in section 138(2) of the QCA Act we must balance when considering DBCTM's proposal.

As identified above, Aurizon Network is compensated for asset stranding risk through the rolling 20-year depreciation, just as DBCTM's assets are depreciated over an estimate of economic life rather than the physical life of the assets. To further accelerate depreciation in the absence of a material increase in asset stranding risk is likely to disproportionately impact the interests of current users in favour of DBCTM and future access seekers, thereby inappropriately transferring risk to current access holders and seekers (ss. 138(2)(c), (e) & (h)).

5.2.7 Conclusion

While we accept the Australian coal market is currently experiencing short-term difficulties, given the evidence provided, including expert evidence, we are not persuaded that DBCTM has demonstrated that its asset stranding risk has increased materially:

- The sound economic fundamentals of the Queensland metallurgical coal industry, which includes those firms in the DBCT catchment, position the industry as being on the low part of the international cost curve and able to withstand significant and protracted coal market downturns.[459]
- Economic barriers (e.g. additional railing costs) and practical barriers (e.g. lack of below-rail capacity) prevent users from transferring capacity to alternative terminals, which severely limits competition from other ports and gives DBCT substantial monopoly power.
- Estimates of the medium and long-term supply of coal to DBCT suggest an expected Terminal life of (at least) 40 years as at 2015.

Therefore, after having regard to the criteria in section 138(2) of the QCA Act, we do not consider it appropriate to approve DBCTM's proposal. We consider the proposal:

(a) inappropriately accelerates the return of capital to DBCTM—given asset stranding risk has not materially increased (ss. 138(2)(c) & (h)).

(b) inappropriately transfers costs from future access seekers to current access holders and seekers, through higher depreciation charges over the forthcoming regulatory period (s. 138(2)(e)).

(c) does not promote the economically efficient investment, operation and use of DBCT, given the intertemporal transfer of costs between access seekers and holders—which would adversely affect dynamic efficiency (s. 138(2)(a)).

However, section 138(2) of the QCA Act requires us to have regard to a number of factors when deciding whether to approve the DAU. In this context, we have used our judgement to maintain the economic life applied in earlier undertakings. We also consider it is appropriate to do so in

[458] QCA 2015d: 180.

[459] Even if individual coal companies were to default due to poor financial performance in other countries, the sound economics of the Queensland industry means that those Queensland operations will either be sold or restructured as independent entities that would continue operations.

the interests of regulatory certainty and the existence of a stable, predictable regulatory framework (s. 138(2)(h)).

We are open to adjusting the economic life of DBCT where DBCTM faces a material change in asset stranding risk, but such an adjustment requires robust justification. Should asset stranding risk increase materially, we could consider changes to the economic life as part of a future regulatory reset.

Draft decision 5.13

(1) After considering DBCTM's proposal to apply straight-line depreciation based on economic life of 25 years, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to apply straight-line depreciation to the Terminal's fixed assets, assuming an economic constraint of 50 years from 2004—which implies an end date of 30 June 2054. This is consistent with the 2010 AU.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

5.3 Depreciation of spares

5.3.1 DBCTM's 2015 DAU proposal

DBCTM proposes to depreciate spares that form part of its original DORC asset valuation over a period of 15 years.

The spares included in the initial DORC asset valuation are currently indexed for actual inflation, and this inflationary gain is deducted from DBCTM's ARR. DBCTM receives a return on capital for these spares, but does not receive a return of capital. DBCTM said it therefore has no way of recovering its capital when operations cease.[460]

DBCTM submitted that a 'prudent terminal operator holds spare terminal assets to ensure that unforeseen breakdowns do not result in long periods of reduced export capacity'.[461] DBCTM said it maintains a reasonably constant inventory of spares and will continue to do so, as long as the Terminal continues to operate.

The impact of DBCTM's proposal on the ARR and terminal infrastructure charge (TIC) is shown in Table 17.

[460] DBCTM, sub. 2: 29; QCA correspondence with DBCTM, 13 January 2016
[461] DBCTM, sub. 2: 29

Table 17 Impact of depreciation of spares on the ARR and TIC

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
2015 DAU proposal ARR ($ '000s)	260,553.80	261,589.68	261,219.95	260,357.27	262,698.61
2015 DAU proposal without depreciation of spares ($'000s)	258,377.83	259,451.97	259,123.78	258,306.11	260,695.91
Impact of proposal on TIC ($)	$0.0256	$0.0251	$0.0247	$0.0241	$0.0236

History of depreciation of DBCT spares

We recognise the treatment of spares for the purposes of depreciation has varied depending on whether the spares relate to the initial DORC valuation or an expansion (Phases 1 and 2/3).

For the first access undertaking in 2006, we accepted advice from our consultant, Maunsell Australia, that spares should not be depreciated as they are considered to be held and used as new. Specifically, the Maunsell advice said:

> *Spares are generally allowed as a set of assets held for specific use. They are an optimal set given the opportunity to standardise on modern replacement assets. Depreciation is generally not applied to these assets and a contention that these assets might deteriorate while being held makes their usefulness questionable.*[462]

However, between 2006 and 2010, DBCTM submitted a series of capacity expansion DAAUs to us. These DAAUs contained a package of arrangements to facilitate the expansion of the Terminal to 85 mtpa. As part of this package, we approved for expansion-related spares to be depreciated over a 15-year period.

For the 2010 AU, DBCTM submitted (and we approved) a proposal to not depreciate spares included in the initial DORC valuation. This maintained the treatment of spares consistent with the 2006 AU.

However, for the 2010 AU, we did not consider the depreciation of spares in isolation. As we noted at the time, the 2010 AU represented a negotiated package of arrangements that was satisfactory to DBCTM and users.[463]

5.3.2 Stakeholders' submissions

The DBCT User Group said the existing treatment of spares should be retained for the upcoming regulatory period. The DBCT User Group said Maunsell's principle still holds, and DBCTM receives the return of capital component on the spares once they are in use.[464]

[462] Maunsell, 2005.
[463] QCA 2010, ii.
[464] DBCT User Group, sub. 11:21–22.

5.3.3 QCA analysis and draft decision

We note that DBCTM and the DBCT User Group have competing views on whether spares should be depreciated.

We also note the QCA has previously approved two different treatments for depreciating spares, depending on whether they form part of the initial DORC valuation or an expansion. This distinction occurred largely as a result of separate spares proposals being considered as a package of arrangements in the expansion DAAUs and 2010 AU, rather than a considered position in isolation.

After considering the two competing positions, we consider it the better view that DBCTM should receive a return of capital for spares included in the initial DORC valuation.

We note the Maunsell report said it is appropriate for DBCTM to maintain an inventory of spare parts 'to ensure continuity of service to meet user needs'.[465] In this context, we consider maintaining an inventory of spares is a necessary and prudent cost for providing access to the service at DBCT.

Furthermore, we consider it is in the interests of access seekers and holders for DBCTM to maintain an inventory of optimal spares—to the extent such spares assist in reducing the length of time required to address unforeseen breakdowns (s. 138(2)(e)).

We have considered the DBCT User Group's submission (see above) but disagree, as we consider DBCTM does not receive the return of capital component on spares included in the initial DORC valuation once they are in use.

Therefore, if we maintained our position in the 2006 AU, DBCTM would receive the return on capital component of its investment in spares but not its return of capital. We consider this is not an appropriate outcome as, consistent with the pricing principles, DBCTM should receive a return that is at least enough to meet the efficient costs of providing access (s. 168A(a)).

Furthermore, DBCTM confirmed that the spares included as part of the initial DORC valuation 'no longer exist, having been used or disposed of in the last 10 years.' [466]

In a similar context, we note the AER approved for Aurora Energy to depreciate its spares once they become an operational part of the network. In such circumstances, the asset is then depreciated according to the asset life of the relevant asset class.[467] Further, the AER also approved depreciation for emergency spares in Endeavour Energy's 2015 distribution determination.[468]

What is an appropriate depreciation period for spares?

DBCTM said that under Australian Accounting Standards, spares that can only be used in connection with a particular asset do not have a useful life of their own. Therefore, they should be depreciated over the useful life of the asset.[469]

However, DBCTM said it does not maintain and assign spares to each individual asset or asset class for modelling purposes and as a result, proposes to depreciate spares over a 15-year period.

[465] Maunsell 2005: 53.
[466] Confirmed with DBCTM, email dated Wednesday 13 January 2016.
[467] AER 2012: 209.
[468] AER 2015: 5–9.
[469] DBCTM, sub. 2: 29.

While this change results in a departure from our 2006 undertaking position on this matter, we consider this change (i.e. depreciating spares forming part of DBCTM's original DORC valuation) to be appropriate as:

- DBCTM should receive a return of its capital on these spares
- the QCA has confirmed that the spares associated with the original assets have been used.

We note this would result in depreciation being applied consistently between spares related to the initial DORC assets and expansion assets. We also note stakeholders have not raised concerns with the existing 15-year life applied to expansion spares.

Draft decision 5.14

(1) After considering DBCTM's proposal to depreciate spares that form part of its original DORC valuation over a 15-year period, our draft decision is to approve DBCTM's proposal.

(2) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

6 REMEDIATION ALLOWANCE

Since the annual remediation allowance was developed for the first access undertaking, DBCTM has significantly expanded the capacity of the Terminal. For this reason, DBCTM considers that the current remediation allowance is highly unlikely to be sufficient to fund its future site rehabilitation obligations. On this issue, the QCA agrees with DBCTM.

In this context, DBCTM's 2015 DAU proposes a significant increase to the projected site rehabilitation costs, as well as a term until remediation which is shorter than the Terminal's estimated economic life. In combination, these changes produce a very significant increase in the proposed annual remediation allowance—from $0.95 million to $12.8 million.

Our draft decision is to refuse to approve DBCTM's proposed remediation allowance.

While we accept the general methodology proposed for calculating the annual remediation allowance, we do not consider DBCTM has provided sufficient evidence to justify its term to remediation proposal based on a shorter period than the economic life of DBCT. In addition—following a review undertaken by our consultant, Turner & Townsend—we consider the proposed estimate of site rehabilitation costs are likely to be above the efficient costs of rehabilitating the DBCT site. We therefore propose to decrease DBCTM's proposed annual remediation allowance to $5.7 million.

6.1 Annual remediation allowance

6.1.1 Background

The Port Services Agreement (PSA) between DBCTM and DBCT Holdings (representing the State) obligates DBCTM to rehabilitate the DBCT site at the end of the Terminal's life. We understand the PSA defines 'rehabilitate' to mean:

> *(a) Remove the Plant and other structures, fixtures, fittings, plant and equipment from the Onshore Land and Offshore Land and dispose of them in accordance with applicable laws; and*
>
> *(b) Remediate the Onshore land and Offshore Land to its natural state and condition as existed prior to any development or construction activity having occurred on the Premises.*[470]

On the manner of rehabilitation, we understand the PSA indicates the primary lessee must:

> *(a) Rehabilitate in accordance with any applicable laws;*
>
> *(b) Rehabilitate in accordance with DBCT Holdings' reasonable conditions and requirements;*
>
> *(c) Provide such reports regarding Rehabilitation that DBCT Holdings may reasonably require.*[471]

In the first access undertaking in 2006, the QCA approved a $952,710 annual site remediation allowance to meet this rehabilitation obligation. The annual allowance represents the fixed annuity payment required to accumulate the expected, future rehabilitation costs and was based on:

[470] DBCTM, sub. 8: 4-5.
[471] DBCTM, sub. 8: 5.

- an estimated site remediation cost of $30 million in 2004–05 dollars
- an interest rate of 3.5 per cent per annum
- a Terminal life of 40 years.

The 2010 AU maintained the $952,710 annual remediation allowance. At the time, DBCTM noted that:

> *In view of recent expansion at the Terminal, DBCT Management considers that this is a conservative figure. However, in line with its agreement with users on a package of measures for this 2010 Draft Access Undertaking, DBCT Management is proposing to roll forward this amount for the next regulatory period.*[472]

Noting the 2010 AU comprised a package of measures, the QCA did not undertake a detailed review of the annual remediation allowance or the estimated cost of rehabilitation in isolation.[473]

Table 18 compares the 2010 AU with DBCTM's 2015 DAU proposal and provides an overview of stakeholders' comments.

Table 18: DBCTM 2015 DAU remediation allowance overview

2015 DAU proposal	*2010 AU*	*Stakeholders' comments*	*QCA comments*
Remediation allowance			
Proposes an annual remediation allowance of $12.8 million, assuming a remediation cost of $847 million.	Non-indexed annual charge of $952,710, assuming a remediation cost of $30 million (2004–05 dollars).	Uncertain regarding the standard of the remediation obligation. Did not support the probability weights applied to the period until remediation.	Refer to section 6.2

6.2 DBCTM's 2015 DAU proposal

DBCTM has proposed to increase the annual remediation charge from $952,710 to $12.8 million. DBCTM said the increase is largely driven by a report from Hatch, which estimates the rehabilitation cost for the Terminal site is approximately $847 million (in 2015–16 dollars).

Cost of DBCT site rehabilitation

DBCTM said the earlier estimate of site rehabilitation only reflects stages 1 to 6 of the Terminal, and the scope of remediation has increased to include:

- additional Stage 6 items
- the Short Gain expansion and Stage 7X Phase 1, 2 and 3
- NECAP 2009–2015 and SR1 Replacement Project
- Water quality improvement Phase 2 and 3 Works.[474]

[472] DBCTM 2010: 37.
[473] DBCTM 2010: 37.
[474] DBCTM, sub. 2: 52.

Furthermore, DBCTM said the assumptions underpinning the 2006 estimate of rehabilitation costs 'were not published' but it considered that this previous amount is 'only likely to fund an amount sufficient to mothball the Terminal.'[475]

Rather than mothballing the Terminal, DBCTM considered the rehabilitation task is likely to be significant and would require:

> *dismantling and removal of all structures, fixtures, fittings and plant (including pylons in the seabed) and the restoration of land.*[476]

Therefore, to ensure the remediation allowance is sufficient to fund its obligations, DBCTM engaged Hatch to provide an estimate of the site rehabilitation costs.[477]

Hatch generated its estimates using a factored approach—which calculates rehabilitation costs as a percentage of the unit replacement cost for each asset—linking the cost of deconstruction to the cost of construction. Using this factored approach, Hatch provided three estimates of the rehabilitation costs at DBCT:

Table 19: Hatch estimates of DBCT remediation costs ($m, June 2015)

Mothball	*Minimal rehabilitation*	*Full rehabilitation*
$34.6	$439.4	$826.6

Source: DBCTM, sub. 8: 54.

Of the three estimates provided by Hatch, DBCTM has assumed that full rehabilitation is required, given the requirements understood to be contained in the PSA.[478]

Assumptions for annuity calculation

Using Hatch's full rehabilitation estimate, DBCTM engaged Finity to calculate DBCTM's potential future remediation obligations. Similar to the 2006 and 2010 AUs, Finity determined this by applying an annuity model—whereby the annual allowance represents the fixed annuity payment required to accumulate to a future value equal to the expected future rehabilitation costs.

Besides the estimated future rehabilitation costs, a key input to calculating the annuity is the length of time until remediation. DBCTM has sought to recover the remediation cost over a 32-year time period (i.e. from 2016 to 2048), based on various probability-weighted, Terminal shutdown scenarios, as outlined in Table 20 below.

[475] DBCTM, sub. 2: 54.
[476] DBCTM, sub. 2: 52.
[477] DBCTM, sub. 2: 53. A copy of the Hatch report is available on the QCA's website.
[478] DBCTM, sub. 2: 54, 56.

Table 20: Probability weighted term to remediation

Scenario	*Years to remediation*	*Implied date of remediation*	*Probability*
Economic life (Wood Mackenzie estimate)	25	June 2041	50%
Environmental intervention	20	June 2036	5%
QCA assessment	38	June 2054	25%
End of lease	35	September 2051	15%
49 year extension	84	September 2100	5%
Weighted estimate	**32**	**June 2048**	-

Source: DBCTM, sub. 9: 8.

DBCTM considered it appropriate to adopt a probability weighted term to remediation, given the uncertainty about timing and cost of remediation.[479]

Furthermore, DBCTM said:

> *…there is limited, if any, relevant historical data to inform these probabilities and therefore a degree of judgement is required. However, this is a more transparent approach as DBCTM will need to disclose the variables underpinning its estimate and its rationale for the assumptions that have been made.*[480]

Using the probability weighted estimate of 32 years until remediation, DBCTM proposed an annual remediation allowance of $12.8 million, which assumes:

- a total estimated rehabilitation cost of $847 million (June 2016 dollars)
- an inflation rate of 2.5 per cent per annum
- an interest rate (which is to say, the discount rate for the purpose of determining the annuity) of 7.46 per cent per annum (consistent with DBCTM's proposed WACC).

It also assumed the remediation charges already collected are accrued at the relevant WACC for each regulatory period (i.e. a 'sinking fund').

Noting assumptions and probabilities could change over time, once the annuity model has been established, DBCTM proposed to review it on a periodic basis as part of each access undertaking review.[481]

6.3 Stakeholder's submissions

In response, Vale submitted:

- There is significant uncertainty regarding the standard of the remediation required—Vale therefore questioned the appropriateness of the 'high point' estimate.
- Technological advancements over the life of the lease could provide alternative remediation options at lower cost.

[479] DBCTM, sub. 2: 53.
[480] DBCTM, sub. 2: 53.
[481] DBCTM, sub. 2: 53.

- It does not support allocating a 50 per cent probability to a 25-year economic life—as remediation costs are a requirement of the Terminal lease, it considers the timing of the remediation must be referenced to the life of the lease.
- There is a high probability that DBCTM will take advantage of its 49-year lease option, given the Wood Mackenzie report predicts continued growth in the seaborne coal market.
- The Port of Hay Point has been designated as a priority port development area by the 2014 Queensland Ports Strategy paper, suggesting long-term use of the Terminal area.[482]

The DBCT User Group accepted the need for periodic review of the remediation cost estimate, but made the following comments:

- There is significant uncertainty regarding the standard of the remediation required—in circumstances where the Finity report simply assumes the highest estimate from the Hatch report.
- Technological advancements could provide alternative remediation options at lower cost.
- The Hatch report is largely based on arbitrary and unsubstantiated cost assumptions, which need to be reviewed.
- The scenarios outlined in the Finity report are questionable. The DBCT User Group strongly disagreed that the remediation could occur prior to the end of DBCTM's lease and considered it 'almost certain that DBCTM will exercise its option to extend the lease by another 49 years'. Consistent with Vale's submission, the DBCT User Group also reject any scenario that assumes a period for remediation before the end of the current lease term.
- In the event the Terminal is not viable in the very long term, there is a likelihood of a potential alternative use of the Terminal during the term of the lease and beyond—as a deep water port has significant option value.
- In any case, it would be in DBCTM's best interest to delay remediating the site until the end of the lease period, to afford scope for any new alternative use opportunities. [483]

6.4 QCA consultant's advice

Given the large increase in expected rehabilitation costs, the QCA engaged Turner & Townsend (T&T) to review the prudency and efficiency of Hatch's full rehabilitation estimate, as well as to provide an independent estimate of the rehabilitation costs.

A copy of the T&T report is available on the QCA's website, with the key issues summarised below.

Review of the Hatch report

T&T described Hatch's methodology as a factored approach—whereby the rehabilitation cost is calculated as a percentage of the unit replacement costs for each asset (with the exception of marine structure removal which was based on a historic cost estimate). T&T said Hatch's factored approach assumed the cost of deconstruction is directly linked to the cost of construction.[484]

[482] Vale, sub. 10: 9–10.
[483] DBCT User Group sub. 11: 16–17.
[484] T&T 2016: 19.

In general, T&T considered Hatch's estimate 'somewhat' prudent—although it may be too strict an interpretation of the requirements included in the PSA, rather than current industry practice.[485]

However, T&T considered the costs included in the Hatch report are not efficient, highlighting a number of concerns including:

(a) *High level nature of the methodology applied*—the methodology adopted by Hatch is a factored approach which assumes the cost of rehabilitation is a percentage of the asset valuation. T&T said this methodology 'should only be used as a high level indication of costs due to sensitivity.' T&T said 'a semi detailed approach would be more appropriate for the purposes of a DAU.'

(b) *Subjective use of the methodology*—T&T said 'although the [factored approach] process is an acceptable practice, without a defined approach to the determination of percentages applied the estimate is very subjective and possibly inaccurate.'

(c) *Double dipping*—outside of the high-level nature and subjective use of the methodology, T&T noted Hatch's factored approach calculated rehabilitation costs as a percentage of the asset valuation rather than the installed value of assets and this is likely to result in 'double dipping' of rehabilitation costs as the costs included in the asset valuation are greater than the installed value of the asset in some cases.[486]

As an example of this difference between the asset valuation and the installed value T&T said that 'Conveyor s13 was constructed in a live operating environment and consequently s13 rehabilitation costs (A$14M) is a significantly higher cost than Conveyor s3 (A$2.3M) and Conveyor s4 (A$1.7M) that are of similar length.'

(d) *Percentages applied lack sensitivity*—the percentages applied to determine rehabilitation costs are consistently in units of 10 per cent, which is unlikely to provide an appropriate level of sensitivity. T&T said applying the units in ten per cent increments 'determines the sensitivity in this approach in units of 10%, which we consider is a significant weakness in the approach.'

(e) *Treatment percentages disregard the cost of materials included in DBCTM's asset valuations*—elements with high supply costs should attract lower treatment percentages, while elements that have a lower supply cost should attract a higher treatment percentage.

For example, T&T disagreed with Hatch's 100 per cent treatment factor applied to dams on the Terminal site. T&T said it 'would expect this cost to be significantly lower' as the dams can be backfilled with material on site.

(f) *Factors applied are not consistent with the rehabilitation treatment*—the overall increase from the 'Do minimal' to the 'Full rehabilitation' estimate ($392 million) is higher than expected, given the increase in scope of activity required.

(g) T&T identified a number of areas where the difference in costs between the Hatch 'Do Minimal' and 'Full Rehabilitation' estimates did not reflect the increase in scope. T&T said this is due to Hatch applying factors which are inconsistent with the defined

[485] T&T 2016: 3.

[486] T&T said that, when applying a factored approach, the percentages should be applied to the installation cost of each asset (T&T 2016: 21).

rehabilitation treatment. For example, the difference between the 'Removal to Seabed' treatment and 'Demolition and Complete Removal' treatment is a relatively small increase in scope yet represents an increase in cost of 86 per cent ($160 million). [487]

Turner & Townsend's independent estimate

The QCA also engaged T&T to provide an independent estimate of the costs of rehabilitating the DBCT site.

The quantum of costs to rehabilitate the site depend upon the interpretation given to what is required by the PSA. Accordingly, in preparing its independent estimate, T&T reviewed the requirements included in the PSA, as understood and described by Hatch.[488] T&T considered that:

> *In the event of site closure, the likely rehabilitation work scope will be to return the site to a safe and stable condition, appropriate for the likely (open land) use. This complies with the industry standard of "return of disturbed land to a stable and productive condition."*
>
> *Although the lease states there is an obligation to "remediate the Onshore Land and Offshore Land to its natural state and condition as existed prior to any development or construction activity having occurred on the Premises" Clause 22.4 goes on to state "(b) Rehabilitate in accordance with DBCT Holdings' reasonable conditions and requirements."*
>
> *This reasonable conditions clause is significant as it is likely to preclude any requirement to rehabilitate to a higher standard than is required for open space.[489]*

Furthermore, T&T said there is no indication from a legislative perspective that the DBCT site cannot be rehabilitated to a stable condition that is suitable for all uses and complies with relevant policy.[490] This approach is consistent with terminal rehabilitation requirements at other similar assets.[491]

T&T said:

> *Neither the minimal work scope, nor full rehabilitation, are likely to be acceptable and/or required. Removal of structures to an agreed depth and re-profiling are likely to form part of a technically defensible and practicable scope.[492]*

Given its interpretation of the obligations placed on DBCTM (as described by Hatch), T&T said the project scope would therefore require a combination of the 'Do Minimal' and 'Full Rehabilitation' options identified in the Hatch Report.

T&T considered the appropriate scope of rehabilitation would be likely to include:

> *…partial removal of structures and reinstatement, as opposed to leaving slab foundations, roads, parking or footpaths in place or full return to a greenfield condition.*
>
> *This would involve removal of infrastructure and assets to a sub-ground level and reinstatement of landforms and vegetation cover proving relatively straightforward for onshore, rather than restoration of all conditions to pre-existing conditions.*

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[487] T&T 2016: 2, 20–24.
[488] DBCTM, sub. 8: 4-5.
[489] T&T 2016: 19.
[490] T&T engaged a sub-consultant, Environmental Resources Management Australia Ltd, to provide a high level assessment of DBCTM's obligation to rehabilitate under the Port Services Agreement, current legislation and industry standard practice. T&T 2016 Appendix B provides an overview of the relevant environmental legislation.
[491] T&T 2016: 18.
[492] T&T 2016: 19.

> *Removal of jetties and marine piles poses a technical challenge, however it is unlikely to be considered necessary (or reasonable and technically achievable) to rehabilitate the marine piles back to original condition.*
>
> *Much of the decommissioning involves recycling of demolition materials and crushing and reuse of concrete on site, and as such it is likely that detailed costing of the scope by Turner & Townsend will result in a materially different cost estimate to that it is assumed based on a percentage of Asset Valuation.*[493]

Given the scope identified above, T&T sought to construct its estimate on a 'first principles' basis where possible, using a 'semi-detailed approach'—a higher class estimate than the factored approach adopted in the Hatch report.[494]

To produce its estimate, T&T developed item descriptions and quantities from drawings and information provided by DBCTM. T&T said it applied first principles estimating for compiling site construction labour, equipment and consumable rates. The construction hours have been formulated from using known, accepted and achievable production rates on an 'hours per unit of' measurement basis. Additional non-working time factors have been applied to off-set lost time.[495]

Applying this approach, T&T estimated the cost of rehabilitating the DBCT site to be $389.68 million. Table 21 provides a breakdown of the T&T and Hatch estimates.

Table 21: Turner & Townsend and Hatch rehabilitation estimates ($m, 2015)

Area	*T&T*	*Hatch*
Rail loop and receival	17.74	28.77
Inloading	9.43	66.91
Stockyard	34.38	193.92
Outloading	236.82	409.43
Infrastructure/other civil works	20.9	107.75
Site generally	4.19	–
Final site rehabilitation	66.22	–
Buildings	–	2.83
Electrical	–	17.64
Construction facilities	–	1.7
Contribution to external services	–	0.48
Total	**389.69**	**829.43**

Source: Turner & Townsend 2016: 24.

Note: Turner & Townsend (2016: 22) said the Hatch 2015 Rehabilitation Valuation includes a $2.9 million rounding error—Hatch's rehabilitation summary estimate is $826.6 million while the total of the Full Rehabilitation valuation is $829.43 million.

[493] T&T 2016: 14.

[494] AACE International Recommended Practice No. 47R-11 Cost estimate classification system—as applied in the mining and mineral processing industries.

[495] T&T 2016: 11. Section 4.3 of T&T's report contains a more detailed discussion of the assumptions supporting the independent estimate.

Finally, T&T responded to stakeholder submissions that suggested technological advancements over the life of the lease could provide alternative remediation options at lower cost.

T&T acknowledged it is possible for technological improvements to occur, and that these could provide alternative remediation options. However, T&T's independent estimate is based on 'current known facts' and:

- it is not aware of any technological improvements under development that may significantly affect cost
- more stringent environmental legislation in the future could offset any technological advances achieved.[496]

6.5 QCA analysis and draft decision

The annual remediation allowance aims to provide DBCTM with sufficient funds to meet its rehabilitation obligations under relevant legislation, and pursuant to its lease from the State, at the end of the Terminal's life. Broadly speaking, we consider it is in the legitimate business interests of DBCTM (s. 138(2)(c) of the QCA Act) to seek to recover the costs of remediation while the Terminal is operational—as, once the Terminal ceases to operate, DBCTM will not have the capacity to collect additional revenue to cover these costs.

In addition, we agree with DBCTM that the original estimate of $30 million is unlikely to achieve this aim. Indeed, we note that T&T said the original estimate 'is evidently fundamentally flawed by comparison to both the Turner & Townsend estimate and the Rehabilitation Valuation 2015 (prepared by Hatch).'[497]

However, we are not persuaded that the estimated cost for rehabilitation, and the subsequent remediation allowance, achieves an appropriate balance of the factors we must have regard to in section 138(2) of the QCA Act—we consider the proposal would provide DBCTM with an allowance (i.e. annuity) for rehabilitation that is above the efficient costs of remediation, at the cost of access seekers and access holders.

Therefore, our draft decision is to refuse to approve DBCTM's proposed remediation allowance. Our analysis on which we base this decision is discussed below.

Scope and estimate of remediation required

We note there are divergent views between DBCTM, T&T and other stakeholders on the standard required for rehabilitation of the Terminal site.

DBCTM has interpreted the PSA as requiring full rehabilitation, given it has 'no information or evidence to suggest that anything less than full rehabilitation would be acceptable.'[498] By contrast, T&T estimated that a less extreme combination of the 'Do minimal' and 'Full rehabilitation' scenarios would be required.

In addition, the DBCT User Group and Vale considered there is uncertainty regarding the standard of remediation required, and did not agree that merely adopting the highest cost rehabilitation scenario was appropriate.

[496] T&T 2016: 16.
[497] T&T 2016: 30.
[498] DBCTM, sub.2: 52.

After taking into account the differing views, including expert opinions, we consider the better position is to accept T&T's advice on the required scope of rehabilitation to meet the PSA's requirements.

We consider DBCTM's proposed scope of rehabilitation—that is, returning the DBCT site to its natural condition—is not appropriate to approve given the terms of the PSA. Based on T&T's advice, and given the PSA refers to rehabilitating the Terminal site in accordance with DBCT Holdings' reasonable conditions and requirements, we consider a more appropriate assessment of the rehabilitation scope would be to return the Terminal site to a stable and productive condition. That is, an appropriate scope of rehabilitation reflects a combination of the 'Do minimal' and 'Full rehabilitation' scenarios.

Furthermore, we note T&T's proposed combination of the 'Do minimal' and 'Full rehabilitation' scenarios is consistent with both industry standard practice and rehabilitation requirements at similar assets.[499]

In addition to the scope of rehabilitation required, we do not accept the methodology applied by DBCTM to estimate the costs associated with a full rehabilitation approach.

In this regard, we note that T&T raised a number of concerns with DBCTM's methodology, suggesting that it produces an estimate above the efficient costs of rehabilitating the Terminal site. A summary of these concerns include:

- the high-level nature and subjective use of the methodology applied
- 'double dipping'
- the treatment percentages lack sensitivity and disregard the cost of materials
- inconsistencies between factors applied in rehabilitation scenarios.

After considering T&T's review of DBCTM's proposal, we consider T&T's concerns to be reasonable and note that DBCTM's submission does not provide sufficient reason for us to displace these concerns. Therefore, we do not consider DBCTM's proposed estimate of the rehabilitation cost is consistent with the pricing principles (s. 138(2)(g) of the QCA Act), as it is likely to provide DBCTM with an allowance above the efficient costs of rehabilitating the Terminal site.

Noting these shortcomings, we consider T&T's estimate is likely to provide a more reasonable estimate of the efficient costs of rehabilitating the DBCT site, given T&T's estimate adopts a more detailed approach on a first principles basis rather than a factored approach.

We consider adopting the T&T estimate approach is in the *legitimate* business interests of DBCTM, as it will allow DBCTM to recover its efficient costs of providing access to the declared service (s. 138(2)(g)). Furthermore, we consider this is consistent with the object of Part 5 of the QCA Act, given it provides cost-reflective signals for the efficient use of the declared service (s. 138(2)(a)). In taking this approach, we have also had regard to the legitimate interests of access seekers and access holders, in not requiring them to fund a rehabilitation allowance which is higher than an efficient level (s. 132(8)(e)). We have also had regard to the public interest in ensuring appropriate and efficient funding is made available for rehabilitation of the site in the future (s. 138(2)(d)).

[499] T&T 2016: 18.

Annual remediation allowance methodology

DBCTM engaged Finity to calculate an annual remediation allowance using Hatch's rehabilitation cost estimate. Finity calculated the annual allowance using an annuity model—whereby the annual remediation charge is set to accumulate to a value equal to the estimated cost when the Terminal is decommissioned.

We support Finity's annuity approach to estimating the annual allowance, noting it is similar to the annuity methodology used previously in the 2006 and 2010 AUs. Furthermore, we note that stakeholders have not commented on the annuity methodology itself.

However, beyond the rehabilitation cost estimate, Finity has relied on a number of other inputs for the annuity calculation, including the:

- term to remediation
- applicable interest rate
- size of the current notional sinking fund
- timing of DBCTM's collection of the annual remediation allowance each year[500]
- rate of inflation.

Our analysis of each assumption in the annuity calculation follows below.

Term to remediation

As highlighted by Finity, the annual remediation allowance is 'very sensitive' to the term until remediation.[501] Therefore, we consider the term to remediation assumption should be robust and supported by evidence. This will assist in setting a remediation allowance which efficiently allocates costs between parties, providing a return that is at least enough to meet DBCTM's efficient costs of providing access (s. 138(2)(g) of the QCA Act).

Finity has estimated the term until remediation to be 32 years (from 2016), by applying probabilities to various shutdown scenarios (see Table 20). These probabilities were chosen, following discussions with DBCTM and its consultants—we note DBCTM has not provided further evidence supporting the probabilities for each scenario.[502]

In principle, we consider the term until remediation assumption should equal the operating life of the Terminal, as this represents the time period over which DBCTM can recover a remediation allowance from users. This is similar to the determination of the depreciation allowance—where the depreciation component is calculated and returned over the life of the Terminal.

Given this, we consider the term to remediation assumption should equal the economic life assumption assumed for depreciation—that is, 38 years from 2016. We consider this economic life assumption is the most likely estimate of the life of DBCT, and reflects the underlying risk profile of the Terminal, given it reflects the expected supply of coal to the Terminal over the medium to long term.[503]

[500] Finity did not explicitly identify its timing assumption in its report—but it is evident through its annual remediation allowance calculation.
[501] DBCTM sub. 9: 8.
[502] DBCTM sub. 9: 8.
[503] Chapter 5 of this draft decision discusses the economic life of DBCT in more detail.

By contrast, DBCTM has not provided sufficient evidence to support why its proposed term to remediation should be shorter than the economic life of the Terminal. Therefore, we consider the proposal inappropriately accelerates the accrual of DBCTM's funds for remediation, and is likely to provide DBCTM with a return that is greater than the efficient costs of investment in the Terminal (s. 138(2)(g)).

Furthermore, we consider the shorter term to remediation inappropriately transfers costs from future access seekers to current access holders and seekers, through a higher than necessary remediation allowance over the forthcoming regulatory period (s. 138(2)(e)).

Therefore, our draft decision is to assume a term to remediation equivalent to the economic life of DBCT—that is, 38 years from 2016.

Interest rate for calculating the remediation allowance

The annuity model uses the interest rate to calculate the earnings that could be achieved on remediation charges collected by DBCTM. Based on Finity's report, DBCTM proposed to assume an interest rate equal to DBCTM's WACC. This reflects the expectation that the remediation charge will be reinvested where it can earn a return equivalent to its WACC.[504]

We consider it is appropriate to set the interest rate equal to DBCTM's WACC, as:

- this represents the opportunity cost of funds accrued through the annual remediation allowance
- stakeholders did not comment on using the WACC as the interest rate.

Our draft decision is therefore to apply the QCA-approved WACC as the interest rate (i.e. the discount rate for the annuity) for the purposes of calculating the annual remediation allowance. We note in this regard that we have not required DBCTM to hold the rehabilitation amounts in escrow, so DBCTM is free to reinvest those amounts (which would then produce a WACC return). While this draft decision[505] includes an indicative WACC of 6.10 per cent per annum, we note this is likely to change across future access undertaking periods.

Size of current notional sinking fund

Applying the same opportunity cost principle above, DBCTM has proposed, based on Finity's report, to apply the WACC from previous undertakings to estimate the value of the annual remediation charges already collected.

Finity estimated the existing notional sinking fund to be $21.3 million as at 30 June 2016. Finity calculated this by accruing the current annual remediation allowance of $952,710 at the applicable WACC rate—that is, 9.02 per cent per annum from 2005–10 and 9.86 per cent per annum in 2010–15.

For the same reasons as above, we consider it appropriate to accrue existing charges at the relevant WACC for each access undertaking period.

Timing of payments each year

Finity's proposed annuity model assumes DBCTM recovers the total annual remediation allowance at the beginning of each financial year. This assumption reduces the size of the annual

[504] DBCTM, sub. 2: 56.
[505] Refer to chapter 4 of this draft decision for our analysis on DBCTM's WACC.

remediation allowance required as it assumes that interest is earned on the annual allowance for an entire year.

We consider this assumption is not appropriate, as it is not likely to represent the timing of annual allowances collected by DBCTM. We note the annual remediation allowance is a component of the ARR, which is recovered across the entire year. Therefore, we consider DBCTM's beginning-of-year-allowance assumption does not provide DBCTM with a sufficient allowance to meet its future site rehabilitation obligations—as it overstates the period available to earn interest on the allowance by six months (s. 138(2)(g)).

Accordingly, we propose to assume the annual remediation allowance is recovered in equal monthly instalments over the financial year—which, for modelling purposes, is equivalent to assuming DBCTM recovers the total annual remediation allowance in the middle of each financial year.

In isolation, this adjustment to the timing assumption increases our proposed annual remediation allowance by approximately $167,000 per annum.

Rate of inflation

Based on the Finity Report, DBCTM has proposed to assume 2.5 per cent per annum inflation for the remediation allowance calculation. In its report, Finity assumed an inflation rate of 2.5 per cent per annum as this 'is the CPI rate that the RBA targets over the long term.'[506]

We consider this is an appropriate assumption, noting that:

- it reflects the expected inflation rate adopted for ARR modelling purposes in our draft decision
- stakeholders did not comment on applying a 2.5 per cent per annum inflation assumption.

6.6 Conclusion

Based on advice from T&T, we accept that the remediation allowance approved in the 2006 and 2010 AUs is unlikely to be sufficient to meet DBCTM's future rehabilitation obligations. However, we are not persuaded that DBCTM's proposed allowance is appropriate given:

- T&T has identified that the estimated cost of remediation is unlikely to be efficient given the subjective and high level nature of the estimate provided.
- DBCTM has not provided evidence to support its term to remediation assumption.
- The term to remediation assumed is not consistent with the economic life of the Terminal assumed in previous access undertakings (discussed in Chapter 5).

Therefore, after having regard to the criteria in section 138(2) of the QCA Act, we do not consider it appropriate to approve DBCTM's proposal, as it:

- is likely to provide DBCTM with an allowance for remediation that is higher than the efficient costs of future remediation—at the expense of access seekers and holders—given the inefficient site rehabilitation estimate and the inappropriately short term to remediation (ss. 138(2)(e) and (g) of the QCA Act)

[506] DBCTM sub. 9: 8.

- inappropriately transfers costs between generations of access seekers, by over-weighting recovery of rehabilitation costs from current access holders compared with future users of the Terminal (s.138(2)(e))
- does not promote the economically efficient investment, operation and use of DBCT, given the imbalance between DBCTM and access seekers outlined above (ss. 138(2)(a) and (c)).

While we consider DBCTM's proposed rehabilitation cost and term to remediation are not appropriate to approve, we accept the annuity methodology proposed by DBCTM (developed by Finity). We note stakeholders have not commented on this methodology, and it is broadly consistent to the methodology adopted in the 2006 and 2010 AUs.

Therefore, we propose to substitute our parameters into DBCTM's proposed methodology—as outlined in Table 22 below.

Table 22: Remediation allowance comparison—DBCTM proposal and QCA draft decision

Allowance parameter	*DBCTM proposal*	*QCA draft decision*
Interest rate	7.46% (proposed WACC)	6.10% (QCA-approved indicative WACC)
Term to remediation from 2016	32 years	38 years (economic life)
Cost of remediation	$827 million (Hatch estimate)	$389 million (T&T estimate)
Annual remediation charge	$12.8 million	$5.7 million

Note: The remediation estimates from Hatch and Turner & Townsend above both assume 2014–15 dollars.

Source: DBCTM, sub. 8; DBCTM, sub. 9; T&T 2016.

We consider our approach:

- provides DBCTM with an annual remediation allowance that is at least enough to meet the efficient costs of rehabilitating the DBCT site (ss. 138(2)(c) and(g))
- balances the interests of current and future access seekers, given the annual remediation allowance is calculated using the economic life of the Terminal (s. 138(2)(e)).

Finally, we note two of these assumptions, namely the WACC and term to remediation, are time-variant and can be expected to fluctuate across access undertaking periods. Therefore, we consider it appropriate for DBCTM to review these time-variant assumptions at each regulatory reset—to ensure the annual remediation allowance reflects the efficient costs of rehabilitating the DBCT site.

Draft decision 6.15

(1) After considering DBCTM's proposal to increase the annual remediation allowance to $12.8 million, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to include an annual remediation allowance of $5.7 million per annum, which is calculated using the parameters presented in Table 22.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

7 CORPORATE OVERHEADS

DBCTM's 2015 DAU proposes an increase in the corporate overhead allowance to $8.2 million (2016–17 dollars) based on increases in the scale and complexity of Terminal operations since the last review of this allowance in 2005. This compares to a 2015–16 allowance of $6.1 million.

Our draft decision is to refuse to approve DBCTM's proposal, on the basis that two of the three benchmarking methods used by DBCTM's consultant to determine the allowance are unlikely to provide suitable estimates.

However, we consider the third benchmarking method used by DBCTM's consultant, based on a bottom-up approach, provides a plausible estimate of $7.23 million per annum (2016–17 dollars), after adjusting the revenue assumption to align with our proposed 2016–17 ARR value.

7.1 Overview

DBCT PL, which is owned by a majority of Terminal users, is responsible for managing the operations and maintenance of the Terminal. Day-to-day operating and maintenance costs are levied under a 'pass-through' arrangement to users and, therefore, are not incorporated into DBCTM's allowable revenue.

However, DBCTM does incur some operating expenditure which needs to be recovered via allowable revenue. This expenditure comprises three elements: corporate overhead costs; the QCA levy; and the DBCT site remediation allowance.

This chapter considers DBCTM's corporate overhead costs, which include such outlays as governance, staff expenses, investor and external relations, finance, office and general expenses, and regulatory compliance expenses.[507] The DBCT site remediation allowance and the QCA levy are dealt with in Chapters 6 and 8 respectively.

For the 2006 AU, we approved an allowance of $4.6 million for corporate overhead costs indexed at CPI. For the 2010 AU, the corporate overhead allowance was rolled forward as part of a mutual agreement of the parties and escalated to a nominal value of $6.1 million for the 2015–16 year.

7.2 DBCTM's 2015 DAU proposal

DBCTM[508] proposed an annual corporate overhead allowance of $8.2 million (2016–17) compared with the 2015–16 allowance of $6.1 million. DBCTM explained the increase by noting that the corporate overhead allowance had not been reviewed in detail since approval of the 2006 AU, and the increased costs reflected increases in the scale and complexity of terminal operations since that time.

DBCTM's proposed allowance was based on a review of DBCTM's corporate overhead costs by its consultant, Stephen Meyrick (Meyrick).[509] This review estimated the corporate costs that would be incurred by an efficient benchmark entity, rather than DBCTM's actual corporate costs. The

[507] For the cost items included in corporate costs see DBCTM, sub. 7, Table 2: 10–11.
[508] DBCTM, sub. 2: 50–51.
[509] DBCTM, sub. 7.

same benchmark entity was used as the one that applied in previous undertakings—that is, a Brisbane-based, listed entity that has DBCT as its sole asset.

Meyrick stated that, as there was no single correct method for estimating the corporate overhead costs of a hypothetical benchmark entity, the most robust approach was to jointly consider the estimates obtained using several different methods to derive a final estimate.[510]

On this basis, Meyrick used three methods—which differed in their research approaches and analysis—to arrive at estimates (2016–17 dollars) of DBCTM's corporate overhead costs as follows:[511]

- high-level benchmarking, which reviews the regulatory judgements of total corporate overhead costs for a range of infrastructure providers. Meyrick's estimate using this method was $11.6 million.
- component benchmarking, which uses benchmarks from a cross-section of listed companies to develop estimates of the major components of corporate overhead costs. Meyrick's estimate using this method was $8.2 million.
- bottom-up benchmarking, which builds up corporate costs from an assessment of individual cost items. The starting point for this analysis was the breakdown of corporate costs approved by us for the 2006 AU. Meyrick's estimate using this method was $7.8 million.

DBCTM agreed with Meyrick's preference for the median of the estimates obtained using the above three methods to arrive at a final estimate of $8.2 million (2016–17 dollars), on the basis this measure of central tendency minimised the risk that aberrations in the underlying data would distort the estimates.

7.3 Stakeholders' submissions

7.3.1 Vale

Vale did not agree with DBCTM's proposal for the following reasons:[512]

- Revenue was not a good indicator of corporate overhead costs and it was more appropriate to use the principal drivers of costs rather than revenue. Revenue includes the recovery of overhead costs, and potentially double counts the value of assets, as revenue includes both the return of, and on, assets.
- It was unclear whether Meyrick considered that DBCTM was only the owner, and not the Operator, of the asset; this would result in a significant reduction of activities compared to some of the comparator entities.
- Meyrick did not give sufficient consideration to market conditions and the underlying efficiency process of entities providing services to the coal industry. Increasing competitive pressures in the deteriorating coal market had driven significant cost reduction in contract services. This competition should have resulted in DBCTM looking for greater efficiencies rather than increasing costs.

[510] DBCTM, sub. 7:11.
[511] DBCTM, sub. 2, section 3.5: 51.
[512] Vale, sub. 10: 10–11.

- The expansion of the Terminal's nominal capacity had not increased costs due to increased complexity, as contended by Meyrick. The capacity expansion had not increased the customer base, nor had it changed the operations and maintenance contract for the operation of the terminal. Although an increase in nominal capacity may have required the Terminal Operator to increase personnel and support areas, it was difficult to see how this would have affected DBCTM's corporate overhead costs as Terminal owner.
- Although an assessment of comparator firms was important, historical costs should also have been examined in any analysis of efficient costs. Historical costs would also have provided comparative information on whether DBCTM's corporate costs had increased with the increase in nominal capacity.
- DBCTM's corporate costs were not consistent with the incentive-based regulatory framework. The regulatory framework resulted in incentives that were asymmetric and encouraged DBCTM to overestimate its corporate costs. There was little evidence that DBCTM had conducted efficiency measures to reduce or restrict corporate cost increases.

7.3.2 DBCT User Group

The DBCT User Group [513] submitted that:

- An increase in the corporate overhead cost allowance was not justified, particularly given current market conditions.
- Although it did not question the merit of efficient benchmark analysis as the basis for assessing DBCTM's corporate overhead costs, it did expect that corporate and management functions should become more efficient over time and, at a minimum, reflect general economy-wide productivity gains. In particular, it expected that an efficient firm would consider cost-reduction and efficiency-improvement programs consistent with the coal industry in which it was participating.
- The increase in the corporate cost allowance implied that 'efficient' costs had increased by more than inflation over the period. This was counterintuitive and contrary to the experience of DBCT users.
- In assessing DBCTM's proposed increase in the corporate overhead allowance, we should take into account DBCTM's recent reorganisation and whether DBCTM has achieved a reduction in its actual corporate costs.

7.4 QCA analysis and draft decision

We have considered the issues raised by DBCTM's proposal and submissions by other stakeholders.

We consider the benchmark approach to the determination of a corporate overhead cost allowance used in previous DBCT access undertakings is consistent with an incentive-based regulatory approach and should be maintained. The benchmark costs are the efficient costs that would be incurred by a Brisbane-based listed entity that has DBCT as its sole asset.

[513] DBCT User Group, sub. 11: 19–20.

We note that, while stakeholders did not object to the continuation of this general benchmark approach, some differed in their views on the appropriate amount of the corporate cost allowance.

7.4.1 DBCTM's proposal

Our concerns with the analysis used in the Meyrick report to estimate the corporate cost allowance are set out below.

High level benchmarking

Meyrick described this method as selecting the point within the range of total corporate costs for a sample of suitable comparator entities (comparators) that provided the best indicator of the likely costs of the hypothetical benchmark entity. Suitable comparators were those entities that were sufficiently similar to the hypothetical entity so as to yield useful information about the hypothetical entity's likely corporate costs.[514]

We consider it unlikely that this method provides a suitable estimate of DBCTM's corporate costs for the following reasons:

- The small number and varied nature of the comparators (which, for example, span a range of infrastructure sectors, scale and ownership structures) applied in the analysis suggest that the sample used is not likely to be representative of DBCTM's corporate costs.
- Problems in clearly defining and identifying data in financial information sources make comparisons with the DBCTM corporate cost categories problematic.[515]
- In addition to the sample and data concerns underlying Meyrick's recommended relationship between corporate costs and scale (i.e. corporate cost = $3 million + 3.3% of revenue), the relationship does not adequately control for inflation over time. For example, some data points represent different points in time, and inflation adjustments could possibly change the nature of the relationship.
- All of the comparator entities used for high level benchmarking directly manage and operate the relevant assets (whereas DBCTM contracts the operation of the Terminal to DBCT PL).

Component benchmarking

Meyrick described this method as developing reasonable estimates for a small number of major corporate cost categories and supplementing this estimate with an allowance for corporate costs that are not included in the major categories. This latter allowance would comprise only a minor share of total corporate costs so as not to distort the overall estimate.

The major cost categories adopted by Meyrick were those used by KPMG in modelling the corporate costs for a gas network operator.[516]

[514] DBCTM, sub. 7: 13.

[515] For example, in Meyrick's report, the corporate cost descriptions of several of the comparator entities included in Appendix C make comparisons with the definition of cost categories in Table 2 difficult. In addition, the differences between 'ownership' and 'operating' overheads are not clearly identified, making it difficult to determine the appropriate quantum of costs to include in the overhead cost categories used in the analysis.

[516] DBCTM, sub. 7: 25.

We are not persuaded this method provides a suitable estimate of DBCTM's corporate costs for the following reasons:

- As acknowledged by Meyrick, the KPMG cost categories do not align particularly well with DBCTM's corporate cost groupings.[517] Although Meyrick stated that the KPMG categories would capture the major elements of DBCTM's corporate costs, no analysis to support this view was provided.
- Meyrick updated KPMG's estimates for some of Meyrick's adopted cost categories and developed his own data set for others based on a sample of 20 listed companies performing industrial, infrastructure and energy activities.[518] Although Meyrick's estimates rely in part on personal judgement, they may well be plausible for the particular cost categories analysed. However, it is not clear how well the estimates translate to DBCTM's cost categories, given the entities (and the associated data sets on which the estimates are based) are not close 'comparator' entities.
- The 'not included' costs Meyrick considered relevant to DBCTM's benchmark corporate costs were significant, rather than a minor share, amounting to 18.2 per cent of the costs of the adopted (KPMG) major cost categories.[519] Meyrick obtained these 'not included' costs by applying personal judgement, and we believe this approach requires further substantiation.

Bottom-up approach

For this approach, Meyrick updated to 2016–17 each line item of the corporate costs which informed the basis of the QCA's 2005 final decision, and then summed the individual items to obtain an estimate of total corporate costs. Meyrick's process for updating these costs involved:

- reconciling the aggregate value of $4.6 million for corporate costs adopted in our 2005 final decision with the detailed information on the structure and level of corporate costs that informed our 2005 decision[520] (provided by Meyrick & Associates (for us) and Ernst & Young (for Prime Infrastructure))[521]
- adjusting the 2005 reconciled corporate costs for general price increases over the intervening period to 2016–17. For this purpose, Meyrick used three escalation factors depending on the nature of the costs—based on movements in labour rates, rents and the CPI.[522]
- updating corporate costs for changes in the scale and complexity of DBCT since 2005. To do this, Meyrick divided the bottom-up line items (at 2016–17 prices) into items affected, and items not affected, by scale and complexity. Using revenue as a proxy for scale and complexity, and for each cost category, Meyrick then applied information from the component benchmarking approach to estimate fixed and variable proportions of the costs

[517] DBCTM, sub. 7: 25.
[518] DBCTM, sub. 7: 27.
[519] DBCTM, sub. 7: 50–51.
[520] As Meyrick noted, we have made a more recent decision on DBCTM's AU (2010); however, the information on the structure and level of corporate costs which informed our 2005 decision remains the best available detailed information on the corporate costs of the DBCT-owning entity.
[521] For details of Meyrick's reconciliation methodology see DBCTM, sub. 7, section 5.1.3 and Table 17.
[522] For details of Meyrick's escalation factors see DBCTM, sub. 7, Attachment I.

incurred in 2005. The 2005 variable component was then multiplied by the ratio of '2017 revenue to 2005 revenue'.[523]

In principle, we consider the bottom-up method has merit, because it uses detailed information based on the structure and level of corporate overhead costs for the benchmark entity that informed previous DBCT AU decisions in 2005 and 2010. As such, we believe the method provides a more objective, transparent and consistent basis for the assessment of the appropriate corporate costs for the DBCTM 2015 DAU than either the high-level or component benchmarking methods. We also agree that the approach used by Meyrick to reconcile the structure and level of these corporate costs to our 2005 aggregate value of $4.6 million is reasonable.

However, we have some reservations about certain details of the method:

- We do not agree with the approach used by Meyrick to escalate the 2005 reconciled corporate costs to 2016–17, using three escalation factors based on movements in labour rates, rents and the CPI because his approach is not consistent with the escalation methodology used in previous AUs. The 2005 draft decision indexed the revenue cap by the actual CPI over the term of the undertaking[524], and this approach continued to be applied for the 2010 AU.[525]
- We find the approach used by Meyrick to adjust for scale and complexity problematic, for the following reasons:
  - Although there may be a case for using revenue as a proxy for scale under certain circumstances (such as plausible comparability), it is not clear why revenue is a suitable proxy for complexity.
  - It is not clear, without further substantiation, how Meyrick has applied personal judgement to separate corporate cost components into those affected, and those not affected, by scale and complexity.
  - Meyrick's separation of those corporate costs deemed affected by scale and complexity into fixed and variable components, is based on Meyrick's component benchmarking approach and is, therefore, subject to the same reservations mentioned above for that approach.

Notwithstanding the above reservations, we accept that adjustments for scale and complexity are difficult to quantify and the application of judgement is required.

In relation to cost escalation, we note almost all of the real increase in corporate costs for the expanded Terminal estimated by Meyrick is due to Meyrick's own adjustments for scale and complexity, rather than to differences in escalation assumptions. Although Meyrick used different escalation factors to those used in the previous access undertakings, the end results are broadly similar.[526]

In relation to adjustments for scale and complexity, while Meyrick's estimated corporate costs for the expanded Terminal are, in real terms, 31 per cent higher than equivalent costs for the Terminal in 2005, both the value of the asset base and revenues have more than doubled in real

[523] For details of Meyrick's adjustments for scale and complexity see DBCTM, sub. 7, Attachment I.
[524] QCA 2005, section 10.4: 164.
[525] QCA 2010, section 2.4(b)(ii): 11.
[526] After allowing for Meyrick's insurance and safety adjustments—see DBCTM, sub. 7, Table 18 (notes 1 and 2).

terms; nameplate capacity has increased by over 60 per cent; and throughput has increased by over 40 per cent. On the other hand, the number of users has declined from eight to six.

We also note the main contributing factors to the real increase in corporate costs are corporate governance, staff expenses, and office and general expenses.

These results are broadly consistent with our expectations. We consider the increase in the scale of the Terminal's activities since the 2005 draft decision would have resulted in real increases in corporate overheads for DBCTM's benchmark. We would also have expected these increases would be less than proportional to revenue growth due to the effects of economies of scale and the efficiencies achieved through general productivity improvements. In this respect, the ratio of corporate overhead costs to revenues has decreased from about 5.5 per cent in 2005 to approximately 2.4 per cent in 2015–16. With an increase in corporate costs for the bottom-up method, this ratio will be about 3.9 per cent in 2016–17 on the lower base of our draft ARR estimates.

For these reasons we consider Meyrick's 'bottom-up' estimate to be plausible, notwithstanding our reservations about certain aspects of his methodology. However, as Meyrick has assumed an ARR of approximately $260 million in 2016–17 and our draft ARR is $183.9 million, we have reduced the corporate overhead estimate accordingly from $7.8 million to $7.23 million.

Comparison and final estimate

In our view, for the reasons stated above, while we have considered the other methods proposed by Meyrick (high level and component benchmarking), we consider that they are subject to various judgements and methodological concerns, that we consider are likely to make their results unreliable. Accordingly, in this draft decision we have preferred the bottom-up approach which we consider is likely to prove more robust and which is also more consistent with the approach previously adopted in respect of corporate costs, providing a higher degree of regulatory consistency and certainty.

7.4.2 Vale

In response to Vale's submission:

- We note that, although Meyrick stated that revenue per se may not, in all cases, be the main driver of corporate costs, an attempt was nevertheless made to separate the 'bottom-up' cost items into fixed and variable components, where only the variable component is driven by changes in revenue. Although we agree that revenue includes the recovery of overhead costs (an operational cost) and both the return of assets (depreciation) and return on assets (return on investment), we fail to see how this potentially double counts the value of assets.
- We agree that, in both the high-level and component benchmarking methods, it is not clear whether Meyrick adequately considered that DBCTM is only the owner, and not the Operator, of DBCT. However, the bottom-up method does take this into account by explicitly addressing the individual cost items of the DBCTM benchmark.
- We consider Meyrick's benchmark analysis of bottom-up costs implies that the reduction in the ratio of corporate costs to scale over time would reflect, to some extent, the gains from economies of scale and the efficiencies achieved through general productivity improvements of an efficient benchmark entity.
- We believe a reasonable real increase in the corporate overhead cost allowance for the DBCTM benchmark is warranted, particularly in light of the increase in the scale of the Terminal's activities since 2005. However, we agree that the question of whether, and to

what extent, corporate costs have increased due to increased complexity has not been resolved by Meyrick's analysis. We welcome further input from stakeholders on this point.

- We do not agree that the regulatory framework encourages DBCTM to overestimate its corporate costs, and no evidence has been provided to us to support this view. Our approach to determining the corporate overhead cost allowance at DBCT is designed to permit DBCTM the opportunity to recover only efficient benchmark corporate overheads.

7.4.3 DBCT User Group

In response to the submission by the DBCT User Group we consider that:

- In principle, a real increase in the corporate overhead cost allowance for the DBCTM benchmark is justified, particularly in light of the increase in the scale of the Terminal's activities since 2005.
- The reduction in the ratio of corporate costs to scale over time would reflect to some extent the gains from economies of scale and the efficiencies achieved through general productivity improvements.
- It is not necessarily counterintuitive that corporate costs for an efficient benchmark entity had increased by more than inflation over the period in question, given the increase in scale over that period.
- It is appropriate that DBCTM's proposal is based on an analysis of an efficient benchmark entity. Any recent efficiency measures by DBCTM are not necessarily inconsistent with an increase in the corporate costs of an efficient benchmark entity over the full period of analysis, given the increase in scale involved.

7.5 Conclusion

We are not persuaded by the analyses and arguments put forward in the submissions by DBCTM and its consultant (Meyrick) that we should give consideration to the estimates of corporate overhead costs obtained using the high-level benchmarking and component benchmarking methods.

In principle, we see merit in Meyrick's bottom-up method, although we have some reservations about certain aspects of the analysis, as outlined above.

Notwithstanding these reservations, we consider Meyrick's bottom-up estimate to be a plausible attempt to quantify some difficult factors. This estimate is broadly consistent with our expectations. We consider the increase in scale of the Terminal's activities since the 2005 draft decision would have resulted in a real increase in the level of corporate overheads for DBCTM's benchmark. We would also expect these increases to be less than proportional to revenue growth, due to the effects of economies of scale and the efficiencies achieved through general productivity improvements.

We therefore refuse to approve the allowance for corporate overhead costs of $8.2 million per annum (2016–17 dollars) proposed by DBCTM.

Our draft decision is that a plausible allowance for corporate overhead costs is $7.23 million per annum (in 2016–17 dollars), indexed annually for inflation over the regulatory term.

We consider our decision has regard to each of the matters in section 138(2) of the QCA Act and weighs them appropriately, thereby achieving an appropriate balance between the competing interests of the various stakeholders.

Draft decision 7.16

(1) **After considering DBCTM's proposed allowance of $8.2 million per annum (2016–17 dollars) for corporate overhead costs, our draft decision is to refuse to approve DBCTM's proposal.**

(2) **We consider the appropriate way for DBCTM to amend its 2015 DAU is to set a corporate overhead cost allowance of $7.23 million per annum (in 2016–17 dollars), indexed annually for inflation over the regulatory term.**

(3) **After having regard to each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.**

8 TERMINAL INFRASTRUCTURE CHARGE AND MODELLING

DBCTM has proposed to continue to roll forward the regulated asset base (RAB) to 1 July 2016 by applying the same building block approach approved in 2006 and 2010.

In its 2015 DAU submission, DBCTM has proposed to use the building blocks framework, however we note that DBCTM has proposed changes to some modelling inputs and to other pricing assumptions. Some of DBCTM's proposals are addressed in detail in this chapter, but most are examined in chapters 4,5,6 and 7.

The QCA approves the proposed roll-forward of the RAB from the 2010 AU; however, we refuse to approve a number of other updates proposed by DBCTM to the existing building blocks model, for the reasons set out in this chapter and other relevant parts of this draft decision.

A summary of our draft decision on all pricing issues (including those addressed elsewhere) is included below in Table 23.

Table 23 DBCTM's proposed changes to modelling inputs and pricing assumptions—2015 DAU

Input/assumption	*DBCTM proposed change*	*DBCT User Group response*	*QCA draft decision in response to DBCTM's proposal*	*Impact of QCA draft decision on DBCTM's proposed TIC %*[527]
WACC	7.46%	5.84%	6.10%	–15.89%
Remaining useful life of the Terminal	25 years from 1 July 2016, based on weighted average mine life approach.	Proposed to maintain remaining useful life of Terminal at 38 years.	Refused to approve. Maintained remaining useful life of Terminal at 38 years.	–9.0%
Annual site remediation fee	$12.8 million/year (annuity)	Did not propose an alternative value.	Refused to approve. Estimated $5.7 million/year (annuity).	–2.73%
Reduce salvage value of initial assets to zero	Depreciate the 2.5% salvage value assigned to some initial assets.	Proposed residual value be added to the RAB at the end of asset life.	Refused to approve, but suggested how DBCTM proposal could be enabled.	–0.51%
Working capital allowance	Calculate based on 45 rather than 30 debtor days.	Adopt 0.3% of ARR, consistent with Queensland Rail decision.	Refused to approve. Proposed to maintain 30 debtor days currently applied.	–0.35%

[527] The estimated impact on the TIC of the QCA's draft decision on each proposal assumes all other proposals are unchanged. That is, each impact is measured relative to DBCTM's proposed TIC. Also, each estimate is only indicative of the magnitude of each impact, as modelling the impacts is path-dependent. That is, while the total impact of the QCA's draft decision on all proposals would remain constant, the individual impact attributed to the decision on each proposal, or combinations of proposals, may change slightly depending on the sequence in which the impacts are estimated.

Input/assumption	*DBCTM proposed change*	*DBCT User Group response*	*QCA draft decision in response to DBCTM's proposal*	*Impact of QCA draft decision on DBCTM's proposed TIC %*[527]
Corporate overhead allowance	Increase to $8.2 million, compared to $6.1 million allowed in 2015-16.	Did not propose an alternative value.	Refused to approve. $7.23 million, based on 'bottom up' approach.	–0.31%
Amortise spares from initial asset base.	Depreciate spares included in the initial asset base over the next 15 years.	Retain current treatment of spares.	Approved DBCTM's proposal.	NA
Expected vs. outturn inflation	Adopt expected inflation to calculate return of and on capital.	Have not had the chance to comment on this element of DBCTM's submission yet.	Refused to approve, pending further investigation.	NA

8.1 DBCTM's proposal

8.1.1 Regulated asset base roll-forward 2010-11 H2[528] to 2015-16

The methodology applied to roll forward the RAB and derive updated revenues and tariffs remains unchanged from that used for the 2006 AU and subsequent capacity expansions.

In its 2006 final decision, the QCA determined the initial value of the Terminal for regulatory purposes on the basis of a single-stage depreciated optimised replacement cost (DORC) methodology, adopting a DORC value for the Terminal of $850 million (as at 1 July 2004).[529] This value subsequently increased due to several major expansions of the Terminal, among other factors.

For the 2015 DAU, DBCTM has proposed an opening RAB of $2,398.8 million. The RAB value has been rolled forward to account for capital expenditure, depreciation and indexation incurred over the term of the 2010 AU. There have been no asset disposals or transfers.

Table 24 DBCTM's proposed asset base roll-forward 2010-11 H2 to 2015-16 ($'000)

	2010-11 (H2)	*2011-12*	*2012-13*	*2013-14*	*2014-15*	*2015-16*
Nominal opening asset value	2,371,723	2,379,595	2,366,712	2,370,535	2,429,296	2,417,661
Indexation	46,533	37,715	58,016	69,611	32,084	60,507
Nominal depreciation	(33,787)	(70,348)	(71,315)	(73,704)	(77,491)	(79,367)
Nominal closing asset value	2,384,468	2,346,962	2,353,413	2,366,441	2,383,889	2,398,801

[528] H2 denotes the second half of the 2010-11 financial year, 1 January 2011 to 30 June 2011.
[529] $849,990,017.

Capital expenditure

DBCTM has previously submitted that, following the commissioning of an expansion phase, the initial asset value was increased by adding capital expenditure on the first day of each month (Table 25). This approach was also applied in the price modelling for the 2015 DAU.

By 30 June 2016, routine NECAP expenditure since 2010 will have added $65,253,000 in capital expenditure to the RAB. In addition to annual applications for NECAP (up to $20 million/year), the QCA has also previously approved DBCTM's expenditure for:

- Capacity expansion study (2013–14)—$5,832,000
- SR1 replacement (2014–15)—$53,732,000
- Water quality improvement project phase 2 (2015–16)—$14,552,000.

In 2011–12, there was also an adjustment to the starting value of the new reclaimer RL1.[530] The opening value was reduced to $11.3 million, following the receipt of $12.3 million in insurance proceeds.

Table 25 Approved additions to DBCT asset base 2010–11 H2[531] to 2015–16 ($'000)

	2010–11 (H2)	***2011–12***	***2012–13***	***2013–14***	***2014–15***	***2015–16***
Nominal opening asset value + NECAP	2,371,723	2,379,595	2,366,712	2,370,535	2,429,296	2,417,661
Capacity expansion study				5,832	5,857	5,784
SR1 replacement					53,732	53,063
Water quality improvement project phase 2						14,552

Indexation

From 1 January 2011 to 30 June 2015, DBCTM indexed the asset values by outturn inflation as reported by the Australian Bureau of Statistics (ABS).[532] For 2015–16, DBCTM has applied a forecast CPI value of 2.50 per cent (Table26).

Table 26 Inflation estimate applied[533]

2010–11 (H2)[534]	***2011–12***	***2012–13***	***2013–14***	***2014–15***	***2015–16***
1.96%	1.58%	2.45%	2.94%	1.32%	2.50%[535]

[530] Part of the Short Gain capital expenditure project in 2006-07.
[531] H2 denotes the second half of the 2010-11 financial year, 1 January 2011 to 30 June 2011.
[532] ABS 2015. In September 2012 the data was re-indexed (ABS 2012). DBCTM use the relevant re-referencing conversion factor of 0.5567 from Table 17 (Weighted average of eight capital cities, All Groups CPI).
[533] DBCTM sub. 2: 20.
[534] This is inflation for half the year, as the undertaking commenced on 1 January 2011.
[535] For 2015-16, DBCTM has applied a forecast CPI value of 2.50% as the financial year is not complete.

Depreciation

DBCTM depreciated the RAB from December 2010 to 2015–16. It maintained the 50-year economic life assumption underpinning the initial DORC valuation. For depreciation purposes, this means that the Terminal's economic life ends on 30 June 2054. DBCTM assumed expected annual inflation of 2.69 per cent for the 2010 AU period.[536]

8.1.2 Building blocks (2016-17 to 2020-21)

The financial modelling in DBCTM's 2015 DAU is broadly consistent with the approach approved for the 2006 and 2010 AUs. It applies a nominal, post-tax 'building blocks' framework to determine expected revenues. The model's principal building blocks include:

- return on capital—a return on assets, estimated by multiplying the rate of return (i.e. WACC) by the RAB. The return on capital compensates investors for the opportunity cost of their investment, taking into account the risks involved.

  The return on capital is adjusted to a mid-year value. This adjustment reflects that DBCTM's revenue is assumed to be received evenly across the year (monthly), not at the end of the year; that is, the mid-year assumption approximates the monthly timing of revenue. As a result, the return on assets is adjusted by the following factor:

  Discount factor = 1/(1 + nominal vanilla WACC)^(1/2)

- operating expenditure—an allowance for the benchmark, efficient operating and administrative costs required to provide the regulated service. This allowance is intended to compensate DBCTM for benchmark corporate overheads, the regulatory levy and site remediation costs.

  Operating expenditure is input as a mid-year figure and not adjusted further. This is because the estimates for all components already approximate a mid-year timing assumption.

- return of capital—an allowance for depreciation of the assets that compensates investors for their loss in value over time.

  Return of capital is adjusted to a mid-year value, using the discount factor above.

- tax payable—an allowance for the expected tax liability arising from the allowed revenue.

  Tax payable is calculated on the basis of return on capital, operating expenditure and return of capital. It is subsequently adjusted to reflect the value of dividend imputation credits.

DBCTM's forecast RAB, ARR and TIC are shown in

[536] DBCTM sub. 2: 20.

Table 27 and Table 28. Its proposed inputs and changes are discussed in more detail below, and in Chapters 4, 5, 6 and 7 of this draft decision.

Table 27 DBCTM's forecast RAB[537] ($ million)

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Opening RAB	2,398.8	2,349.6	2,297.0	2,241.6	2,183.5
Indexation	60.0	58.7	57.4	56.0	54.6
Nominal depreciation	(109.2)	(111.3)	(112.9)	(114.1)	(117.0)
Closing RAB	2,349.6	2,297.0	2,241.6	2,183.5	2,121.1

Table 28 DBCTM's forecast ARR and TIC[538] ($ million)

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Return on asset	174.9	171.4	167.6	163.6	159.5
Return of asset (depreciation)	105.3	107.4	108.9	110.1	112.9
Less indexation	(57.9)	(56.7)	(55.4)	(54.1)	(52.7)
Corporate overheads	8.2	8.4	8.6	8.8	9.1
Regulatory levy	(0.3)	0.4	0.4	0.4	2.0
Remediation fee	12.8	12.8	12.8	12.8	12.8
Net tax allowance	18.5	19.0	19.4	19.8	20.4
ARR[539]	261.7	262.7	262.4	261.5	263.9
Reference tonnage (mtpa)	85.000	85.000	85.000	85.000	85.000
TIC ($/**tonne**)	3.0785	3.0908	3.0866	3.0766	3.1044

Return on capital

DBCTM has proposed a WACC of 7.46 per cent, as discussed in detail in Chapter 4. This proposed WACC compares to the 2010 AU WACC of 9.86 per cent. A component-by-component comparison of the WACCs is set out in Table 32.

Working capital

DBCTM has proposed to change the number of debtor-days from 30 to 45 (calendar) days receivable for the purpose of setting its working capital allowance.

DBCTM submitted:

> *Actual working capital costs reflect the payment terms offered to users, which are structured so that terminal revenues are on average, received 45 days after DBCTM incurs the costs of providing the terminal services. This 45 days is based on the assumption that on average, revenue is earned in the middle of the month. Invoices are issued at the end of the month, and customers then have 30 (calendar) days to pay that invoice.*[540]

[537] These figures are from DCBTM's most recent modelling, so will differ to the submitted 2015 DAU. Since the 2015 DAU was submitted there has been a change to the tonnage, and an additional NECAP project was added to the RAB.
[538] See note for Table below.
[539] Totals may not add correctly due to rounding.
[540] DCBTM sub. 1: 57.

DBCTM considered the current payment terms provided an inappropriate benefit to users. DBCTM submitted that if actual working capital costs were to be aligned with the 30 day assumption currently applied, payment terms would need to be shortened to 15 days.[541] DBCTM noted such a change would require an amendment to its existing agreements.

However, DBCTM did not consider it likely that existing users would agree to a change that could make them worse off, meaning that DBCTM would only be able to apply the shorter (15-day) term to new users. It viewed this to be a potential contravention of the PSA, as it would mean that Terminal services would be supplied to existing users on more favourable terms than to new customers.

DBCTM also noted that the QCA applied a 45-debtor-day assumption in its review of SEQ grid service charges in 2011, which reflected the 15 days between service delivery (on average) and month's end, and the 30 calendar days allowed for payment of the invoice.[542]

Indexing the RAB by the expected inflation rate

DBCTM withdrew section 3.7 from its initial submission supporting the 2015 DAU, and replaced it with the paragraphs at the end of Attachment 2 of its supplementary submission.[543]

During the 2010 AU period, the RAB was indexed using the March to March annual CPI (outturn inflation).[544] In its supplementary submission to the 2015 DAU, DBCTM proposed to calculate the return on and return of capital with reference to the 'default' inflation value (expected inflation). This rate is typically set using the midpoint of the RBA target range of 2.0 to 3.0 per cent.

DBCTM considered the current approach (using outturn inflation to calculate indexation and expected inflation to calculate depreciation) to be problematic, as outturn inflation is:

- the only input to the revenue building blocks that is not predetermined by the regulatory process
- difficult to forecast, given it has a high level of variability
- a poor proxy for true outturn inflation (June to June).[545]

DBCTM has not provided further analysis of this proposed change.

Operating expenditure

DBCTM proposed changes to both the site remediation and corporate overhead components of the operating expenditure in its 2015 DAU. These changes are considered in Chapters 6 and 7 of this draft decision and the amounts proposed are included in Table 29.

Its proposed regulatory levy is also included below. DBCTM submitted that these figures have yet to be approved, and are subject to change.

[541] DBCTM sub. 1: 57.
[542] DBCTM sub. 1: 57.
[543] DBCTM sub. 30: 15.
[544] ABS 2015. In September 2012 the data was re-indexed (ABS 2012). DBCTM use the relevant re-referencing conversion factor of 0.5567 from Table 17 (Weighted average of eight capital cities, All Groups CPI).
[545] DBCTM sub. 30: 15.

Table 29 DBCTM's proposed operating expenditure ($ million)[546]

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Site remediation	12.8	12.8	12.8	12.8	12.8
Corporate overheads	8.2	8.4	8.6	8.8	9.1
Regulatory levy	(0.3)	0.4	0.4	0.4	2.0
Total opex	20.7	21.6	21.8	22.0	23.9

Return of capital

DBCTM has proposed a number of changes to depreciation in the 2015 DAU:

- adopt a WAML approach to depreciation
- depreciate spares in the initial asset base
- reduce the salvage, or residual, value of relevant initial assets to zero.

We have considered the proposed changes to depreciation and the treatment of spares in Chapter 5, and address the proposed changes to residual values below.

Residual value of initial assets

DBCTM has submitted that the regulatory depreciation profiles of initial assets (some of which were assigned a scrap value of 2.5% of the initial asset value) at the beginning of the 2016-21 undertaking period should be updated to reflect residual values of zero:

> *The objective of the new depreciation profiles is to ensure that DBCTM has a reasonable prospect of recovering the full regulatory value of its terminal assets, as it is entitled to under the QCA Act.*[547]

It considered that capital replacement projects since the original DORC valuation have demonstrated that the initial assets (i.e. pre-Short Gain and 7X expansions) have no scrap value. The market for scrap metal has deteriorated dramatically since 2004 (when initial asset and scrap values were established), and DBCTM stated that the removal and disposal of existing assets since 2004 has incurred significant costs. DBCTM also noted that, since the Short Gain expansion project in 2006, new assets have been assigned a scrap value of zero.[548]

DBCTM submitted that, given their realisable value is zero, if initial assets retained a positive residual value in the RAB at the end of the asset's useful life, then the residual value would either be:

- removed from the RAB without compensation to DBCTM
- recovered from users after the asset has completed its useful life.[549]

DBCTM stated that removing the residual value from the RAB would mean that DBCTM would not fully recover the DORC value of its Terminal assets—effectively representing a revaluation or

[546] Totals may not add correctly due to rounding.
[547] DBCTM sub. 2: 28.
[548] DBCTM sub. 2: 27–28.
[549] DBCTM sub. 1: 28.

write-down of the original 2004 RAB. This is contrary to DBCTM's understanding that the original RAB value had been locked in.[550]

If the residual value was recovered from users after the asset has completed its useful life, the TIC paid by users would not reflect the current costs of providing services at that point in time, as it would include the written-down value of assets no longer in use.

Tax payable

DBCTM has proposed a statutory corporate tax rate of 30 per cent, consistent with the methodology and assumptions approved for the 2010 AU. DBCTM has also applied an estimate of 0.25 for the value of dividend imputation credits for the purpose of determining the imputation-adjusted tax rate. The estimate of 0.25 contrasts with our preferred estimate of 0.47 for this parameter (see Chapter 4).

8.2 Stakeholders' submissions

8.2.1 Regulated asset base roll-forward (2010-11 H2[551] to 2015-16)

Stakeholders did not comment on the roll-forward of the RAB.

8.2.2 Building blocks (2016-17 to 2020-21)

Return on capital

The DBCT User Group proposed amendments to the WACC submitted in DBCTM's 2015 DAU. These are considered in Chapter 4, and summarised below in Table 32.

Working capital

The DBCT User Group considered that, in the absence of a clear basis for any difference, there should be consistency between the treatment of working capital for the rail and port businesses regulated by the QCA.

In this context, the DBCT User Group cited the working capital allowance proposed by the QCA for Queensland Rail (0.3%) and that recommended for Aurizon Network (0.75% of direct maintenance labour costs).

Indexing the RAB by the expected inflation rate

Due to DBCTM's resubmission on this topic, stakeholders have not yet had an opportunity to comment on DBCTM's updated proposal.

In its initial submission, the DBCT User Group submitted that it supported consistency in calculating the return of and on capital.[552] However:

> *[d]ue to limited detailed information available, the DBCT User Group is unable to fully test how DBCTM's proposed RAB roll-forward mechanism affects the ARR and TIC for the duration of the 2016–2021 access undertaking.*

It also noted that the current approach was consistent with the approach applied to roll forward the asset base for Aurizon Network. The DBCT User Group concluded that it expected the QCA

[550] DBCTM sub. 1: 28.
[551] H2 denotes the second half of the 2010-11 financial year, 1 January 2011 to 30 June 2011.
[552] DBCT User Group sub. 12: 20.

would need to consider and ultimately decide on the proposed change in methodology, as the information required to analyse the impacts is unlikely to be available or provided publicly.

Operating expenditure

The DBCT User Group responded to DBCTM's proposed changes to both the site remediation and corporate overhead components of the operating expenditure allowance. Its view is discussed in Chapters 6 and 7 of this draft decision.

Return of capital

Stakeholders' submissions on the proposed changes to depreciation and the treatment of spares are discussed in Chapter 5. However, stakeholders' views on DBCTM's proposal to revise the asset depreciation profiles for some initial assets to reflect a zero salvage value are discussed below.

Residual value of initial assets

The DBCT User Group noted that there could be alternative uses for the Terminal assets, and that applying a zero residual value discounts this possibility, and ignores any potential scrap value arising from future disposal of those assets.

As a result, the DBCT User Group proposed that the QCA consider applying DBCTM's zero residual value to relevant assets closer to when the future use or application of the assets is known with more certainty. The DBCT User Group said this would result in a $0.01 reduction in DBCTM's proposed TIC for 2016–17.[553]

Tax payable

The DBCT User Group did not propose any changes to the approach for estimating DBCT's tax allowance.

8.3 QCA analysis and draft decision

8.3.1 Regulated asset base roll-forward (2010–11 H2[554] to 2015–16)

We have considered DBCTM's proposed roll-forward of the RAB from 2010–11 to 2015–16, and have concluded it has been undertaken in an appropriate manner and is consistent with the approach determined for the 2010 AU period.

> **Draft decision 8.17**
>
> **(1) After considering DBCTM's proposed RAB roll-forward, our draft decision is to approve DBCTM's proposal.**
>
> **(2) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.**

8.3.2 Building blocks (2016-17 to 2020-21)

On the basis of our analysis below, we propose the following changes to DBCTM's forecast RAB, ARR and TIC for the regulatory period commencing 1 July 2016.

[553] DBCT User Group sub. 12: 20.
[554] H2 denotes the second half of the 2010-11 financial year, 1 January 2011 to 30 June 2011.

Table 30 QCA's proposed RAB ($ million)

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Opening RAB	2,398.8	2,375.8	2,350.9	2,324.4	2,296.6
Indexation	60.0	59.4	58.8	58.1	57.4
Nominal depreciation	(82.9)	(84.4)	(85.3)	(85.8)	(88.0)
Closing RAB	2,375.8	2,350.9	2,324.4	2,296.6	2,266.0

Table 31 QCA's proposed ARR and TIC ($ million)

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Return on asset	143.0	141.6	140.1	138.6	136.9
Return of asset (depreciation)	80.5	81.9	82.8	83.3	85.4
Less indexation	(58.2)	(57.7)	(57.1)	(56.4)	(55.7)
Corporate overheads	7.2	7.4	7.6	7.8	7.9
Regulatory levy	(0.3)	0.4	0.4	0.4	2.0
Remediation fee	5.7	5.7	5.7	5.7	5.7
Net tax allowance	6.1	6.4	6.7	7.0	7.3
ARR[555]	183.9	185.7	186.2	186.3	189.6
Reference tonnage (mtpa)	85.0	85.0	85.0	85.0	85.0
TIC ($/tonne)	2.1636	2.1850	2.1907	2.1918	2.2309

Conclusion

Based on the analysis in this draft decision, both in other chapters (particularly Chapters 4, 5, 6, and 7) and below, we propose the QCA's changes are adopted, with the RAB, ARR and TIC we have proposed in Table 30 and Table31.

[555] Totals may not add correctly due to rounding.

Draft decision 8.18

(1) After considering DBCTM's proposed RAB, ARR and TIC, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to adopt the QCA's proposed changes, which would result in the RAB, ARR and TIC provided in Table 30 and Table 31 of this draft decision.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

Return on capital

Consideration of DBCTM's proposed changes to the estimation of the WACC is provided in Chapter 4.

Our proposed WACC, and relevant assumptions are summarised in Table 32 below.

Table 32 WACC assumptions

Parameter	*DBCT 2010 AU*	*DBCTM's 2015 DAU proposal*	*DBCT User Group submission*	*QCA draft decision*
Averaging period (20 business days up to DD/MM/YY)	Sept. 2010	21/08/15 (indicative)	21/08/2015 (indicative)	30/10/2015 (indicative)
Risk-free rate	5.08%	2.8%	2.17%	2.10%
Market risk premium	6.0%	8.0%	6.5%	6.5%
Capital structure (% debt)	60%	60%	60%	60%
Asset beta	0.5	NA[556]	0.43	0.45
Equity beta	1	1	0.81	0.87
Credit rating	BBB+	BBB	BBB	BBB
Gamma	0.5	0.25	0.47	0.47
Debt risk premium (raw)	NA	2.32%	2.32%	2.68%
Debt issuance costs		0.108%	0.108%	0.108%
Interest rate swap costs	NA	NA	0.150%	0.113%
Total debt risk premium (including transaction costs)	3.96%	2.43%	2.58%	2.90%
Cost of debt	9.04%	5.23%	4.75%	5.00%

[556] DBCTM did not propose an asset beta value.

Parameter	*DBCT 2010 AU*	*DBCTM's 2015 DAU proposal*	*DBCT User Group submission*	*QCA draft decision*
Cost of equity	11.08%	10.80%	7.47%	7.76%
Equity premium	6.00%	8.00%	5.27%	5.66%
WACC premium (above the risk free rate)	4.78%	4.66%	3.67%	4.00%
WACC	9.86%	7.46%	5.84%	6.10%

Working capital

There is usually a timing difference between when DBCTM receives its revenue, and when it is obliged to pay its suppliers and staff. We anticipate that a regulated entity provides services before it receives payment, but also receives goods and services before it pays for them. A benchmark allowance for working capital is provided to compensate investors for the opportunity cost of having their capital tied up in the regulated activity.

Working capital is calculated as:

= ARR x [working capital days/(days in year)]

In the past, we have accepted that a benchmark working capital allowance for DBCTM is appropriate, consistent with 30 days of revenue from its customers. While we consider a working capital allowance remains appropriate for the 2015 DAU period, we do not agree with either DBCTM's or the DBCT User Group's proposed working capital proposals.

DBCTM has suggested that the working capital period should be increased to 45 days, and the DBCT User Group has proposed that the value of working capital should be reduced to 0.3 per cent of the ARR, in line with the approach applied to Queensland Rail.

As a general principle, we agree with the DBCT User Group, that:

> *[a]bsent a clear basis for any difference, there ideally should be regulatory consistency between the working capital calculations for the rail and port entities that the QCA regulates.*[557]

In the absence of negotiated outcomes specific to a regulated service or differences in regulatory circumstances, we consider the approach adopted to determine whether a working capital allowance is appropriate should be consistent across regulated entities.

However, in this case, there are both negotiated outcomes (the agreement between Queensland Rail and its customers to roll forward the original 0.3 per cent assumption in subsequent undertakings) and regulatory circumstances that are different to those at DBCT.

The regulated rail entities and the Terminal have different payment terms in their respective customer agreements with users. Specifically, rail customers are invoiced monthly and have 14 days to pay Aurizon Network or Queensland Rail, while DBCTM's customers, also invoiced monthly, have 30 days to pay. DBCTM waits twice as long as the other regulated entities to receive its regulated revenue.

[557] DBCT User Group sub. 12: 21.

There are also historical differences. Queensland Rail's working capital allowance was initially set at 0.3 per cent of the ARR in 2000.[558] We note the benchmark 0.3 per cent working capital allowance is consistent with around 15 days of outstanding revenue from its customers, which approximates Queensland Rail's and Aurizon Network's customers' payment terms.

We consider that aligning the number of days reflected in the working capital allowance with the number of days in the payment terms makes economic sense.

The terms of payment for regulated customers, once set in the relevant customer agreements, are not within DBCTM's (or Queensland Rail's or Aurizon Network's) day-to-day control. As a result, DBCTM is unable to schedule the receipt of the TIC to minimise its debtor-days (and thereby reduce its working capital requirements). As with Queensland Rail and Aurizon Network, DBCTM's working capital requirement for the 30 days before customers are required to pay their access charges, should be allowed for in the ARR.

We note a 30-day working capital allowance does not compensate DBCTM for working capital for the 15 days between mid-month and end-of-month. However, we believe this approach is appropriate—it is up to DBCTM to manage those intra-month cash flows, consistent with prudent financial management practices. This creates an incentive for DBCTM to reduce its net debtor-days, as DBCTM will directly capture the benefits of any decreases. It is also consistent with a benchmark approach: we are not attempting to quantify DBCTM's exact costs, we are approving prudent and reasonable benchmark costs appropriate for an entity in its industry.

In this context, we note DBCTM's comments that its proposed approach is consistent with the approach we applied to the SEQ water grid. However, while the SEQ water grid approach applied 45 debtor-days (as noted by DBCTM), it also subtracted the accounts payable from the revenue base for working capital before estimating the 45-day working capital allowance. DBCTM's approach to modelling working capital does not refer to this latter component of that approach. We also note that the Queensland Government instructed us to apply an accounts receivable/accounts payable formula as defined in its 'manual' for the SEQ water grid decision. Therefore, we do not accept that this approach is necessarily representative of our standard regulatory practice in this area.

We note DBCTM's comments that applying a 30-day assumption would require an amendment to existing User Agreements to shorten the payment term to 15 days. According to DBCTM, existing users are unlikely to support such an amendment, and without one, payment terms of existing users and new users would be inconsistent (contravening the PSA's requirements).

However, we note that DBCTM has not proposed such an amendment. Rather, the proposed User Agreements in the 2015 DAU maintain payment terms consistent with the 2010 AU. As indicated in this draft decision, we accept the payment terms that have been proposed by DBCTM. If DBCTM considers our draft decision on working capital to be problematic, it can propose changes to the User Agreements. Whether such a change has implications for its obligations under the PSA is a matter for DBCTM.

[558] This was based on the difference between average revenues outstanding over the billing cycle and average operating plus capital expenditure over a similar period, as proposed in IPART's 1999 determination for NSW electricity networks (QCA 2000).

For these reasons, we are inclined to maintain the current working capital allowance of 30 days, consistent with the payment terms of customers at the Terminal. This allows for DBCTM to be compensated for debtor-days associated with customers' terms of payment under the 2015 DAU.

We consider this approach appropriately balances the legitimate interests of DBCTM (in having its prudent working capital costs compensated) with the interests of access holders and consistency with the pricing principles in section 168A of the QCA Act. It also provides regulatory consistency, which we consider a relevant consideration.

Conclusion

We consider a working capital allowance calculated on the basis of 30 debtor-days is appropriate. We consider this approach to be reasonable taking into account the methodologies applied in our Queensland Rail and Aurizon Network decisions.

Draft decision 8.19

(1) After considering DBCTM's proposed approach to calculating the working capital allowance, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to apply the 30-day working capital assumption applied for the 2010 AU period.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

Indexing the RAB by the expected inflation rate

DBCTM has proposed to replace the outturn inflation index used to index the RAB, and to instead apply the expected inflation rate.

Conclusion

Due to the timing of DBCTM's supplementary submission, further analysis of the impact of this proposal is necessary. In the interim, and subject to further submissions, we recommend maintaining the current approach.

Draft decision 8.20

(1) After considering DBCTM's proposed approach to indexing the RAB, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to revert to the outturn inflation index applied during the 2010 AU period, subject to further consultation on DBCTM's proposed approach.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

Operating expenditure

As discussed in Chapters 6 and 7, the QCA has considered DBCTM's and the DBCT User Group's proposals, and has calculated an annual remediation allowance of $5.7 million[559] and an annual corporate overhead allowance of $7.2 million (escalated by outturn inflation).

The allowance for the regulatory levy (i.e. the QCA's fee) is forecast below in Table 33. We note the large forecast increase in the regulatory levy in 2020-21, and consider it to be reasonable, given there are likely to be a number of regulatory events occurring toward the end of the regulatory period.

Table 33 QCA proposed operating expenditure ($ million)

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Site remediation	5.7	5.7	5.7	5.7	5.7
Corporate overheads	7.2	7.4	7.6	7.8	7.9
Regulatory levy	(0.3)	0.4	0.4	0.4	2.0
Total opex	12.6	13.5	13.7	13.9	15.7

Conclusion

As discussed in Chapters 6 and 7, our decision is to refuse to approve DBCTM's proposed site remediation and corporate overhead allowances. However, in this chapter, we propose to approve DBCTM's proposed allowance for the QCA regulatory levy, noting that the actual regulatory levy will differ from these estimates.

Draft decision 8.21

(1) After considering DBCTM's proposed pass-through of the QCA regulatory levy, our draft decision is to approve DBCTM's proposal.

(2) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

Return of capital

After considering DBCTM's WAML proposal and the depreciation of spares (Chapter 5), we determined it is appropriate to add spares into the RAB for depreciation purposes and that an asset life of 50 years from June 2004 remains an appropriate assumption for the Terminal.

Residual value of initial assets

In the context of the DORC valuation of the existing assets in the original asset base, the QCA accepted a residual value of 2.5 per cent applied to some of the assets. Based on its experience with asset disposals since that time, DBCTM has submitted that the potential salvage value of relevant assets is likely to be zero. DBCTM noted that possible implications of maintaining a salvage value for assets include:

- removing such value from the RAB without compensation to DBCTM
- recovering that value from users after the asset has completed its useful life.

[559] $5,712,059

Under the first possibility, if the scrap value is less than the assumed salvage value then DBCTM would not fully recover the DORC value of the Terminal assets. Under the second possibility, DBCTM would fully recover its costs, but the charges paid by users would not reflect the current costs of providing the regulated service (i.e. future users would be paying for assets that they did not use).

Alternatively, the DBCT User Group commented that DBCTM's proposed approach of assigning a zero scrap value to relevant assets commencing with the 2015 DAU completely discounts the possibility that there is an alternative use for the Terminal or particular assets. Further, it said DBCTM's approach ignores any potential scrap value for the disposal of those assets. The implication of this is that it would be inappropriate for DBCTM to benefit from potential 'double-counting' (i.e. adding the disposal value to the RAB in 2016–17, and also obtaining a salvage value for the asset at the end of its useful life).

We recognise that DBCTM should have the opportunity to receive a return of its capital invested in the Terminal. We also agree with DBCTM that commencing the depreciation of the salvage value component in the 2016–21 regulatory period results in current users of the Terminal, who are using the assets, paying for the use of those assets over the assets' useful lives.

However, at the same time, we share the DBCT User Group's concern that it would be inappropriate for DBCTM to recover the residual value twice. While we have noted DBCTM's experience in realising no value from scrapped assets to date, we are not necessarily convinced that such circumstances will always prevail. There might be any number of reasons (e.g. market circumstances) why salvage value for the particular assets in question was zero, and these might not recur in the future.

Accordingly, we consider both DBCTM and the DBCT User Group have raised valid points. On balance, we are minded to approve an approach that reduces the salvage value to zero and allows for DBCTM to recover the associated return of capital sooner than otherwise. However, we do not consider that DBCTM's current approach satisfactorily addresses the users' concerns with respect to the potential for double-counting.

Conclusion

We propose that the residual value of 2.5 per cent for relevant, initial assets in the RAB is maintained. However, we encourage DBCTM to modify its proposal to address the users' concerns adequately.

Draft decision 8.22

(1) After considering DBCTM's proposed approach to reduce the residual value of the initial Terminal assets to zero, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to maintain the residual value assigned to the initial Terminal assets.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

Tax payable

Stakeholders did not raise any issues with DBCTM's approach to calculating tax payable, which is also consistent with the approach approved by the QCA in both the 2006 and 2010 AUs.

We have no other reason to propose a change to the methodology or assumptions applied; therefore, our draft decision is to maintain the position approved for the 2006 and 2010 AUs.

Draft decision 8.23

(1) After considering DBCTM's proposed statutory corporate tax rate of 30 per cent, our draft decision is to approve DBCTM's proposal.

(2) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

Other modelling issues

We have identified a few minor differences between DBCTM's supporting model and our model. DBCTM has included the working capital allowance in the RAB total used to calculate return on debt (tax expenses) and has (from 2015-16) begun rounding the remaining asset base used in tax depreciation calculations.

We will initiate discussions with DBCTM before releasing our final decision, but our preliminary view is that any changes to address these issues would result in very small impacts on the ARR and TIC.

Conclusion

Due to the lateness of our identification of these issues, we will consult with DBCTM following the release of the draft decision. We consider this to be appropriate and unlikely to compromise stakeholders' ability to comment on the draft decision, as the changes, if introduced, will most likely be commercial-in-confidence, and have very minimal impact on the ARR and TIC. We welcome stakeholder feedback if there are concerns about this approach, or the changes proposed.

9 RING-FENCING MATTERS

DBCTM's 2015 DAU includes a set of ring-fencing arrangements, and related matters, intended to ameliorate vertical integration concerns raised by Brookfield's proposed acquisition of Asciano (which would have given it control of the rail operator, Pacific National).

The ring-fencing arrangements proposed by DBCTM in its 2015 DAU are identical to those proposed in its October 2015 ring-fencing DAAU. However, they differ in some respects from the arrangements proposed in the November 2015 ring-fencing DAAU (which replaced the earlier proposal, following further consultation with stakeholders).

On 29 February 2016, the QCA released a draft decision on DBCTM's November 2015 ring-fencing DAAU. This draft decision proposed to refuse to approve the DAAU, and indicated how the DAAU should be amended in order for it to be approved. We affirm the analysis contained in the draft decision on the November 2015 ring-fencing DAAU, and have adopted that analysis for the purposes of this draft decision on DBCTM's 2015 DAU.

Our draft decision is to refuse to approve the ring-fencing arrangements proposed in DBCTM's 2015 DAU. We consider these arrangements should be amended to be consistent with the arrangements we proposed in our draft decision on DBCTM's November 2015 ring-fencing DAAU, for the reasons detailed in that draft decision.

However, we note that (late in the development of this draft decision) DBCTM submitted that the proposed acquisition was no longer proceeding and, accordingly, it no longer wished to have any of the October 2015 ring-fencing provisions included in the 2015 DAU. Given this advice was received late in the process, we are requesting further comments from stakeholders as to whether any or all of the relevant provisions are still appropriate.

9.1 Ring-fencing arrangements at DBCT

DBCTM's 2010 AU does not include detailed ring-fencing arrangements to deal with vertical integration issues. This is because, at the time the 2010 AU was approved, DBCTM did not have an interest in any of the Terminal's upstream or downstream markets. However, the 2010 AU does include (in cl. 9) a mechanism requiring DBCTM to submit to the QCA a DAAU which includes appropriate ring-fencing arrangements, if vertical integration issues arise:

> *DBCT Management and its direct shareholders do not presently have any interests in markets upstream and downstream from the Services. However, if such interests arise in the future then DBCT Management will, on its behalf and on the behalf of its shareholders, inform the QCA and if required by the QCA prepare a draft amending access undertaking in accordance with the QCA Act setting out its obligations in relation to ring fencing.*

In August 2015, DBCTM advised the QCA that a consortium assembled by Brookfield Asset Management (the ultimate owner of DBCTM, as described in section 1.1 of this draft decision) intended to acquire 100 per cent of the shares in Asciano Limited (Asciano). Asciano is an Australian freight logistics company with a primary focus on transport, including port and rail assets. Relevantly, one of its business divisions is Pacific National, which is one of the competing rail operators providing coal haulage services through to the Terminal. If the proposed acquisition proceeded, Brookfield would own and control Pacific National, giving rise to a degree of vertical integration between DBCTM and Pacific National.

Reflecting this, on 9 October 2015, DBCTM submitted a draft amending access undertaking (DAAU) to the QCA for approval ('the October 2015 ring-fencing DAAU'). This October 2015 ring-

fencing DAAU incorporated ring-fencing arrangements and related matters in the 2010 AU.[560] Separately, on 12 October 2015, DBCTM submitted its 2015 DAU to the QCA for approval—the 2015 DAU includes identical ring-fencing arrangements to the October 2015 ring-fencing DAAU.

On 10 November 2015, DBCTM withdrew the October 2015 ring-fencing DAAU and submitted a further DAAU to the QCA for approval ('the November 2015 ring-fencing DAAU').[561] DBCTM advised that this revised ring-fencing DAAU addressed the majority of issues raised by stakeholders in submissions on the earlier proposal. DBCTM also committed to accepting replacement of the ring-fencing provisions in the 2015 DAU with any arrangements that are approved as part of the assessment of the November 2015 ring-fencing DAAU.[562]

On 29 February 2016, the QCA released a draft decision on the November 2015 ring-fencing DAAU.[563] Our draft decision was to not approve the DAAU and identify the manner in which we consider it should be amended to enable us to approve it in accordance with our obligations under the QCA Act. Our full reasons are detailed in the analysis contained in the draft decision on the DAAU. We affirm the analysis contained in the draft decision on the November 2015 ring-fencing DAAU, and have adopted that analysis for the purposes of this draft decision.

On 16 March 2016, Brookfield, as part of a consortium with some other parties (including Qube and certain pension funds), announced they had agreed to acquire Asciano in a different transaction. Under the new structure, Brookfield would no longer take any interest in Pacific National, which would instead be acquired by five other funds.

9.2 DBCTM's proposal

As noted above, the ring-fencing arrangements proposed in DBCTM's 2015 DAU are identical to the arrangements proposed in the October 2015 ring-fencing DAAU, which was withdrawn and replaced by the November 2015 ring-fencing DAAU. DBCTM committed to accept replacing the ring-fencing provisions in the 2015 DAU with any arrangements that are approved as part of the assessment of the November 2015 ring-fencing DAAU.

We note that we are required to assess the proposals originally submitted by DBCTM as part of the 2015 DAU, for the purposes of this draft decision and any subsequent final decision, and which were based on the October 2015 ring-fencing DAAU. However, if we refuse to approve the 2015 DAU in relation to the ring-fencing provisions originally submitted, we consider the revised proposals contained in the November 2015 ring-fencing DAAU to nonetheless be a relevant issue, which we have had regard to, particularly when considering whether or how it may be appropriate to amend the 2015 DAU. This is in accordance with section 138(2)(h) of the QCA Act.

DBCTM's preferred ring-fencing proposal (prior to its most recent request to withdraw ring-fencing provisions), as contained in its November 2015 ring-fencing DAAU, is described fully in the relevant sections of our February 2016 draft decision on that DAAU. In summary, DBCTM proposed to include in its access undertaking a ring-fencing framework, and related matters, to apply to DBCTM and its interactions with related parties upstream and downstream from the Terminal. The proposed ring-fencing framework includes:

[560] DBCTM, sub. 23.
[561] DBCTM, sub. 27.
[562] DBCTM, sub. 27: 2.
[563] QCA, 2016.

- a process DBCTM agreed to follow if it decides to terminate or permit the assignment of the Operation and Maintenance Contract (OMC), or if DBCTM decides to permit a change in control of the Operator
- a new defined term, Supply Chain Business (SCB), which encompasses any related entity of the Brookfield Group that provides above-rail services in Queensland, owns or holds an interest in coal-producing mines in Queensland, purchases coal produced in Australia, provides shipping services from the Terminal, or trades in capacity at the Terminal
- general access prohibitions on non-discrimination and hindering access (including prohibitions on cost shifting, cross-subsidisation or margin squeezing)
- rules regarding DBCTM's oversight of changes to the Terminal Regulations
- operational separation commitments between DBCTM and related parties (or entities), including separate management and reporting lines for DBCTM, accounting separation and increased confidentiality protections, including around access to premises and the transfer of staff between DBCTM and related entities of the Brookfield Group
- a number of specific provisions dealing with separation of the activities of the trading SCB, including limitations on its direct dealings with DBCTM and confidentiality commitments through a separate deed poll
- amended compliance mechanisms, including complaint handling, audit and reporting processes, and training requirements.

This November 2015 ring-fencing proposal differed in some respects from the proposal contained in the 2015 DAU (and the October 2015 ring-fencing DAAU), particularly with regard to the provisions relating to:

- changing the Operator
- disclosure of the OMC
- amending the Terminal Regulations
- the handling of confidential information
- compliance of the Brookfield Group
- reporting requirements.

9.3 Stakeholders' submissions

In assessing the ring-fencing provisions we consider should apply in the 2015 DAU, we have had regard to submissions received on:

- DBCTM's 2015 DAU (submissions received from the DBCT User Group[564] and Vale[565])
- DBCTM's November 2015 ring-fencing DAAU (submission received from Aurizon Operations[566])

[564] DBCT User Group, subs. 11–16.
[565] Vale, sub. 10.
[566] Aurizon Operations, sub. 28.

- DBCTM's October 2015 ring-fencing DAAU (submissions received from Aurizon Operations[567], the DBCT User Group[568] and Vale[569]).

We have also had regard to the separate process that has been being undertaken by the Australian Competition and Consumer Commission (ACCC), to assess the impact of the proposed acquisition of Asciano by the Brookfield Consortium, in accordance with section 50 of the *Competition and Consumer Act 2010* (CCA). This has included assessment of undertakings proposed by Brookfield to the ACCC under section 87B of the CCA. We have had regard to the ACCC's process in accordance with section 138(2)(h) of the QCA Act; however, our assessment of proposed ring-fencing provisions has been based strictly on the statutory framework in Part 5 of the QCA Act.

Stakeholders' views on DBCTM's ring-fencing proposals are discussed fully in the relevant sections of the QCA's draft decision on DBCTM's November 2015 ring-fencing DAAU. In summary, key matters raised included:

- the scope of the access undertaking
- the independence of the Operator
- regulatory oversight of the OMC
- regulatory oversight of the Terminal Regulations
- transfer arrangements
- the definition of the Brookfield Group
- the business relationship between DBCTM and the trading SCB, and the operations of the trading SCB
- unfair differentiation
- the handling of confidential information
- operation of the secondary trading market
- compliance mechanisms
- reporting requirements.

9.4 QCA analysis and draft decision

Our draft decision is to refuse to approve the ring-fencing arrangements proposed by DBCTM in its 2015 DAU.

The way in which we consider it is appropriate for DBCTM to amend the ring-fencing arrangements in its 2015 DAU in order to have them approved, is as described in our draft decision on DBCTM's November 2015 ring-fencing DAAU (released on 29 February 2016). The reasons for our proposed amendments are discussed fully in that draft decision. We affirm the analysis contained in that draft decision, and have adopted that analysis for the purposes of this draft decision on DBCTM's 2015 DAU.

[567] Aurizon Operations, sub. 24.
[568] DBCT User Group, sub. 25.
[569] Vale, sub. 26.

As noted in the draft decision on DBCTM's November 2015 ring-fencing DAAU, we acknowledge that DBCTM proposed material amendments in that DAAU, compared to its October 2015 ring-fencing DAAU and 2015 DAU, in response to issues raised by stakeholders on the earlier proposals.

As also noted in that draft decision, we consider the majority of the arrangements proposed in the November 2015 ring-fencing DAAU to be reasonable, and to represent an appropriate balancing of the interests of stakeholders, in accordance with the criteria in section 138(2) of the QCA Act. Accordingly, we propose to approve the majority of ring-fencing provisions proposed by DBCTM in that DAAU.

However, there are a number of areas where we consider DBCTM's proposals, as contained in its November 2015 ring-fencing DAAU, need to be further amended. These are discussed in detail in the relevant sections of our draft decision on the November 2015 ring-fencing DAAU. The full required amendments are detailed in Appendices A and B to this draft decision—these amendments are consistent with those contained in the draft decision on the November 2015 ring-fencing DAAU.

In summary, we have proposed amendments in the following general areas:

- requiring DBCTM to not unfairly differentiate between rail operators
- preventing DBCTM from providing, or offering to provide, a bundled access and above-rail service
- prohibiting protected information being accessed by employees of a SCB
- prohibiting protected information being disclosed to entities within the Brookfield Group other than Brookfield Infrastructure Partners and Brookfield Asset Management
- extending enforcement of the trading SCB deed poll to access seekers and rail operators
- preventing the supply of services by DBCTM to the trading SCB
- providing necessary compliance protections for rail operators
- providing that complaints information will not be confidential, unless requested by an affected party and approved by the QCA
- requiring DBCTM to direct its directors, employees and agents to not do anything inconsistent with its obligations
- removing the ability of DBCTM to seek a waiver of its ring-fencing obligations
- requiring more robust compliance training requirements
- providing greater transparency and accountability to:
  - the scope and administration provisions (discussed in more detail in Chapter 3 of this draft decision)
  - the access transfer provisions (discussed in more detail in Chapter 10 of this draft decision)

In addition, we have proposed to accept various amendments proposed by DBCTM in its November 2015 ring-fencing DAAU (as compared to the 2015 DAU and October 2015 ring-fencing DAAU). These are also discussed in detail in the draft decision on the November 2015 ring-fencing DAAU.

Draft decision 9.24

(1) After considering DBCTM's proposed ring-fencing arrangements, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to incorporate ring-fencing arrangements consistent with our February 2016 draft decision on DBCTM's November 2015 ring-fencing DAAU.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this draft decision for the reasons set out above.

9.5 Way forward

On 24 March 2016, DBCTM notified the QCA that it wished to withdraw its November 2015 ring-fencing DAAU. It also indicated that, in light of the original transaction no longer proceeding, it also no longer wishes to include any additional ring-fencing provisions in the 2015 DAU.

The question arises as to whether detailed ring-fencing arrangements, which may have costs associated with them, remain warranted and appropriate in DBCTM's access undertaking, given the change in circumstances since the 2015 DAU was submitted.

We consider the following three possible alternatives may then need to be considered:

- removal of any of the changes introduced as part of the ring-fencing DAAUs, and a return to the old clause 9 provision, as approved in the 2010 AU
- retention of the full proposed ring-fencing arrangements, as proposed by the QCA in our draft decision on the November 2015 ring-fencing DAAU—although potentially with a caveat that they do not take effect unless and until any vertical integration of DBCTM with a related party in the coal supply chain becomes a reality
- a 'middle ground', where a more limited number of the ring-fencing changes proposed in our draft decision on the November 2015 ring-fencing DAAU would be incorporated in the 2015 DAU, in the event that these may either: (a) be appropriate even absent vertical integration (such as changes proposed to the scope and administration provisions to address issues of transparency and accountability regarding the provision of declared services); or (b) be relevant to activities in related markets (such as DBCTM's capacity trading activities).

Given the above, the QCA specifically requests stakeholders to provide feedback as to the approach which they consider is appropriate for the QCA to adopt with respect to ring-fencing arrangements for DBCTM's 2015 DAU, in light of the Brookfield/Asciano transaction no longer proceeding.

We will take into account all submissions received on these matters in developing our final decision on DBCTM's 2015 DAU. We also intend to give further regard to matters previously raised in relation to each of the 2015 DAU, October 2015 ring-fencing DAAU and November 2015 ring-fencing DAAU.

10 NEGOTIATION FRAMEWORK AND CAPITAL PROCESSES

The third-party access regime in the QCA Act is underpinned by a 'negotiate–arbitrate' approach to regulation, which establishes the central role of commercial negotiation for parties wishing to secure access to the declared service.

The negotiation and investment framework in the 2015 DAU should provide a high degree of certainty and transparency concerning the process to be followed by DBCTM when considering access applications lodged by access seekers seeking access to the Terminal, including access applications that can only be accommodated with a Terminal capacity expansion.

The 2015 DAU's negotiation and investment framework is provided for in clauses 5, 12, 13, 14, 15 and schedules A and B of the 2015 DAU.

Our draft decision is to not approve the negotiation and investment framework in the 2015 DAU. While we have accepted the majority of the provisions proposed by DBCTM, we consider that a number of amendments are appropriate in order to:

- *clarify the rights and obligations of access seekers, users and DBCTM*
- *set appropriate boundaries for the negotiation of non-standard terms and conditions to be included in an access agreement*
- *establish transparent and accountable access transfer arrangements to apply to DBCTM's management of the secondary access market*
- *require DBCTM to develop, if required, a template funding agreement for publication on the QCA's website*
- *ensure all elements of the negotiation and investment framework are subject to the dispute resolution provisions in the 2015 DAU.*

10.1 Overview

A transparent and accountable negotiation and investment framework is a central component of the 2015 DAU. In accordance with Part 5 of the QCA Act, we consider the negotiation and investment framework in the 2015 DAU should comprise the following three elements.

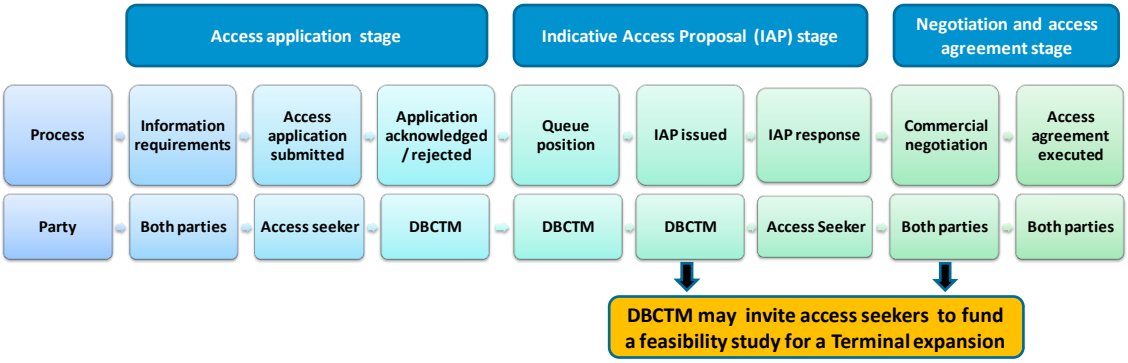
Access negotiation

The access negotiation process should allow access seekers and renewing access holders to request access to the declared service (see Figure 10) and provide for existing users to transfer access rights to other users and third parties. Access negotiations fall within the 2015 DAU's negotiation and investment framework and should provide a transparent framework to govern:

- access application forms, information requirements on parties, timeframes and the indicative access proposal process
- formation of an access queue and appropriate principles for DBCTM to determine priority in the queue and removal from the queue
- obligations and responsibilities of DBCTM and access seekers during the different stages of access negotiation

- the process by which access seekers and DBCTM can agree terms and conditions underpinning the provision of access, including when access is conditional on a Terminal expansion
- the process and information requirements governing the transfer of access rights.

Figure 10: 2015 DAU — the access negotiation process



Capital investment processes

We consider the capital investment processes should allow DBCTM to:

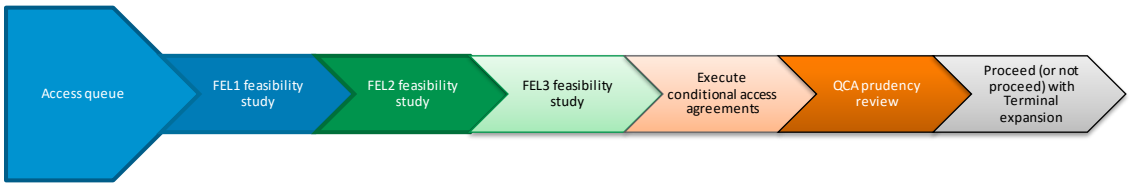
- scope and undertake feasibility studies on expansion projects that are required to provide access seekers with access to the declared service (see Figure 11)
- invest in prudent non-expansion capital works to maintain the Terminal in accordance with the standards specified in the 2015 DAU.

The capital investment process falls within the 2015 DAU's negotiation and investment framework and should provide transparency in respect of the:

- general obligation of DBCTM to undertake non expansion capital expenditure (NECAP)
- general obligation of DBCTM to undertake Terminal capacity expansions[570]
- responsibilities of DBCTM and access seekers at various stages of a Terminal expansion project, including obligations related to the funding of feasibility studies
- process rules applying to the execution of access agreements conditional on a Terminal expansion
- capacity allocation rules to reflect the funding commitments of parties through each study stage
- capacity compression rules if a capacity expansion, once completed, does not deliver the capacity which had been contracted
- regulatory approval process for the costs and tariffs associated with a Terminal capacity expansion, including the establishment of interim and final reference tariffs to apply when the Terminal expansion is commissioned.

[570] In the 2015 DAU, DBCTM has accepted an obligation to invest in the Terminal to accommodate demand for access, eliminate shortfalls in Terminal capacity, comply with good operating and maintenance practices and comply with approvals and applicable laws. See 2015 DAU, p. 66.

Figure 11 2015 DAU-staged capital investment process



Master planning processes

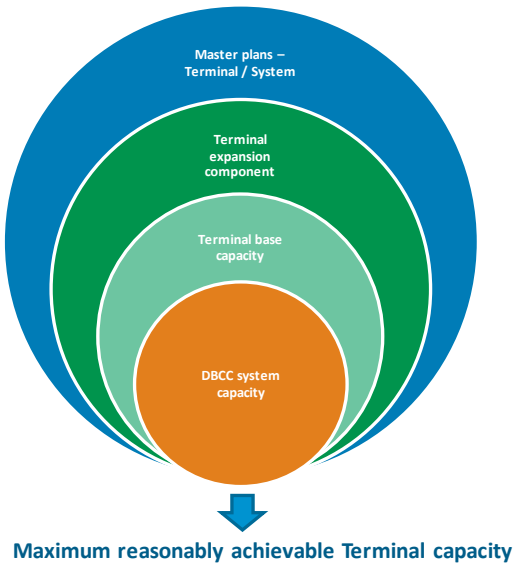
The master planning processes should provide users, access seekers and DBCC service providers with the confidence that DBCTM will:

- efficiently invest in the Terminal in accordance with the Terminal Master Plan
- integrate the Terminal Master Plan with either the System Master Plan (if it exists) or with the present and likely future state of the other relevant components of the DBCC.

The master planning process falls within the 2015 DAU's negotiation and investment framework and should provide transparency in respect of the obligations of DBCTM to:

- determine the maximum reasonably achieved capacity of the Terminal and the DBCC system, and to re-determine these capacity parameters when a Terminal expansion component is commissioned
- annually review the Terminal Master Plan in consultation with DBCC stakeholders
- participate in system master planning and work cooperatively with DBCC stakeholders
- engage with DBCC stakeholders to develop and implement mechanisms to improve the overall efficiency of the DBCC, including to submit a DAAU to the QCA, if it is reasonably required to implement the agreed whole-of-supply chain efficiency mechanisms.

Figure 12: 2015 DAU — master planning process



The three elements of the 2015 DAU's negotiation and investment framework are contained in clauses 5, 12, 13, 14, 15 and in schedules A and B of the 2015 DAU.

10.2 QCA assessment approach

Our approach in assessing the negotiation and investment framework in the 2015 DAU is based on our assessment of whether the framework and related schedules have due regard to the factors listed in section 138(2) of the QCA Act. In broad terms, we consider the factors listed in section 138(2) are best balanced when the negotiation and investment framework and related schedules in the 2015 DAU:

- provide for the non-discriminatory treatment of access seekers and access holders when seeking and renewing access rights with DBCTM
- include a Standard Access Agreement that can be relied on by all parties to
  - provide a contractual risk profile that appropriately balances the rights, obligations, risk, liabilities and indemnities between the contracting parties
  - facilitate the timely negotiation and execution of access agreements
  - where relevant, provide funding assurance that facilitates investment by DBCTM in a Terminal capacity expansion
- prevent the Terminal from being used to restrict or delay efficient investment or competition in upstream and downstream markets
- provide transparent and accountable oversight and enforcement of the negotiation and investment framework.

Given the above, and in accordance with section 138(2)(h) of the QCA Act, we have also had regard to:

- our draft decision on DBCTM's November 2015 ring-fencing DAAU
- the regulatory precedents established in the negotiation and investment frameworks included in DBCTM's 2006 and 2010 AUs.

Draft decision on the November 2015 ring-fencing DAAU

On 29 February 2016, the QCA released a draft decision on the November 2015 ring-fencing DAAU.[571] Our draft decision was to not approve the DAAU. We identified the manner in which we consider the DAAU should be amended to enable us to approve it in accordance with our obligations under the QCA Act. Our full reasons are detailed in the analysis contained in that draft decision. We affirm and have adopted the analysis contained in the draft decision on the November 2015 ring-fencing DAAU, for the purposes of this draft decision.

DBCTM has proposed a number of new amendments to the negotiation and investment framework in the 2015 DAU that were not included in the November 2015 ring-fencing DAAU. We have separately considered whether the 2015 DAU amendments to the negotiation and investment framework are consistent with the assessment approach identified above.

Regulatory precedents

As discussed in Chapter 2 of this draft decision, we consider the 2006 AU and 2010 AU (as varied through approved DAAUs) provide important context within which to assess the 2015 DAU and Standard User Agreement (SUA). We recognise as a relevant consideration under section

[571] QCA, 2016, Draft Decision: DBCTM 2015 (ring-fencing) Draft Amending Access Undertaking

138(2)(h) that investment confidence is likely to be facilitated by providing a degree of stability and predictability in the regulatory framework as between relevant parts of the 2010 AU and 2015 DAU. This is particularly the case in relation to the negotiation and investment framework, where changes have the potential to alter the commercial position of existing access holders and future access seekers

In this regard, we note that over the last 10 years, both the 2006 and 2010 AUs appear to have been relatively effective in providing DBCTM, access seekers, and access holders with a workable and effective framework to facilitate the grant and renewal of access rights by DBCTM. Importantly, these precedents have also been effective in enabling DBCTM and users to commit to the Terminal capacity expansion which increased the Terminal's nameplate capacity to 85 mtpa in 2009.

10.2.1 Approval of amendments consistent with regulatory precedents

Predictability and certainty in the contractual arrangements underpinning access to the declared service is important for coal companies, rail operators and third parties to compete and invest in markets upstream and downstream from the Terminal.

Attachment 1 details our consideration of DBCTM's proposed amendments to the negotiation and investment framework in the 2015 DAU[572], the relevant regulatory precedent[573] in the 2010 AU and stakeholder comments or acceptance of the proposed amendments. In considering the appropriateness of the proposed amendments in the 2015 DAU, we have:

- approved DBCTM's proposed amendments where they are consistent with either the policy intent of the regulatory precedents or which have been accepted by stakeholders[574]
- approved, in principle, DBCTM's proposed amendments but recommended some drafting changes to address stakeholders' concerns that the proposed drafting creates ambiguity in terms of the operation of the provisions and legal uncertainty with respect to the rights and obligations of access seekers, users and DBCTM.

Attachment 1 identifies the amendments we have proposed to approve in accordance with the above two categories.

10.2.2 Non-approval of identified amendments

In considering DBCTM's proposed amendments to the negotiation and investment framework, we have identified a limited number of amendments that require more detailed consideration:

- the nature of the entity to hold access rights
- access term and renewal rights
- access transfer arrangements
- user funding and/or underwriting agreements
- NECAP.

[572] DBCTM, sub. 2, 30, 31 and 32.
[573] This chapter does not address any of the proposed differential pricing amendments to the negotiation and investment framework. See Chapter 11 of this draft decision for our interim position on differential pricing.
[574] DBCT User Group, sub. 11, 15, 16 and 29.

In each case, we have concerns with the approach proposed by DBCTM. Our interim view on each of the above issues, as set out in this chapter, is to reject DBCTM's proposed provisions. Where appropriate, we have proposed alternative drafting that we consider would appropriately balance all the matters listed in section 138(2) of the QCA Act.

10.3 The nature of the entity to hold access rights

10.3.1 DBCTM's 2015 DAU proposal

Section 5 of the 2015 DAU does not explicitly state that the access seeker, access applicant or renewing access holder must be a coal producer. However, DBCTM does specify that an access seeker and an access applicant must be able to provide detailed information on the actual (or planned) coal mine which is (or will be) the source of the coal that will be shipped through the Terminal. The information requirements are as follows:

- information on the origin of the coal (coal mine), stockpiling/blending requirements, number of coal products, coal qualities, commencement date, net tonnes per annum, size and number of train consists per week, expected number and type of customer vessels on a month by month basis and the requirements for trial shipments
- information on the estimate of the marketable coal reserves and coal resources (calculated in accordance with the JORC Code and the Coal Guidelines) at the date the access application is lodged, and an explanation of how the estimate of marketable coal reserves is consistent with having sufficient net tonnes per annum to ship through the Terminal for the first five years and the remaining term of the access rights being sought
- if the origin of the coal is a new coal project, information on the coal project's timeline, including key milestones, necessary approvals, feasibility studies, project funding requirements and an explanation of how the project is tracking against the project's timelines.

10.3.2 Stakeholders' submissions

The DBCT User Group has recommended the 2015 DAU stipulate that an access seeker, renewing access holder and access holder must be a coal producer or planning to become a coal producer.

> *(Producers to contract for access) Despite anything else in Part 5, to be an Access Seeker or Access Holder, an entity must be an existing producer of coal, or anticipated to become a producer of coal, in respect of which the Services are to be provided.*[575]

10.3.3 QCA analysis and draft decision

While it is not explicitly stated by DBCTM, our view of the 2015 DAU is that in practice an access seeker, renewing access holder or user must be either a coal producer or a third party with the authority to negotiate access with DBCTM on behalf of a coal producer.[576] This approach is not dissimilar to the approach adopted by Aurizon Network and Queensland Rail in their approved access undertakings. In the rail infrastructure markets, rail operators may apply for and hold

[575] DBCT User Group, sub. 15: 5

[576] A third party could only provide the information required under cl. 5.2-5.3A if (a) a coal producer is willing to provide that information to the third party, (b) the third party can demonstrate to DBCTM that coal will be available to be delivered according to the access rights sought.

access rights on behalf of a coal producer who contracts with the rail operator to haul coal from their mine to port as a bundled rail service offering.

In applying our assessment approach, we approve DBCTM's proposed approach for strengthening the information requirements to be provided in access applications. We consider DBCTM's proposed approach appropriately balances all of the factors listed in section 138(2) of the QCA Act, in particular, it appropriately balances the legitimate interest of DBCTM in ensuring that access seekers provide sufficient information to allow DBCTM to properly assess an application, with the interests of current and future access holders.

We also consider it relevant to take into account the interests of other stakeholders (such as rail operators) who may wish to participate by holding access rights in the future, and the public interest in ensuring that the 2015 DAU supports the flexible development of the DBCC over time, without constraining which entities within the DBCC may hold rights. On this basis, we do not consider the DBCT User Group's proposed imposition of a blanket prohibition on the nature of the party eligible to be an access seeker has appropriate regard to the matters in section 138(2) of the QCA Act.

Draft decision 10.25

(1) After considering DBCTM's proposal to strengthen the information provisions required for an access seeker to provide in an access application or renewal application, our draft decision is to approve DBCTM's proposal.

(2) We consider that if an access seeker or user is able to fulfil the information requirements outlined in clauses 5.1 to 5.3A, then DBCTM is entitled to negotiate with the access applicant in accordance with the negotiating framework in the 2015 DAU.

(3) After having regard for each of the matters set out in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

10.4 Access term and renewal rights

10.4.1 DBCTM's proposal

The 2015 DAU distinguishes between two types of access agreements that may be executed by DBCTM and access seekers during the term of the regulatory period:

- a conditional access agreement—an access agreement that can be executed by DBCTM and an access seeker on the basis that DBCTM's provision of the contracted access rights will be conditional on the determination of Terminal expansion capacity[577] following the commissioning of a Terminal expansion
- an access agreement—an access agreement that can be executed by DBCTM and an access seeker on the basis there is sufficient available Terminal and system capacity to accommodate the access rights sought.[578]

[577] See cl. 5.4(h) of the 2015 DAU
[578] See cl. 5.4(f) of the 2015 DAU

Conditional access agreements

DBCTM has proposed the following term and renewal rights will apply to the conditional access agreements associated with a Terminal expansion[579]:

- The term of the user agreement is to be for a minimum weighted average term of 15 years, with a 100 per cent take-or-pay commitment over that term.
- The renewal rights of the User Agreement will be automatically extended on a rolling 12-month basis, commencing on the last day of the 10th year ('anniversary date') of the agreement and continuing every anniversary date thereafter.
- On the first anniversary date of the User Agreement, and any date thereafter, the user can issue an extension prevention notice to notify DBCTM that the user will terminate the agreement on a date that is five years after the next anniversary date.
- If the user issues an extension prevention notice, the user loses the right to renew its User Agreement.
- A user can notify DBCTM of a reduction in the annual contract tonnage from the first anniversary date only if the user can demonstrate the reduction is due to the expected end-of-mine-life of the source mine.
- DBCTM will receive at least five years notice of the expiry, termination or reduction in annual contract tonnes in a User Agreement.
- Users are liable for their annual contract tonnage in the five-year notice period, unless DBCTM submits to the QCA a review event application under Schedule C of the 2015 DAU[580] to amend the TIC due to a change in reference and non-reference tonnage under contract.

DBCTM advised that the above amendments have been proposed to address the funding concerns of future financiers who will look through the Terminal capacity expansion to the industry and participants reliant on the access rights derived from the Terminal expansion. DBCTM cited the current weakness in the funding market for expansions of infrastructure servicing the mining industry as the reason for needing to increase the weighted average term of a conditional access agreement from 10 years to 15 years.[581]

Access agreements

Existing User Agreements establish an initial 10-year term with a 100 per cent take-or-pay commitment over that term. They provide a user with an evergreen right to renew the User Agreement where it is renewed for at least five years. A user can only renew a User Agreement for less than five years if it coincides with an expected end of mine life. In these circumstances, a user will lose the right to renew the agreement and it will lapse on expiry. Renewal rights in existing User Agreements are exercisable at any time up to 12 months prior to the end of the term.[582]

DBCTM has proposed to retain the 10-year term for future access agreements not conditional on a Terminal capacity expansion.[583] It is not clear if DBCTM intends to retain the existing access

[579]DBCTM sub. 2: 38-39, sub. 31: 87-–8 and sub. 32: 32–33.
[580] 2015 DAU: cl. 4, Schedule C.
[581] DBCTM sub. 31:87–88.
[582] Cl. 20 of the 2010 User Agreement and cl. 13 of the 2010 AU.
[583] DBCTM, sub. 32:32-33.

renewal right and notice period in new access agreements or whether DBCTM intends to implement a rolling 12-month renewal right with a five-year notice period, consistent with the approach proposed for conditional access agreements.

10.4.2 Stakeholders' submissions

The DBCT User Group acknowledged that DBCTM's proposed amendments to the term, access renewal right and notice period will not apply to existing users. The DBCT User Group advised that DBCTM has not sufficiently justified why the initial term of a conditional access agreement should be extended from 10 years to 15 years, but have indicated they will leave it to the QCA to determine the appropriate balance between DBCTM and expansion users of the Terminal.[584]

The DBCT User Group acknowledged that the renewal rights in existing User Agreements provide an evergreen right to renew access based on the same terms and conditions. It considered it highly unlikely that any existing user would elect to not renew its access agreement. In circumstances where a user has no need of the access rights, the user is more likely to seek a commercial arrangement for the assignment[585] of access rights to another user or a third party miner rather than to forfeit the access rights by failing to renew a User Agreement.[586]

In a supplementary submission to the QCA[587], DBCTM highlighted that it was currently exposed to a higher risk of the non-renewal of existing User Agreements. DBCTM's submission was in response to the DBCT User Group's proposition that users will always renew their User Agreements.

10.4.3 QCA analysis and draft decision

Our draft decision is to refuse to approve DBCTM's proposal to amend the access term and renewal rights to apply in the 2015 User Agreement. In reaching this interim position, we separately considered the appropriateness of amending the access term and renewal rights in both categories of the User Agreement referenced in clause 5 of the 2015 DAU, as set out below.[588]

Conditional access agreements

DBCTM has proposed to differentiate the term and renewal rights for conditional access agreements on the basis that it would strengthen the risk profile of the agreements and better align to the term potential financiers are likely to require in a Terminal expansion.[589] At the same time, DBCTM acknowledged the other key elements to the risk profile are the creditworthiness of the conditional access holders, the revenue certainty created by the regulated pricing arrangements and the 100 per cent take-or-pay commitment contained in the access agreements consistent with regulatory precedents.[590]

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[584] DBCT User Group, sub 15: 5.
[585] In accordance with cl. 12 of the 2015 DAU User Agreement.
[586] DBCT User Group, sub. 29: 4–5.
[587] DBCTM sub. 30.
[588] DBCTM sub. 31: 87–88 explains a differentiation between conditional and unconditional access agreements, but the drafting in the 2015 User Agreement provides only for the term and renewal rights of a conditional access agreement.
[589] DBCTM, sub. 31: 87–88. DBCTM advise that the risk profile underpinning a conditional access agreement determines DBCTM's ability to obtain funding for capacity expansions at the Terminal.
[590] DBCTM, sub. 31: 87.

We note there are a number of potential funders of a Terminal capacity expansion, including Brookfield investing its own capital, DBCTM investing with funding from third party financiers, and access seekers investing in the Terminal to gain the necessary access rights required to compete in a related downstream market. We have considered many of the same issues as part of our separate consideration of the funding arrangements required to efficiently expand regulated rail infrastructure in Queensland.[591]

Our consideration of these separate regulatory processes has revealed that the efficiency of funding arrangements applying to a regulated facility extension are predominately reliant on the effectiveness of the commercial agreements and security provisions underpinning the extension rather than the underlying term of the conditional access agreements reliant on the capacity created from the extension. We note that neither Aurizon Network nor Queensland Rail has sought to include a standard access agreement in their proposed replacement DAUs with a term that exceeds 10 years.

We consider the workability and bankability of the commercial arrangements underpinning a Terminal capacity expansion will be reliant on the nature of the regulated market applying to DBCTM at the relevant point in time.

Accordingly, we consider that the position of funders and their interest in identifying a secure revenue stream to underwrite any investment in an expansion is currently provided by a number of features of the 2015 DAU, including:

- the form of regulation and pricing arrangements (cl. 11 and Schedule C of the 2015 DAU) applying to the Terminal
- procedures for obtaining regulatory approval to include expansion and non-expansion capital expenditure in the RAB (cls. 5, 11 and 12)
- the competitiveness of Queensland's northern Bowen Basin coal mines within the global coal market.

In the absence of evidence being provided by DBCTM, we are not convinced there is a need to increase the term of all conditional access agreements to 15 years to make a potential future Terminal capacity expansion more attractive to potential financiers.[592] Neither are we convinced that an increase in the term of a conditional access agreement to 15 years will, of itself, make a potential future Terminal capacity expansion more attractive to potential financiers.

We do not consider DBCTM's proposed amendment to increase the term and amend the access renewal rights in conditional access agreements reflects an appropriate response to the funding risks identified by DBCTM. Instead, we consider DBCTM's proposed amendments to a number of other areas of the 2015 DAU, which we have proposed to approve, should mitigate the funding risk concerns raised by DBCTM. For example:

- We propose to approve DBCTM's proposed amendments to strengthen its rights to establish the creditworthiness of access seekers during the:

[591] We refer to our separate draft decisions on Aurizon Network's 2013 Standard User Funding Agreement (SUFA) DAAU and 2014 DAU as well as our draft decision on Queensland Rail's 2015 DAU.

[592] Indeed, DBCTM has proposed a 'weighted average' term of 15 years which suggests that the term of some agreements could be substantially longer than 15 years. No detail is provided on how the term would be calculated, although DBCT does suggest aligning the term to some degree with volumes or mine life.

  - negotiation of a conditional access agreement
  - negotiation of a funding agreement to progress the feasibility study of a Terminal capacity expansion
  - conduct of a feasibility study funded by the conditional access holder
  - progression through successive feasibility stages, with DBCTM empowered to remove an access seeker from the queue and terminate a conditional access agreement if the access seeker cannot establish its solvency or creditworthiness.

- We propose to approve pricing arrangements that provide a high degree of regulatory certainty on the annual revenue stream to be earned by DBCTM over the 2015 DAU regulatory period, including by removing the requirement for DBCTM to bear insolvency or credit default risk of current access holders by virtue of the definition of 'Notional Contract Tonnage.'
- We propose to approve amendments to provide DBCTM with greater flexibility to manage the queue in accordance with its proposed feasibility funding provisions.

While we have not approved DBCTM's approach to amending the risk profile of the standard term of a conditional access agreement, we agree that DBCTM's ability to reach financial closure on a Terminal capacity expansion will be influenced by the prevailing market conditions and the project-specific documentation underpinning the expansion. For example, if a Terminal capacity expansion is uniformly priced[593], allowing for socialisation of costs, then the risk profile of the expansion, once operational[594], should align with the base Terminal. However, if a Terminal capacity expansion is differentially priced, we accept there may be a need for DBCTM, access seekers and financiers to assess:

- the nature of the risk profile applying to the differentially priced expansion project
- whether different access terms and conditions are required to mitigate DBCTM's[595] exposure to the additional costs or risks associated with the differentially priced access rights
- whether, in the absence of DBCTM being willing to fund the expansion project, access seekers are prepared to step in to fund the expansion project to obtain access to the Terminal.

Accordingly, we have proposed amendments to clause 13.1 of the 2015 DAU to allow DBCTM to apply different terms to the template User Agreement in its negotiations with access seekers of a differentially priced Terminal expansion. We have also set boundaries for the negotiation of non-standard terms to ensure such negotiations remain subject to QCA regulatory oversight through the dispute resolution provisions in the 2015 DAU. We consider our proposed amendments allowing DBCTM and access seekers to negotiate non-standard terms to address specific costs and/or risks in a differentiated expansion:

- are consistent with the object of Part 5 of the QCA Act

[593] See Chapter 11 of this draft decision.
[594] We accept there will be construction cost and risks associated with a Terminal expansion which will not apply to the operating part of the Terminal, but we consider the security provisions contained in the 2015 User Agreement provide DBCTM with the ability to manage that risk.
[595] Including potential financiers who may fund DBCTM's differentiated Terminal expansion.

- appropriately balance the legitimate business interests of DBCTM with the interests of access seekers, access holders and third parties who compete in upstream and downstream markets from the Terminal.

Access agreements

We do not consider it is clear what DBCTM is proposing to do with the renewal rights to be applied to access agreements that can be executed without triggering a Terminal expansion. However, we are of the view that new access agreements should continue to reflect the access renewal rights contained in the 2010 AU. In coming to this view we have taken the following matters into consideration:

- The scope for an access seeker to execute an access agreement within the term of this regulatory period is limited to the expiry of an existing User Agreement.
- It is likely that over the 2015 DAU regulatory period, the majority of the Terminal's capacity will be contracted under existing User Agreements and there is only a small prospect for new access agreements to be executed, because the:
  - evergreen nature of renewal rights are embedded in existing agreements and users are incentivised to assign their User Agreement rather than forfeit their right to renew the agreement[596]
  - the renewal rights contained in an assigned User Agreement provide the assignee with the evergreen right to renew the assigned agreement for five years or more, and would be exercisable at any time up to 12 months prior to the end of the term.

Having regard to the above, and having regard to all the matters listed in section 138(2) of the QCA Act, we consider the access term and renewal rights in access agreements should continue to reflect the existing position under the 2010 AU, which will provide continuity and predictability for access seekers and access holders. As identified in Section 10.2 above, we consider the regulatory precedents established in the 2010 AU:

- appropriately balance the factors listed in section 138(2) of the QCA Act
- appear to have been effective in providing a non-discriminatory framework for access seekers and access holders to seek and renew access rights with DBCTM.

In applying our assessment approach, our draft decision is that clause 13.2 of the 2015 DAU and clause 20 of the 2015 User Agreement should reinsert the 10-year access term and renewal rights provided for in the 2010 AU, for both access and conditional access agreements.

[596] DBCT User Group, sub. 29: 3–5

Draft decision 10.26

(1) After considering DBCTM's proposal to increase the access term from 10 years to 15 years and to strengthen the access renewal terms in the 2015 DAU, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is as follows:

(a) The 2010 AU access term and access renewal provisions should be reinstated in clause 13 of the 2015 DAU and clause 20 of the 2015 User Agreement.

(b) Clause 13.1(d) of the 2015 DAU should provide an ability for DBCTM to apply non-standard terms to a conditional access agreement, to address cost and risk issues associated with a differentially priced Terminal expansion.

(3) After having regard for each of the matters set out in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

10.5 Access transfer arrangements

Consistent with sections 106 and 137 of the QCA Act, we consider the 2015 DAU should outline the access transfer arrangements that users can rely on in order to exercise their right to transfer or assign, some, or all, of the access rights held under a User Agreement.

The 2010 AU provides a contractual right for users to facilitate swaps, transfers and the assignment of access and shipping rights at the Terminal with other users and third parties. This provides users with the flexibility to transfer and assign access rights through bilateral trades with other users and third parties. These mechanisms operate for the benefit of all access holders because it enables them to:

- minimise take-or-pay liabilities on monthly and annual contract tonnes, which an access holder anticipates will not be used
- align forecast weekly, monthly and annual mining, railing and shipping profiles to material fluctuations in coal production, DBCC infrastructure capability and global demand for coal
- align forecast month-to-month coal movements in the DBCC with the Terminal's cargo assembly operating mode
- maximise monthly and annual throughput at the Terminal.

We understand DBCTM currently administers approved transfers, with this service (e.g. the approval process, execution or amendment of related User Agreements and billing processes) being provided to users and third parties at no additional cost.

10.5.1 DBCTM's proposal

Clause 12 of the 2015 User Agreement gives a user the right to permit another user or third party to ship coal through the Terminal using the first user's access rights and for the first user to transfer some or all of its contracted access rights to another user or third party on a permanent or temporary basis.

Brookfield has established a Trading SCB to acquire, aggregate and sell ‘secondary’ terminal access rights utilising this contractual transfer mechanism.

Schedule I of the 2015 DAU identifies the undertaking that the Trading SCB has made with respect to its participation in the secondary access market downstream from the Terminal.

10.5.2 Stakeholders' submissions

The DBCT User Group considered that Brookfield's Trading SCB and Brookfield's proposed purchase of Asciano created uncertainty as to how DBCTM would manage access transfers in the 2015 DAU regulatory period[597]:

- DBCTM may be incentivised to keep its investment in the Terminal to a minimum.
- DBCTM may be incentivised to slow down the negotiation process for assignments and/or refuse to consent to an assignment, with a view to the proposed assignee engaging with the Trading SCB for capacity.
- The trading SCB may be incentivised to hold capacity with the aim of creating an unregulated market for the provision of access to the Terminal.
- The trading SCB may, following any acquisition of Asciano by Brookfield, seek to bundle port and rail capacity in a way which has an adverse impact on competition in the market for the provision of rail services.

Aurizon Operations also identified concerns with the ability for a DBCTM related party to trade capacity outside the requirements of the access undertaking:

> *Aurizon submits that where DBCTM seeks to trade capacity through a related entity then it should agree with the users the appropriate framework under which that trading can occur and that the framework be submitted to the QCA for approval as part of the [2015] DAAU.*[598]

10.5.3 QCA analysis and draft decision

Our draft decision on the November 2015 DAU is to affirm and adopt the analysis contained in our draft decision on DBCTM's November 2015 ring-fencing DAAU. As noted in that draft decision:

- We do not consider the trading activities undertaken by Brookfield's Trading SCB falls within the scope of the declared service as defined in the QCA Act.
- We consider the scope of the declared service to include the relevant access transfer arrangements to allow users to exercise their right to transfer all, or part, of the access rights held under a User Agreement on a temporary or permanent basis to another user or third party.[599]

Reflecting this, we identified in our draft decision on the November 2015 ring-fencing DAAU that amendments were required to identify the assessment timeframe and criteria DBCTM (and, where relevant, DBCT PL) will follow when a user seeks DBCTM's approval to:

- assign some or all of its access rights to another user or third party on a temporary or permanent basis, including the timeframes for DBCTM to execute a User Agreement with an assignee who is not currently a user at the Terminal
- permit another user or third party to ship coal through the Terminal and have that coal treated as the user's coal pursuant to its obligations under the User Agreement

[597] DBCT User Group, sub 11:29-30.
[598] Aurizon, sub. 28:5.
[599] Sections 106 and 137 of the QCA Act.

- transfer access rights at short notice and within the shipping month as defined under clause 3 of the Terminal Regulations.

We recognise that, up until now, transfer arrangements underpinning the 2010 AU have been a commercial matter between DBCTM, DBCT PL, relevant users and, where relevant, third party coal producers. We also acknowledge that we have not, to date, received a complaint from a user regarding the process underpinning DBCTM's approval or non-approval of access transfer requests.

However, in the 2015 ring-fencing DAAUs and 2015 DAU consultation processes, stakeholders specifically highlighted their concerns regarding the ability for DBCTM to limit the workability of the secondary access market to advantage the commercial position of Brookfield in markets that are upstream or downstream from the Terminal.[600] We share stakeholders' concerns that the lack of clarity and accountability on the access transfer arrangements applying to the 2015 DAU could be used by DBCTM to:

- limit the practicality and efficiency of users and third parties engaging in bilateral transfers and short-term transfers to favour the commercial interests of DBCTM's related trading SCB
- engage, or propose to engage, in conduct that could hinder access and unfairly differentiate between users and access seekers, to favour the commercial position of a related party operating in the above-rail market.

We accept that the second concern is less likely to be relevant over the course of the next regulatory period, given that Brookfield is no longer proceeding with its proposed acquisition of Asciano.

Given this, we would like DBCTM and stakeholders to consider their position on the nature and scope of the access transfer arrangements that should apply in the 2015 DAU. For example, we would like DBCTM and stakeholders to provide us with their views on the access transfer arrangements in the context of the following high-level principles:

- certainty—regarding the timeframes to apply to DBCTM, users and third parties under the access transfer arrangements
- objectivity, accountability and consistency—regarding the decision-making framework DBCTM should apply to access transfer requests, including information requirements
- timeliness and transparency—regarding how users and third parties can dispute a DBCTM decision on an access transfer request. For example, if a transfer dispute occurs then what are the appropriate avenues available to an access holder who is seeking to transfer and to the user or third party who is the intended transferee.
- Accountability—regarding whether compliance and reporting provisions should apply to the administration of the access transfer arrangements.

In this draft decision, we have not proposed any changes to the access transfer provisions in the 2015 DAU.

[600] For example, to advantage Brookfield's Trading SCB in the secondary access market or to advantage a related Brookfield-owned rail operator.

However, we would like to consider DBCTM and stakeholder submissions on the nature and scope of the current access transfer arrangements and whether these adequately address the risks identified above and, if not, what alternative approach may be appropriate.

Draft decision 10.27

(1) After considering DBCTM's proposed access transfer provisions in the 2015 DAU, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is for clauses 5 and 13 of the 2015 DAU, and clause 12 of the User Agreement to:

- **(a) provide certainty on the assessment timeframe DBCTM will apply to access transfer requests, including where DBCTM is required to execute a User Agreement with the proposed transferee**
- **(b) outline the assessment criteria DBCTM will apply to all access transfer requests**
- **(c) identify the dispute resolution processes available to users and proposed transferees adversely affected by a DBCTM decision to not approve an access transfer request.**

(3) After having regard for each of the matters set out in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

10.6 Funding agreements[601]

Consistent with section 137 of the QCA Act, we consider the 2015 DAU should provide an ability for an access seeker to fund a Terminal capacity expansion[602], in the event that DBCTM elects not to fund the Terminal capacity expansion required to accommodate the access rights sought by the access seeker.

10.6.1 DBCTM's proposal

Clause 5.10 of the 2015 DAU provides an ability for DBCTM to request that access seekers enter into funding agreements or underwriting agreements to fund the cost of undertaking a FEL 1 or FEL 2 feasibility study to determine the scope, standard and cost of a relevant Terminal capacity expansion.

Clause 5.10(o) provides the right for DBCTM to fund part or all of a feasibility study in the event that an access seeker does not fund in accordance with a funding agreement.

Clause 12.3 outlines DBCTM's general obligation to undertake a Terminal capacity expansion to accommodate growth, to eliminate shortfalls in Terminal capacity, to comply with good operating and maintenance practices and to comply with all approvals and applicable laws.[603] Clause 12.3

[601] For the purposes of this draft decision we have used the term 'funding agreement' to collectively refer to either a funding agreement or an underwriting agreement in the 2015 DAU. Each form of agreement shares a common definition with the only difference being the timing of the funding (i.e. either upfront or when a decision is made to not proceed with the project).

[602] 'Terminal capacity expansion' is defined in the 2015 DAU to mean the construction, upgrade, refinement, purchase, installation and/or erection of new works or items or modifications to existing works or items intended to materially increase the Terminal capacity.

[603] Cl. 12.5 of the 2015 DAU is consistent with DBCTM's obligations under cl. 2.2 of the PSA.

recognises that DBCTM's obligation to undertake a Terminal capacity expansion relates to the name-plate capacity of the Terminal on a standalone basis. The 2015 DAU recognises DBCTM's lack of control over any other part of the DBCC and that DBCTM cannot be held liable if the operation of the DBCC or any other infrastructure component of the DBCC results in DBCC system capacity being less than Terminal capacity.

DBCTM is relieved of its general obligation to undertake a Terminal capacity expansion if DBCTM obtains DBCT Holdings' approval to modify or delay a Terminal capacity expansion (whether such agreement is given under the 2015 DAU or the PSA). The grounds on which DBCTM could seek such relief include the following:

- The Terminal capacity expansion would produce capacity in excess of demand.
- The costs of the Terminal capacity expansion are unlikely to be accepted by the QCA as forming part of the cost base for the purposes of determining access charges applying to the capacity expansion.
- The risk profile created by a differentially priced Terminal capacity expansion would result in the relevant Terminal capacity expansion cost being unreasonable and uneconomic.

Schedule H of the 2015 DAU defines:

- 'Terminal Capacity Expansion' as the construction, upgrade, refinement, purchase, installation and/or erection of new works or items or modifications to existing works or items intended to materially increase Terminal capacity.
- 'Feasibility Studies' as a FEL 1, FEL 2 or FEL 3 feasibility study undertaken in relation to a proposed Terminal capacity expansion. A FEL 1 feasibility study is defined as a conceptual desktop engineering study. A FEL 2 feasibility study is defined as a pre-feasibility engineering study. A FEL 3 feasibility study is defined as a definitive engineering study.
- 'Funding Agreement' as an agreement on such terms as DBCTM reasonably requires, including in relation to the provision of such security to DBCTM as it reasonably requires, pursuant to which an access applicant must fund the reasonable and proper costs of a FEL 1 feasibility study and, after a satisfactory outcome from a FEL 1 feasibility study, a FEL 2 feasibility study in respect of a proposed Terminal capacity expansion.
- 'System Capacity Expansion' as the construction, upgrade, refinement, purchase, installation and/or erection of new works or items or modifications to existing works or items intended to materially increase system capacity.

10.6.2 Stakeholders' submissions

The DBCT User Group has proposed amendments[604] to constrain DBCTM's ability to trigger clause 5.10(a) of the 2015 DAU and set boundaries around DBCTM's negotiation of funding agreements so that access negotiation disputes can be resolved with reference to an approved template funding agreement:

- Clause 5.10(p) requires DBCTM to prepare and submit a template funding agreement to the QCA for approval before DBCTM can trigger clause 5.10(a) and request that an access seeker fund the cost of undertaking a feasibility study.

[604] DBCT User Group, sub. 15: 28–32, 65–66

- Clause 5.10(j)(2) provides that the terms of a Funding Agreement or Underwriting Agreement will be deemed to be reasonable to the extent that they reflect the QCA-approved templates.
- Negotiation timeframes are amended to three months compared to the 20 days proposed by DBCTM.

The DBCT User Group has accepted:

- DBCTM has the right to fund part or all of the feasibility studies
- DBCTM cannot be held liable if, following the commissioning of a Terminal capacity expansion, the capacity rating of the Terminal exceeds DBCC system capacity
- the circumstances wherein DBCT Holdings may relieve DBCTM of its obligation to undertake a Terminal capacity expansion.

10.6.3 QCA analysis and draft decision

Our draft decision is to refuse to approve the 2015 DAU on the basis that it does not provide sufficient clarity and accountability on the negotiation process to be followed by DBCTM in the event that DBCTM seeks to exercise its rights and request that access seekers fund the reasonable costs of a feasibility study.

The 2015 DAU's negotiating and investment framework does not provide access seekers with sufficient regulatory and commercial certainty that feasibility studies for a Terminal capacity expansion will be developed to the standard required by access seekers in order for them to execute a conditional access agreement with DBCTM. The QCA considers that the 2015 DAU currently provides too much discretion to DBCTM to determine the:

- study scope and deliverables for FEL 1, FEL 2 and FEL 3 feasibility studies
- terms and conditions of a funding agreement.

We are particularly concerned that the rights and obligations of DBCTM, access seekers and users to expand the Terminal in the 2015 DAU are inappropriately weighted in DBCTM's favour.

In applying our assessment approach, we have proposed a number of amendments to the 2015 DAU to include a process that requires DBCTM to:

- better define the scope and outputs of each feasibility study stage to ensure study outputs are of a high standard, consider all potential expansion options available and provide a degree of certainty with respect to the preferred capacity expansion's scope, cost and capacity rating
- develop a template funding agreement if it is justified by reference to the aggregate contract tonnage sought in access applications, or if DBCTM receives a written notice from an access seeker requesting the development of a template funding agreement
- provide for access seekers and users to dispute the terms of any template funding agreement in accordance with the dispute resolution provisions under clause 17.4
- stipulate that DBCTM cannot exercise its rights under clause 5.10(a) until the template funding agreement has been published on the QCA's website
- require DBCTM, subject to there being no disputes, to negotiate with potential access funders in accordance with the template funding agreement, unless otherwise agreed by the parties

- better define the term 'Funding Agreement' to include a 'FEL 3 Feasibility Study'.

We also seek DBCTM and stakeholder views on whether they consider the 2015 DAU should provide an access seeker with the right to fund a Terminal expansion if the following conditions are met:

- the Terminal expansion is required to accommodate the access rights sought by the access seeker
- DBCTM is relieved of its obligation to expand the Terminal under clause 12.7 of the 2015 DAU.

We consider our proposed amendments will provide users and access seekers with greater regulatory assurance that DBCTM will efficiently invest in Terminal capacity expansions to accommodate the actual and reasonably anticipated future growth in demand. The amendments provide:

- greater clarity on the rights and obligations of DBCTM, access seekers and users to scope out and progress feasibility studies
- funding access seekers with improved clarity by providing for template terms and conditions on which DBCTM will undertake feasibility studies.

Accordingly, we consider our proposed amendments appropriately balance the matters in section 138(2) of the QCA Act, including DBCTM's legitimate business interests and the interests of access seekers in obtaining access to the Terminal and the public interest in promoting competition in markets upstream and downstream from the Terminal.

Draft decision 10.28

(1) After considering DBCTM's proposed funding provisions for Terminal capacity expansions in the 2015 DAU, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is as follows:

- **(a) include a new clause 5.10(p) in the 2015 DAU to require DBCTM to develop a template funding agreement, in consultation, if DBCTM:**
  - **(i) considers there is a real prospect that the aggregate annual contract tonnage applied for in access applications may justify undertaking of a feasibility study during the term of the 2015 DAU**
  - **(ii) receives a written notice from an access seeker requesting DBCTM develop a template funding agreement**
- **(b) require DBCTM to:**
  - **(i) consult with users and access seekers when developing the template funding agreement**
  - **(ii) provide the QCA with a copy of the template funding agreement and request that it be published on the QCA's website**
- **(c) provide an ability for access seekers and users to lodge access disputes on the template funding agreement and provide for the QCA to determine any dispute under clause 17.4**
- **(d) stipulate that DBCTM cannot exercise its rights under clause 5.10(a) until such time as a template funding agreement has been published on the QCA's website**
- **(e) require, subject to there being no disputes, DBCTM to negotiate with access funders in accordance with the template funding agreement, unless otherwise agreed by the parties.**

(3) We consider it appropriate that DBCTM amend Schedule H of its 2015 DAU to define:

- **(a) Funding Agreement to include a reference to the reasonable and proper costs of a FEL 3 Feasibility Study**
- **(b) FEL 1 Feasibility Study, FEL 2 Feasibility Study and FEL 3 Feasibility Study to include greater specificity regarding the scope and deliverables of each study phase.**

(4) We seek DBCTM and stakeholder views on whether the 2015 DAU should provide access seekers with the right to fund a Terminal capacity expansion if DBCTM has been relieved of its obligation to undertake the relevant Terminal capacity expansion in accordance with clause 12.7.

(5) After having regard for each of the matters set out in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

10.7 Master planning processes

Consistent with sections 101 and 137 of the QCA Act[605], we consider the 2015 DAU needs to provide an appropriate degree of information and transparency to stakeholders around DBCTM's framework and reasoning for expanding the Terminal in the most efficient and logical way.[606]

10.7.1 DBCTM's proposal

The 2015 DAU includes the following obligations on DBCTM:

- Terminal Master Plan—DBCTM will maintain and annually update the Terminal Master Plan (Schedule F) in consultation with the Operator, DBCC service providers, users and access seekers. The Terminal Master Plan will be published on DBCTM's website and the website version will be updated promptly following DBCTM approval of amendments during the regulatory period.
- System Master Plan—DBCTM will use reasonable endeavours to participate and work cooperatively with other service providers, users and access seekers in system master planning processes, contribute to and review a system master plan if it is developed and have regard to the system and the capacity of DBCC components when reviewing the Terminal master plan.
- Whole-of-supply chain efficiency—DBCTM will amend the 2015 DAU to implement agreed supply chain outcomes by submitting a DAAU submission to the QCA.

The 2015 DAU defines System in the following way:

> ***System*** *means[607], in respect of the Goonyella Coal Chain, the following components of infrastructure relating to the transport of coal from mines whose coal is Handled by the Terminal:*
>
> *(a) rail loading facility of mines whose Coal is Handled by the Terminal;*
>
> *(b) railway infrastructure in the Goonyella Coal Chain;*
>
> *(c) railway locomotives and rolling stock used in the Goonyella Coal Chain; and*
>
> *(d) Terminal unloading, stacking, loading and other Handling facilities,*
>
> *And all interfaces between such components.*
>
> ***Goonyella Coal Chain*** *means[608] all infrastructure relating to the transport of coal (from mine outloaders to Terminal shiploaders and adjacent infrastructure), generally referred to as the Goonyella Coal Chain, but (unless all relevant stakeholders otherwise agree) disregarding the Goonyella to Abbott Point expansion rail line (also referred to as the Northern Missing Link) and the coal chain relating to the Hay Point Terminal.*

10.7.2 Stakeholders' submissions

The DBCT User Group accepted the master planning provisions for the Terminal and the System, including DBCTM's obligation to implement agreed supply chain outcomes, contained in clauses 12, 14 and 15 of the 2015 DAU.[609]

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[605] See ss. 101(2) and 137(2)((b),(ba),(d) and (g) of the QCA Act.
[606] 2015 DAU: cl. 15.1(a)
[607] 2015 DAU: 146
[608] 2015 DAU: 141-142
[609] DBCT User Group, sub. 31: 58-83, 86-88.

10.7.3 QCA analysis and draft decision

Our draft decision is to approve the master planning provisions applying to the Terminal and the System, including DBCTM's obligation to implement agreed supply chain outcomes, which are contained in clauses 12, 14 and 15 of the 2015 DAU. However, before we can proceed to a final decision on these provisions, we seek DBCTM and stakeholder comment on the proposed 2015 Terminal Master Plan and our proposed amendment to the use of the defined term 'Goonyella Coal Chain' in the 2015 DAU.

2015 Terminal Master Plan

We seek DBCTM and stakeholders' views on whether the 2015 Terminal Master Plan will be finalised in time for its inclusion in the 2015 DAU.

When the 2015 DAU was lodged in November 2015, DBCTM advised us that the 2009 Terminal Master Plan had been included in the 2015 DAU as a proxy for the forthcoming 2015 Terminal Master Plan. DBCTM also advised that the 2015 Terminal Master Plan would be provided to the QCA as soon as it had concluded the current consultation process with the Operator, service providers, users and access seekers.

Goonyella Coal Chain

We seek DBCTM and stakeholders' views on our proposal to amend the 2015 DAU by replacing the term 'Goonyella Coal Chain' with the term, 'Dalrymple Bay Coal Chain' (DBCC).

We have recommended the use of the term DBCC because service providers and users railing coal to the Terminal are more likely to refer to the DBCC when they refer to the infrastructure that transports coal from the mines to the Terminal rather than use the term 'Goonyella Coal Chain.' In coming to this view, we have considered the following matters:

- Goonyella System is a defined term in the Aurizon Network AU and means the rail infrastructure that connects coal mine loading facilities to the ports at Hay Point and Dalrymple Bay.
- The original use of the term 'Goonyella Coal Chain' in the 2010 AU was a direct reference to first and second reports arising from the Queensland Government's 2007 independent review of the Goonyella coal chain capacity (the 'Goonyella Coal Chain Capacity Review').
  - The Goonyella Coal Chain Capacity Review's use of the term 'Goonyella Coal Chain' applied to all infrastructure relating to the transport of coal from the mines located on the Goonyella system to the two coal terminals located at Hay Point and Dalrymple Bay.
  - The Goonyella Coal Chain Capacity Review identified rail haulage capacity and the complexity of issues at the Terminal as the constraining factors preventing the coal chain assets in the Goonyella System from maximising coal throughput.[610]
- The Integrated Logistics Company (ILC), referenced in clause 14(a) of the 2015 DAU[611], was established by users to identify and implement supply chain efficiencies to maximise coal throughput at the Terminal.

[610] http://www.tmr.qld.gov.au/business-industry/Transport-sectors/Rail-services-and-infrastructure/Goonyella-Coal-Chain-Capacity-Review.aspx

[611] Cl. 14(a) of the 2015 DAU refers to the forums established pursuant to the 2008 Memorandum of Understanding which included the establishment of the Integrated Logistics Company and the appointment a

- The Board of the ILC comprises the users, DBCTM, DBCT PL and representatives of the service providers that transport coal to the Terminal.
- The ILC references the term DBCC when describing its span of activities in the Goonyella System.[612]
- Since 2010, coal industry stakeholders have focused on maximising throughput on all coal chains[613] operating in central Queensland.
- The definition of Goonyella Coal Chain in the 2015 DAU is directly reflective of the:
  - ILC's use of the term DBCC
  - Aurizon Network's use of the term when referring to the coal chain that connects coal mines on the Goonyella System to the Terminal[614]
  - stakeholders' use of the term DBCC in regulatory and operational processes arising under Aurizon Network's 2010 AU.[615]

Having regard to section 138(2) of the QCA Act, we request feedback from stakeholders as to whether use of the term DBCC more appropriately reflects the scope of the 2015 DAU and the intent of clauses 12 and 14 in acknowledging that:

- DBCTM is responsible for the performance of the Terminal but is not responsible for the performance of the other components of infrastructure relating to the transport of coal to the Terminal
- the system is defined by specific reference to the infrastructure relating to the transport of coal to the Terminal
- DBCTM plays a significant role in implementing supply chain efficiencies in the DBCC.

Subject to any further views in response to this draft decision, for the reasons set out above, we have replaced the 2015 DAU's reference to the 'Goonyella Coal Chain' with the reference to the DBCC and updated the definition by deleting any reference to HPCT and APCT.

central coordinator to oversee and, if necessary, coordinate the operation of the coal chain railing to the Terminal.

[612] See the Integrated Logistics Company website (www.ilco.com.au) and its use of the term DBCC in its operational performance reporting framework.

[613] DBCC, BMACC, GCEE, APCC and WICET

[614] See http://www.aurizon.com.au/site-usage/glossary for the definition of DBCC.

[615] See QCA website for references to the DBCC in stakeholder submissions on Aurizon Network's System Rules and 2014 DAU.

Draft decision 10.29

(1) After considering DBCTM's proposed master planning provisions, including the obligation for DBCTM to implement agreed supply chain outcomes, in the 2015 DAU, our draft decision is to approve DBCTM's proposal, subject to:

(a) DBCTM providing the QCA with a copy of the 2015 Terminal Master Plan

(b) the defined term 'Goonyella Coal Chain' being deleted and replaced with the term 'Dalrymple Bay Coal Chain,' which is defined to mean the infrastructure relating to the transport of coal from mines whose coal is handled by the Terminal.

(2) We seek DBCTM and stakeholder views on the 2015 Terminal Master Plan and the inclusion of the newly defined term 'Dalrymple Bay Coal Chain' (DBCC).

(3) After having regard for the matters set out in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

10.8 Non-expansion capital expenditure (NECAP)

NECAP projects are undertaken to:

- ensure the ongoing operation of the Terminal is efficient and satisfies statutory provisions (e.g. workplace health and safety or environmental requirements)
- satisfy complex capital expenditure needs that are beyond the scope of the Terminal Operator's annual maintenance plan, including replacement capital expenditure.

NECAP is not incurred to increase the capacity of the Terminal.

Although DBCTM funds NECAP, the projects themselves are initiated by DBCT PL as the Operator.

For the 2010 AU the QCA agreed to the 'automatic' approval of lower-value NECAP—that is, below $20 million per annum—subject to the following controls:

- DBCTM demonstrates that NECAP below $20 million per annum meets the definition of capital expenditure.
- NECAP is capped—that is, automatic approval will not apply if cumulative NECAP exceeds $110 million over the next regulatory period of 5.5 years.
- Automatic approval is subject to individual users' acceptance of NECAP projects.

We considered this approval process balanced the need for increased flexibility, reduced compliance costs, and expenditure controls in an appropriate manner.

For NECAP above $20 million, or where any of the above controls were not satisfied, the 2010 AU provided for the QCA to assess the prudency of the expenditure having regard to a range of matters that were also broadly consistent with the requirements for our assessment of expansion capital expenditure.[616]

[616] QCA 2010, chapter 4: 18–20.

10.8.1 DBCTM's proposal

DBCTM[617] stated that NECAP approval had been uncontentious in the past because DBCTM had undertaken projects only on the recommendation of DBCT PL as the Operator of the Terminal, and with the unanimous approval of access holders. Therefore, DBCTM proposed that:

- the streamlined approval process set out in section 12.10(b) of the 2010 AU should apply to all NECAP, subject to:
  - confirmation by DBCTM that the proposed NECAP fell within the definition of Capital Expenditure to our reasonable satisfaction
  - written recommendation by the Operator of the proposed NECAP
  - unanimous approval of the proposed NECAP by all access holders, or
  - DBCT PL remaining Operator (which is wholly or majority owned and controlled by access holders) and no access holder has objected to the proposed NECAP within 20 business days of receiving written notice of the proposed NECAP by DBCTM.
- if any of the conditions directly above are not satisfied, then the streamlined approval process will not apply and the QCA would have to review and approve the proposed NECAP in accordance with section 12.10(c) of the 2015 DAU.

10.8.2 Stakeholders' submissions

Vale

Vale[618] did not agree with DBCTM's proposal for the following reasons:

- DBCTM's NECAP decisions would be governed by its rate of return rather than the efficiency of the Terminal and, ultimately, the supply chain. This view was reinforced by recent advice from DBCTM that expected reductions in the WACC for the forthcoming regulatory period would necessitate reductions in NECAP (other than that required to satisfy contractual or compliance obligations).
- A particular decrease in NECAP could generate a greater increase in operating and maintenance costs resulting in reduced efficiency and productivity, particularly where NECAP would meet the needs of changed operating circumstances better than inefficient repair and like-for-like replacement programs.
- A cap on NECAP was needed to smooth expenditure over time and to prevent DBCTM from using its monopoly position to select the size and timing of NECAP projects for its own benefit rather than address efficiency improvements for the Terminal.
- There was no mechanism within the current AU to counter the Operator's incurrence of inefficient costs as a result of DBCTM's decisions. Although users bore operational risk, they had no control over the amount or timing of efficiency and productivity improvements.
- Reducing NECAP would not comply with the current AU requirement for good operating practice under section 12.10(a).

[617] DBCTM, sub. 2: 75.
[618] Vale, sub. 10: 11–12.

DBCT User Group

In its initial submission, the DBCT User Group[619] supported DBCTM's proposed amendments to section 12.10(b) and section 12.10(c) because these terms continued to provide sufficient protections against imprudent NECAP.

However, because the existing and revised provisions were directed at protecting against overinvestment in NECAP only, the DBCT User Group expressed concerns about underinvestment—that is, whether DBCTM would approve necessary NECAP in the future.

In particular, DBCTM indicated to the DBCT User Group that the likely return on equity over the next regulatory period would not justify further capital expenditure—either expansionary or non-expansionary.[620] The DBCT User Group is concerned it would bear additional maintenance costs because DBCTM was unwilling to invest in the NECAP necessary for the prudent upkeep of the Terminal.

As evidence supporting its concerns, the DBCT User Group also pointed to its previous experience with Babcock & Brown Infrastructure as Terminal owner regarding its refusal to undertake investment in prudent NECAP.

Therefore, the DBCT User Group proposed the 2015 DAU be amended so that DBCTM be required to invest in the NECAP recommended by DBCT PL (as the Operator of the Terminal) because users, as the shareholders of DBCT PL, have an incentive to minimise costs while maintaining capacity and productivity.

For differential pricing, the DBCT User Group proposed the same allocation principles should apply to NECAP as would apply for operations and maintenance contracts as set out in our differential pricing final decision.[621]

In a later supplementary submission[622], the DBCT User Group set out recent evidence that their concerns about potential underinvestment in prudent NECAP had been realised. In a letter to DBCT PL dated 5 November 2015, DBCTM advised users that it intended to reduce the Terminal's NECAP budget by $12.9 million by deferring or cancelling most of the proposed 'Series L' projects.

In its written response to DBCTM dated 17 December 2015, DBCT PL did not endorse DBCTM's reduction in proposed NECAP because it considered the original NECAP Series L projects were prudent. DBCT PL also pointed out that the reduction in proposed NECAP would not result in the best outcome for the operation of the Terminal—in terms of total whole-of-life cost, reliability, economy of performance, and economic life. As a potential compromise, DBCT PL suggested certain projects could be completed as operations and maintenance activities.

The DBCT User Group expressed its concern with the current wording of section 12.10(a) of the 2015 DAU and, in particular, with the definition of 'Good Operating and Maintenance Practice' contained in Schedule H. The DBCT User Group believes the definition focuses on operational

[619] DBCT User Group, sub. 11: 37–38.
[620] Letter from DBCTM to the QCA dated 9 October 2015. Although DBCTM stated that it would continue to fund the safety and integrity of the asset, it would need to defer major sustaining capital projects (e.g. machine replacements) resulting in an expected increase in operating costs.
[621] DBCT User Group, sub. 11, section 4.6: 27–28; QCA 2015c.
[622] DBCT User Group, sub. 29. As the users' proposed amendments to the 2015 DAU vary between the original and supplementary submissions, we have assumed that the supplementary submission is the appropriate basis for assessing the users' proposal.

matters and does not provide for a sufficient obligation requiring DBCTM to invest in prudent NECAP.

The DBCT User Group considered it necessary to amend section 12.10(a) of the 2015 DAU to require DBCTM to invest in NECAP to ensure that the whole-of-asset-life costs of the Terminal were minimised, taking into account both future capital investment and operating and maintenance costs.

10.8.3 DBCTM's response to DBCT User Group's supplementary submission

DBCTM[623] does not agree with the DBCT User Group's supplementary submission on NECAP issues and does not support the proposal to include an additional provision for the incurrence of NECAP—based on a 'whole-of-life' cost test—in section 12.10(a) of the 2015 DAU. DBCTM considers the current NECAP obligations are sufficient and appropriate for the following reasons:

- DBCTM has clear contractual obligations under the User Agreements, and the PSA has established the standards for providing Terminal services and for maintaining and investing in Terminal facilities.
- DBCTM's obligations already require DBCTM to consider whole-of-life costs when assessing whether to undertake a NECAP project in conjunction with other considerations such as reliability, efficiency, economy of performance and effective life of the Terminal.
- DBCTM is not required to prioritise the lowest whole-of-life costs over these other considerations.
- it is the role of the access undertaking to establish the process for negotiating access to the Terminal, not to extend the obligation to incur capital expenditure beyond that agreed between DBCTM and the owner of the Terminal and the users of the Terminal to the standards set out in the PSA and User Agreements respectively.
- There is no regulatory precedent for imposing specific additional obligations in an access undertaking in this way. Regulatory frameworks for access agreements normally have specified the safety and service level obligations of asset providers who are then required to justify the prudency and efficiency of their expenditure for inclusion in access charges.
- The QCA does not have the power to impose the users' proposed change to section 12.10(a). In particular, under section 119 of the QCA Act, the QCA cannot through an access determination require DBCTM to fund an extension, where 'extension' is defined to mean an enhancement, expansion, augmentation, duplication or replacement of all or part of the facility (Schedule 2, QCA Act), which would be broad enough to include a NECAP project.

DBCTM considers its actions with regard to NECAP Series L projects are compliant with the 2010 AU and appropriate based on the following:

- DBCTM intends to defer or cancel NECAP Series L projects it does not consider necessary for compliance with its obligations under the 2015 DAU, User Agreements and the PSA, or where prudent and efficient operating and maintenance activities are sufficient to ensure compliance.
- The NECAP Series L works that DBCTM intends to defer or cancel does not involve significant asset replacement, upgrade or refurbishment that will increase the capacity or useful life of

[623] DBCTM, sub. 30.

the Terminal and, therefore, it is not unreasonable for some of these works to be classified as operating and maintenance expenditure.

- The whole-of-life cost test does not resolve whether it is appropriate to classify these NECAP Series L works as capital or operating expenditure because the whole-of-life cost would be the same under either cost classification.

DBCTM has the following additional concerns with the DBCT User Group's proposal:

- There is an incentive for users to classify works as NECAP as this deferred recovery of these costs to future users.
- An obligation on DBCTM to expend capital to minimise whole-of-life cost is potentially inconsistent with the protection afforded by the PSA against a requirement for DBCTM to undertake capital expenditure that would be unreasonable and uneconomic.
- The results of the 'whole-of-life' cost test will differ depending on whether the test was undertaken from the viewpoint of DBCTM, users, or society more generally.
- Some minor works (such as the deferred or cancelled NECAP Series L projects) could be carried out to improve the availability of the Terminal or reduce risk levels, and therefore may not be reflected in whole-of-life costs.
- The outcomes of the whole-of-life cost test would depend on problematic assumptions given the increasing uncertainty about the remaining useful life of the Terminal and future throughput.
- The whole-of-life cost analysis of NECAP Series L projects provided by the Operator does not consider the full effect on capital charges. DBCTM's net present cost analysis based on its ARR model did not support the Operator's assessment. These different conclusions reinforced the view that lowest whole-of-life cost was not a reliable indicator and should not be relied on as the only consideration.
- Given the ambiguities, sole reliance on the whole-of-life cost test to assess the appropriateness of NECAP would necessitate the inclusion of additional dispute resolution mechanisms in the 2015 DAU to settle potential disagreements between DBCTM and users. This could involve significant additional costs for stakeholders.

10.8.4 QCA analysis and draft decision

Our draft decision is to approve DBCTM's proposal for the approval process for NECAP set out in section 12.10(b) and section 12.10(c) of the 2015 DAU.

In reaching this decision, we have considered the submissions provided by stakeholders and DBCTM in relation to the potential risk DBCTM could underinvest in NECAP during the 2015 DAU regulatory period.

NECAP approval process

Our draft decision is to approve DBCTM's proposal to amend the NECAP approval process set out in section 12.10(b) and section 12.10(c) of the 2015 DAU, because the proposed amendments continue to provide sufficient controls over the incurrence of imprudent NECAP and are likely to further increase the efficiency of the approval process. We also note that users have agreed with DBCTM's proposal to amend the process for streamlining NECAP approvals.

Potential underinvestment in prudent NECAP

Users are concerned DBCTM intends to reduce NECAP to the detriment of the efficient and effective operation of the Terminal, and that the 2015 DAU as currently worded is inadequate to respond to DBCTM's potential underinvestment in necessary NECAP. We note the DBCT User Group's proposed amendment to section 12.10(a) of the 2015 DAU to address this imbalance.[624]

Although Vale stated it does not support DBCTM's proposal, its objections relate mainly to its perception that the 2015 DAU does not contain provisions to prevent DBCTM from underinvesting in necessary NECAP. In this sense, Vale's objections are similar to those of the users.

However, Vale also stated that a cap on NECAP is needed to smooth expenditure over time to prevent DBCTM from using its monopoly position to select the size and timing of NECAP projects for its own benefit rather than address efficiency improvements for the Terminal.

In response to the DBCT User Group's supplementary submission, DBCTM did not support the DBCT User Group's proposal to include an additional NECAP provision in section 12.10(a) of the 2015 DAU primarily on the grounds that its current NECAP obligations are sufficient and appropriate to meet the standards required under the 2015 DAU, the User Agreements and the PSA; its actions with regard to NECAP Series L projects are compliant and appropriate; and, in any event, the QCA does not have the power under the QCA Act to impose the users' proposed change.

We have considered the concerns of Vale and the DBCT User Group in relation to the potential for underinvestment in prudent NECAP, and the response of DBCTM to the DBCT User Group's supplementary submission. We agree with DBCTM that it is not clear that the QCA Act permits imposition of the users' proposed change to section 12.10(a) of the 2015 DAU in the current circumstances. The practical effect of the users' proposed amendment would be that a whole-of-life cost analysis may, in and of itself, give rise to a NECAP funding obligation on DBCTM in cases where this previously did not exist.

Nevertheless, we consider that sufficient and appropriate powers exist under the 2015 DAU to address the DBCT User Group's concern, without the need for the amendments proposed by users. In particular, DBCTM's failure to invest in necessary NECAP may give rise to a number of contraventions under the 2015 DAU. These might include, for example, breaching the standard of 'Good Operating and Maintenance Practice' under section 12.10(a)(1); failing to comply with PSA obligations under section 12.10(a)(2); not fulfilling existing contractual obligations to access holders under access agreements; not continuing to meet performance indicators under the 2015 DAU; and not ensuring the ongoing safe operation of the facility. Under these circumstances, powers exist under section 158A of the QCA Act for the QCA or access holders to bring an action to seek to enforce DBCTM's obligations.

Given the range of DBCTM's obligations, we do not consider the amendment sought by the DBCT User Group is necessary in order to respond to a risk of underinvestment in prudent NECAP.

[624] The DBCT User Group proposed that section 12.10(a) of the 2015 DAU be amended to include a new limb (3) as follows: *12.10(a) DBCTM will incur Capital Expenditure which does not relate to a Capacity Expansion as is necessary to ensure: (1) that the Terminal complies with Good Operating and Maintenance Practice; (2) that DBCTM complies with its obligations under the Port Services Agreement; and (3) the whole of asset life costs of the Terminal, taking into account both future Capital Expenditure and Terminal Operating Costs and the volume of Access contracted and anticipated to be contracted, are otherwise minimised.*

Other matters raised by stakeholders

Regarding the DBCT User Group's emphasis on the minimisation of whole-of-life cost in determining the need for NECAP in its proposed amendment to section 12.10(a), we agree that the whole-of-life cost is an important factor. However, whole-of-life cost is not automatically determinative of the need to incur NECAP, but represents one of a number of matters we need to weigh when considering DBCTM's obligations.

Regarding the DBCT User Group's need for an appropriate balance between operating and capital expenditure:

- We note DBCTM proposed minor capital expenditure not exceeding $3 million for the relevant financial year be included within the definition of 'operating and maintenance costs' in section 10.1(g) and no other stakeholders have raised a concern with setting this as the relevant limit.[625]
- Sections 137(2)(a), 138(2)(g) and 168A of the QCA Act provide for the QCA to impose prudency constraints on DBCTM under the 2015 DAU. For example, the QCA considers that any over-expenditure of operating expenditure which could have been avoided by a failure by DBCTM to undertake appropriate and prudent investment in NECAP may be grounds for a reduction in DBCTM's recoverable revenue.

Regarding Vale's submission that the cap on NECAP should be maintained, we believe DBCTM's proposed amendments to the streamlined approval process for NECAP will provide improved controls over the potential for imprudent NECAP because of the strengthened role of the Operator, and all users in the NECAP decision-making process. We again note the DBCT User Group supported DBCTM's proposed amendments to section 12.10(b) of the 2015 DAU.

Conclusion

Our draft decision is to approve DBCTM's proposal for the approval process for NECAP set out in section 12.10(b) and section 12.10(c) of the 2015 DAU. We do not consider the QCA Act provides for the imposition of the DBCT User Group's proposed change to section 12.10(a) and, in any event, we consider that the provisions of the 2015 DAU are sufficient and appropriate to address the DBCT User Group's concerns without the need for the amendments they have proposed.

We also consider that where a failure by DBCTM to undertake necessary NECAP can be shown to have breached the relevant provisions of the 2015 DAU, existing users and/or the QCA could already seek redress under section 158A of the QCA Act.

Finally, to the extent that a failure by DBCTM to undertake appropriate and prudent NECAP gives rise to inefficiently high operational expenditure, this may be a factor which the QCA can take into account when assessing DBCTM's revenue requirement.

We consider our draft decision on this matter has had regard to each of the matters set out in section 138(2) of the QCA Act and that we have weighed them appropriately, thereby achieving an appropriate balance between the interests of DBCTM, the interests of access holders and access seekers, and the public interest.

[625] Given the users' did not object to section 10.1(g) of the 2015 DAU, our draft decision is to approve this proposal. However, we would welcome further feedback from stakeholders on this proposal.

Draft decision 10.30

(1) After considering DBCTM's proposal for the approval process for NECAP set out in section 12.10(b) and section 12.10(c) of the 2015 DAU, our draft decision is to approve the proposal.

(2) After having regard to each of the matters set out in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

11 DIFFERENTIAL PRICING

DBCTM has resubmitted its preferred 'separability' approach to differential pricing. The determinative factor in this approach is whether the new capacity is operationally and physically distinct from the rest of the Terminal.

Our position, as set out in this draft decision, and consistent with our final decision on the differential pricing DAAU, is to refuse to approve DBCTM's proposal. Our key concerns include that DBCTM's proposed approach applies a single criterion to determine if differential pricing is appropriate and that it does not address the allocation of non-expansion capital expenditure (NECAP) and operating and maintenance (O&M) costs.

We have proposed general principles and rules to provide guidance on these matters. We require amendments to make the pricing arrangements for capacity expansions at DBCT cost-reflective, efficient, transparent and predictable, and to appropriately balance the interests of DBCTM, non-expanding and expanding users of the Terminal, and the public.

The amendments we have proposed in this draft decision differ from those proposed by DBCTM in the 2015 DAU. We have proposed that pricing of future expansions at DBCT should be based on the general principle of incremental up/average down—with divergence from this approach able to be approved by the QCA in appropriate circumstances, in accordance with the factors listed below.

11.1 Background

QCA's previous consideration of expansion pricing arrangements

We have previously considered pricing arrangements for capacity expansions at DBCT in our reviews of the 2006 and 2010 DBCT draft access undertakings (DAUs), our final decision on DBCTM's differential pricing DAAU, and more generally in our 2013 capacity expansion pricing discussion paper. We also considered differential pricing in our draft decision (policy and pricing) on Aurizon Network's 2014 DAU. Views expressed by DBCTM, the DBCT User Group and the QCA in these processes are summarised in Table 23.

Table 23 Consideration of differential pricing

Period considered	*Entity*	*View*
2006 DAU[626]	DBCTM and DBCT User Group	Differential pricing would result in multi-tier charges and introduce a range of new and complicated issues. This was not considered necessary at the time.
	QCA	The QCA accepted stakeholders' position, noting: • marginal costing would be 'unworkable' because the physical capacity at the Terminal was undifferentiated • higher cost expansions could provide a foundation for subsequent cheaper expansions, which could lead to equity issues between users.

[626] QCA, 2006.

Period considered	*Entity*	*View*
2010 DAU[627]	DBCTM	DBCTM agreed to submit a DAAU to incorporate differential pricing within the undertaking period.
	DBCT User Group	We understand that the DBCT User Group agreed to the DAU, on the basis that DBCTM would submit a DAAU to incorporate differential pricing.
	QCA	The QCA indicated a willingness to consider a pricing approach (other than uniform pricing) that would enable users to correctly value access, on the basis that Terminal users who benefit from access to DBCT should bear the cost of the service they were provided. The QCA also committed to conduct a broad cross-sector review on capacity expansion and access pricing, in order to investigate options for pricing.
Capacity expansion and access pricing discussion paper — 2013[628]	QCA	The QCA established: • if average costs decrease substantially with capacity, adding the expansion costs to the cost base of the established capacity will usually provide an acceptably efficient and fair outcome • if average costs increase substantially with capacity, a separate access price should normally be calculated and charged to those users whose capacity use underwrites the new tranche of capacity.[629] The paper added that even if established and new capacity were inseparable in use, the new capacity costs could still be identified and charged to the expanding users.[630]
Aurizon Network 2014 DAU draft decision (policy and pricing) — 2015[631]	QCA	The QCA's preliminary view was to accept the general principles embedded in Aurizon Network's proposed expansion pricing framework, specifically that: • The user(s) requiring the expansion should generally pay an access charge that reflected at least the full incremental costs (capital and operating) of access. • Existing users should not experience a material increase in tariffs due to an expansion triggered by access seekers. • If new/expanding users faced a higher cost than existing users, a zero contribution to common costs from expanding users was generally acceptable. • An attribution of expansion costs to existing users may be appropriate where an expansion had clear benefits to those users.[632] These positions were maintained in the consolidated draft decision.

[627] QCA, 2010.
[628] QCA, April 2013.
[629] QCA, April 2013, p. iv.
[630] For example, if it is not practical to physically allocate all new capacity to new users for their exclusive use, and established capacity to established users for their exclusive use (QCA, April 2013, p. v).
[631] QCA, July 2015, p. 9.
[632] QCA, January 2015, p. 370.

Period considered	*Entity*	*View*
DBCT Differential Pricing DAAU — 2015[633]	DBCTM	DBCTM said the primary consideration of when to apply differential pricing should be whether the expansion was clearly separable from the existing infrastructure, and if the new capacity could be dedicated exclusively to expanding users.
	DBCT User Group	It broadly supported the incremental up/average down approach recommended in the QCA's final decision (see below).

DBCTM's Differential Pricing DAAU—2015

DBCTM submitted its 2015 differential pricing DAAU in February 2015. We released our final decision in August 2015, taking into account submissions from DBCTM, the DBCT User Group and Vale. We refused to approve DBCTM's proposed approach to differential pricing. We recommended that DBCTM adopt an 'incremental up/average down' approach to differential pricing:

> *We accept that it is appropriate to introduce the principle of differential pricing in respect of DBCT, to apply in appropriate circumstances. The way in which we consider it appropriate that DBCT Management amend its 2010 access undertaking is to reflect the following expansion pricing approach:*
>
> *(a) where adding the expansion costs to the cost base of existing capacity decreases the reference tariff for non-expanding users, a uniform access price should apply to both non-expanding and expanding users (retaining a single regulatory asset base, ARR and reference tariff)*
>
> *(b) where adding the expansion costs to the cost base of existing capacity increases the reference tariff for non-expanding users, a separate access price should apply to the expansion and be charged to expanding users (through a separate regulatory asset base, ARR and reference tariff) except where the QCA considers it appropriate for non-expanding users to share the expansion costs, having regard to:*
>
> *(i) the extent to which assets or infrastructure which are being constructed to deliver the additional capacity will operate wholly, or partly, in an integrated way with existing assets and infrastructure or as a stand-alone development*
>
> *(ii) the extent to which the expansion benefits non-expanding users (such as through higher efficiency, robustness or flexibility)*
>
> *(iii) the materiality of the increase in the reference tariff for non-expanding users which would be caused by adding the expansion costs to the cost base of existing capacity*
>
> *(iv) any differences in the risks of providing access to non-expanding users in respect of additional capacity created by the expansion.*[634]

In this draft decision, we have maintained the position described above as the most appropriate approach to expansion pricing at DBCT. Our reasons for this are discussed in detail in the remainder of this chapter. The DBCT User Group proposed similar expansion pricing principles in its proposed amendments to the DAU.[635]

As discussed in Chapter 2, we consider the 2006 AU and 2010 AU (as varied through approved DAAUs) provide important context within which to assess the 2015 DAU and Standard Access

[633] QCA August 2015, pp. 45–46.
[634] QCA, August 2015, p. 30.
[635] DBCT User Group, sub. 15.

Agreement (SAA). We also consider that our final decision on DBCTM's differential pricing DAAU to be relevant. This is in accordance with section 138(2)(h).

11.2 Differential pricing in the 2015 DAU

DBCTM has proposed to implement differential pricing if a capacity expansion is separable from the existing Terminal. Its 2015 DAU[636] outlines how the separability of a capacity expansion should be determined, and if applicable, how to implement differential pricing.

DBCTM has sought to justify its approach to differential pricing on the basis of: the public interest, stakeholder expectations prior to the Terminal being leased, PSA conditions, competitiveness of DBCT and of existing Terminal users, and the need for regulatory certainty.[637]

We have considered DBCTM's proposed approach to differential pricing, and we address these under the headings of: separability approach, public interest, prior expectations, competition, other factors and implementation.

11.2.1 Separability approach

DBCTM considered that despite the material concerns it had expressed with the QCA's approach in the assessment of the DAAU, the QCA's final decision was largely unchanged from its draft decision. DBCTM said it remained:

> *fundamentally opposed to the QCA's 'incremental up/average down' approach.*[638]

DBCTM again proposed that differential pricing should only apply if new Terminal expansions are separate from both the physical infrastructure and service delivery of the existing Terminal (the separability approach), which reflects the integrated nature of the Terminal.[639] DBCTM stated that its submission outlined why requiring differential pricing for infrastructure that would be shared by new and existing users would:

> *not aid efficiency and instead, will result in different users being serviced by infrastructure they are not paying for.*[640]

DBCTM considered that differential pricing may be efficient where new infrastructure was clearly separable from existing Terminal facilities.[641] DBCTM proposed that an expansion would be determined to be an expansion component (and therefore differentially priced) if any of the following applied:

> *(1) the Terminal Capacity Expansion will not be substantially physically integrated with the Base Terminal or with another Expansion Component; or*
>
> *(2) the Terminal Capacity Expansion will be operated separately from the Base Terminal and any other Expansion Component, and will not be available to provide Services to Access Holders who are not Differentially Priced Access Holders in respect of the Expansion Component that will be provided by the Terminal Capacity Expansion; or*

[636] DBCTM sub. 31.
[637] DBCTM sub. 2: 60–71.
[638] DBCTM sub. 2: 60.
[639] DBCTM sub. 2: 69.
[640] DBCTM sub. 2: 69.
[641] DBCTM sub. 2: 69.

> *(3) the Services to be provided by the Terminal Capacity Expansion will not be materially the same as those provided to other Access Holders at the Terminal.*[642]

It described its approach as:

> *a clear and straightforward regime for assessing and determining whether differential pricing is to apply and, if it should apply, to then implementing differential pricing.*[643]

It submitted that this approach would promote competition in relevant markets; provide regulatory certainty to market participants; and maintain a workable and predictable pricing approach, which would underpin future investment at DBCT.[644]

Stakeholders' submissions

The DBCT User Group expressed its support for the QCA's previously stated conclusions on differential pricing.

The DBCT User Group submitted that the appropriate test of whether differential pricing should be applied was whether uniformly priced expansion costs would result in an increase in the TIC. It considered that separability was just one factor to be considered in determining whether special circumstances may exist which justify uniform pricing.[645] The DBCT User Group also recognised that there may be exceptional circumstances when an expansion which modestly increases tariffs should nevertheless be uniformly priced.[646]

The DBCT User Group suggested that it was difficult to see how separability could have been intended as a major factor in determining whether or not expansions should be uniformly priced, as the parties involved could not have foreseen how expansions at the Terminal might proceed.[647] It also re-submitted its earlier comments on differential pricing as part of its submission on the 2015 DAU.

11.2.2 Public interest

DBCTM submitted that, as the Terminal is owned by the State, via DBCT Holdings Pty Ltd (DBCT Holdings), and as DBCTM manages the Terminal on DBCT Holdings' behalf, the two entities' interests can be expected to align in seeking to maximise the value of the Terminal for shareholders (Queensland tax payers).[648]

DBCTM submitted that:

> *The assessment of what is in the public interest, including the public interest of having competition in markets (whether or not in Australia), rests on:*
>
> - *the economically efficient expansion of the Central Queensland Coal Region; and*
> - *maximising the value of the State's coal resources.*[649]

DBCTM considered that ensuring economically efficient expansions were undertaken was integral to satisfying the object of Part 5 of the QCA Act, and that maximising the value of the State's coal

[642] DBCTM sub.31: 49.
[643] DBCTM sub. 2: 60.
[644] DBCTM sub. 2: 69–70
[645] DCBT User Group sub. 12: 25.
[646] DBCT User Group sub. 12: 24.
[647] DBCT User Group sub. 12: 26.
[648] DBCTM sub. 2: 65.
[649] DBCTM sub. 2: 67.

resources was essential to the State economy. It said maximising these resources would create industries and employment, and provide revenue to the State via royalties, which could be used to fund other programs such as education and health.[650] In its view, the value of the State's reserves would be maximised by:

> *[c]reating the right settings for a competitive and productive export coal industry, including encouraging growth ... Forcing differential pricing for expansions could impede growth of existing mines and discourage new entrants.*[651]

DBCTM indicated its concern that the QCA has applied inconsistent interpretations of 'the public interest', and that this has created uncertainty as to how the public interest would be applied in each decision. DBCTM considered there were more dimensions to the public interest than those canvassed by the QCA (summarised below).

Table 24 QCA's application of public interest (cited by DBCTM)[652]

Decision	*Definition*
Final decision: DBCTM's differential pricing DAAU[653]	Public interest relates to: • economically efficient expansion in the CQCR • efficient and sustainable development of the Queensland coal industry.
Draft decision: Wiggins Island Rail Project under Aurizon Network's 2010 access undertaking[654]	Public interest should be consistent with the need for an efficient and competitive coal industry in Queensland.
Draft decision: Aurizon Network UT4 maximum allowable revenue[655]	The need for costs to be minimised is particularly important in light of the current adverse economic climate in the Queensland mining industry and this is seen to be consistent with the public interest.

DBCTM did not consider that developing the coal industry translated to having costs minimised, providing as an example, that:

> *pricing on an incremental up/average down basis for efficiency objectives compromises expanding users' ability to compete with non-expanding users and minimise their infrastructure costs in an otherwise challenging market environment.*[656]

DBCTM stated that the regulator was not well placed to undertake the task of determining the public interest, as it relied on input from the infrastructure provider and incumbent users.[657] In DBCTM's view:

> *[t]his assessment [the public interest] has a much broader scope and the State is naturally better placed to identify and assess the potential trade-offs from a public interest perspective.*[658]

[650] DBCTM sub. 2: 68.
[651] DBCTM sub. 2: 68.
[652] DBCTM sub. 2: 67.
[653] QCA, August 2015.
[654] QCA, July 2015, p. 9.
[655] QCA August 2015, pp. 45–46.
[656] DBCTM sub. 2: 67.
[657] DBCTM sub. 2: 70.
[658] DBCTM sub. 2: 70.

DBCTM considered that the requirement in the PSA for a 'common user charge' reflected a view by the State that uniform pricing was in the broader public interest. DBCTM submitted that the requirement for uniform pricing reinforced:

> *the clear intent regarding the future application of socialised [uniform] pricing that existed at the time that the terminal was privatised.*[659]

DBCTM submitted that if the State had considered that uniform pricing:

> *could lead to outcomes that were inefficient, or were not in the public interest (including the interest of having competition in markets), it would not have required such a provision, or would at least have allowed DBCTM more flexibility.*

DBCTM did not consider there was any information to suggest the Queensland Government had changed its view.[660]

Stakeholders' submissions

The DBCT User Group endorsed the QCA's previously expressed view that the public interest was consistent with the need for an efficient and competitive coal industry, and the need for costs to be minimised.[661]

It also submitted that the public had substantial interest in the economic success of existing users, via the employment, royalties and other flow-on effects of mines currently in operation.[662]

QCA analysis and draft decision

As discussed in our final decision on the differential pricing DAAU, we are concerned that the point on the Terminal's cost curve at which future expansions will occur could mean that uniform pricing creates a cross-subsidy between different tranches of users. We do not consider this to be in the public interest, and do not consider that it would lead to the economically efficient expansion of the CQCR described by DBCTM.

In Chapter 2 of this draft decision, we note that the QCA Act does not define the public interest and any assessment of public interest will necessarily be shaped by its context. As determined in that chapter, in present circumstances the public interest would be served by an access undertaking that promotes the sustainable and efficient development of the Queensland coal industry.

We do not consider the QCA and DBCTM definitions contradict one another, nor any of the interpretations DBCTM referred to in Table 24. Within a cost-reflective pricing framework, the public interest can take into account:

- economically efficient expansion in the CQCR
- efficient and sustainable development
- competitive upstream and downstream markets
- cost minimisation
- maximisation of the value of the State's coal reserves.

[659] DBCTM sub. 2: 60.
[660] DBCTM sub. 2: 68.
[661] DBCT User Group sub. 12: 27.
[662] DBCT User Group sub. 12: 27.

While cost-reflective pricing may mean that customers pay different amounts for access depending on when they access capacity and which tranche of capacity they access, the newly expanded capacity will be cost-reflective, and the capital of both expanding and non-expanding users will be directed to its highest value application. This would not be the case if non-expanding users were paying a higher TIC to subsidise capacity expansions required for expanding users.

These differences are reflected in the difference between the QCA's interpretation of the public interest, and those that have been presented by DBCTM. DBCTM considered that the public interest is promoted through the economically efficient expansion of the CQCR and maximising the value of the State's coal reserves. We agree with DBCTM that the public interest is served by promoting the efficient investment and expansion of the CQCR and maximising the value of exports. However, while DBCTM considered that differential pricing does not promote this outcome, we disagree. Pursuing a default uniform pricing approach could result in inefficient investment. This would not necessarily result in efficient expansion in the CQCR, although it may result in the (inefficient) expansion of DBCT.

We note that DBCTM has submitted that the interests of DBCTM and DBCT Holdings can be expected to align, and that the public interest (which they represent), is the economically efficient expansion of the CQCR, and maximisation of the Terminal's value. We consider that these two interests are not synonymous, although in some instances they may align. DBCTM and DBCT Holdings have two different sets of stakeholders—one of private equity holders, the other from the Queensland Treasury, representing tax payers.

The final issue raised by DBCTM in regard to public interest is whether the QCA is the appropriate entity to assess the public interest.

DBCTM has suggested the QCA is ill-placed to undertake the task of assessing the public interest, to the extent the QCA is primarily relying on input from the infrastructure provider and incumbent users. Rather, DBCTM considers that the State is better placed to identify and assess potential trade-offs from a public interest perspective. It highlighted the difference between the Ports Services Agreement (PSA) requirement for pricing to be based on a common user charge and our final decision on the differential pricing DAAU, as an example of where we have not given adequate regard to the public interest.

We note that section 138(2)(d) of the QCA Act requires us to have regard to the public interest. This is a long-standing requirement and one which was vested in the QCA by the Queensland Government. It is not one that the Queensland Government has sought to amend. It is also common to a number of other access regimes where economic regulators (including Tribunals and Courts) are asked to interpret and apply public interest tests or considerations, including Part IIIA of the CCA.

The PSA is a snapshot of certain regulatory expectations held by both DBCTM and DBCT Holdings around 15 years ago, prior to the first access undertaking being negotiated. Moreover, it is clear from the terms of the PSA, that DBCT Holdings expected the QCA to play an important role in overseeing the future regulatory development and that it did not anticipate that the regulatory framework governing the Terminal would remain fixed or 'static'.

The QCA retains a legislative obligation to apply the section 138(2) criteria, including the public interest. While the terms of the PSA may be a relevant matter for the QCA to have regard to in making its decision under section 134 of the QCA Act, we are not bound to treat the terms of the PSA as determinative in relation to any of the criteria.

Conclusion

Overall, we consider that differential pricing, where it is efficient, promotes economically efficient investment and use of the Terminal and certainty for new and expanding users. We do not consider that a default uniform pricing approach, on the other hand, affords sufficient consideration to the public interest, the long-term interests of users and the promotion of efficient investment in the Terminal.

We propose that a differential pricing approach will better achieve the sustainable and efficient development of the Queensland coal industry, except where a case can be made under the criteria listed above for uniform pricing to be applied or where uniform pricing would lead to lower tariffs for existing users, in accordance with the incremental up/average down principle.

11.2.3 Prior expectations

The issues raised by DBCTM in this section reflect the expectations of Prime Infrastructure (then Coal Logistics–North Queensland or CL–NQ) in 2001, and of Brookfield Asset Management in 2009 and 2010, when decisions to purchase the lease were made, and the Terminal lease and the PSA were negotiated. These are discussed under the following headings:

- DBCTM and the lease of DBCT
- PSA
- asset stranding.

Both DBCTM and stakeholders have submitted views on what they thought would happen when the initial take-or-pay agreements were negotiated. These views are discussed in the first section.

The PSA is an agreement between DBCTM (the lessee of DBCT) and DBCT Holdings, that was entered into at the time of privatisation. We understand the PSA places certain obligations on DBCT Management in providing services at DBCT. While negotiated over a similar timeframe as the lease, the PSA is a stand-alone agreement.

The final part of this section considers DBCTM's concerns that the risk of asset stranding would increase if differential pricing were introduced.

DBCTM's proposal: Terminal lease

DBCTM submitted that a change from uniform pricing to differential pricing would overturn a key principle that had underpinned the development of the Terminal and supported the increase of incumbent users' capacity.[663]

In 2001, DBCT Holdings leased DBCT to CL-NQ for 50 years, with an option to extend for a further 49 years. CL-NQ became Prime Infrastructure the following year, and in 2005 established a satellite company known as DBCT Management to manage the DBCT asset in accordance with the terms and conditions in the PSA. In 2009 and 2010, Brookfield Asset Management purchased Prime Infrastructure in two tranches.[664]

DBCTM has submitted that Prime Infrastructure (and after that, Brookfield) made its decision to purchase the lease based on the terms of the PSA (which included a requirement for pricing based on common user charges) and the existing regulatory arrangements (including uniform

[663] DBCTM, sub. 2: 61.
[664] DBCTM website, accessed 26 November 2015, http://www.dbctm.com.au/aboutdbct/history.aspx.

pricing).[665] It said the PSA only contemplated non-discriminatory pricing, and that differential pricing presented a very different risk profile being applied to future cash flows.[666] Moreover, DBCTM:

> *took some comfort from the continued application of socialised pricing [uniform pricing] as it provided a degree of assurance that future expansions of DBCT would be able to compete with potential competitors.*[667]

DBCTM considered the QCA's requirement for DBCTM to apply a different approach was an extremely important issue for it.[668] If Prime Infrastructure (and subsequently Brookfield) had known that uniform pricing could cease to apply, and that the regulator would be able to overturn the terms of the agreement, it may have valued the lease differently.[669] DBCTM concluded that the QCA had given little if any regard to DBCTM's legitimate business interests:

> *What is of particular relevance to value is how the differential pricing review has highlighted the nature and extent of DBCTM's exposure to regulatory risk. Putting aside the specifics of the issue at hand, the QCA's Final Decision looks to impose a change to the regulatory framework that overturns a contractual agreement and would force DBCTM to apply a pricing approach that is different to the approach that was expected to apply when the investment was made.*[670]

DBCTM has submitted that under an incremental up/average down approach to differential pricing, new expansions were more likely to be backed by fewer new customers. DBCTM anticipated that it may not be able to raise funds to expand the port if only a small number of users back the proposal.[671] By contrast, under the separability approach, new expansions would be underwritten by the contracts of the entire Terminal.

Stakeholders' submissions

As mentioned above, the DBCT User Group did not consider that parties would have been able to accurately predict how Terminal expansions might proceed, prior to sunk costs being incurred. However, it did consider that parties in that situation would have given thought to what would occur in the event of a Terminal expansion that resulted in a material increase in costs.

The DBCT User Group also emphasised that as the Terminal is now on the increasing part of its long-run marginal cost curve, uniform pricing would lead to a substantially higher TIC for non-expanding users.

It highlighted that paying increased prices for an incremental expansion from which non-expanding users gained no benefit, was clearly not in the interests of existing users.[672]

The DBCT User Group highlighted that differential pricing did not involve any assets being excluded from Terminal pricing from the perspective of DBCTM. DBCTM would earn a return on all capital invested, and was entitled to earn revenue to meet its efficient cost of providing access and a return on investment commensurate with the risks involved. The DBCT User Group did not

[665] DBCTM sub. 2: 63,66,70.
[666] DBCTM sub. 2: 66,70.
[667] DBCTM sub. 2: 63.
[668] DBCTM sub. 2: 63.
[669] DBCTM sub. 2: 66.
[670] DBCTM sub. 2: 66.
[671] DBCTM sub. 2: 66.
[672] DBCT User Group sub. 12: 27.

consider differential pricing would have a material adverse impact on the owner or operator of DBCT, as DBCTM faces no effective competition from any other coal terminal.[673]

QCA analysis and draft decision

As we concluded in our final decision on the differential pricing DAAU, a history of uniform pricing does not justify rolling forward a pricing approach that may no longer produce appropriate outcomes. In this case, we consider the sustainable and efficient development of the Queensland coal industry to be an appropriate outcome.

DBCTM have submitted that differential pricing 'overturns' the terms of its agreement to lease the Terminal, and that it introduces unanticipated regulatory risk. We consider it to be inappropriate to characterise differential pricing as an unanticipated policy shift.

Differential pricing has been considered and renegotiated as part of each access undertaking, as summarised in Table 23. In effect, both DBCTM and the DBCT User Group have been considering differential pricing for more than a decade. While both agreed not to implement differential pricing in 2005, we understand the DBCT User Group's agreement to the 2010 AU was conditional on DBCTM making best endeavours to amend the access undertaking to include differential pricing before the end of the undertaking period.

From a regulatory perspective, as early as 2005, the QCA flagged that we considered differential pricing could achieve a more economically attractive pricing outcome than uniform pricing. In 2010, we noted that we were prepared to consider a pricing regime that attributed the costs of the services to the Terminal users who benefited from their provision. The QCA's position on differential pricing at that time, was subject to consultation in the lead-up to our 2013 discussion paper. Differential pricing, as either a regulatory concept or specific to the Terminal, could not reasonably be considered to be an unexpected 'shift' in direction.

DBCTM may not have been able to foresee in 2001 that differential pricing would be introduced 15 years later—but likewise users could not have anticipated material TIC increases for capacity from which they would potentially derive no benefit. No doubt both would have valued access differently had they known for certain the changes that could occur at the Terminal.

DBCTM anticipated uniform pricing would continue, and that it would be able to spread the cost of future expansions across all customers, irrespective of whether those customers were going to benefit. DBCTM also anticipated earning a return on capital at least as high as in the private sector.

The DBCT User Group anticipated uniform pricing would cease to apply once the Terminal reached the increasing part of its long run marginal cost curve, and that non-expanding users would not be required to pay for capacity expansions from which they did not benefit.

We do not consider that differential pricing compromises or disadvantages most of these fundamental expectations that DBCTM and the DBCT User Group each had in 2001, although it may change the timeframe within which expansions occur. We also note that differential pricing does not affect the ability of DBCTM to recover its sunk costs.

If differential pricing is applied to capacity expansions, the lessee, DBCTM, continues to have the opportunity to earn an appropriate return on capital, where there is demand for capacity expansion. Non-expanding users can expect their TIC to increase if the expansion of the Terminal

[673] DBCT User Group sub. 12: 27.

will benefit them, as outlined in the criteria above. Where there is no benefit for existing users, they would not subsidise new capacity for other users. Both expanding and non-expanding users would be able to invest with certainty knowing their TIC will not increase beyond DBCTM's reasonable costs.

Conclusion

We agree that when the lease for DBCT was signed, and when customers took up their first evergreen take-or-pay contracts at the newly leased Terminal, neither could have foreseen with 100 per cent certainty that differential pricing may be introduced 15 years later.

However, we consider differential pricing maintains the initial expectation of DBCTM to earn an appropriate return on the capital it invests in the Terminal. It also maintains the expectation the DBCT User Group had to only fund the Terminal capacity it requires, and provides surety for both non-expanding and expanding users that they will not be required to face increasing access charges over time in order to fund Terminal capacity from which they will not directly benefit.

Given that DBCTM and the DBCT User Group have had an extended period over which to adapt and prepare for changes to expansion capacity pricing, we do not agree with DBCTM's view that prior expectations warrant the continuation of a pricing approach that could create uncertainty for users and could establish a new cross-subsidy between expanding and non-expanding customers each time the Terminal is expanded.

While differential pricing in the circumstances we propose is different to the pricing regime in place when the Terminal was initially leased, we consider it will maintain and continue to appropriately balance the interests and reasonable expectations of DBCTM and the DBCT User Group, given the history and regulatory context.

DBCTM's proposal: Ports Services Agreement

DBCTM was concerned with the QCA's statements about the PSA in the final differential pricing decision. It cited the QCA's views that:

- contractual arrangements could not bind or constrain the QCA's discretion to approve or refuse to approve a DAU
- the QCA was (in the context of the DAAU) very limited in its ability to consider the PSA
- DBCTM needed to demonstrate that compliance with the PSA represented a legitimate business interest.[674]

DBCTM stated that any form of differential pricing would require amendment to the PSA. The amendments would affect key commercial terms of the PSA, which could only be implemented by agreement between DBCTM and the State.[675]

DBCTM submitted that the PSA requires DBCTM to uniformly price common services, undertake expansions and to provide non-discriminatory pricing to users. In its current form, DBCTM considered the PSA prevents DBCTM from applying the QCA's final decision on the differential pricing DAAU. DBCTM was:

[674] DCBTM sub. 2: 62.
[675] DBCTM sub. 2: 63.

> *alarmed that the QCA interprets the power it has to exercise its discretion as extending to ignoring binding contractual obligations. This places DBCTM in a potentially untenable position as it could force it into an arrangement that is in effect, a breach of contract.*[676]

With this in mind, DBCTM added that it has already proposed amendments to the PSA as per the separability approach outlined in the DAU.[677]

Stakeholders' submissions

The DBCT User Group agreed with the QCA's position on the PSA, as expressed in the final decision on DBCTM's differential pricing DAAU, namely that:

> *contractual agreements, such as the PSA, cannot bind or constrain us [the QCA] in exercising our discretion to approve or refuse to approve the DAAU, in accordance with the QCA Act.*[678]

The DBCT User Group reasoned that if contractual obligations could constrain the QCA, then regulated entities would enter into contractual agreements to defeat appropriate regulatory decisions. Additionally, the DBCT User Group did not consider that differential pricing would result in DBCTM being in breach of the PSA. It submitted:

> *The DBCT User Group's understanding of the PSA is that it contains provisions relating to the terms which DBCTM can submit in a draft access undertaking - not the terms which the QCA can approve or to which the provision of services by DBCTM can be made subject.*[679]

As a result, the DBCT User Group did not consider the PSA should be given significant weight in our consideration of differential pricing.

QCA analysis and draft decision

Stakeholders' interpretations of the PSA focused on two issues:

- Is compliance with the conditions of the PSA a legitimate business interest of DBCTM under section 138(2)(c) of the QCA Act?
- Does the PSA restrict an approved access undertaking, or only the terms and conditions DBCTM can propose in a draft access undertaking?

We accept that DBCTM's obligations under the PSA are a legitimate business interest of DBCTM, which we are required to have regard to under section 138(2)(c).

However, the weight that we give the requirements in the PSA, including any requirement for DBCTM to apply prices based on a common user charge, is moderated by a number of considerations.

First, we note simply that it is DBCTM that has proposed differential pricing in its 2015 DAU, so that we are required to take it into account.

Second, as submitted by the DBCT User Group, if contractual obligations could constrain the QCA or limit the efficacy of regulatory decisions under the QCA Act, regulated entities (and their customers, for that matter) would enter into contractual agreements to defeat inconvenient or undesirable regulatory decisions. This is clearly not the intent of section 138(2)(c).

[676] DBCTM sub. 2: 63.
[677] DBCTM sub. 2: 65.
[678] DBCT User Group sub. 12: 26.
[679] DBCT User Group sub. 12: 26.

We also note that DBCTM appears to have inconsistent interpretations of how section 138(2)(c) applies. While DBCTM has proposed that the conditions of the PSA should constrain a decision by the QCA, under the QCA Act, compliance with the PSA has not constrained DBCTM submitting changes that contradict its own interpretation of the PSA. Any type of differential pricing would be inconsistent with DBCTM's interpretation of the PSA. The QCA Act requires that we assess the DAU, irrespective of whether we or DBCTM consider its contents to contradict DBCTM's contractual arrangements, and that we give consideration to the full list of factors in section 138(2).

Further, DBCTM has highlighted that it has already initiated discussions with DBCT Holdings in order to amend the PSA to accommodate its proposed approach to differential pricing (which it said is inconsistent with the current formulation of the PSA). We note that DBCTM could instead propose to amend the PSA to accommodate the approach to differential pricing that emerges from the 2015 DAU process.

In regard to how DBCTM's indication that the PSA requires the application of common charges for comparable services[680] should be interpreted, explanations have been provided by both DBCTM and the DBCT User Group. As we do not consider it to be our role to direct DBCTM on how it should interpret its contractual obligations, we will not be offering a view on the issue in this draft decision.

Given these issues, we have considered DBCTM's submissions regarding the PSA, and view it as a legitimate business interest, but not one that is determinative—it is a matter to be weighed together with our consideration of the other section 138(2) criteria, within the relevant context.

Conclusion

While we have had regard to DBCTM's obligations under the PSA as a legitimate business interest (s.138(2)(c)), we do not consider DBCTM's contractual obligations are determinative in respect of our decision-making under the QCA Act.

That said, we note that interpretation of the PSA, and DBCTM's obligations under it, is a matter for DBCTM.

DBCTM's proposal: Asset stranding

DBCTM submitted that differential pricing would increase the risk of asset stranding, compared to uniform pricing. It considered that under the differential pricing approach proposed by the QCA, there would be a much smaller number of users from whom it could recover the return of and on capital, which would increase the risk of assets being stranded if one or more users defaulted.[681]

DBCTM considered the risk of asset stranding could impact its ability to raise funds for an expansion.

> *Financiers could be reluctant to lend if only a small number of users (or one user) are backing the expansion and DBCTM is unable to socialise costs in the event of a user default. Again, this is more likely to be the case under the conditions proposed in the QCA's Final Decision than under the differential pricing approach proposed in DBCTM's 2016 DAU.*[682]

[680] DBCTM sub. 2: 66.
[681] DBCTM sub. 2: 65, 69.
[682] DBCTM sub. 2: 66.

It did not consider it appropriate to test whether the possibility of differential pricing would affect its ability to attract expansion funding. DBCTM stated that this would only be appropriate in the context of a real expansion.

DBCTM submitted that, as the only regulated terminal competing in the market, it was constrained in the measures it could implement to either mitigate, or compensate itself for, its exposure to stranding risk.[683] DBCTM cited that the terms of the PSA required DBCTM to undertake expansions and to provide non-discretionary pricing to users. DBCTM said there were no mechanisms within the existing framework that allowed it to mitigate or be compensated for this additional risk.[684] To redress this deficiency, DBCTM proposed that it be allowed to:

- modify or delay a Terminal capacity expansion that would otherwise be required under Part 12 of the DAU[685]
- require a minimum access agreement of 15 years where expansion is obligated.[686]

It reiterated that any amendment to the PSA would require the agreement of DBCT Holdings.

DBCTM considered these measures could partially mitigate the risk of asset stranding, but highlighted that, even under its proposed WAML methodology for return of capital, 15-year access agreements could still be less than the life of the asset—which could lead to stranded assets. It also noted that 15-year access agreements would only protect DBCTM from asset stranding if the counterparty remained solvent, and only for the term of the agreement.[687]

To the extent that DBCTM is required to differentially price, it said it would need to consider what other risk mitigation mechanisms may be necessary, noting the risk that the QCA may disallow those other mechanisms.[688]

Stakeholders' submissions

The DBCT User Group did not share DBCTM's view that the long-term market for coal would require DBCTM to shorten its asset's economic life to avoid asset stranding. It considered that over the long term, demand for coal, and therefore the Terminal's services, appears to be robust. The DBCT User Group cited the US Energy Information Administration (EIA) to support its view that the risk of asset stranding was significantly less than that presented by DBCTM:

> *The EIA anticipates Australia will be the largest individual exporter of coal by 2035, and supply over 30% of total international coal exports annually between 2035 and 2040.*[689]

The DBCT User Group strongly disagreed with the view that the Terminal was in competition with existing and potential new coal terminals at the ports at Abbot Point and Gladstone (see Section 11.2.4), and that the risk profile of the Terminal had increased as a result:

> *DBCT User Group...considers that there is no economic or practical evidence of any such competition from other coal terminals, existing or contemplated. The extent to which other terminals provide any competition to the terminal is severely limited by the practical constraints of a user switching to utilise other Terminals. As a result, the other coal terminals do not provide*

[683] DBCTM sub. 2: 65, 69.
[684] DBCTM sub. 2: 69.
[685] DAU, cl. 12.7.
[686] DBCTM sub. 2: 69.
[687] DBCTM sub. 2: 69.
[688] DBCTM sub. 2: 65.
[689] DBCT User Group sub. 12: 19.

any competitive tension to DBCTM or alter the level of asset stranding risk for the Terminal from that which has prevailed during previous regulatory periods.[690]

The DBCT User Group also noted the inherent contradictions between DBCTM's submissions about the prospects of future expansions to meet coal demand being damaged by differential pricing, and at the same time submitting that low coal prices would lead to increased risk of asset stranding.[691]

QCA analysis and draft decision

Both DBCTM and the DBCT User Group agreed that the medium to long-term outlook for DBCT is positive. The QCA agrees with this view—see discussion in the context of return of capital in Chapter 5. With a strong medium-to-long-term outlook, it seems unlikely that a significant volume of new mine capacity would become stranded, if there had been sufficient demand to build initially.

We agree with DBCTM's assessment that differential pricing may spread the cost and risk of capacity expansions across a smaller tonnage than under a uniform pricing approach. DBCTM is responsible for mitigating this risk by managing counterparty risk, and making prudent investment decisions. We note DBCTM is required to initiate Terminal expansion where there is 'reasonably anticipated future growth of demand' or within 12 months of receiving a bona fide offer from a user or 'reasonably creditworthy potential user', that was unconditional and legally binding, to obtain coal handling at DBCT for a period in excess of five years.[692]

DBCTM's proposed changes to clause 12.7 in the 2015 DAU make explicit that the risk profile of a differentially priced expansion component can also be considered in determining whether to modify or delay the expansion. We consider that this factor is already allowed under the existing criteria in clause 12.7, and therefore, we agree with the DBCT User Group that there is no need to amend the existing provision to specifically allow for this.

We also note that in the DAU (Attachment 1), we have included increased information requirements and information warranties. These should enable DBCTM to more rigorously assess user viability. As discussed in section 11.3, DBCTM will also be able to determine which component of capacity—base or differentially priced—is made available to the queue.

We have considered DBCTM's proposal to extend the minimum access agreement for expanded Terminal components to 15 years in Chapter 10, and refused to approve its proposal.

Conclusion

We consider that DBCTM has a responsibility to manage the mitigation of future asset stranding by managing counterparty risk, and making prudent investment decisions. It is not appropriate to spread the risk or cost of new Terminal capacity across non-expanding users, in order to mitigate the risk of asset stranding.

We also consider that a number of the elements of the 2015 DAU already provide a means for DBCTM to manage any risks associated with only spreading the cost of differentially priced expansion capacity between expanding users (as opposed to uniformly pricing the costs across all users).

[690] DBCT User Group sub. 12: 10.
[691] DBCT User Group sub. 12: 27.
[692] PSA p.34.

We therefore do not consider there to be a need to change the existing provisions in order to allow DBCTM to modify or delay an unreasonable or uneconomic expansion of the Terminal under section 12.7 of the 2010 AU.

11.2.4 Competition

DBCTM has stated that the incremental up/average down approach to differential pricing would inappropriately advantage non-expanding customers over expanding customers, and disadvantage DBCT relative to neighbouring ports. It also expressed concern about the impact of our approach on the competitiveness of the CQCR, on the ability of DBCTM to attract funds for expansions, and on whether or not future access seekers were being adequately represented in the DAU process. Many of these concerns were also raised during our consideration of the differential pricing DAAU, and were addressed in our final decision.

As neither DBCTM nor the DBCT User Group has addressed the competitiveness of the CQCR directly in their recent submissions, we refer to the discussion and conclusions in the final decision on the DAAU, rather than reproducing that discussion here.

DBCTM's proposal: Competition with other ports

DBCTM was concerned that being forced to apply differential pricing may put DBCT at a competitive disadvantage to other terminals, which were able to employ any commercially competitive pricing strategy they deemed viable, and allowed them to have regard not only to their actual costs, but to the costs of competing terminal (or supply chain) options.[693] DBCTM stated that DBCT was the only terminal subject to heavy-handed regulation, and that it was competing in the market for Bowen Basin producers. It considered:

> *the pricing strategy that is necessary to facilitate efficient expansions should be left to the market to determine.*[694]

DBCTM also referred to its submissions on the differential pricing DAAU. It said the market for terminal capacity in the CQCR has changed in recent years, with increased integration between coal export supply chains. This meant that DBCTM was exposed to competition with other terminals for both expansion and existing tonnages.[695] DBCTM considered that it was highly possible that surplus capacity would exist at some point in the near future, and that

> *terminal owners will be incentivised to price access competitively in order to maximise revenue recovery.*[696]

It highlighted that the last major expansion of Abbot Point Coal Terminal (APCT) was underwritten by 24 mtpa of contracts from customers previously considered to be captive of DBCT,[697] a direct result of the construction of the Goonyella to Abbot Point Expansion (GAPE) rail system. DBCTM identified WICET, the Port of Gladstone, and Dudgeon Point as other terminals it was competing (or potentially competing) with. DBCTM estimated that across these terminals[698] there was

[693] DBCTM sub. 2: 9, 64.
[694] DBCTM sub. 2: 64-65.
[695] DBCTM sub. 2: 9.
[696] DBCTM sub. 2: 7.
[697] DBCTM sub. 2: 64.
[698] Abbot Point, DBCT, Port of Gladstone and WICET. We have excluded Dudgeon Point, as its development is currently on hold.

already latent capacity of 42.8 mtpa, and a total planned capacity of 380 mtpa (141 mtpa higher than currently available).[699]

To demonstrate its concerns, DBCTM provided an example of how, if all other costs (e.g. below-rail, above-rail and port handling) were equal, port access charges could be the deciding factor of whether a potential customer shipped through DBCT or APCT. DBCTM said that APCT had far greater flexibility to respond to market conditions and the outcomes for existing users than DBCTM. For example, APCT could charge non-cost-reflective prices in order to 'win' new capacity agreements, while DBCTM could not. In DBCTM's view, this could result in an inefficient expansion occurring, as APCT would be expanded rather than DBCT.[700]

Stakeholders' submissions

The DBCT User Group disagreed that DBCT was competing with the coal terminals at APCT and Gladstone. It submitted that there was no economic or practical evidence of any such competition from other coal terminals, existing or contemplated. It provided numerous illustrations to demonstrate that any competition would be severely limited by the practical constraints of a user switching to another terminal. We have summarised the DBCT User Group's examples below (Table 25).

Table 25 Constraints on DBCT users changing ports[701]

Constraint	*Description*
Cost differences	Being a regulated, brownfield terminal, with large economies of scale means services at DBCT are provided at lower prices than at other Queensland coal export terminals.
Insufficient terminal capacity	No guarantee that sufficient capacity will be available at other terminals at the relevant time.
Multi-cargo and coal blending	Multi-cargo arrangements, in which different coal products from different producers are loaded into different holds in the same vessel, make it preferable for coal producers to ship through DBCT. Customers are able to specify blended coal products, a process which must take place at a single terminal. A change in export terminal for a mine would adversely affect possible blending options.
Rail cost differences	DBCT is the closest multi-user terminal to all mines in the Goonyella system. For most mines, the additional distance to alternative terminals, and the associated below-rail access and above-rail haulage costs, would make exporting through other terminals unviable.
Insufficient below-rail capacity	There is insufficient capacity on parts of the below-rail network to allow switching to occur on a long-term basis for any material volumes, without rail network expansions. The surplus capacity that exists is typically fully contracted, and would require the trading of access rights with a haulage operator or another producer, or prior relinquishment by one of those entities.
Rail network differences	The Goonyella system can accommodate both electric and diesel locomotives, whereas only diesel stock can use the Newlands system to APCT.

[699] DBCTM sub. 2: 8.
[700] DBCTM sub. 2: 64.
[701] DBCT User Group sub. 12: 10-11.

Constraint	*Description*
	If rail and port access could be acquired, there would be limits to what rail haulage providers with electric stock could do to switch to the Newlands system without passing on substantial costs to users.
Capital investment in mine specific rail infrastructure	For some mines, material capital investment would be required to reconfigure the turn-out from the mine's rail loop in order for coal to be hauled in a different direction.
Restraints on substitution from long-term take-or-pay	Rail haulage and access agreements are typically set on at least a 10-year take-or-pay basis. Switching terminals is a choice that arises at the point of re-contracting, and when re-contracting aligns with the terms of the DBCT User Agreement.

The DBCT User Group also stated that of the 'existing or other terminals' that DBCTM refers to in its DAU submission, Hay Point Coal Terminal is not a multi-user facility, nor has its owner indicated it is likely to become one. Further, neither of the Dudgeon Point Coal Terminal proposals is proceeding or is likely to do so in the next regulatory period.[702]

The DBCT User Group also cited the ACCC's view that the relevant market was supply of coal handling services at the Terminal, and not a wider market involving other coal terminals.[703]

QCA analysis and draft decision

In our final decision on the differential pricing DAAU, we concluded that:

- a strict application of uniform pricing could provide DBCTM with an inappropriate and potentially inefficient competitive advantage over neighbouring ports
- differential pricing would not place DBCTM at a competitive disadvantage in attracting efficient investment for capacity expansions
- relative costs at nearby ports seemed to be significantly higher than at DBCT and would be unlikely to make DBCT uncompetitive.

Our position in this draft decision does not markedly differ from this view.

The pricing principles in section 168A of the QCA Act require that the regulated price should:

- meet (at least) the efficient costs of providing access
- allow for multi-part pricing and price discrimination where it aids efficiency
- provide incentives to reduce costs or otherwise improve productivity
- not allow conditions that discriminate in favour of a downstream user.

We consider that although uniform pricing is a form of price discrimination—charging the same price to two customers, who have different costs of providing the service to—it would generally not aid efficiency, and would create a cross-subsidy between users. While the total revenue could cover the cost of providing access, individual users could be paying more or less than their actual costs. Nor would default uniform pricing provide an incentive for DBCTM to reduce costs or improve productivity.

[702] DBCT User Group sub. 12: 13.
[703] DBCT User Group sub. 12: 13.

As we stated in our final decision on the differential pricing DAAU, default uniform pricing may also result in DBCTM having a potentially inefficient competitive advantage over neighbouring ports. For example, users are protected by regulation from exploitation of their sunk investments and DBCTM's cost-based form of regulation provides relatively fixed revenues compared with unregulated ports, thereby buffering DBCTM's cash flows in times of market volatility.[704] For these reasons, we think that unless an expansion at the Terminal will demonstrably improve conditions for all users, it is appropriate and efficient that the costs of expansion are paid by those users accessing the new capacity.

In that situation (one where expanding users pay for new capacity), we agree with DBCTM: it should be up to the market to determine where it is most efficient for expansions to occur. If that means it is more cost-effective for other ports to expand before DBCT, then that will be the most efficient long-term outcome for the CQCR and Terminal users.

DBCTM have stated that much of the latent and new capacity at other terminals is, or would be, competing with DBCT. In DBCTM's theoretical example, APCT has greater flexibility to respond to market signals than DBCTM. However, APCT can only charge non-cost-reflective prices if it does not face competition for a least a significant portion of its customer base. We also note that the DBCT User Group's description of why capacity at DBCT is difficult to interchange with capacity elsewhere suggests that demand for terminal capacity is probably quite specific to users' infrastructure and logistical arrangements. It is difficult to see why APCT's users would be more or less rigid in their terminal capacity requirements than users at DBCT, and thereby allow APCT the proposed pricing advantage.

We are inclined to accept the DBCT User Group's examples of how capacity at DBCT differs from other terminals. It has detailed the different supply chain costs to various terminals, and the greater flexibility in blending and combining available at DBCT. We invite DBCTM to respond to these examples, if it considers them misrepresentative.

We also considered the recent Statement of Issues (SOI), released by the ACCC, which stated:

> *The ACCC's preliminary view is that:*
>
> *(a) The relevant upstream market for assessing the proposed acquisition is the supply of coal handling services at DBCT; and*
>
> *(b) The relevant downstream market is the supply of above rail haulage services on the Goonyella coal rail system.*[705]

Following the ACCC's release of the SOI, DBCTM submitted a proposed section 87B undertaking under the *Competition and Consumer Act 2010* (CCA), and did not try to demonstrate that DBCT was also in competition with neighbouring terminals, despite customers having submitted to the ACCC that ports at Abbot Point and Gladstone were not close substitutes.

Conclusion

We consider the examples put forward by the DBCT User Group make a strong case of why capacity at nearby ports could not easily be interchanged with capacity at DBCT. We welcome stakeholder comments to further inform this topic.

DBCTM's submission does not alter our view from the final decision on the differential pricing DAAU, that the incremental up/average down approach to differential pricing would be

[704] Incenta 2016, p. 33.
[705] ACCC October 2015, p. 14.

appropriate, and consistent with the criteria in section 138(2) of the QCA Act and will not give other terminals an inappropriate competitive advantage over DBCT.

DBCTM's proposal: Competitive advantage for existing users

Consistent with its earlier submissions, DBCTM was concerned that the QCA's assessment of differential pricing had a strong bias towards existing users.[706] DBCTM said that it would provide existing users[707] with a competitive advantage over new or expanding users and that the DBCT User Group was protecting a source of competitive advantage.[708] It submitted that:

> *the regulatory framework is being used to provide a protection to existing users that would not exist in a competitive market, unless it was negotiated with the infrastructure provider.*[709]

DBCTM considered that these benefits or future protections to foundation users could have been negotiated if the Terminal was a greenfield development, recognising that those users may have underwritten a risky development, but this was not the case at DBCT. As discussed in this chapter, DBCTM does not consider that the benefits of differential pricing were sought or contemplated when the Terminal was constructed, or when regulation was first introduced.[710] It could not 'readily identify a situation where such protection would be provided in a workably competitive market'.[711]

DBCTM highlighted that during the negotiations for the first access undertaking (2006), users supported uniform pricing. DBCTM also noted that users sought the introduction of differential pricing during the negotiations of the 2010 AU. DBCTM submitted that uniform pricing has, 'underpinned the development of the terminal and supported the growth in volumes from these incumbent users'.[712]

Given existing users' rejection of differential pricing during negotiations for the first access undertaking, DBCTM submitted that it has become an issue now because existing users were not intending to expand, and they may have a different perspective if they were.[713] DBCTM considered that the views expressed by the DBCT User Group reflected users' expectations regarding future expansions, and that DBCT User Group was acting in the best interest of its shareholders. DBCTM noted that future users were generally not parties to regulatory consultation processes:

> *[T]he interests of future access seekers have not been adequately represented. Instead, the interests of existing users overwhelmingly dominate, including in preference to DBCTM's legitimate business interests.*[714]

DBCTM addressed the competitive advantage of existing users as part of the DAAU process. A full summary of its submission can be found in our final decision on the differential pricing DAAU. The key points raised were:

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[706] DBCTM sub. 2: 70.
[707] Except where citing submissions, we refer to customers as expanding or non-expanding users. To the best of our knowledge, most of the current customers are non-expanding users.
[708] DBCTM sub. 2: 61.
[709] DBCTM sub. 2: 63.
[710] DBCTM sub. 2: 64.
[711] DBCTM sub. 2: 64.
[712] DBCTM sub. 2: 61.
[713] DBCTM sub. 2:68.
[714] DBCTM sub. 2:68, 70.

- Existing users were not foundation users, and therefore not entitled to maintain the competitive advantage they had secured.
- Existing users and access seekers had conflicting interests, particularly where existing users were not planning to expand.
- The QCA's approach (in our draft decision on the DAAU) would introduce new barriers to entry; deliver an unfair benefit to non-expanding users at the expense of industry development; and create a perverse potential for existing users to sell their capacity rights to new or expanding users and realise an unearned windfall gain.

Each of these issues was addressed in our final decision on the DAAU.

Stakeholders' submissions

Consistent with the submissions it made during the QCA's consideration of the differential pricing DAAU, the DBCT User Group considered that differential pricing would aid efficiency by removing the potential for cross-subsidisation of expensive and inefficient expansions, and that it was appropriate for new users to pay the costs of expansions required to meet their demand:

> *If such expansions are effectively cross-subsidised by other users, that has the potential to result in inefficient investment and distortion of competition in other markets through circumstances like development of a Goonyella coal mine utilising that subsidised capacity instead of a more efficient mine that would utilise another terminal.*[715]

The DBCT User Group acknowledged that it was not in its members' interest to pay higher prices for services they would not benefit from.

In its earlier submissions, the DBCT User Group said that:

- Non-expanding users had underwritten the development of the Terminal by taking up initial long-term take-or-pay contracts, and by making capital contributions.
- Irrespective of the brownfield nature of the site, and that capital contributions had been refunded when regulation commenced, users bore those costs and risks prior to that point in time.
- Differential pricing would not 'blunt' competition between users, but would ensure that existing users were not subsidising the entry of expanding users.

The DBCT User Group considered that DBCTM's position was inconsistent with the object of Part 5 of the QCA Act, as it would lead to inefficient investment.[716]

QCA analysis and draft decision

We do not consider that DBCTM or the DBCT User Group have submitted arguments that differ substantially from those they provided during our consultation on the differential pricing DAAU. DBCTM has stated that the incremental up/average down approach to differential pricing provides existing users with an inappropriate competitive advantage compared to future access seekers, and that the DBCT User Group is attempting to protect that advantage. DBCTM suggested that differential pricing may have been appropriate if negotiated at the commencement of a greenfield site, but this did not apply at DBCT.

[715] DBCT User Group sub. 12: 27.
[716] QCA, May 2015, p. 18.

In our final decision on the differential pricing DAAU, we concluded that differential pricing did not create an unfair advantage for existing users, nor that it would deliver them a 'windfall gain'. We accepted that differences in timing of investment could lead to existing users obtaining cost advantages over later entrants, which is appropriate and consistent with how competitive markets develop over time. However, these competitive advantages are not generated by differential pricing.

We consider the incremental up/average down approach to differential pricing aligns the cost of supplying new capacity at any given point in time with the users triggering that expansion. This alignment will support a cost-reflective and certain market for Terminal capacity. A default uniform pricing approach is not cost-reflective or certain. We do not think that either expanding or non-expanding users should be obligated to fund future expansions, from which they will not benefit. However, we do consider users should have reasonable certainty about what factors may influence their TIC in the future.

DBCTM was also concerned that future access seekers were not adequately represented in regulatory pricing decisions.

We consider that under the incremental up/average down approach to differential pricing, future access seekers (expanding users) interests are represented in a number of ways.

Most broadly, our proposed approach to differential pricing will facilitate the efficient development of the CQCR, which benefits all users operating there.

More directly, expanding users will benefit from existing infrastructure, as we have proposed that where new capacity is differentially priced, and the differentially priced TIC exceeds the TIC of non-differentially priced capacity, expanding users will not contribute toward the cost of existing infrastructure. In many cases, this could mean that expanding users benefit from the base infrastructure that is being funded by non-expanding users. Expanding users will also benefit in the future, as differential pricing will provide a degree of certainty that their access price will be unlikely to materially increase due to capital expenditure that does not directly benefit them, and is beyond their control.

Finally, we note that under the incremental up/average down approach, uniform pricing could still be applied following a future expansion, if circumstances dictated this was warranted, having regard to the factors outlined above.

Conclusion

We do not consider that the incremental up/average down approach to differential pricing will create a competitive advantage for existing users. Differential pricing in appropriate circumstances may preserve existing advantages that non-expanding users have achieved, as outlined in our final decision on the differential pricing DAAU, but it does not create a new advantage for those users compared to future access seekers.

11.2.5 Other issues

DBCTM raised a number of issues which had been addressed in our final decision on the differential pricing DAAU. These related to the structure of differential pricing, conditions for applying uniform pricing and the potential impact of differential pricing on regulatory certainty.

DBCTM's proposal: Regulatory certainty

In its submission on the differential pricing DAAU draft decision, DBCTM asserted that regulatory certainty and predictability were the most important characteristics of a capacity expansion pricing approach. It has maintained this view in its submission on the 2015 DAU.

DBCTM submitted that the separability approach proposed in the DAU is clear and straight forward and provides all stakeholders with a high degree of regulatory certainty, unlike the incremental up/average down approach proposed by the QCA,[717] which it considered to be inefficient and unworkable.[718]

Under the proposed separability approach, DBCTM said all stakeholders would know the conditions that would apply if or when an expansion occurred, and certainty could be established well in advance of developments being investigated.

More broadly, DBCTM was concerned at the QCA's willingness to:

> *impose a change to the regulatory framework that overturns a contractual agreement and would force DBCTM to apply a pricing approach that is different to the approach that was expected to apply when the investment was made.*[719]

In its submission on our draft decision on the DAAU, DBCTM said that changing to differential pricing would complicate the decision-making process, by introducing regulatory discretion as a new source of risk.[720]

Stakeholders' submissions

The DBCT User Group agreed with DBCTM's statement that the certainty and predictability of regulatory processes is a relevant consideration and formed part of the public interest. The DBCT User Group submitted that regulatory certainty is a concept that should consider both the infrastructure owner and the customers. It considered that DBCTM had proposed significant changes in the methodology for determining many parameters, most having significant benefits for DBCTM and adverse impacts on DBCT users, 'in such a way as to materially change the overall "compact" established by the QCA through previous determinations'.[721]

The DBCT User Group stated that while stability of the regulatory framework was important, it should not preclude the normal reconsideration of inputs and assumptions that are applied from time to time. It described regulatory certainty as, 'Certainty of process (e.g. the principles applied to determine appropriate pricing) not the outcomes of applying that process (e.g. the equity beta, WACC or Terminal Infrastructure Charge)'.[722]

The DBCT User Group also submitted that DBCTM's concern about the QCA's final decision on the differential pricing DAAU creating uncertainty by needing to balance a list of factors which may be in conflict, did not stand up to scrutiny.

The DBCT User Group expressed a similar view in its response to the draft decision on the differential pricing DAAU. The DBCT User Group supported the ability of the QCA to determine if there are special circumstances that justify a departure from the incremental up/average down approach and a need for that decision to be guided by the proposed factors.[723]

[717] DBCTM sub. 2:60
[718] DBCTM sub. 2:66
[719] DBCTM sub. 2:66.
[720] QCA, August 2015:24
[721] DBCT User Group sub. 12:6
[722] DBCT User Group sub. 12: 26.
[723] DBCT User Group sub. 22: 5.

QCA analysis and draft decision

In our final decision on the differential pricing DAAU, we stated that capacity expansion pricing should, to the maximum extent possible, be cost-reflective and provide certainty as part of a long-term regulatory framework.

Under the proposed incremental up/average down approach to differential pricing, capacity expansion projects will be differentially priced, unless DBCTM makes a case for uniform pricing, on the basis of the factors described above. Depending on timing arrangements, discussed below in section 11.3 of this chapter, the QCA's decision can take place after the FEL 2 feasibility study and provide stakeholders with certainty on how the expansion will be priced, if it proceeds.

DBCTM also expressed concern at the QCA's willingness to impose a change to the regulatory framework, and was concerned that this introduced a new source of regulatory risk. We also note, again, that differential pricing was not initially imposed by the QCA. Rather, DBCTM itself originally submitted both the differential pricing DAAU and has submitted the current 2015 DAU with differential pricing provisions.

As highlighted earlier, we do not consider that either DBCTM or the DBCT User Group could have been unaware by 2015, that differential pricing could be introduced to price capacity expansions at the Terminal.

Conclusion

We consider that although the incremental up/average down approach to differential pricing leaves open the possibility of uniform pricing, thereby creating some uncertainty, it also ensures a more flexible approach to capacity expansion pricing, that will deliver sustainable and efficient development of the CQCR.

DBCTM's proposal: Conflicting factors for assessment

In our final decision on the differential pricing DAAU, we proposed to have regard to a number of factors when considering whether non-expanding users should bear expansion costs. DBCTM considered the factors we proposed could potentially conflict with one another, and that our final decision did not provide sufficient guidance on how they would be weighted:

> *[T]he QCA's Final Decision includes a number of potentially conflicting factors that the QCA may consider in assessing whether or not to apply differential pricing. No further guidance has been provided in the Final Decision as to how this conflict might be reconciled. Instead, the QCA defends its right (and need) to be able to apply discretion.*[724]

DBCTM submitted that the approach recommended by the QCA was not only inefficient, but also unworkable. DBCTM considered that the QCA provided no guidance as to how the myriad of factors 'that may be considered', would be considered, or how conflicting criteria would be reconciled.[725]

During the DAAU process it submitted that the word 'may' created uncertainty as to which factors we would consider for any given assessment. DBCTM considered that all stakeholders, including DBCTM needed to know the conditions that will be applied if and when an expansion occurs,[726] and that the QCA's approach did not provide the certainty needed for the long-term commercial

[724] DBCTM sub. 2: 62.
[725] DBCTM sub. 2: 66.
[726] DBCTM sub. 2: 62.

development of the Terminal, as it was unclear which pricing approach would apply and under what circumstances.[727]

Stakeholders' submissions

The DBCT User Group submitted that DBCTM's concern about the QCA's final decision on the differential pricing DAAU creating uncertainty by needing to balance a list of factors which may be in conflict, did not stand up to scrutiny.

> *In particular:*
>
> *(a) this sort of balancing exercise is a very common task in access and economic regulatory decisions and represents a type of decision making with which the QCA has substantial experience*
>
> *(b) the concern is materially overstated, given that the primary test (whether socialisation would increase tariffs) can be applied with a reasonably high degree of certainty and the list of other factors to be balanced is only relevant in determining whether there are special circumstances which justify a departure (such that the factors would have to overwhelming point toward a departure before that would be appropriate).*[728]

QCA analysis and draft decision

In our final decision on the differential pricing DAAU we wrote:

> *In the main body of the draft decision, we made it clear that all the factors are to be considered. The wording we used, 'having regard to', is similar to the QCA's decision-making scope in other regulated sectors, including electricity,*[729] *water*[730] *and rail. We consider that the QCA's role as an economic regulator in all of these sectors routinely involves conducting exercises that require us to weigh various statutory and other factors. We are confident that introducing a similar task to the consideration of expansion pricing in DBCT Management's access undertaking does not give rise to any novel or significant uncertainty. To the contrary, it is very similar to a number of other discretions which we already exercise under the 2010 access undertaking.*[731]
>
> *Based on the wording of the QCA Act, and the circumstances under which we undertake similar decision-making roles, we do not consider that the introduction of differential pricing, with a defined set of factors to be taken into account as part of determining expansion tariffs, gives rise to any significant or unacceptable level of uncertainty. We also note that, as indicated earlier, we consider that predictability and transparency of regulatory arrangements are important for encouraging investment in regulated infrastructure assets. We will be mindful of these matters in making any assessments of future expansion pricing proposals under DBCT Management's access undertaking.*
>
> *We also consider that the binding ruling mechanism under section 150F of the QCA Act can be used to provide further clarity and certainty 'up front' for DBCT Management, expanding users and financiers.*[732]

Given that DBCTM has reiterated its concerns, it appears to consider this approach inadequate. While ultimately we disagree with its position, and maintain our view of assessing each capacity expansion proposal on its own merits to determine if it is appropriate to apply a uniform pricing approach, we have explored two other possible decision-making approaches in Box 2 below.

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[727] DBCTM sub. 2: 66.
[728] DBCT User Group sub.12: 26.
[729] Bailey 2015, p. 3.
[730] QCA Act s.170ZI (2) and (3).
[731] See, for example, cls. 1.4, 5.5, 5.10(f), 6(e), 9, 11.3, 12.5 and 12.10 of the QCA Act.
[732] QCA August 2015, p. 26.

Stakeholders are welcome to outline alternative approaches; however, we consider the criteria we have proposed balance the interests of DBCTM, expanding and non-expanding users, and could be determined early enough in the project planning process so as to provide certainty for DBCTM, customers and other interested parties.

Box 2: Alternative methods to determine whether an expansion should be uniformly priced

Single criterion decision: incremental up/average down

We could adopt a single criterion approach, whereby expansions that increase the uniform TIC are differentially priced, and those that decrease the uniform TIC are uniformly priced.

We feel this would disadvantage expanding users, as it is quite possible that capacity expansions could benefit all users, in which case it would be appropriate that all users contribute. However, this approach would provide stakeholders with a high degree of certainty early in the decision-making process.

Threshold-rules approach

We could, in principle, establish a series of thresholds and decision rules, which, if met, would provide for automatic uniform pricing. However, we recognise there are a number of disadvantages to such an approach, as:

- Developing the criteria thresholds and rules would require extensive research and development, despite the possibility that capacity expansions may not be required in the foreseeable future.
- Applying the four criteria outlined above, and assuming each had a single threshold switch, would mean there were 16 possible outcomes. Each outcome would involve trade-offs between the four criteria (except where all are triggered/not triggered). Some criteria (e.g. benefits to non-expanding users) may encompass diverse attributes. It would be impractical to attempt to categorise and weigh every possible benefit, in the absence of an actual expansion proposal.
- Setting a minimum threshold could encourage DBCTM to seek out expansions to deliver uniform pricing outcomes, irrespective of the efficiency and productivity gains.

We consider the complexity, administrative difficulty and possibility for perverse outcomes may make this approach inappropriate for DBCT.

Conclusion

We consider that assessing the merits of individual proposals for capacity expansion, against the criteria outlined above, will provide an opportunity for DBCTM to demonstrate when uniform pricing is appropriate. The QCA's decision on DBCTM's application for expansion pricing can be triggered early enough so as to give DBCTM, users and other interested parties substantial certainty before significant funds are committed.

DBCTM's proposal: Terminal tariff structure

DBCTM highlighted that the tariff structure at the Terminal cannot accommodate expanding users not contributing to common costs, and stated, 'the QCA has still not reconciled its

suggestion that differentially priced expanding users may be permitted to make a zero contribution to common costs'.[733]

DBCTM does not support multi-part tariffs unless there are clear and compelling reasons for their introduction. DBCTM expected that Terminal users were also unlikely to support multi-part pricing, as they had argued against doing so in the past.[734]

DCBTM considered there are differences between DBCT and Aurizon Network which make the approach to differential pricing adopted for the latter irrelevant to DBCT. Aurizon Network's multi-part tariff reflects a service that accommodates users travelling different distances, between different origins and destinations, which is fundamentally different to DBCT—a single, integrated coal terminal.[735] These factors are further discussed in table 2 of the QCA's final decision on the differential pricing DAAU.[736]

Stakeholders' submissions

The DBCT User Group did not address this issue in its submissions on the DAU.

QCA analysis and draft decision

DBCTM again raised the incompatibility of DBCT's existing tariff structure to accommodate differentially priced users paying zero toward common costs. It also stated that multi-part tariffs were not necessary at the Terminal, and would most likely be opposed by users.

We have addressed DBCTM's concerns in our final decision on the differential pricing DAAU. We propose to establish a separate TIC and ARR for each tranche of differentially priced capacity, based on the RAB of each tranche. This would not include a contribution toward the non-differentially priced component, unless the capacity expansion has been shared between non-expanding and expanding users.

If a future capacity expansion lowers the uniform TIC and ARR of either an earlier differentially priced tranche of capacity, or that of the base Terminal, those ARRs would be combined, and a uniform TIC calculated.[737] Once combined, that capacity would be treated as a single tranche, and could not be re-separated.

Although we have not proposed multi-part tariffs in this draft decision, or in our final decision on the differential pricing DAAU, we note that, depending on the circumstances, different tariffs structures could result, some of which may be multi-part.

DBCTM will need to change the existing tariff structure to accommodate any differentially priced capacity expansion, whether it is to establish a second RAB, ARR and TIC, or to create a new multi-part tariff that accounts for 'shared' expansion capacity costs. Any differential pricing approach will require a different tariff structure to the one that has existed up until now.

[733] DBCTM sub. 2: 62.
[734] DBCTM sub. 2: 62.
[735] DBCTM sub. 2: 62.
[736] QCA August 2015, p. 28.
[737] The replacement of initial infrastructure could have a similar impact on the relativity of base infrastructure and expanded capacity ARR and TIC values.

Conclusion

We propose that each differentially priced tranche of expansion capacity has a separate ARR and TIC calculated to account for the costs associated with the new capacity, unless DBCTM has demonstrated that part of the capacity expansion is to be uniformly priced.

Draft decision 11.31

(1) After considering DBCTM's proposed approach to differential pricing, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is as follows:

- **(a) where adding the expansion costs to the cost base of existing capacity decreases the reference tariff for non-expanding users, a uniform access price should apply to both non-expanding and expanding users (retaining a single regulatory asset base, ARR and reference tariff)**
- **(b) where adding the expansion costs to the cost base of existing capacity increases the reference tariff for non-expanding users, a separate access price should apply to the expansion and be charged to expanding users (through a separate regulatory asset base, ARR and reference tariff) except where the QCA considers it appropriate for non-expanding users to share the expansion costs, having regard to:**
  - **(i) the extent to which assets or infrastructure which are being constructed to deliver the additional capacity will operate wholly, or partly, in an integrated way with existing assets and infrastructure or as a standalone development**
  - **(ii) the extent to which the expansion benefits non-expanding users (such as through higher efficiency, robustness or flexibility)**
  - **(iii) the materiality of the increase in the reference tariff for non-expanding users which would be caused by adding the expansion costs to the cost base of existing capacity**
  - **(iv) any differences in the risks of providing access to non-expanding users in respect of additional capacity created by the expansion.**

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

11.3 Implementation of differential pricing—amendments required

DBCTM and the DBCT User Group have submitted very different proposals for the application of differential pricing at the Terminal.

This section identifies the key differences in each of their (marked-up) draft access undertakings, and our proposed approach. Major changes or differences between the approaches submitted are categorised below. Remaining issues, which relate to expression, definitions and timing, are addressed in the final section below.

DBCTM proposal: Allocation of O&M and NECAP expenditure

DBCTM did not address the allocation of operations and maintenance (O&M) and NECAP expenditure between differentially priced and uniformly priced Terminal capacity in its submission.

In the 2015 DAU, clause 11.9, DBCTM proposed that the Operator will advise it on the allocation between the existing infrastructure and differentially priced Terminal components, on the basis that the O&M costs have been incurred to provide services to each respectively. DBCTM will review the proposed quantum and allocation, and if satisfied, will recover the O&M charges on this basis.

DBCTM identified different asset bases for the existing Terminal and differentially priced components, but did not specify further the basis on which NECAP expenditure would be allocated.

Stakeholders' submissions

The DBCT User Group was concerned about DBCTM's proposed role in relation to the allocation of O&M costs between the 'base' Terminal (existing infrastructure) and expansion components, if the two are differentially priced. The DBCT User Group considered that clear principles should be specified in the 2015 DAU and in users' 'evergreen' agreements to determine how that allocation would occur.[738]

The DBCT User Group stated that DBCTM has a vested interest in allocating a greater proportion of costs to the base Terminal so that the costs are uniformly priced across a larger number of users, which would encourage expansion and therefore a higher RAB being used to determine DBCTM's revenue.[739]

The DBCT User Group considered that the allocation principles for O&M and NECAP proposed by the QCA are appropriate, and that the 2015 DAU should be amended to provide for that position.[740] The QCA proposed the following allocation principles:

> *(a) if an expansion has been uniformly priced, the other, non-expansion terminal costs should also be uniformly priced;*
>
> *(b) if an expansion has not been uniformly priced and a separate access price applies to the expansion, the other non-expansion terminal costs should be assigned based on the following principles:*
>
> > *(i) if a terminal cost is uniquely identified or directly incurred in relation to a particular asset or infrastructure, it should be assigned to that component ('identifiable cost')*
> >
> > *(ii) if a terminal cost is not explicitly identified but there is a reasonable causal relationship between that cost and a particular asset or infrastructure, it should be assigned based on an appropriate allocation factor reflecting the underlying drivers of that cost ('attributable' cost)*
> >
> > *(iii) if a terminal cost is neither identifiable nor attributable to a particular asset or infrastructure, it should be allocated on a reasonable basis among terminal users*
>
> *(c) if an expansion has not been universally priced and a separate access price applies to the expansion, DBCT Management will develop and submit a cost allocation manual for the QCA's approval within a reasonable time, in order to provide a transparent basis for assigning costs to separate capacity components under different circumstances, having regard to the principles in Final Decision 9.3(a) and (b). The manual should provide guidelines for cost allocation, with the final decision to be made by the QCA.*[741]

[738] DBCT User Group sub. 12: 27-28.
[739] DBCT User Group sub. 12: 28.
[740] DBCT User Group sub. 12: 28.
[741] QCA August 2015, p. 35.

The DBCT User Group anticipated that a costing manual will be required, as the allocation principles may need to be more detailed in relation to what constitutes a reasonable basis for allocation. It considered it preferable to prepare the more detailed allocation principles with a specific differentially priced expansion under contemplation, rather than in the abstract. It also suggested that the Operator's involvement in preparing the initial costing manual would be of benefit, so that it properly dealt with the actual O&M and NECAP costs which are likely to occur.[742]

The DBCT User Group proposed that the Operator propose the initial allocation as part of submitting the annual budget to DBCTM, and that DBCTM submit the allocation to the QCA on an annual basis. DBCTM could indicate to the QCA any allocations and costs it thought had not been allocated in accordance with the pricing principles in that submission.[743]

QCA analysis and draft decision

The DBCT User Group supported our proposed allocation principles for O&M and NECAP, and DBCTM did not raise any concerns. The DBCT User Group also agreed that it was better to prepare the cost allocation principles with a specific differentially priced expansion in mind, rather than in the abstract. Again, DBCTM did not raise any concerns.

The DBCT User Group proposed a differently sequenced approach to developing the cost allocation manual, suggesting that the Operator (DBCT PL) should draft the manual, DBCTM could comment on the draft, and the QCA would review and approve the cost allocation manual, and annual cost allocations.

We do not consider that we have the ability to require DBCTM to outsource a regulatory obligation to a specific third party entity, as proposed by the DBCT User Group. We anticipate that the QCA would consult with interested stakeholders, including users, as part of our review and approval of a cost allocation manual drafted and submitted by DBCTM.

We agree with the DBCT User Group's proposal for an annual review of cost allocations, and have proposed this in our DAU drafting. We also note that if any stakeholders disputed the detail of an annual budget allocation, they would have the option of initiating a dispute under the access undertaking.

Conclusion

We propose that in the event that new capacity at the Terminal is to be differentially priced, DBCTM prepare a cost allocation manual in line with the principles described above, and in consultation with the Operator, and submit it to the QCA for approval.

[742] DBCT User Group sub. 12: 28.
[743] DBCT User Group sub. 12: 28.

Draft decision 11.32

(1) **After consideration of DBCTM's proposed approach to differential pricing (which did not address the allocation of O&M and NECAP expenditure), our draft decision is to refuse to approve DBCTM's proposal.**

(2) **We consider the appropriate way for DBCTM to amend its 2015 DAU is as follows:**

- **(a)** **If an expansion has been uniformly priced, the other, non-capital expansion Terminal costs should also be uniformly priced.**
- **(b)** **If an expansion has not been uniformly priced and a separate access price applies to the expansion, the other non-expansion Terminal costs should be assigned based on the following principles:**
  - **(i)** **If a Terminal cost is uniquely identified or directly incurred in relation to a particular asset or infrastructure, it should be assigned to that component ('identifiable cost').**
  - **(ii)** **If a Terminal cost is not explicitly identified but there is a reasonable causal relationship between that cost and a particular asset or infrastructure, it should be assigned based on an appropriate allocation factor reflecting the underlying drivers of that cost ('attributable' cost).**
  - **(iii)** **If a Terminal cost is neither identifiable nor attributable to a particular asset or infrastructure, it should be allocated on a reasonable basis among Terminal users.**
- **(c)** **If an expansion has not been uniformly priced and a separate access price applies to the expansion, DBCTM will develop and submit a cost allocation manual for the QCA's approval within a reasonable time, in order to provide a transparent basis for assigning costs to separate capacity components under different circumstances, having regard to the incremental up/average down approach. The manual should provide guidelines for allocating costs, with the final decision to be made by the QCA.**

(3) **After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.**

Draft decision 11.33

(1) **After consideration of DBCTM's proposed approach to differential pricing (which did not address annual allocations of operating and maintenance (O&M) and NECAP expenditure), our draft decision is to refuse to approve DBCTM's proposal.**

(2) **We consider the appropriate way for DBCTM to amend its 2015 DAU is for DBCTM to submit its allocation of O&M and NECAP expenditure for different components of the Terminal to the QCA for approval each year.**

(3) **After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.**

DBCTM proposal: Timing of differential pricing decision-making

DBCTM submitted that certainty about the pricing approach that will be applied for an expansion is required well in advance of developments being investigated.[744]

The 2015 DAU proposed that DBCTM would provide a non-binding view of whether a Terminal expansion should be differentially priced, if it went ahead, upon receipt of an indicative access proposal,[745] and again when seeking for access applicants to fund FEL 1 and FEL 2 feasibility studies.[746]

Upon the completion of a FEL 2 study, DBCTM would:

> *[a]cting reasonably, make determination of whether the Terminal Capacity Expansion the subject of the FEL 2 Feasibility Study should (if it were to proceed) be treated as an Expansion Component, or as an extension to an existing Expansion Component, and therefore be Differentially Priced.*[747]

Before undertaking the capacity expansion, DBCTM would submit a Terminal capacity expansion application to the QCA, including the details of the reference tariff to apply to the capacity expansion. Unless new information came out of the subsequent FEL 3 feasibility study, DBCTM's proposed pricing approach would have to be consistent with its earlier non-binding determination.[748]

Stakeholders' submissions

The DBCT User Group considered that the 2015 DAU did not provide appropriate guidance on the timing for a decision by the QCA about whether an expansion would be differentially or uniformly priced. It considered appropriate timing to require balancing:

> *(a) the desirability for access seekers knowing prior to committing to a take or pay agreement for the expansion, and for DBCTM knowing of the regulatory treatment prior to investing in the capital costs of the expansion; and*
>
> *(b) the desirability of not imposing an inappropriate result by making the decision too early (e.g. determining to socialise an expansion that the capital costs ultimately substantially increase, such that it should have been differentially priced - to the detriment of existing DBCT Users).*[749]

The DBCT User Group proposed that the appropriate time for DBCTM to make a proposal to the QCA (and for the QCA to make a binding decision), would be after the completion of the FEL 2 study. It considered that by that stage:

> *[t]he design of the expansion and costs should be reasonably well known (albeit not perfectly) and that is prior to access seekers and DBCTM having made commitments in respect of the expansion.*[750]

However, the DBCT User Group highlighted that this did not address the issue of a significant change in capital costs. It suggested that if the QCA decided to uniformly price an expansion, only capital expenditure below the budget forecast in the FEL 2 feasibility study could be treated as being prudent and accepted into the Terminal's RAB. The DBCT User Group also proposed that

[744] DBCTM sub. 2: 62.
[745] Cl. 5.5(d)(6)(D).
[746] Cl. 5.10(a)(2).
[747] Cl. 5.10(k).
[748] Cl. 12.5(a)(2).
[749] DBCT User Group sub. 12: 33.
[750] DBCT User Group sub. 12: 33.

DBCTM conduct an initial assessment of the appropriate pricing method at the FEL 1 feasibility study stage.

It considered it critically important that the assessment of whether an expansion should be differentially priced was made by the QCA independently, not by DBCTM. The DBCT User Group submitted that DBCTM had a vested interest in a particular outcome.[751]

QCA analysis and draft decision

We agree with DBCTM about the importance of providing certainty early in the decision-making process. If DBCTM is proposing to uniformly price an expansion of the Terminal, part of providing certainty is specifying the cost impact on non-expanding users.

In our final decision on the differential pricing DAAU, we proposed that DBCTM submit a proposal to us after the FEL 3 feasibility study. In their submissions on the 2015 DAU, although they describe different decision-making processes, both DBCTM and the DBCT User Group have recommended that this determination should occur earlier, after the FEL 2 feasibility study. The DBCT User Group also proposed a preliminary assessment after the FEL 1 feasibility study.

We are inclined to accept the proposal for a price ruling to be sought by DBCTM after the FEL 2 feasibility study, if stakeholders are satisfied there will be sufficiently accurate cost (and other) information available at this point for a decision to be made. We consider that DBCTM should also be able to provide a preliminary indication to access holders of whether it will seek to uniformly price a capacity expansion after the FEL 1 feasibility study, and of how that may impact the TIC(s).

With regard to the determination of whether or not to differentially price a proposed Terminal expansion, we note the different positions put forward by DBCTM and the DBCT User Group. We also note both proposals seek a decision, or approval of an existing decision, on how a capacity expansion should be priced. We consider that under the incremental up/average down approach we have proposed, the decision would be to assess whether it is appropriate for a capacity expansion to be uniformly priced. In the absence of an application from DBCTM to price an expansion differently to this approach, we would apply the incremental up/average down principle.

On that basis, we consider that once the FEL 2 feasibility study is completed, in accordance with section 150D of the QCA Act, DBCTM should request a price ruling on its proposed pricing approach for the capacity expansion. We consider that DBCTM's proposal for an application for a price ruling should include:

- information about the nature and amount of expenditure to carry out the capacity expansion
- information about the increase in capacity anticipated from the capacity expansion, including copies of the capacity assessment in the FEL 2 feasibility study
- information about positive or negative impacts on existing users of the Terminal or existing operations at the Terminal
- information about forecast demand for access to the increased capacity

[751] DBCT User Group sub. 12: 25.

- an assessment of the pricing method applicable to the capacity expansion, applying the criteria in our draft decision
- non-standard terms that will apply to the conditional access agreements applying to the Terminal capacity expansion
- information about the anticipated impact on non-expansion costs for the Terminal
- an estimate of the TIC that will apply if differentially priced, or (if applicable) uniformly priced.[752]

Upon application from DBCTM applying to expand the Terminal, the QCA would initiate an investigation. The QCA will decide on the application in accordance with section 150F of the QCA Act, and determine how the capacity expansion, or part thereof, should be priced.

The DBCT User Group also proposed for uniform pricing of a capacity expansion to be limited by the amount budgeted and approved after the FEL 2 feasibility study. We do not consider this to be appropriate, as there are prudent and reasonable reasons for project budgets to vary from the projected amount. If a capacity expansion project runs over budget we consider it reasonable for the QCA to review the project, appointing independent advisors where necessary. Depending on the reason for the variation from budgeted to actual expenditure, the QCA could decide to:

- uniformly price all project costs, including the variance between budgeted and actual expenditure
- apply the difference between budgeted and actual amounts to the sections of the Terminal that relate to those elements of the project
- apply the variation between budgeted and actual expenditure exclusively to expanding users
- not approve the recovery of the over or under budgeted amount.

We do not accept that there should be a single or fixed rule that limits the capital costs that can be considered prudent.

We welcome stakeholder feedback on how to assess project plans as early in the planning process as possible, and on the best way to provide financial certainty to all stakeholders.

Conclusion

We propose that a decision is made by the QCA on whether the incremental up/average down principle is to be applied, upon us receiving and considering an application for a price ruling from DBCTM, under section 150D of the QCA Act. If DBCTM believes the incremental up/average down principle should not apply, DBCTM will need to build a case, having regard to the criteria listed above.

Prudent and reasonable project costs will be allocated on the basis of that decision. If the project budget is disputed by any stakeholders, the QCA will review the project, appointing independent advisors where necessary.

[752] DBCT User Group, sub. 15: cl. 5.12(b).

Draft decision 11.34

(1) After consideration of DBCTM's proposed approach to timing of the decision on whether a capacity expansion project is to be differentially priced, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to provide that DBCTM should submit an application for a price ruling to the QCA under section 150D of the QCA Act to determine whether the incremental up/average down approach is to apply to a capacity expansion, after the FEL 2 feasibility study is complete.

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

DBCTM proposal: Treatment of capacity created in a differentiated Terminal expansion

DBCTM sought to amend the 2010 AU to introduce a capacity waterfall applying to differentially priced Terminal capacity expansions (cl. 5.4(i)(4)). It proposed that differentially priced capacity would only be available to users with differentially priced access. [753]

Stakeholders' submissions

The DBCT User Group proposed that if new capacity was differentially priced, a capacity waterfall would be applied to DBCTM's negotiation of access agreements, if various Terminal capacity is available (e.g. uniformly priced, differentially priced and part uniformly, part differentially priced).[754]

Clause 5.7(h)[755] requires that access to available base Terminal capacity must be fully contracted before DBCTM can negotiate access agreements for differentially priced available Terminal capacity.

QCA analysis and draft decision

Our interim position is to approve DBCTM's proposal to quarantine capacity created by a differentially priced Terminal expansion component. This is an essential element in the negotiation of conditional access agreements required to underwrite a differentially priced Terminal expansion.

In forming this interim view, we have taken the following into consideration:

- existing users will not incur any of the capital costs associated with a differentially priced Terminal expansion
- the TIC set for a differentially priced expansion component will be higher than the TIC applying to the base Terminal.[756]

[753] This is in direct contrast to the capacity waterfall that applies to the allocation of capacity created by a uniformly priced Terminal capacity expansion under cl. 5.4(i)(3) of the 2015 DAU.

[754] DBCT User Group sub. 15: 26.

[755] DBCT User Group sub. 15.

[756] If a future capacity expansion lowers the uniform TIC and ARR of an earlier differentially priced expansion component, or that of the base Terminal, then the ARRs would be combined, and a uniform TIC calculated. Once combined, that capacity would be treated as a single tranche, and could not be re-separated.

We appreciate the DBCT User Group's proposed deletion of DBCTM's proposed capacity waterfall[757] and other amendments that seek to provide regulatory certainty that non-expanding users' use of capacity from the base Terminal will not be adversely affected by a differentially priced Terminal expansion.

In applying our assessment approach, we have included the following elements in our proposed consequential amendments to the 2015 DAU included in Appendix A.

We consider the price ruling provisions we have proposed in clause 5.12 will provide DBCTM, users and access seekers with an opportunity to provide the QCA with information regarding the increase in Terminal capacity to be created by a Terminal expansion, including the positive or negative impacts on the existing users of the Terminal or the existing operations of the Terminal.[758] We consider these provisions will provide existing users with an appropriate regulatory platform to ensure their views on a Terminal expansion component can be given appropriate consideration.

We consider amendments are required to the feasibility funding provisions in clause 5.10 to ensure that existing users are in a position to consider the capacity impact a Terminal expansion could have on the capacity rating of the base Terminal. Accordingly, we have proposed the following amendments to address the DBCT User Group's concerns:

- The FEL 1, FEL 2, and FEL 3 feasibility study definitions have been amended to include a requirement for DBCTM to:
  - undertake afresh the procedure for determining Terminal capacity and system capacity in accordance with clause 12.1 of the 2015 DAU
  - identify all possible Terminal capacity expansions that will create additional Terminal capacity in a way which will not adversely impact on the capacity rating of the base Terminal
  - identify the system capacity expansions and associated project timeframes required to ensure system capacity will complement the capacity created by a Terminal expansion
  - identify the clause 12.1 capacity determination process that will follow the commissioning of a Terminal expansion and the conditions precedent applying to the allocation of differentially priced capacity to the conditional access holders.
- Clause 5.10 has been amended to require DBCTM to fund the costs associated with:
  - undertaking the clause 12.1 capacity determination process required in the feasibility studies
  - providing all users with copies of its capacity assessment of the Terminal's base capacity and each of the possible expansion components being studied in the feasibility studies

[757] DBCT User Group sub. 11: 36 and sub. 15: 19, deletion of cl. 5.4(i)(4).

[758] Under cl. 5.12(b)(2) and (3) of our proposed mark up in Schedule B of this draft decision. The scope and cost of a Terminal expansion would be assessed by the QCA and a price ruling could result in Terminal expansion costs being separated into two categories: (a) socialised costs necessary to eliminate sustained shortfalls in base Terminal capacity; and (b) differentiated costs necessary to deliver additional capacity to the funding access seekers.

  - consulting with all users and taking their views into account when finalising a feasibility study report.

- Clause 12.5(l) has been amended to provide all users with the opportunity to vote in a Terminal capacity expansion application.

We consider our proposed amendments will provide existing users with the ability to identify if they consider they will be adversely impacted by a differentiated Terminal expansion and give confidence the QCA will have the information necessary to consider the capacity concerns of existing users under clauses 5.12 and 12.5 of the 2015 DAU.

We also consider the inclusion of these amendments appropriately balances all of the factors listed under section 138(2) of the QCA Act.

The remaining concern raised by the DBCT User Group relates to its proposed inclusion of a capacity waterfall to apply to the execution of access agreements for available Terminal capacity, which is partly socialised and partly differentiated.

We do not consider this proposed amendment is required in the 2015 DAU. We accept the DBCT User Group's position that it is unlikely that an existing user will seek a commercial arrangement for the assignment of its access rights to another user or third party rather than forfeit its access rights by not renewing a User Agreement.[759]

Conclusion

We do not consider the DBCT User Group's proposal to apply a capacity waterfall to the negotiation of access agreements gives appropriate regard to the legitimate business interests of DBCTM.

We consider DBCTM is entitled to consider its own risk position when negotiating access agreements with access applicants. This includes DBCTM being entitled to decide if it will prioritise the execution of access agreements for price-differentiated available Terminal capacity, provided that it gives such notice to all access seekers in the queue in accordance with clause 5.4(d) of the 2015 DAU. In this scenario, access seekers in the queue would be able to determine their own access waterfall by first considering the access options available in the secondary access market.

We consider our position on the consequential amendments to the negotiation and investment framework appropriately balances all the factors listed under section 138(2) of the QCA Act, including by appropriately balancing the legitimate business interests of DBCTM, existing users, access seekers and third parties competing in related markets.

DBCTM proposal: Consequential amendments to the negotiation and investment framework

In addition to sections of the 2015 DAU which reflect the positions above, DBCTM's 2015 DAU seeks to amend the 2010 AU to facilitate consideration of differential pricing by proposing new clauses to:

- differentiate between the RABs of differentially and uniformly priced Terminal expansion components (cl. 5.10(q))

[759] DBCT User Group sub. 29: 4.

- allow DBCTM to seek regulatory approval to include in the base RAB any costs incurred in respect of a feasibility study applying to a differentially priced expansion component which does not proceed (cl. 5.10(q)(2))
- restrict voting in a Terminal capacity expansion application to access seekers and access holders who will be affected by a Terminal expansion component (cl. 12.5(i))
- include public reporting requirements regarding differentially priced Terminal components (cl. 10.2(h))
- set interim tariffs for differentially priced Terminal components (cl. 12.5(p)).

There were also differences in how DBCTM and the DBCT User Group defined a number of terms.

Stakeholders' submissions

The DBCT User Group rejected most of DBCTM's proposed changes. It also proposed a number of other changes. These included:

- provide all access holders with the right to vote in a Terminal capacity expansion application (cl. 12.5(l)). Users emphasised the need for existing users to vote in a Terminal capacity expansion application because any Terminal expansion will involve a negotiated trade-off between the capital costs of the expansion component and the O&M costs over the life of the Terminal.
- Any negotiated trade-off will have an impact on existing access holders regardless of whether the expansion component is to be differentially priced. Users also emphasised that the QCA's review of a Terminal capacity expansion application would effectively prevent existing users who are not participating in the price differentiated Terminal expansion from stymieing the expansion (which seemed to be DBCTM's concern).[760]
- require consideration of the applicable pricing method and capacity expansion in the event that there is an access application (cls. 5.5(d)(5) and (d)(6) and 5.12)
- require DBCTM to report details of the apportionment of Terminal costs, if they have been split across multiple Terminal components (cl. 10.1(i))
- amend interpretations of pricing provisions and definitions for socialised and differentially priced access (cl. 11.1)
- require DBCTM to calculate access charges under each access agreement, and take all reasonable steps to negotiate necessary amendments to existing User Agreements, following a price ruling by the QCA that a Terminal expansion will be differentially priced (cl. 1.7).

QCA analysis and conclusion

The required amendments are provided in our marked-up DAU at Appendix A. We consider the majority of these amendments are largely straightforward and request DBCTM and stakeholders to identify any remaining concerns in their responses to our draft decision.

[760] The DBCT User Group subs. 11: 36-37 and 15: 71.

Draft decision 11.35

(1) After consideration of DBCTM's proposed approach to the treatment of capacity created in a price-differentiated Terminal expansion, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is as follows:

- **(a) clause 5.10 to be amended to require DBCTM to**
  - **(i) undertake and fund a clause 12.1 process to determine Terminal Capacity and System Capacity when undertaking the relevant feasibility studies**
  - **(ii) consult with existing access holders as well as funding access seekers when conducting capacity assessments to identify the feasibility of possible Terminal capacity expansions**
  - **(iii) provide existing users with a copy of the capacity assessment undertaken on the base Terminal Capacity and the Terminal capacity expansion at the completion of each feasibility study**
- **(b) clause 12.5(l) to be amended to provide all access holders with the right to vote in a Terminal capacity expansion application**
- **(c) the definitions of a FEL 1, FEL 2, and FEL 3 feasibility study to be amended to require DBCTM to undertake a clause 12.1 capacity determination process, consult with existing users and take their views into account when finalising the feasibility study report.**

(3) After having regard for each of the matters in section 138(2) of the QCA Act, we consider it appropriate to make this decision for the reasons set out above.

12 OTHER MATTERS

This chapter discusses a number of issues not covered elsewhere in this draft decision. These include:

- *reporting requirements and information provision*
- *disputes*
- *definitions and interpretation*
- *transitional arrangements*
- *confidentiality deed.*

We consider it appropriate to approve a majority of DBCTM's proposals included in this chapter. However, we have proposed some amendments—mostly as a consequence of changes in other areas of this draft decision.

Table 26 provides an overview of the matters considered in this chapter. Matters that require a more detailed explanation are discussed in section 12.1. The QCA has only considered provisions where either DBCTM or another stakeholder has proposed a material change from the provisions included in the 2010 AU. Where DBCTM has proposed to maintain its position from the 2010 AU, and stakeholders have not objected, the QCA approves the proposal.

As noted in our earlier chapters on scope and administration and ring-fencing matters, DBCTM has indicated that it no longer wished to have any of the October or November 2015 ring-fencing DAAU amendments included in the 2015 DAU. If this were to occur, it would have a consequential impact on a number of the issues in this chapter. We are therefore requesting further comments from stakeholders as to whether, given the proposed acquisition of Pacific National by Brookfield may no longer occur, some of the amendments set out in our draft decision remain appropriate.

Table 26: An overview of other matters

DBCTM 2015 DAU proposal	***Stakeholders' comments***	***QCA decision***
Reporting		
Proposed minor changes to reporting requirements—largely to incorporate differential pricing and ring-fencing.	The DBCT User Group did not support the proposal.	Refer to section 12.1
Information provision (cl. 7 of the DAU)		
DBCTM did not propose any changes to the information provision included in the 2010 AU.	The DBCT User Group proposed a minor change to the information provision, to clarify that the QCA can request information be provided by DBCTM for the QCA to determine compliance with the 2015 AU.	The QCA refuses to approve the 2015 DAU proposal. The QCA considers it appropriate to amend the provision to include the minor amendment proposed by the DBCT User Group—noting it provides consistency with section 150AA of the QCA Act.
Confidentiality deed		
Proposed minor changes to the definition of Confidential Information	The DBCT User Group accepted this proposal.	The QCA approves the 2015 DAU proposal.

DBCTM 2015 DAU proposal	*Stakeholders' comments*	*QCA decision*
in the confidentiality deed included in the 2010 AU.		
Definitions and interpretation (Schedule H of the 2015 DAU)		
Proposed minor changes to the 2010 AU's interpretations provisions to include guidance on differential pricing as well as minor updates.	The DBCT User Group accepted DBCTM's proposal.	The QCA approves the 2015 DAU proposal.
Proposed amendments to the following definitions that are not dealt with in other chapters of this draft decision, including: • Business Day • Completion • Confidential Information • JORC Code • Marketable Coal Reserves • Protected Information	The DBCT User Group accepted DBCTM's proposed definitions.	The QCA approves the 2015 DAU proposal.
Notional Contracted Tonnage		
DBCTM has proposed an amendment to the definition of Notional Contracted Tonnage that would socialise the risk and cost of lost revenue resulting from the default by, or insolvency of, an Access Holder.	The DBCT User Group opposes this change.	The QCA accepts the proposed amendment. See section 12.2.

12.1 Reporting

Reporting requirements are important in a regulatory regime as they promote transparency and provide meaningful information to users and other interested parties. In reviewing the proposed reporting requirements in the 2015 DAU, we have sought to achieve a balance between the benefits to interested parties from reporting requirements, and the administrative burden these requirements place on DBCTM.

12.1.1 DBCTM's 2015 DAU proposal

In general, DBCTM's proposed reporting obligations are similar to those included in the 2010 AU. In this regard, the 2015 DAU proposes:

- an annual report containing its regulatory accounts
- an annual public report containing indicators relating to undertaking compliance
- quarterly public reports containing indicators relating to service quality.

DBCTM has also proposed some changes to the reporting requirements in order to incorporate its differential pricing and ring-fencing proposals.

12.1.2 Stakeholders' submissions

DBCT User Group

The DBCT User Group:[761]

- suggested the reporting requirements proposed in the (November 2015) ring-fencing DAAU should be included in the 2015 DAU as the additional transparency assists the proposed ring-fencing regime
- proposed changes to the reporting of regulatory accounts and compliance indicators to reflect the DBCT User Group's alternative approach to differential pricing
- sought to clarify that publicly reported information must be uploaded to DBCTM's website and also be publicly accessible.

Vale did not comment on the reporting requirements included in the 2015 DAU.

12.1.3 QCA analysis and draft decision

The reporting requirements proposed in DBCTM's 2015 DAU are largely consistent with those approved in the 2010 AU. As a consequence, we consider it appropriate to approve a majority of the reporting requirements—noting DBCTM and users are familiar with these requirements and did not comment on them in their submissions (ss. 138(2)(c) and (e)).

However, outside of the reporting requirements that are consistent with the 2010 AU, we propose a number of additional amendments to the reporting requirements to reflect other QCA decisions on:

- ring-fencing
- differential pricing.

These additional requirements are discussed below.

Reporting related to differential pricing

DBCTM's 2015 DAU proposed reporting requirements consistent with its differential pricing proposal. In principle, we consider it appropriate for the 2015 DAU to contemplate reporting should a differentially priced expansion occur—indeed, in our final decision on the February 2015 differential pricing DAAU we said:

> *consideration should be given to whether regulatory reports should separately identify any part of the asset base (and depreciation) recovered through differential tariffs.*[762]

However, we note the 2015 DAU's reporting requirements reflect DBCTM's approach to differential pricing—that is, differential pricing based on the principle of 'separability'.[763] This approach is inconsistent with our final decision on the differential pricing DAAU[764] and Chapter 11 of this draft decision. As a consequence, we have proposed a number of updates to align the reporting requirements with our approach to differential pricing.

[761] DBCT User Group, sub. 11: 36.
[762] QCA 2015c: 40.
[763] See Chapter 11 of this draft decision for further discussion about DBCTM's separability approach to differential pricing.
[764] QCA 2015c.

In particular, where an expansion is differentially priced, and non-expansion costs are distributed among multiple Terminal components, we consider it appropriate for DBCTM to report how those costs are allocated and the justification for doing so. This will improve transparency by outlining whether costs are allocated in a manner consistent with an approved cost allocation manual and principles.

We consider providing these cost breakdowns between the base Terminal and any expansion components, as included in our proposed regulatory accounts reporting, is reasonable and consistent with the interests of access seekers and access holders (ss. 138(2)(e) and (h)). Reporting these cost breakdowns would allow stakeholders to understand how the costs are allocated and, in doing so, understand the underlying costs of obtaining access to the declared service.

Furthermore, we consider the information required to meet our proposed approach to reporting would be readily available to DBCTM. Therefore, our approach will not significantly burden or impact on the legitimate business interests of DBCTM (s. 138(2)(c)).

Reporting relating to ring-fencing

In November 2015, DBCTM submitted a DAAU, which proposed to include ring-fencing arrangements in the 2010 AU.[765] The DAAU also proposed additional reporting requirements largely relating to:

- vessel queueing—such as queueing time and queue ordering
- the requirement for DBCTM to publish a supplementary service quality report—which includes key performance quality indicators that distinguish between those parties that are related to DBCTM and those that are not
- providing for the QCA to review the reporting provisions from time to time and require additional or alternative service quality key performance indicators.[766]

DBCTM did not include the reporting provisions mentioned above in its 2015 DAU. However, DBCTM's accompanying submission on the October 2015 ring-fencing DAAU said:

> *To be clear, the 2016 DAU will incorporate all of the amendments contained in the DAAU. This ensures that the amendments in the DAAU will be 'carried through' to the next regulatory period. The purpose of submitting the DAAU is therefore to provide an interim measure until the 2016 DAU is approved and in force.*[767]

Similarly, DBCTM's November 2015 ring-fencing DAAU submission said it:

> *…intends to ensure that the revisions to the 2015 DAAU are incorporated into the draft access undertaking which was submitted to the QCA on 12 October 2015 (2016 DAU).*[768]

We note at the time of our draft decision on the November 2015 ring-fencing DAAU, we said:

> *…DBCTM's proposals will provide for effective reporting mechanisms, and additional measures would impose extra costs with limited associated benefits. In addition, the ability of the QCA to review the measures from time-to-time, and require additional measures if necessary, should give stakeholders sufficient comfort that the reporting measures will remain fit-for-purpose.*[769]

[765] Chapter 9 of this draft decision discusses ring-fencing matters and the related DAAU.
[766] DBCTM, sub. 27: 5–6.
[767] DBCTM, sub. 25: 2.
[768] DBCTM, sub. 27: 1.
[769] QCA 2016: 61.

Given our analysis included in the that draft decision, and noting DBCTM's comments above, we consider it appropriate for the 2015 DAU to be amended to include the requirements proposed in our draft decision on the November 2015 ring-fencing DAAU.[770] This includes the reporting and auditing measures proposed by DBCTM in that DAAU, as amended in accordance with the draft decision on the DAAU.

However, we note that DBCTM has now withdrawn the November 2015 ring-fencing DAAU. As discussed in Chapter 9 of this draft decision, we are seeking specific feedback from stakeholders on the best way forward for dealing with ring-fencing arrangements, and related matters in the 2015 DAU. We would similarly appreciate feedback on whether it is necessary or appropriate to retain any, or all, of the reporting requirements which had originally been included in the ring-fencing DAAUs.

Definition of Publicly Report

In the 2015 DAU, DBCTM proposed to define 'Publicly Report' to mean:

> *…to upload information onto DBCT Management's website.*[771]

The DBCT User Group said that DBCTM's definition of 'Publicly Report' should make it clear that the information must be uploaded to the website *and* be publicly accessible. Therefore, the DBCT User Group proposed to define 'Publicly Report' to mean:

> *... to upload information onto DBCT Management's website so that it is publicly accessible.*[772]

Our draft decision is to reject DBCTM's proposed definition of 'Publicly Report' and adopt the definition proposed by the DBCT User Group. We consider DBCTM's definition does not provide certainty that compliance reporting will be publicly available as intended (ss. 138(2)(d) and (e)).

Therefore, to facilitate transparency and certainty, we consider it is consistent with the interests of access seekers, access holders and the public interest (s. 138(2)(d) and (e)) to include an express reference to 'publicly accessible' in the definition of 'Publicly Report'.

12.2 Amending the definition of Notional Contracted Tonnage

12.2.1 DBCTM's 2015 DAU proposal

DBCTM proposes to amend the definition of Notional Contracted Tonnage (NCT)[773], when compared to the 2010 AU definition, to remove the addition of an access holder's Annual Contract Tonnage which it is no longer entitled to have handled due to an early termination of an access agreement.

The QCA understands that the practical consequence of the amendment is that, in the event of early termination of an access agreement (due to, for example, an access holder's default or insolvency), the loss of revenue associated with the terminated access agreement would be socialised across the remaining access holders—provided that capacity is not taken up by another access seeker. Previously, under the 2006 AU and 2010 AU, DBCTM carried a share of this cost for the remainder of the regulatory period.

[770] Chapter 10 of this draft decision discusses these amendments in further detail.
[771] DBCTM 2015 DAU, Schedule H.
[772] DBCT User Group, sub. 11: 40; sub. 15: 144.
[773] DBCTM 2015 DAU, Schedule H: 143.

12.2.2 Stakeholders' submissions

The DBCT User Group said:

- DBCTM has not justified this change and it should be reversed.
- Where paragraph (b) of the definition of NCT would otherwise have applied, this amendment will increase the revenue cap by decreasing the denominator in the revenue cap formula from what it would be under the 2010 AU.
- The proposal seeks to immunise DBCTM from the revenue consequences of an early termination of an access agreement. The DBCT User Group is concerned the proposal will reduce DBCTM's incentives to recontract access or obtain appropriate protections from an access seeker at the time of signing an access agreement.
- Were the proposal to be accepted, the DBCT User Group said a reduction in the equity beta would be appropriate. The equity beta analysis provided by the DBCT User Group assumes rejection of this proposed change, such that the appropriate equity beta with this change is lower than the equity beta being supported by the DBCT User Group in its submission.[774]

12.2.3 QCA analysis and draft decision

The NCT is a key parameter in the determination of DBCTM's revenue cap, which is calculated in both the 2010 AU and 2015 DAU by the following:

$$Revenue\ Cap = \frac{ARR * Aggregate\ Reference\ Tonnage}{Notional\ Contracted\ Tonnage} + Increments$$

Under the 2010 AU, DBCTM said it bears the risk of user default/insolvency until the next regulatory reset, unless the QCA agreed to earlier socialisation of the charges.[775] This is due to a decrease in the Aggregate Reference Tonnage against the NCT, which remains constant.

Under the 2015 DAU's proposed definition of NCT, when an access holder's access agreement is terminated due to insolvency or default, both the Aggregate Reference Tonnage and the NCT decrease. This has the effect of either maintaining the Revenue Cap, or decreasing the Revenue Cap by a smaller amount than it would have decreased under the 2010 AU definition of NCT.

We note the DBCT User Group and DBCTM have conflicting views on this proposal and acknowledge this issue requires us to determine an appropriate apportionment of risk. On balance, we consider it is more appropriate to allocate this risk to access holders.

We agree with the DBCT User Group that DBCTM's proposal will reduce the impact on DBCTM's revenue from an early termination of an access agreement. However, we consider socialising these risks across Terminal users in an undertaking period is consistent with the revenue cap pricing model and the interests of DBCTM (s. 138(2)(c)). Indeed, as we said in our Statement of Regulatory Pricing Principles:

> *An important property is that revenue caps protect the regulated firm from demand volatility. This is because, if quantity demanded decreases, the regulated price increases to keep the regulated firm's revenue constant.*[776]

[774] DBCT User Group, sub. 11: 39.
[775] DBCTM 2015 DAU, Schedule H: 145.
[776] QCA 2013: 16.

In the absence of the proposed change to the NCT definition, DBCTM may not have an opportunity to recover its efficient costs of providing the declared service should an access agreement be terminated early. We consider such an outcome is inconsistent with the pricing principle in section 168A(a) of the QCA Act.

We have considered the DBCT User Group's submission and accept that the 2010 AU's definition of NCT provides an additional commercial incentive for DBCTM to recontract capacity. However, DBCTM would already be under a regulatory obligation, under the 2015 DAU, to offer any Terminal capacity which becomes available to access seekers that are in the queue. It is not clear that any additional commercial incentive is necessary.

Further, we consider it appropriate to contemplate circumstances where, despite having an incentive to find an alternative user for available capacity, DBCTM is not able to do so. In such circumstances, it is unclear why DBCTM should bear all the costs of an early termination of an access agreement (and therefore not recover its efficient costs (s. 168A(a)).

Moreover, the evidence submitted by the DBCT User Group as well as expert material from Wood Mackenzie and RMI suggests robust demand for capacity at the Terminal is likely to remain, given global coal market trends.[777] Given this demand, the practical likelihood of capacity remaining uncontracted for a significant period of time would be low, even if an individual access holder experiences default or insolvency.

Therefore, after having regard to the criteria in section 138(2) of the QCA Act, we consider it appropriate to approve DBCTM's proposed definition of NCT.

We consider DCBTM should be provided an adequate opportunity to recover its efficient costs, consistent with both the pricing principles in the QCA Act and DBCTM's legitimate business interests (s. 168A and s. 138(2)(c)).

Finally, we have taken into account our approval of this proposal when estimating an appropriate asset beta for DBCTM. Chapter 4 of this draft decision discusses the impact on DBCTM's asset beta in further detail.

[777] These global coal market trends are discussed in Chapter 5 of this draft decision.

Draft decision 12.36

(1) After considering DBCTM's proposed reporting requirements included in the 2015 DAU, our draft decision is to refuse to approve DBCTM's proposal.

(2) We consider the appropriate way for DBCTM to amend its 2015 DAU is to include:

- **(a) reporting and auditing requirements included in the QCA's draft decision on DBCTM's November 2015 ring-fencing DAAU**
- **(b) reporting requirements consistent with our draft decision on differential pricing**
- **(c) amendments to the definitions and interpretations, as discussed in this chapter.**

(3) We seek further feedback from stakeholders on whether any, or all, of the proposed reporting requirements related to ring-fencing continue to be appropriate in light of the proposed Pacific National/Brookfield transaction being unlikely to proceed.

(4) After having regard for each of the factors in section 138(2) of the QCA Act, we consider it is appropriate to make this draft decision for the reasons set out above.

GLOSSARY

A	
ACCC	Australian Competition and Consumer Commission
ACG	Allen Consulting Group
AER	Australian Energy Regulator
AFMA	Australian Financial Markets Association
AL	Allens Linklaters
APCT	Abbot Point Coal Terminal
APCC	Abbot Point Coal Chain
ARR	Annual revenue requirement
ARTC	Australian Rail Track Corporation
B	
BMA	BHP Billiton Mitsubishi Alliance
BMC	BHP Billiton Mitsui Coal
BMACC	BMA Coal Chain
C	
CAGR	Compound annual growth rate
CAPM	Capital Asset Pricing Model
CCA	*Competition and Consumer Act 2010*
CIRA	Competition and Infrastructure Reform Agreement
COAG	Council of Australian Governments
CPI	Consumer Price Index
CQCR	Central Queensland coal region
D	
DAAU	Draft amending access undertaking
DAU	Draft access undertaking
DBCT	Dalrymple Bay Coal Terminal
DBCT Management	Terminal lessee
DBCT Owner	State-owned entity DBCT Holdings Pty Ltd
DBCT PL	DBCT Pty Ltd
DBCT Pty Ltd	Terminal Operator
DBCT User Group	Anglo American, BMC, Glencore, Isaac Plains Coal Management, Peabody Energy, Rio Tinto Coal Australia and Vale Australia
DBCC	Dalrymple Bay Coal Chain
DORC	Depreciated optimised replacement cost

E	
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, taxes, depreciation and amortisation
EPS	Earnings per share
ERA	Economic Regulation Authority of Western Australia
Evergreen contract	A contract provision that automatically renews the length of the agreement after a predetermined period, unless notice for termination is given.
F	
FEL	Front-end loading
FFO	Funds flow from operations
G	
GAPE	Goonyella to Abbot Point Expansion
GDP	Gross domestic product
GFC	Global financial crisis
H	
HPCT	Hay Point Coal Terminal
I	
IAP	Indicative access proposal
IEA	International Energy Agency
IPART	Independent Pricing and Regulatory Tribunal
ILC	Integrated Logistics Company
J	
JORC Code	Joint Ore Reserves Committee Code
K	
L	
M	
MAR	Maximum allowable revenue
MRP	Market risk premium
Mtce	Million tonnes of coal equivalent
Mtpa	Million tonnes per annum
N	
NCIG	Newcastle Coal Infrastructure Group
NECAP	Non-expansion capital expenditure
NPV	Net present value
NZCC	New Zealand Commerce Commission
O	
O&M	Operating and maintenance
OMC	Operations and maintenance contract

P	
PSA	Port Services Agreement
PTRM	Post-tax revenue model
Q	
QCA	Queensland Competition Authority
QCA Act	*Queensland Competition Authority Act 1997*
R	
RAB	Regulatory asset base
RBA	Reserve Bank of Australia
RFR	Risk-free rate
RMI	Resource Management International
S	
S&P	Standard & Poor's Financial Services LLC
SAA	Standard Access Agreement is the template User Agreement provided in Appendix B of the 2015 DAU.
SUA	Standard User Agreement (also known as the SAA)
SUFA	Standard user funding agreement
T	
T&T	Turner & Townsend
TIC	Terminal infrastructure charge
Tribunal	Australian Competition Tribunal
U	
User	A party who has an entitlement to access the Terminal under an executed User Agreement. A user is defined as an Access Holder in the 2015 DAU.
User Agreement	Is the template User Agreement included in Appendix B of the 2015 DAU and referred to as the SAA or SUA.
V	
W	
WACC	Weighted average cost of capital
WAML	Weighted average mine life
WICET	Wiggins Island Coal Export Terminal
X	
Y	
Z	

ATTACHMENT 1: LIST OF STAKEHOLDERS' SUBMISSIONS

Table 27 Submissions received by the QCA

Stakeholder	*Submission number*
Submissions on the DBCTM 2015 DAU	
DBCT Management	1
DBCT Management	2
DBCT Management	3
DBCT Management	4
DBCT Management	5
DBCT Management	6
DBCT Management	7
DBCT Management	8
DBCT Management	9
DBCT Management	31
DBCT Management	32
Vale	10
DBCT User Group[778]	11
DBCT User Group	12
DBCT User Group	13
DBCT User Group	14
DBCT User Group	15
DBCT User Group	16
Submissions on the 2015 Differential Pricing DAAU	
DBCT Management	17
DBCT User Group	18
Vale	19
DBCT Management	20
DBCT Management	21
DBCT User Group	22
Submissions on the October 2015 and November 2015 Ring-fencing DAAUs	

[778] Consisting of Anglo American, BMC, Glencore, Isaac Plains Coal Management, Peabody Energy, Rio Tinto Coal Australia and Vale Australia.

Stakeholder	*Submission number*
DBCT Management	23
Aurizon Operations Ltd	24
DBCT User Group	25
Vale	26
DBCT Management	27
Aurizon Operations Ltd	28
Supplementary submissions	
DBCT User Group	29
DBCT Management	30

ATTACHMENT 2: DBCTM'S PROPOSED CHANGES TO THE NEGOTIATING FRAMEWORK IN THE 2015 DAU, COMPARED TO THE 2010 AU

Comparison of the proposed 2015 DAU and 2010 AU negotiating frameworks

Summary of 2015 DAU proposal	*Comparison to the 2010 access undertaking*	*Stakeholders' comments*	*QCA 2016 draft decision*
Access processes			
Access application			
Access seekers and renewing access holders to provide evidence of coal reserves and mine plans (both greenfield and brownfield mine plans).	The 2015 DAU strengthens the information provisions in Schedule A of the AU.	Support.[779]	Approve.
Information provisions can only be satisfied by a coal producer, or a third party with the authority to negotiate access with DBCTM on behalf of a coal producer.	Does not specify that an access seeker or access holder must be a coal producer.	Recommend prohibiting third parties from holding access rights to the Terminal.[780]	See section 10.3.
DBCTM may allow revisions to access applications so long as it does not increase the annual tonnage or contract term being sought. If: (a) an access seeker seeks to amend an access application to increase tonnes; and/or (b) an access holder seeks to renew an access agreement with increased tonnes—then the proportionate tonnage increase will be treated as a new access application by DBCTM.[781]	No guidance on how DBCTM will treat proposed revisions to an access application or access renewal application.	Support.[782]	Approve.

[779] DBCT User Group, sub. 11:32, 15: 5-7, 95-96.
[780] DBCT User Group, sub. 11:32, 15: 5-7, 95-96.
[781] 2015 DAU, cl. 5.2(d) and cl. 5.3A(e)-(f).
[782] DBCT User Group, sub. 11, 15: 6-7, 10-11.

Summary of 2015 DAU proposal	*Comparison to the 2010 access undertaking*	*Stakeholders' comments*	*QCA 2016 draft decision*
Objective criteria[783] allows DBCTM to reject an access application (including an access renewal) if the: • access application is not accompanied with all information in the form specified (e.g. evidence of coal reserves, mine plans and warranty) • access seeker does not demonstrate that access rights will be used within five years from the date of lodgement.	DBCTM could exercise reasonable discretion in rejecting an application. Access applications tended to lapse by default.	Support.[784] Recommended drafting to clarify that for bona fide disputes regarding a rejection, parties should hold their position in the queue until the dispute is determined.[785]	Approve, in principle, and recommend a clarifying amendment to ensure bona fide disputing parties continue to hold their position in the queue until a dispute is determined.
The sum of contract tonnages under access agreements must not exceed system capacity.[786] DBCTM can only enter into access agreements that exceed system capacity if the access agreements are conditional on a Terminal capacity expansion.[787]	Consistent.	Support.	Approve. We note that approval of this position establishes a capacity waterfall which delineates the order in which DBCTM will allocate capacity following a Terminal expansion. Specifically, any shortfall in the provision of capacity to existing users must be eliminated before DBCTM can allocate available capacity to conditional access holders.
Access queue			
DBCTM will notify all access seekers of all changes in the queue regarding: additions to the queue; the sum of annual contract tonnage required; and a breakdown of the access rights sought and relative position in the queue.[788]	Access seekers in the queue were not provided with a breakdown of the access rights sought and its relative position in the queue.	Support.[789]	Approve.

[783] 2015 DAU, cl. 5.3(d), 5.6.
[784] DBCT User Group, sub. 11:32, 15: 7-8, 23-24.
[785] DBCT User Group, sub. 11:32, 15: 8-10.
[786] 2015 DAU, cls. 5.4(g)(4).
[787] 2015 DAU, cl.5.4.
[788] 2015 DAU, cl.5.4(c).
[789] DBCT User Group, sub. 15: 11.

Summary of 2015 DAU proposal	*Comparison to the 2010 access undertaking*	*Stakeholders' comments*	*QCA 2016 draft decision*
Access seekers may notify DBCTM of a willingness, subject to availability, to enter into an access agreement based on lower tonnages, earlier timeframes and different contract terms.[790]	Limited flexibility for DBCTM, access seekers and users to rely on the access queue to ensure spare capacity can be used at the earliest possible time.	Support, subject to an access seeker not being able to nominate a commencement date prior to the access seeker's notification date.[791]	Approve, in principle, and include a clarifying amendment to ensure an access seeker cannot nominate a commencement date that precedes the notification date.
DBCTM to notify access seekers in the queue if access rights become available earlier than the commencement date in the application. DBCTM to provide a three month notification period for access seekers to confirm acceptance of an earlier commencement date.[792]	No provision for DBCTM to notify access seekers of access rights if they become available earlier than the commencement date contained in their access application.	Support, subject to an access seeker not being able to nominate a commencement date prior to the access seeker's notification date.[793]	Approve, in principle, and include a clarifying amendment to ensure an access seeker cannot nominate a commencement date that precedes the notification date.
DBCTM is allowed to remove an access seeker from the queue if they fail to commit to a conditional access agreement in circumstances where an access seeker lower down in the queue is willing to do so. Some protections are included to prevent DBCTM exercising this right where an access seeker has legitimate reasons for not signing the agreement. Dispute provisions also apply to protect an access seeker from being removed from the queue.	Access seekers do not lose their place in the queue if they fail to commit to an access agreement.	Support.[794] Recommend drafting to clarify that for bona fide disputes regarding a rejection, parties should hold their position in the queue until the dispute is determined.	Approve, in principle, and include a clarifying amendment to provide that parties with bona fide disputes regarding a rejection hold their queue position until the dispute is determined.
Access agreements conditional on a Terminal expansion can also be made conditional on a (below-rail) rail infrastructure or above-rail infrastructure expansion.[795]	Conditional access agreements can only be conditional on a Terminal capacity expansion.	Support.[796]	Approve.

[790] 2015 DAU, cl.5.4(d).
[791] DBCT User Group, sub. 1, Schedule 6: 11-14.
[792] 2015 DAU, cl.5.4(d).
[793] DBCT User Group, sub. 15: 11-14.
[794] DBCT User Group, sub. 11:32, 15: 6-9.
[795] 2015 DAU, cl. 5.4(h)(3)
[796] DBCT User Group, sub. 11:32, 15: 19.

Summary of 2015 DAU proposal	*Comparison to the 2010 access undertaking*	*Stakeholders' comments*	*QCA 2016 draft decision*
If a conditional access agreement terminates due to an access seeker's failure to fulfil a condition precedent, including in the provision of the required security within a reasonable time, parties will resume their respective position in the queue.[797]	Largely consistent, but did not clarify non-provision of security as a condition precedent.	Support.[798]	Approve.
Creditworthiness of an access seeker			
DBCTM may remove an access seeker from the queue and not execute an access agreement if the access seeker becomes insolvent or cannot establish or confirm the access seeker's creditworthiness.[799]	No provision to remove an access seeker from the queue if creditworthiness issues arose post being placed in the queue.	Support.[800]	Approve.
Terms and conditions of access and standard access agreement			
The term for a conditional access agreement which triggers an expansion is 15 years.[801]	A conditional access agreement should have a 10-year term and has an evergreen right to renew in 5-year blocks on the same terms and conditions.	Insufficient supporting documentation to warrant the change in term and renewal rights.	See Section 10.4

[797] 2015 DAU cl. 5.4(h), (10)-(11).
[798] DBCT User Group, sub. 11: 33-35; 15: 30.
[799] 2015 DAU, cl. 5.9.
[800] DBCT User Group, sub. 15: 27-28.
[801] 2015 DAU, cl. 13, Standard User Agreement, cl. 11.1.

Summary of 2015 DAU proposal	*Comparison to the 2010 access undertaking*	*Stakeholders' comments*	*QCA 2016 draft decision*
(a) The access holder to have the right to renew an access agreement on the same terms and conditions, so long as the renewal access agreement is for a term of 15 years or more.[802] (b) Access holders with a 15-year term on their access agreement, will have the term of their access agreement automatically renewed after the first 10 years (same terms and conditions) on a rolling five-year basis every 12 months. Access holders can opt out of the automatic extension by notice to DBCTM. Access holders are required to give DBCTM five years notice if the access agreement is not to be renewed.[803]	(a) An access holder has the right to renew an access agreement on the same terms and conditions so long as the renewal access agreement is for a term of at least 10 years. (b) Access holders have a right to renew their access agreement (same terms and conditions) if the renewal term is for at least five years. Access holders must exercise this option with a minimum 12 month notice period.	(a) Not support. Recommend that an access holder has the right to renew an access agreement on the same terms and conditions so long as the renewal access agreement is for a term of at least 10 years.[804] (b) Support.	See section 10.4.
Under the Standard Access Agreement, DBCTM's obligation to provide the contracted service is subject to: (a) DBCTM's ability to require the Operator to provide the contracted service under the OMC; and (b) any specific provision in the OMC, including any provisions relating to a force majeure event.[805]	Largely consistent but does not contain the qualification that DBCTM's service obligations are modified by reference to any specific provision in the OMC.	Not support.[806] Recommend deletion of the qualifying modification in cl. 10(d) of Schedule 3 of the Standard Access Agreement (as described at (b) in column 1).	Approve, subject to the removal of cl. 10(d) in the Standard Access Agreement.
Schedule 6 is amended to provide for a user to assign access rights to parties who are not existing users.	Schedule 6 only referred to users being able to assign access rights to other users.	Support,[807] with minor clarifying edits.	See section 10.5.

[802] 2015 DAU, cl. 13.2(b).
[803] 2015 DAU, Standard User Agreement, cl. 20.
[804] DBCT User Group, sub. 15: 85.
[805] 2015 DAU, Schedule 3, cl.10 and the Standard User Agreement, Schedule 3, cl. 10.
[806] DBCT User Group, sub. 15: 121 and 16: 47.
[807] DBCT User Group, sub. 16: 52-56.

Summary of 2015 DAU proposal	*Comparison to the 2010 access undertaking*	*Stakeholders' comments*	*QCA 2016 draft decision*
Capital investment processes			
Funding feasibility studies			
DBCTM may request access seekers fund or underwrite study costs incurred to determine the feasibility of a Terminal expansion.[808]	Consistent.	Support.	Approve.
The funding process requires DBCTM to provide simultaneous notices to all access seekers in the queue.[809] Access seekers must • respond within 20 days of notification • not amend an access application within 40 days of notification.	Largely consistent, but required DBCTM to sequentially deal with access seekers in the queue. Does not provide a simultaneous notice period for all access seekers in the queue.	Support, in principle, the process to be followed—but recommend the 20 day notice period be amended to a three month notice period.[810]	Approve, in principle, and recommend the notification period be amended to three months—for the purposes of an access seeker both executing a funding agreement and not amending its access application.
A funding agreement and underwriting agreement are defined by reference to such terms as DBCTM reasonably requires.[811]	Consistent.	Recommend the inclusion of a regulatory process for DBCTM to develop a template Funding Agreement and Underwriting Agreement.[812]	See section 10.6 of the draft decision.
Definitions of FEL 1, FEL 2, FEL 3 Feasibility Studies.	Consistent.	Support.	See section 10.6 of the draft decision.
DBCTM may elect to fund some or all of the studies underpinning a Terminal expansion. If it does so, then DBCTM has the right to apply to the QCA to have its study costs included in the RAB once it is established that the expansion being studied will or will not proceed to financial close. DBCTM has	There was a 20% prudency threshold on the inclusion of DBCTM's feasibility costs in the RAB in the event the expansion does not proceed.	Not support. Recommend reinstatement of the 20% prudency threshold.[813]	Not approve. Recommend the reinstatement of the 20% prudency threshold, as per the regulatory precedent.

[808] 2015 DAU, cl. 5.10(a).
[809] 2015 DAU, cl. 5.10(b), (g).
[810] DBCT User Group, sub. 11: 33-35; 15: 31.
[811] 2015 DAU, cl. 5.10(a) and Schedule H.
[812] DBCT User Group, sub. 15: 31-32.
[813] DBCT User Group, sub. 11: 34; 15: 32.

Summary of 2015 DAU proposal	*Comparison to the 2010 access undertaking*	*Stakeholders' comments*	*QCA 2016 draft decision*
removed the prudency threshold test on these costs, namely that they not exceed 20% of the prudent costs of the feasibility studies (as relevant).			
Shortfalls in Terminal capacity (cl. 5.4 and cl. 5.7)			
If a Terminal expansion results in less capacity than the sum of all tonnages contracted, then, subject to one exception (see below), DBCTM will prioritise the allocation of available capacity arising from the expansion: • firstly, to existing users to eliminate any shortfalls in base Terminal capacity which existed prior to the Terminal expansion • secondly, to conditional access holders based on a pro-rata allocation of remaining available capacity.	Provides for any reduction in capacity from a Terminal expansion to be allocated first to existing users experiencing capacity shortfalls under their existing access agreements.	Support.[814]	Approve in principal, subject to our proposal to amend the provisions relating to shortfalls in differentiated Terminal expansions.
The one exception in the above capacity waterfall is where there is a capacity shortfall arising from a differentially priced expansion. In this circumstance, the differentially priced conditional access holders get priority access to all the capacity created by the Terminal expansion.	Not addressed.	Not support. The DBCT User Group rejected any distinction in the treatment of capacity arising from a socialised expansion compared to a differentially priced expansion.[815]	See our discussion in Chapter 11.
Terminal capacity expansion (cl. 5.4(h)(3) and cl. 12)			
Access agreements conditional on a Terminal expansion can also be made conditional on a (below-rail) rail infrastructure or above-rail infrastructure expansion.	Simply states that DBCTM's estimate of system capacity has limited accuracy.	Support.[816]	Approve.

[814] DBCT User Group, sub. 11:32-33, 15: 18-19 and 26.
[815] DBCT User Group, sub. 11:32-33, 15: 18-19 and 26.
[816] DBCT User Group, sub. 11:32, 15: 66.

Summary of 2015 DAU proposal	*Comparison to the 2010 access undertaking*	*Stakeholders' comments*	*QCA 2016 draft decision*
Clarifies that DBCTM's estimate of DBCC capacity has limited accuracy because DBCTM does not control any other part of the DBCC other than the Terminal.[817]	No explanation of why DBCTM's capacity estimate would have limited accuracy.	Support[818]	Approve.
An amendment to the 60/60 customer voting requirement to exclude access holders who are not adversely affected by the Terminal expansion or who have less than five years left in the term of their access agreement.[819]	All access holders are captured in the 60/60 customer voting requirement.	Not support and recommend reinstatement of the principle set by the regulatory precedent. Provided drafting to reflect this position.[820]	See discussion of differential pricing in Chapter 11.
Master planning processes			
Whole of supply chain efficiency (cl. 14)			
DBCTM to engage with DBCC service providers, access seekers and access holders and submit to the QCA a DAAU to implement agreed supply chain outcomes.	Obligation to submit to the QCA a DAAU to implement the results from the DBCC discussions on the long term solution.	Support.[821]	Approve.
Master plans (cl. 15)			
No changes.	Consistent.	Support.[822]	Approve.

[817] 2015 DAU, cl. 12.3(b)(2).
[818] DBCT User Group, sub. 11:32, 15: 86.
[819] 2015 DAU pp 72-73.
[820] DBCT User Group, sub. 11:32, 15: 71-72.
[821] DBCT User Group, sub. 11:32, 15: 86.
[822] DBCT User Group, sub. 11:32, 15: 87-88.

APPENDIX A: MARK-UP TO THE 2015 DAU

Our full required amendments to the main body of the 2015 DAU are detailed in Appendix A to this draft decision.

Appendix A to this draft decision incorporates the attached mark-up to DBCTM's 2015 DAU.

APPENDIX B: MARK-UP TO THE 2015 DAU USER AGREEMENT

Our full required amendments to the 2015 DAU's User Agreement (Standard Access Agreement) are detailed in Appendix B to this draft decision.

Appendix B to this draft decision incorporates the attached mark-up to the 2015 DAU's User Agreement.

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