Queensland Competition Authority

Final decision

DBCT Management's 2015 draft access undertaking

November 2016

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EXECUTIVE SUMMARY

Our final decision is to refuse to approve Dalrymple Bay Coal Terminal Management's (DBCTM's) 2015 draft access undertaking (DAU) for providing access to Terminal services. We have issued a secondary undertaking notice in accordance with section 134 of the QCA Act, which requires DBCTM to give the QCA a copy of the amended DAU within 60 days.

Background

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 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 on 1 January 2011.

The 2010 AU was due to expire on 30 June 2016 (subsequently extended to the earlier of 30 June 2017 or the approval date of a new access undertaking). 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.

On 22 April 2016, the QCA released a draft decision on DBCTM's 2015 DAU. The draft decision proposed to refuse to approve the 2015 DAU, and proposed amendments we considered necessary for the DAU to be approved. We invited stakeholders to comment on the draft decision by 8 July 2016, and subsequently provided a period for further submissions by 26 August 2016.

QCA's assessment of the 2015 DAU

We have reviewed DBCTM's 2015 DAU in accordance with our obligations under the QCA Act. These obligations require 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 final decision is therefore to refuse to approve DBCTM's 2015 DAU, and require DBCTM to amend the DAU to address these matters, as indicated in this final decision and as specified in Appendices A and B.

Pricing matters

DBCTM's 2015 DAU proposed 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 $260.0 million and TIC of $3.10 per tonne.

Our final decision provides an average ARR of $191.8 million and an average TIC of $2.43 per tonne. Key building blocks we used to determine the ARR and TIC are described below.

Weighted average cost of capital (WACC)

DBCTM's 2015 DAU proposed 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 the indicative averaging period of the 20 business days up to 21 August 2015.

Our final decision sets the WACC at 5.82 per cent per annum, with key parameter estimates including a RFR of 1.824 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 2.65 per cent; and a gamma of 0.47. These parameters are based on the agreed averaging period of the 20 business days up to 31 May 2016.

Depreciation

DBCTM's 2015 DAU proposed an average depreciation allowance of approximately $108.5[1] million per annum. This is based on DBCTM's proposed weighted average mine life (WAML) approach, which reduces the remaining economic life of the Terminal from 38 years to 25 years as at 1 July 2016.

Our final decision provides an average depreciation allowance of approximately $82.1 million per annum. This estimate is based on maintaining the 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 proposed 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 is 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 (2016–2048).

Our final decision provides a remediation allowance of $7.02 million per annum, based on an estimated rehabilitation cost of $432.69 million[2] and a 38-year term to remediation (i.e. to 2054, which is consistent with the remaining economic life we have used to determine the depreciation allowance).

Corporate overhead costs

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

Our final decision provides a corporate overheads allowance of approximately $7.29 million in 2016–17. This is based on using Meyrick's 'bottom-up' approach, with some adjustments, which is considered to result in a more plausible estimate of these costs 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

Our final decision for a number of other cost- and modelling-related issues is to require DBCTM to amend its 2015 DAU, including to:

- apply the 30-day working capital period that applied in the 2010 AU

[1] The draft decision referred to $112.4 million, which was the average nominal depreciation proposed by DBCTM for the forecast RAB. However, the average depreciation allowance for revenue purposes, accommodating the mid-year timing assumption, proposed by DBCTM was $108.5 million.
[2] In 2015 Q4 dollars.

- provide for expected inflation to be estimated using a geometric average of RBA forecasts and the midpoint of the RBA target range
- provide for outturn inflation to continue to be used to index the regulatory asset base (RAB).

Terms and conditions

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

Our final decision is to accept many of the drafting changes proposed by DBCTM; however, in some cases, we either do not accept proposed amendments or require further amendments. The most significant matters among these are discussed below.

Negotiation framework and capital processes

DBCTM's 2015 DAU proposed a number of changes to the negotiation framework and capital processes contained in the 2010 AU.

Our final decision approves a number of these changes, some of which were supported by other stakeholders. However, there are also a number of areas where we consider amendments are required, including to require the 2015 DAU to:

- provide greater clarity and certainty on the rights, obligations and processes for applying for access and negotiating access agreements, in particular in relation to access that is conditional on a Terminal expansion (including an expansion that may be subject to differential pricing)
- provide greater clarity, transparency and accountability in the operation and administration of the access transfer provisions
- provide for DBCTM to develop a Funding Agreement or Underwriting Agreement, if required for a Terminal expansion, for approval by the QCA
- ensure negotiation and capital processes are subject to the dispute resolution provisions in the 2015 DAU.

Differential pricing

DBCTM's 2015 DAU proposed 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 final decision maintains the position we expressed in the August 2015 final decision on the differential pricing DAAU, and in our draft decision on the 2015 DAU. This is to require the introduction of 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 some refinement to the criteria proposed in the draft decision that should apply when considering whether to differentially price an expansion, compared to the position proposed in the draft decision.

We have made a number of consequential changes to the negotiation 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. We have not accepted the proposal by DBCTM to include differential pricing provisions in a schedule to the DAU.

Ring-fencing

DBCTM's 2015 DAU proposed 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 (which was subsequently withdrawn by DBCTM in March 2016).

Our final decision is to refine the ring-fencing amendments we require DBCTM to make to the 2015 DAU, in particular to reflect the withdrawal of the November 2015 ring-fencing DAAU and the non-progression of Brookfield's proposed acquisition of Pacific National (although Brookfield, as part of a consortium, acquired other parts of the Asciano business).

The ring-fencing amendments we require to the 2015 DAU are now focused on the arrangements that need to be put in place to:

- address the vertical integration issues between DBCTM and the Trading Supply Chain Business (SCB)
- ensure DBCTM does not discriminate in the provision of the declared service
- ensure appropriate confidentiality requirements are in place.

Scope and administration

DBCTM's 2015 DAU proposed 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.

We have refined the amendments to the scope and administration provisions we proposed in the draft decision, to ensure the 2015 DAU includes all the necessary information that we relied on in applying our statutory criteria under section 138(2) of the QCA Act. In particular, we require DBCTM to:

- clearly identify that DBCT Pty Ltd (DBCT PL) is the Operator
- include a new schedule in the 2015 DAU to detail the minimum terms and conditions included in any Operation and Maintenance Contract (OMC)
- acknowledge DBCT PL will be the Operator for the term of the undertaking.

Our final decision is to require DBCTM to retain its existing contractual arrangements with DBCT PL as a majority user-owned Operator. In balancing the factors under section 138(2) of the QCA Act, our approval of a number of elements in the 2015 DAU has been given in view of the continuing existence of these arrangements—particularly the independence, transparency and operational involvement of users they provide. If DBCTM wishes to change these operational arrangements during the regulatory period, it needs to formally seek to amend the undertaking via the DAAU processes in the QCA Act. This will allow the QCA and stakeholders the opportunity to consider and assess the implications any such changes may have.

Other matters

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

Our final decision is to require DBCTM to amend the reporting requirements to reflect our approach to ring-fencing, differential pricing and transfers. In addition, we require some amendments to the definitions, particularly those that relate to facilitating our differential pricing approach for expansions of the Terminal.

Legal basis for our final decision

Our decision to refuse to approve DBCTM's 2015 DAU has been formed in accordance with the approval criteria in the QCA Act (s. 138(2)). A key aspect of our approach has been to have regard to each aspect of section 138(2).

In some circumstances, there may be tensions between various aspects of this section of the Act, including between the object clause (ss. 138(2)(a) and 69E), legitimate business interests of DBCTM (s. 138(2)(c)), the public interest (s. 138(2)(d)), the interests of access seekers (s. 138(2)(e)) and the pricing principles (ss. 138(2)(g) and 168A). This necessarily involved considering each element to form a view.

Further information on our approach to assessing DBCTM's 2015 DAU is in Chapter 2 of this final decision.

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 intended for the 2015 DAU to replace its approved 2010 access undertaking (2010 AU), which was 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. The QCA has assessed the 2015 DAU, in the context of the statutory access regime in the QCA Act and, in particular, the object of Part 5 (s. 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.

The 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 final decision.

In assessing the 2015 DAU, the QCA has considered the arguments and information put forward by DBCTM, DBCT users and other stakeholders, and has undertaken its 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 its draft decision, which proposed to refuse to approve DBCTM's 2015 DAU and suggested amendments DBCTM should make in order to have the DAU approved
- sought submissions from interested parties on its draft decision—submissions were received from Aurizon Network, Aurizon Operations, Glencore, DBCTM and the DBCT User Group
- sought submissions on a report from Incenta Economic Consulting (Incenta) on the proposed debt risk premium for DBCTM's 2015 DAU—a submission was received from the DBCT User Group
- invited stakeholders to respond to QCA staff questions on new material raised in submissions—DBCTM and the DBCT User Group provided subsequent responses to the staff questions
- received further, unsolicited submissions from DBCTM and the DBCT User Group
- released this final decision, which refuses to approve DBCTM's 2015 DAU and requires amendments DBCTM must 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 subsequently updated the time periods on several occasions—most recently on 12 October 2016.

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	22 April 2016
Submissions on draft decision due	8 July 2016
Submissions on Incenta's debt risk premium report due	21 July 2016
Submissions in response to QCA staff questions due	26 August 2016
End of statutory specified time period	8 October 2016
Release of final decision	21 November 2016
DBCTM's response to secondary undertaking notice due	20 January 2017

Way forward

We have issued DBCTM with a secondary undertaking notice under section 134 of the QCA Act:

- stating our reasons for refusing to approve the 2015 DAU (i.e. as contained in this final decision as well as the amended DAU and User Agreement); and
- asking DBCTM to give us a copy of the amended DAU (and User Agreement) within 60 days, unless this period is extended.

If DBCTM does not comply with this notice, the QCA may prepare, and approve, a DAU for DBCTM's declared services.

Contacts

Enquiries regarding this project should be directed to:

ATTN: Leigh Spencer
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www.qca.org.au/Contact-us

1 INTRODUCTION

1.1 Background

On 12 October 2015, in response to an initial undertaking notice issued by the Queensland Competition Authority (QCA), Dalrymple Bay Coal Terminal Management (DBCTM) submitted a draft access undertaking (the 2015 DAU) to the QCA for approval. On 22 April 2016, we released our draft decision which refused to approve DBCTM's 2015 DAU.

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[3] to the coal industry in central Queensland.

The Terminal operates 24 hours a day, seven days a week and 365 days a year. Its nameplate capacity is 85 million tonnes per annum (mtpa). The Terminal consists of three rail in-loading facilities, an 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[4] are required to feed each shiploader.[5]

The Terminal is an integral part of the Dalrymple Bay Coal Chain (DBCC).[6] Coal is transported to the Terminal from 26 coal producing mines at 23 load points on the Goonyella System rail network[7] 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.[8]

[3] 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.

[4] 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.

[5] DBCT Pty Ltd website (http://www.dbct.com.au/).

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

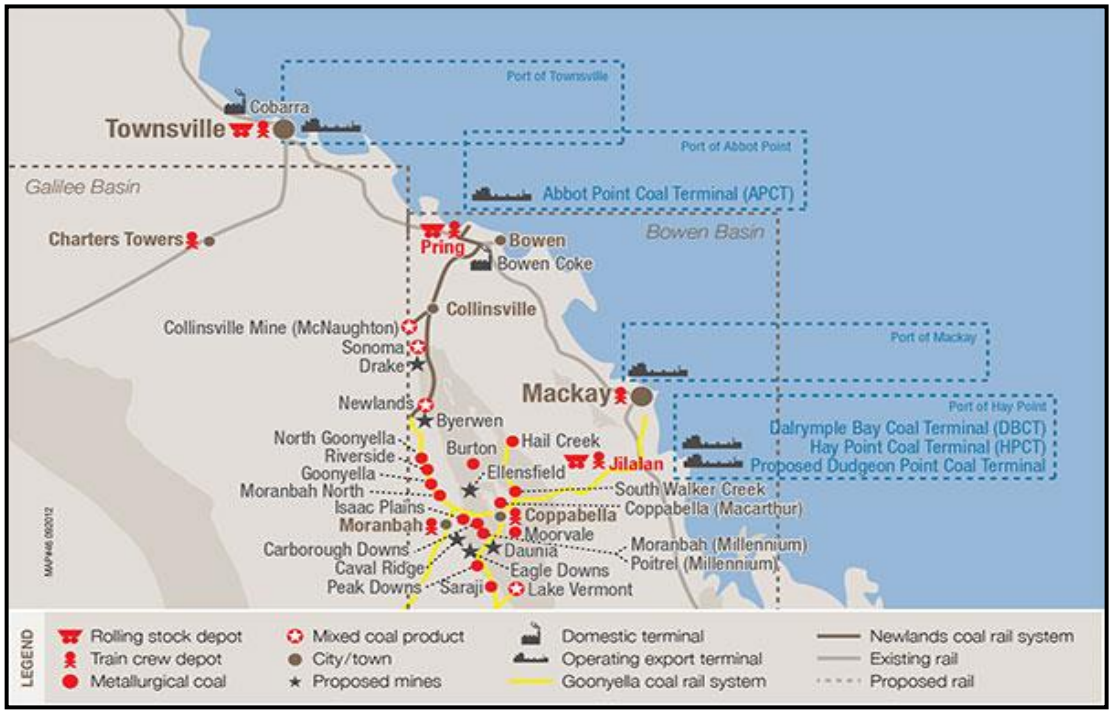
[7] The Goonyella System is a regulated multi-user and multi-directional rail network that can be used by mines to transport coal to any of the five coal terminals operating in the Bowen Basin. The vast majority of train services on the Goonyella System deliver coal to the Terminal and Hay Point Coal 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.

[8] 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).

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.

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[9]



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 final decision). DBCTM has the option to extend the lease, which expires in 2051, for a further 49-year period.

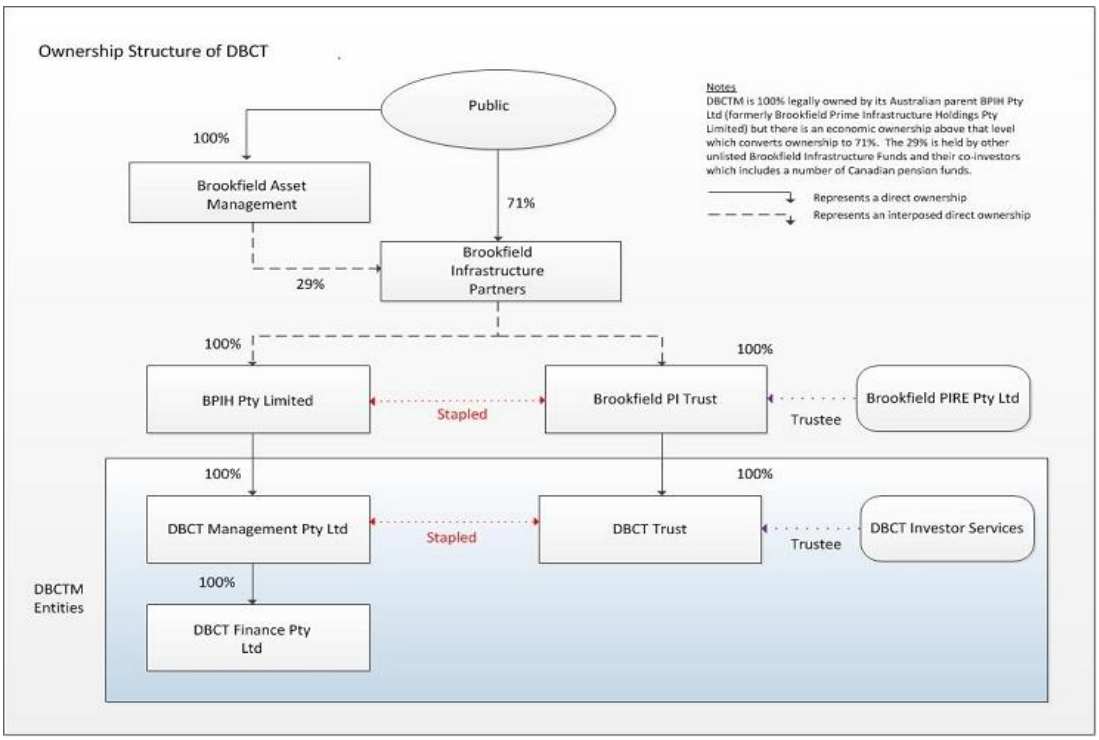
DBCTM is 100 per cent legally owned by its Australian parent, BPIH Pty Ltd (formerly Brookfield PIH Pty Limited).[10] BPIH Pty Ltd is in turn 100 per cent owned (through a number of interposed entities) by Brookfield Infrastructure Partners (BIP), with 29 per cent of BIP held by Brookfield

[9] Aurizon Network website.

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

Asset Management (BAM) and 71 per cent publicly listed on the New York and Toronto stock exchanges. BAM is 100 per cent publicly listed on the New York and Toronto stock exchanges.[11]

Figure 2 Ownership structure of DBCT[12]



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).[13]

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

Source: Brookfield Infrastructure Partners 2015

[11] References to 'Brookfield' or the 'the Brookfield Group' in the remainder of this final decision relate to BAM, BIP or related entities.
[12] Supplied by DBCTM, email dated 19 January 2016.
[13] Brookfield Infrastructure Partners, 2014 Annual Report, p. 51.

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, prior to the lease of the Terminal in 2001 (see Section 1.2.2 of the draft decision on the 2015 DAU).

Of particular relevance, 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.

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.

Under clause 6 of the 2010 AU, 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 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 eight coal companies: Anglo American Coal; BHP Billiton Mitsui Coal (BMC); Glencore; Isaac Plains Coal Management; Middlemount South; 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:

- 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 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 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 agreed 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 agreed package of arrangements.

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 our 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 ring-fencing DAAU was withdrawn in March 2016. Given that DBCTM had indicated, until its withdrawal of its November 2015 ring-fencing DAAU, 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 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.[14]

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 to the one which was envisaged for the purpose of the ring-fencing DAAU. Under the new structure, Brookfield would no longer take any interest in Pacific National, which would instead be acquired by five other funds.

On 22 April 2016, we released a draft decision on DBCTM's 2015 DAU. Given the changing circumstances of the transaction, our draft decision requested further comments from stakeholders as to whether any or all of the relevant provisions are still appropriate. These ring-fencing arrangements are discussed in more detail in Chapter 9.

1.4 Submissions on the QCA's draft decision

Following the draft decision, we received initial submissions from the DBCT User Group, Glencore, Aurizon Network, Aurizon Operations and DBCTM. Stakeholders expressed varying views on the QCA's draft decision, with the following issues receiving focus in particular:

- return on investment:
  - QCA's proposal to reduce the equity beta from 1.0 (2006 and 2010 AUs) to 0.87
  - relevance of the Australian Competition Tribunal's February 2016 decision that gamma should be reduced to 0.25 (in the context of the Australian Energy Regulator's consideration of proposals from the NSW/ACT electricity businesses)
  - QCA's use of its judgement to arrive at a final value for the market risk premium (MRP), from a range of estimates from several different methods
- site remediation allowance—particularly with regard to DBCTM's rehabilitation obligations under the PSA
- depreciation allowance—in regard to DBCTM's asset stranding risk and DBCTM's alternative proposal to base the economic life of DBCT on the length of the initial lease term
- corporate overheads—particularly in the context of DBCTM's reduced employee numbers
- proposed treatment of inflation—for which DBCTM proposed two changes from the 2010 AU
- application of differential pricing—consistency of the QCA's differential pricing proposal with the requirements of the PSA

[14] DBCTM, sub. 27: 1.

- scope and administration of the undertaking— including the independence of the Operator of DBCT (DBCT PL) from DBCTM
- capital processes—obligations relating to incurrence of non-expansion capital expenditure (NECAP) and the potential for a separate negotiation process to apply to differentially priced expansion capacity.

1.5 Further consultation—QCA staff questions

QCA staff considered there were a few new proposals and some evidence presented by stakeholders in their initial submissions on the draft decision that warranted further consultation. The staff therefore provided stakeholders with a list of questions on matters associated with the identified new proposals and evidence, focusing on:

- differential pricing
- the treatment of inflation
- NECAP
- competition between ports
- the independence of the Operator
- the Terminal Master Plan.[15]

We received submissions from DBCTM and the DBCT User Group responding to the QCA staff questions.[16] The QCA also received a further, unsolicited submission from DBCTM on 26 August 2016, beyond the response to staff questions, on:

- DBCTM's contract profile
- ring-fencing
- the Terminal Regulations
- coal supply business and the trading SCB
- responsibility for acts or omissions of the Operator
- notional contracted tonnage.

Furthermore, on 28 September 2016, the DBCT User Group provided a subsequent submission which responded to the issues above, as raised by DBCTM in its additional submission.[17]

The issues raised in the stakeholders' response to staff questions as well as further unsolicited submissions from DBCTM and the DBCT User Group are discussed in later chapters.

1.6 Overarching issues

The following sections describe a number of overarching issues raised by DBCTM and/or other stakeholders in the context of DBCTM's 2015 DAU and our draft decision.

[15] A list of the QCA staff questions to stakeholders is available on the QCA's website.
[16] DBCTM, sub. 44; DBCT User Group, sub. 46.
[17] DBCT User Group, sub. 47.

1.6.1 Coal market climate

In our draft decision, we agreed with DBCTM that coal market conditions had deteriorated over recent years, noting the decline in metallurgical and thermal coal prices since 2011. However, consistent with the DBCT User Group's submission, we considered the short-term and long-term outlook for coal exports through DBCT to be positive. We noted the following:

- Prices of seaborne metallurgical coal had 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.[18]
- 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.[19]
- Evidence suggests Australian producers of metallurgical coal are at the lower end of the international cost curve.[20]
- Coal market forecasts from a number of sources expected the downturn to be transitory, with stronger growth expected in the medium to long term.[21]
- DBCTM's consultant (Wood Mackenzie) estimated global demand for seaborne metallurgical coal will increase over the next 20 years at a compound annual growth rate of 1.6 per cent.[22]
- 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.[23]
- 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.[24]
- 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.[25]

Following our draft decision, DBCTM said it is concerned by 'the reduction in the return of equity proposed in the QCA's draft decision, despite DBCTM's deteriorating risk profile'.[26] DBCTM said that the financial results for some DBCT users have had a material impact on DBCTM's risk profile and the regulatory arrangements may not be able to provide DBCTM with the degree of downside protection intended when the arrangements were established.[27]

[18] Incenta 2016a, *DBCT 2015 DAU: Review of WACC parameters*, March: 21.
[19] Incenta 2016a: 21–22.
[20] Incenta 2016a: 22.
[21] See, for example, Incenta 2016a: 22–24; DBCTM, sub. 3: 1; RMI 2015: 14.
[22] DBCTM, sub. 3: 1.
[23] DBCTM, sub. 3: 1.
[24] International Energy Agency 2015: 297.
[25] Incenta 2016a: 27.
[26] DBCTM, sub. 36: 1.
[27] DBCTM, sub. 37: 1–2.

In particular, DBCTM said that:

- A majority of DBCTM's customers have lower credit ratings than they did at the time of the 2010 AU.
- Moody's downgraded DBCT Finance's credit rating to Ba2 with a negative outlook, which reflects sub-investment grade.
- Peabody Energy Corporation filed for Chapter 11 bankruptcy protection in the USA and Peabody Australia reported losses of $2.7 billion for calendar year 2015.
- A number of banking institutions declined to participate in DBCTM's recent refinancing.[28]

Aurizon Network expressed a similar sentiment, saying there is a risk that a significant reduction in demand could result in a 'death spiral' and the risk of coal demand uncertainty on the expected investment return is not immaterial.[29]

By contrast, the DBCT User Group's submission on our draft decision said that the most recent economic data supports the positive outlook for Australian coal producers—particularly metallurgical coal, which represents a majority of the throughput at DBCT. The DBCT User Group noted:

- Stanmore Coal's purchase and reopening of the Isaac Plains coal mine
- Taurus Funds Management's acquisition of the Foxleigh mine from Anglo American
- the advantageous position of Australian metallurgical coal miners on the industry cost curve[30]
- the predicted positive trend in metallurgical coal prices across the short and long term[31]
- the predicted growth in coal export volumes from Australia[32]

In addition, in its supplementary response, the DBCT User Group noted there has been a sustained rise in metallurgical coal prices during the period in which the 2015 DAU has been before the QCA.[33]

After considering the additional material presented in submissions, we maintain our view of a positive short-, medium- and long-term outlook for metallurgical coal shipped through DBCT. While DBCTM has claimed there are substantial structural weaknesses in the market, we consider evidence presented from other stakeholders suggests otherwise. These issues are discussed in greater detail in the context of our assessment of DBCTM's proposals on the weighted average cost of capital (WACC) (see Chapter 4) and depreciation (see Chapter 5).

1.6.2 Competition between ports

In our draft decision we said there is limited potential for DBCT to face significant competition from other terminals. We considered users attempting to switch significant tonnages from DBCT

[28] DBCTM, sub. 37: 1.
[29] Aurizon Network, sub. 33: 3.
[30] DBCT User Group, sub. 41: 5–7.
[31] See for example, DBCTM, sub. 41: 5–11.
[32] DBCT User Group, sub. 41: 5–11.
[33] DBCT User Group, 47: 4.

to other terminals would face significant costs (i.e. differences in port charges, below-rail costs and above-rail haulage costs), which meant 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.[34]

In addition, we considered the fact that DBCTM is a regulated port may act as a pro-demand factor for services at the Terminal because, among other things, users are protected by regulation from exploitation of their sunk investments. Furthermore, we noted 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.[35]

Since the draft decision, DBCTM has submitted that competition between ports already exists and noted that three of the five foundation Goonyella to Abbot Point Expansion (GAPE) customers are part of the DBCT User Group. Furthermore, DBCTM said that a number of the barriers such as cost differentials, coal blending requirements and rail network differences were not sufficient barriers to these users entering into 15-year agreements at APCT.[36]

DBCTM said that if Australian coal export volumes are expected to increase as per the draft decision's expectations, port access agreements will be renewed and capacity expansions required. Therefore, DBCTM said that competition in the medium and long term will be based on access charges for expansion infrastructure. DBCTM said that DBCT's current low-cost status is not relevant for establishing whether DBCTM can compete with other ports, such as APCT, for expansions.[37]

Responding to QCA staff questions, DBCTM said the 'central issue for the QCA's assessment is whether or not this competition is material for regulatory purposes'. In this context, DBCTM said the intensity of future competition will depend on the future cost of exporting through the different ports that are accessible to miners who could access DBCT.[38]

By contrast, the DBCT User Group 'strongly supports' our conclusion that competition between ports is severely limited and noted a number of practical constraints which are likely to prevent a DBCT User from switching.[39]

Furthermore, the DBCT User Group's response to QCA staff questions said that APCT 'is clearly not competitive' with the current surplus capacity at DBCT, and in the current regulatory period the most relevant data for assessing competition between ports comes from comparing the existing capacity at DBCT with expansion capacity at APCT.[40]

We note stakeholders have divergent views on competition between ports. We accept that the Terminal may face a degree of competition from other terminals such as APCT for a future expansion, although we have not found it necessary to reach a final or conclusive view on the strength of this constraint at this time. To the extent that any competition between ports for

[34] DBCT User Group, sub. 11: 10–13; Vale, sub. 10: 4–6.
[35] Incenta 2016a: 33.
[36] DBCTM, sub. 37: 2–3.
[37] DBCTM sub. 37: 3.
[38] DBCTM, sub. 44: 12.
[39] DBCT User Group, sub. 41: 11–12.
[40] DBCT User Group, sub. 46: 11.

expansion capacity exists, we do not consider that it materially increases the asset stranding risks to DBCTM for existing capacity over the forthcoming regulatory period.

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

Our position on this issue is consistent with the views expressed by:

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

1.6.3 Pricing for Terminal expansions

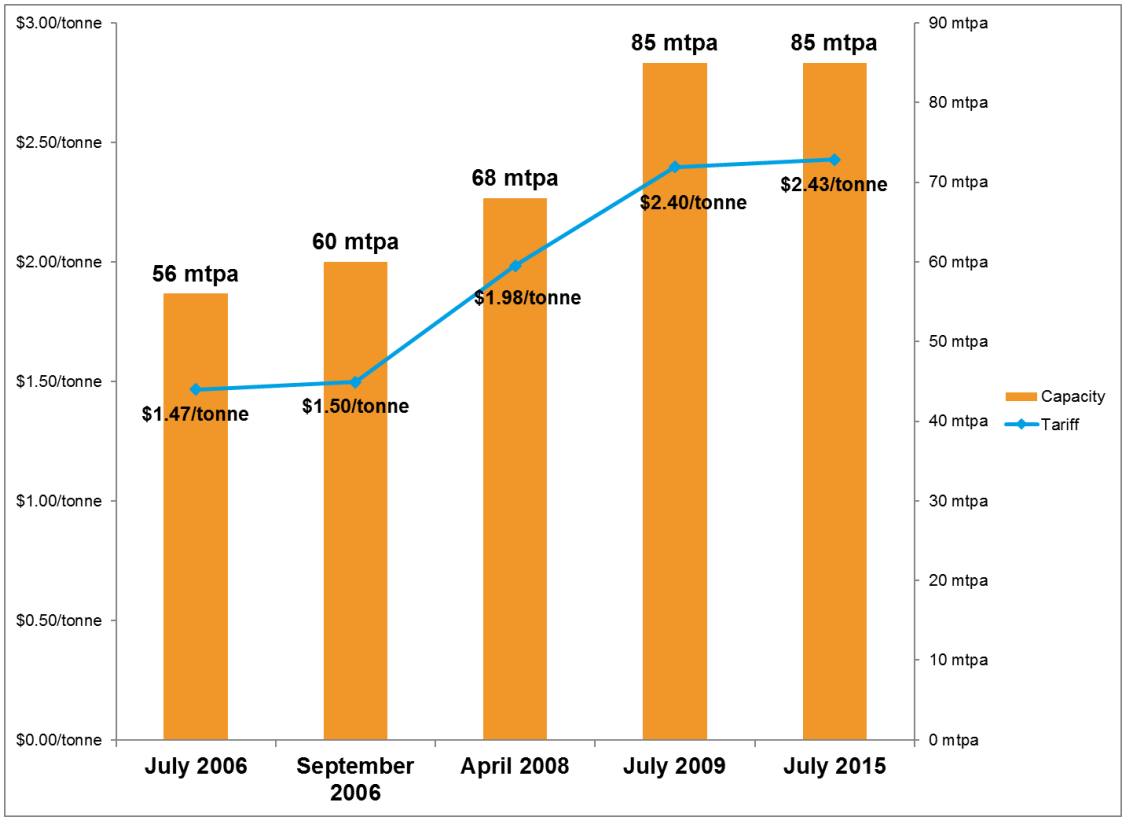
Given the long-term positive outlook for seaborne metallurgical coal exports from the DBCT catchment area, and the limited potential for competition between ports at present, our draft decision considered capacity expansions are likely to occur over time.

Indeed, 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 costlier 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 per tonne to $2.43 per tonne in 2015-16 (in July 2006 dollars)—an increase of 66 per cent (see Figure 3 below).

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

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



Source: QCA 2007; 2009b; 2010c, 2015c.

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.[41] 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.

Our draft decision on the 2015 DAU refused to approve DBCTM's approach to differential pricing, and maintained our approach from the August 2015 final decision—that is, if a Terminal expansion increased infrastructure charges for existing users, it would be differentially priced, unless DBCTM has demonstrated that all or part of the capacity expansion should be uniformly priced. If a Terminal expansion decreased the TIC, it would be uniformly priced.

Following our draft decision, DBCTM said it remained opposed to differential pricing, finding it to be inconsistent with DBCTM's obligations under the PSA. However, both DBCTM and the DBCT User Group support the QCA reviewing the pricing of future terminal expansions on a case-by-case basis—albeit with DBCTM proposing additional factors to be considered when determining the appropriate pricing approach.[42]

[41] QCA 2015b, *DBCT Management Differential Pricing DAAU,* draft decision, May.
[42] DBCTM, sub. 37: 57; DBCT User Group, sub. 41: 41.

Our consideration of this proposal is discussed in Chapter 11 of this final decision. As part of our considerations in this final decision, we have had regard to our decision on DBCTM's differential pricing DAAU and our draft decision on DBCTM's 2015 DAU.

1.6.4 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 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 will be renewed. If they are renewed, it could be for a lower tonnage, in light of the ability and willingness of producers to scale back production until market conditions improve.[43]

By contrast, the DBCT User Group noted the incentives for existing users to renew their User Agreements that are created by the term and renewal option structure in existing User Agreements.[44] Specifically, the DBCT User Group said that:[45]

- 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 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, 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 submitted prior to our draft decision, DBCTM said that the 'theoretical' incentives for users to continually extend User Agreements do not necessarily hold true.[46] More specifically, DBCTM said:

- The DBCT User Group's arguments were only valid 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.

[43] DBCTM, sub. 2: 11.
[44] DBCT User Group, sub. 29: 1.
[45] DBCT User Group, sub. 29: 3–5.
[46] DBCTM, sub. 30: 1.

- 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.
- 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 the 2010 AU 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.[47]

In our draft decision, we acknowledged some short-term uncertainty in the coal sector; however, it was 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 our view of the short-, medium- and long-term outlook for metallurgical coal exported through DBCT remained positive, and the incentive and ability of users to redirect production using the Terminal to other ports appear limited.

DBCTM, in response to our draft decision, said that its prospects for fully contracting DBCT over the upcoming regulatory period are limited. DBCTM noted that users have recently relinquished a combined 4.3 mtpa of capacity—with a further 2 mtpa of capacity expected to become available from 1 July 2017.[48]

Furthermore, DBCTM said that if 50 per cent of its capacity remains uncontracted in 2018–19, access charges would effectively double, materially affecting DBCT users. While DBCTM does not expect 50 per cent of capacity to remain uncontracted, it maintained that asset stranding risk is a 'genuine and immediate concern'. DBCTM said its users could significantly reduce their take-or-pay obligations across the regulatory period by:

- renewing only a portion of their contracted capacity
- managing ad hoc capacity requirements through the secondary market for access.[49]

In addition, DBCTM's supplementary submission said the short-term risks of non-renewal of contracts at DBCT are 'highly likely to eventuate', noting that:

- Peabody Australia expects its metallurgical coal sales in Australia to decline by more than 50 per cent from 2016 to 2021.

[47] DBCTM, sub. 30: 5–8.
[48] DBCTM, sub. 37: 6.
[49] DBCTM, sub. 37: 7–8.

- Rio Tinto announced an onerous contact provision relating to its exposure to 15 year take-or-pay port and rail contracts for 11 mtpa at AAPT-GAPE.[50]

Conversely, the DBCT User Group's submission on our draft decision maintained that DBCT users have strong incentives to exercise renewal options. The DBCT User Group acknowledged that a small amount of capacity had not been renewed, but it considered that available capacity cannot be contracted instantly, and that a short period of minor under-contracting will naturally occur. Furthermore, the DCBT User Group said DBCTM's revenue cap form of regulation makes DBCTM 'completely immune' to the revenue impact of uncontracted capacity.[51]

In addition, the DBCT User Group's supplementary submission said that any sale or divestment of assets by DBCT users does not mean that throughput at DBCT will reduce over the regulatory period—as a DBCT user will seek to divest a mine with infrastructure capacity in place.[52]

Consistent with our discussion above, we maintain that the outlook for the metallurgical coal market, in the short-, medium- and longer-term remains positive. Furthermore, based on the evidence provided to us at present, we consider the potential for DBCT to compete with other coal terminals, particularly in respect of existing capacity, is limited. Therefore, we maintain our draft decision position that DBCT users will, in general, have an incentive to exercise their renewal rights at DBCT.

We accept that it is possible that a small amount of capacity may remain uncontracted over a longer period; however, through such periods, DBCTM's revenue will be maintained due to the revenue cap socialising any uncontracted capacity. We also recognise that available capacity may be used on an ad hoc basis and thereby not reduce the overall utilisation of the Terminal.

Nonetheless, in the event that current access holders do not renew contracts and significant changes in the market or contract profile occur which requires earlier intervention, DBCTM has a number of avenues available to it including:

- the general review mechanism in clause 1.4 of the 2015 DAU
- treating any change in tonnage as a 'review event'
- bringing a DAAU to the QCA.

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

1.7 The QCA's considerations

The QCA has considered DBCTM's 2015 DAU and stakeholders' submissions and other relevant material in accordance with the assessment criteria in section 138(2) of the QCA Act (see Box 1).

Our decision to refuse to approve DBCTM's 2015 DAU has been formed in accordance with the approval criteria in the QCA Act (s. 138(2)).

In some circumstances, there may be tensions between various aspects of section 138(2) of the Act, including between the object clause (ss. 138(2)(a) and 69E), legitimate business interests of

[50] DBCTM, sub. 45: 4–5.
[51] DBCT User Group, sub. 41: 12–13.
[52] DBCTM User Group, sub. 47:3.

DBCTM (s. 138(2)(c)), the public interest (s. 138(2)(d)), the interests of access seekers and holders (ss. 138(2)(e) & (h)) and the pricing principles (ss. 138(2)(g) and 168A). The QCA has considered each element of section 138(2) before forming a view.

More detail on the approach which the QCA has adopted in its application of the legislative framework when considering the 2015 DAU is set out in Chapter 2 (Legislative Framework).

Box 1 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.

1.8 Advice to the QCA on gamma

Separate to our assessment of DBCTM's 2015 DAU, in July 2016 the QCA engaged Dr Martin Lally to provide his views on the Australian Competition Tribunal's (the Tribunal's) *PIAC–Ausgrid* decision[53] and, in particular, on definitional issues relating to gamma.

We note the Tribunal's decision has been made with reference to a different regulatory framework—the National Electricity Rules—and the QCA is not bound by the decision of the Tribunal. However, we consider the findings of the Tribunal and the Lally report as relevant to our final decision on DBCTM's 2015 DAU (see Chapter 4 for a discussion of the Tribunal's decision and the Lally report).

1.9 Our consideration of the Port Services Agreement

The PSA between DBCTM and DBCT Holdings establishes the rights and responsibilities of DBCTM with respect to the operation, management and expansion of the Terminal. A number of areas in this final decision relate to DBCTM's rights and responsibilities under the PSA, including:

- our consideration of the public interest (Chapter 2)
- DBCTM's rehabilitation obligations (Chapter 6)
- the Terminal Master Plan (Chapter 10)
- the approach to differential pricing (Chapter 11).

Under section 138(2), we are required to take into account the views in all submissions and provide stakeholders with a fair opportunity to be heard—as well as to have access to the material presented by other stakeholders.

DBCTM has redacted certain references to PSA clauses in the material it provided to the QCA for purposes of the QCA's assessment of the 2015 DAU. While we accept the confidential nature of the PSA, we note the relevant parts of the PSA at issue are publicly available from a number of sources. For example:

- The Australian Competition and Consumer Commission's (ACCC's) October 2015 Statement of Issues regarding the proposed Brookfield acquisition of Asciano refers to the access undertaking obligations in the PSA.
- The 2016 Terminal Master Plan refers to the PSA requirements around development of the plan.
- While DBCTM has redacted exact quotes from the PSA in its submissions on the 2015 DAU, it has not redacted paraphrased descriptions of the obligations.
- The Hatch report, provided as part of DBCTM's 2015 DAU submission, includes a close paraphrase of the rehabilitation obligations from the PSA.

[53] Australian Competition Tribunal 2016, *Applications by Public Interest Advocacy Centre Ltd and Ausgrid,* [2016] ACompT 1.

- References to and from the PSA have appeared in documents relating to previous regulatory processes, including documents that have been available on the QCA website for several years.

Given the volume of material that is publicly available on the PSA, we consider stakeholders have had a fair opportunity to review the relevant parts of the PSA and contribute to our assessment of the 2015 DAU.

1.10 The QCA's final decision

Our final decision is to refuse to approve DBCTM's 2015 DAU. In this final decision, we explain our views and set out those amendments we consider necessary before we can approve DBCTM's 2015 DAU. The required amendments are contained in Appendices A and B to this final decision.

The QCA has issued DBCTM with a secondary undertaking notice under section 134 of the QCA Act. We have asked DBCTM to give to the QCA a copy of the amended 2015 DAU within 60 days of receiving this Notice (i.e. by 10 January 2017) or, if the period is extended under section 134(2A) of the QCA Act, within the extended period.

Final decision

The QCA's final decision is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU in accordance with the amendments detailed in Appendices A and B to this final decision, and as otherwise set out in this final decision.

1.11 Structure

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

- Chapter 2: Legal framework—how we have applied our legislative obligations in making this final 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 alternative proposal for DBCT's economic life
- 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—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, including the treatment of inflation

- Chapter 9: Ring-fencing matters—including interaction between the 2015 DAU and DBCTM's November 2015 ring-fencing DAAU (now withdrawn)
- Chapter 10: Negotiation framework and capital processes—including 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 requirements and socialising DBCTM's lost revenue from a defaulting user among the remaining users.

2 LEGISLATIVE FRAMEWORK

This chapter outlines how we have interpreted and applied the statutory framework governing our final 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 which use significant infrastructure with natural monopoly characteristics.

The Explanatory Notes to the Queensland Competition Authority Bill 1997 stated:

> *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.*[54]

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.*[55]

While Part 5 contains some elements that resemble Part IIIA, there are also material differences, a number of which are relevant to the current process. For example, the QCA Act

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

provides the QCA with a range of oversight and enforcement options which are not available to the ACCC or any other body under Part IIIA. For example, the QCA may:

- 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
- itself prepare, and approve, a draft access undertaking (or a draft amending access undertaking), if the owner or operator does not comply with a requirement to prepare a draft access undertaking or draft amending access undertaking—sections 135 and 141.

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

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) 2006 Competition and Infrastructure Reform Agreement (CIRA) under which 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 of, 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 services which are declared under Part 5 of the QCA Act).

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

- promoting non-discriminatory treatment between users, access seekers and, where appropriate, other market participants (such as rail operators)
- 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
- 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
- providing appropriate protections of the interests of access seekers and access holders, including in respect of confidentiality, disputes and access rights
- providing incentives to reduce costs or otherwise improve productivity
- preventing cost-shifting or cross-subsidisation between regulated and unregulated activities
- 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 QCA's Statement of Regulatory Pricing Principles.[56]

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 is also promoted, consistent with the second element of the object in section 69E.

The declared service at the Terminal 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 the Terminal (s. 250 of the QCA Act). The coal-handling service promotes competition in a range of dependent markets, such as:

- 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

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.[57]

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

The secondary undertaking notice (which, together with its attachments, forms this final decision) sets out the reasons for the refusal and the amendments to the DAU that the QCA considers appropriate under section 134(2)(a) of the QCA Act.

If DBCTM complies with the secondary undertaking notice, we may approve the amended 2015 DAU. If DBCTM does not comply with the secondary undertaking notice, we may prepare and approve an amended 2015 DAU.

In reaching our decision, we had regard to, among other things:

- the 2015 DAU
- all the 2015 DAU-related submissions we received from DBCTM and stakeholders
- our decisions on the ring-fencing and differential pricing DAAUs

[56] QCA 2013b, *Statement of Regulatory Pricing Principles*, final report, August.
[57] On 18 September 2015, we extended the period referred to in the initial undertaking notice to 19 October 2015, at the request of DBCTM.

- comments from stakeholders on our consultants' reports
- information provided by DBCTM and stakeholders through further QCA requests for comment after submissions on the draft decision were received.

2.4 Factors affecting approval of DAU (section 138(2))

The statutory factors guiding our decision-making process are set out in section 138(2) of the QCA Act (Box 2).

Box 2. 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 respective appropriate weight.[58] We consider 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)).

[58] High Court of Australia (HCA) 1986, *Minister for Aboriginal Affairs v Peko-Wallsend Ltd* (1986) HCA 162 CLR 24 [41] (Mason J).

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 (sections 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 (DBCTM) of the service. Where the owner and operator 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.

2.5.1 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 DBCT Holdings as state-owned lessor of the Terminal.

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.

The question of whether DBCTM is the appropriate entity to be treated as the operator of the Terminal was recently considered in some detail in our draft decision on DBCTM's November 2015 ring-fencing DAAU. In that draft decision, we determined that various features of the Terminal's 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, 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. Nonetheless, in our assessment of the public interest criterion (s. 138(2)(d)), we accept that broader economic considerations that touch upon state ownership of the Terminal may be relevant—such as the importance of the operation of the Terminal to the state or a regional economy. These public interest considerations are discussed below.

2.5.2 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.

In addition, 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.[59]

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 (section 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.

2.6.1 The QCA's 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'.[60]

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.

[59] The role of the PSA and its constraints on DBCTM is discussed further in Chapter 11 of this final decision.
[60] DBCTM, sub. 2: 67.

DBCTM contrasted this with the 2015 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'.[61]

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.

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 that the public interest requires particular attention be paid to facilitating efficient investment in new or expanded capacity. By contrast, during periods of contraction, such focus on efficient investment in new or expanded capacity may be absent.

2.6.2 Public interest and the PSA

DBCTM's response to the draft decision on the 2015 DAU said the PSA should be understood primarily in the context of the public interest—rather than DBCTM's business interests. In particular, DBCTM considers the PSA reflects the state's view of public interest issues when it decided to lease the Terminal. In this context, DBCTM said the PSA conditions are intended to ensure that DBCTM's conduct is compatible with the public interest.[62]

We do not accept that the primary focus of the QCA when assessing the public interest is the PSA. We maintain the view that it is appropriate for us to consider the contractual obligations of DBCTM as part of our assessment of its legitimate business interests, under section 138(2)(c).

Nevertheless, we accept that the PSA may reflect the view of the State in relation to certain aspects of the public interest when the lease was signed 15 years ago, and this view is one of several relevant factors in considering the public interest.

However, we do not consider the PSA is the only relevant factor when having regard to the public interest, nor is it a definitive statement of the broader public interest. We are not bound to treat the PSA as determinative of the public interest or any of the other factors we must have regard to in section 138(2) of the QCA Act. The QCA Act does not contain any express or implied requirement that a DAU must be consistent with other agreements entered into by the owner or operator of the facility (whether with the State, or otherwise). Such a requirement would, in fact, be difficult to reconcile with the broad and multifaceted nature of the other elements under section 138(2).

As noted above, the public interest is not a defined term and will necessarily be shaped by its context. The PSA is a snapshot of certain regulatory expectations held by the relevant parties 15 years ago, prior to approving the first access undertaking. We therefore consider the PSA is one matter of many for us to have regard to in our assessment of the public interest. Chapter 11 of this final decision discusses the interaction between the PSA and our assessment of the 2015 DAU in greater detail.

[61] QCA 2015d: 9.
[62] DBCTM, sub. 37: 8.

2.7 Interests of persons who seek access (section 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 (section 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 (section 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 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.

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.[63] 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.*
>
> *…*
>
> *If the firm is not allowed to recover total costs, it will not have appropriate incentives to operate and invest.*[64]

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.

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

In its initial 2015 DAU submission, 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.[65]

[63] See for example: Productivity Commission 2001, *Review of the National Access Regime*, Inquiry report no. 17, September: 323.
[64] QCA 2013b: 10.
[65] See for example: Productivity Commission 2013, *Review of the National Access Regime*, Inquiry report no. 66: 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.*[66]

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

> *Efficient investment is also an important objective—and does not include under- or over-investment. While under-investment in the rail infrastructure has negative implications for Aurizon Network and its investors (and the coal industry through potential lack of future capacity), over-investment also has negative implications as it may lead to under-investment at other functional levels of the coal supply chain, including mine development.*[67]

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 final decision, our methodology for determining the WACC is based on established regulatory practice using generally accepted finance theory. The QCA considers that selecting values for WACC inputs that are consistently biased towards a higher cost of capital does not reflect 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 Other issues the QCA thinks relevant (section 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 consider 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 users and future access seekers

[66] DBCTM sub. 2: 16.

[67] QCA 2016b, *Aurizon Network 2014 Draft Access Undertaking, Volume IV—Maximum Allowable Revenue*, final decision: 205.

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[68] or differentially priced, a pricing decision may favour a category of access seekers, but have equity impacts on other users over time. 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 final decision, such as the approach taken to determining asset lives and depreciation can also affect the timeframe over which DBCTM recovers certain costs. We recognise these decisions can have different impacts on 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 an agreed package of arrangements, which stakeholders are familiar with and have accepted. In our final decision on the 2010 DAU, 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.*[69]

While the QCA has considered DBCTM's 2015 DAU afresh, we consider the 2010 AU (as varied through approved DAAUs over the regulatory period) provides instructive and appropriate guidance to help assess the context of the 2015 DAU and Standard User Agreement (User Agreement). We also recognise that users and other stakeholders, through their experience in 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 regard it relevant to consider (under s. 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. This also has the potential to reduce the administrative and compliance cost of unnecessarily changing requirements.

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

[68] Uniform pricing refers to circumstances where the costs of expansions are paid for by all users, not just users seeking expanded capacity.

[69] QCA 2010b, *Dalrymple Bay Coal Terminal 2010 Draft Access Undertaking*, final decision, September: iii.

pricing future expansions of the declared service on a differential basis. In broad terms, the DAAU 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 the 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.*[70]

Our draft decision on the 2015 DAU requested further comments from stakeholders as to whether, given the proposed acquisition of Pacific National by Brookfield would no longer occur, any or all of the relevant provisions in the ring-fencing DAAU draft decision were still appropriate. The feedback from stakeholders on these matters is discussed in more detail in Chapter 9 (Ring-fencing) of this final 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 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 final decision are not unique to the DBCT access regime and have been discussed in other QCA decisions. Therefore, we consider those decisions and papers in which we have considered similar issues are also relevant under section 138(2)(h) of the QCA Act.

These include:

[70] DBCT Management 2016a, *Withdrawal of 2010 AU Ring-Fencing DAAU*, letter to the QCA, 24 March.

- our final decision on Aurizon Network's 2014 DAU[71]—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[72]—these papers provide substantial and relevant guidance on our approach to setting a return on capital, which allows 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

The QCA Act's third party access regime incorporates a 'negotiate–arbitrate model'. That is, parties should endeavour to negotiate a mutually beneficial outcome before resorting to arbitration.

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, the credibility and reputation of the access regime (and as a consequence, Queensland's future economic prospects) could be diminished. 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 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.

[71] QCA 2016b.

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

2.10.6 Our consideration of drafting agreed between DBCTM and stakeholders

Our role in deciding whether to approve a DAU is different from our role in arbitrating disputes. The negotiate–arbitrate principle underpins the approach for how parties may obtain access to the service. The process of reviewing and approving a DAU is not, however, the same as a negotiate–arbitrate process.

Our role under the QCA Act is to decide whether a DAU is appropriate to approve and, if not, what changes we consider appropriate to be made. As such, we would not be performing our statutory role if we accepted a DAU merely because it had been agreed with some or all existing stakeholders—nor could we focus our assessment of a DAU on only those parts that are in dispute between DBCTM and stakeholders.

Nonetheless, section 138(2)(h) enables us to have regard to any other issue we consider relevant and we consider provisions that have been agreed with stakeholders to be a relevant factor in our assessment of a DAU. The significance of this factor will depend (among other things) on the number of stakeholders that were involved in negotiating the drafting, the level of support expressed by stakeholders, and the matter involved. Consequently, the more widespread and extensive the support from stakeholders, the more weight we will give the negotiated provision in our assessment.

However, we must also consider the effect of a DAU on all stakeholders, including future access seekers, who will not necessarily be represented by the stakeholders that have negotiated drafting of the DAU. Accordingly, while the existence of stakeholder-negotiated drafting is persuasive, it is not decisive.

2.10.7 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 Dalrymple Bay Coal Chain (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.

To the extent possible, the framework should have the 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 amends 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 scope of the undertaking, the identity of the access provider and the nature and role of relevant parties, the operating provisions to ensure access seekers and access holders are treated in a non-discriminatory manner, and measures to prevent the exercise of market power to reduce competition in markets upstream and downstream from the Terminal.

Our draft decision was to refuse to approve the scope and administration arrangements proposed in DBCTM's 2015 DAU. Instead, we proposed a number of amendments to the scope and administration provisions.

The final decision is to refuse to approve the scope and administration arrangements in DBCTM's 2015 DAU. This chapter states the reasons for this refusal and the treatment of issues raised by stakeholders in response to the draft decision on the 2015 DAU.

We have reconsidered the amendments proposed in the draft decision, in light of submissions received (including supplementary submissions) on the draft decision and have made a number of refinements to the amendments we require. Among other things, this involves requiring DBCTM to maintain its current operating arrangements, involving contracting operating responsibility to DBCT PL—which is an independent, user-owned entity. Our acceptance of a number of elements of the 2015 DAU is reliant on this arrangement.

Appendix A of the final decision sets out the amendments that DBCTM has to make to the scope and administration provisions to have the 2015 DAU approved. This chapter states the reasons why these amendments are necessary to make the 2015 DAU consistent with the provisions in the QCA Act.

3.1 Overview

Scope and administration matters are addressed in clauses 1 to 4 of the 2015 DAU and include:

- the scope and duration of the undertaking
- the nature and scope of the services to be supplied under the undertaking
- DBCTM's rights and responsibilities in delivering the declared service to all access seekers and access holders during the regulatory period
- the identity and role of the Operator and the contractual arrangements which underpin DBCTM's provision of the declared service (including where elements of this are undertaken by the Operator).

This chapter sets out the major issues relevant to the final decision on the 2015 DAU and the treatment of issues raised by stakeholders in response to the draft decision on the 2015 DAU.

3.2 DBCTM's 2015 DAU proposal

DBCTM proposed that the 2015 DAU include provisions to clarify the respective roles held by DBCTM and the Operator in the provision of the declared service.

DBCTM advised that the scope and administration provisions in the 2015 DAU would address potential ring-fencing requirements that it considered would be required if Brookfield were to

be successful in its 2015 bid to acquire 100 per cent of Pacific National.[73] DBCTM also advised that the scope and administration provisions in the 2015 DAU mirrored the provisions in the October 2015 ring-fencing DAAU.

Subsequent to the lodgement of the 2015 DAU, DBCTM withdrew the October 2015 ring-fencing DAAU and submitted the November 2015 ring-fencing DAAU to address stakeholder concerns that had been raised in submissions on DBCTM's October 2015 ring-fencing DAAU and Brookfield's informal mergers clearance application that had been lodged with the ACCC.

DBCTM committed to replacing the scope and administration arrangements in the 2015 DAU with any scope and administration arrangements approved by the QCA at the conclusion of the November 2015 ring-fencing DAAU assessment process. In accordance with DBCTM's position, the scope and administration provisions in the November 2015 ring-fencing DAAU were therefore also considered to be relevant to the QCA when assessing DBCTM's proposed position for the 2015 DAU.

In the scope and administration provisions in the November 2015 ring-fencing DAAU, DBCTM proposed to:

- clarify the role of the Operator, and included regulatory DAAU processes that DBCTM would follow if it decided to:
  - terminate the OMC, permit the assignment of the OMC, or permit a change in control of the Operator under the OMC
  - exercise its rights to approve or not approve an amendment to the Terminal Regulations during the regulatory period
- remove the one- and three-year review triggers that were in the 2010 AU
- identify the terminating date of the 2015 DAU.

DBCTM's position on the scope and administration arrangements in the 2015 DAU is discussed in detail in Chapter 4 of the draft decision on the November 2015 ring-fencing DAAU and in Chapter 3 of our draft decision on the 2015 DAU.

3.3 Stakeholders' submissions

Stakeholders raised a number of potential implications, arising from Brookfield's bid to acquire 100 per cent of Pacific National (if successful), on the operation of the Terminal.[74]

The DBCT User Group identified that the Operator played a critical role in managing the day-to-day operations at the Terminal and in maintaining Terminal infrastructure assets and machinery, including monitoring asset condition and undertaking some low cost asset renewals/refurbishments.

Some stakeholders submitted that the 2015 DAU should be amended to:

- require that the Operator remain an independent, majority user-owned entity

[73] Pacific National is one of two competing rail operators providing coal haulage services through to the Terminal. If the proposed acquisition had proceeded, Brookfield would have owned and controlled Pacific National, giving rise to a degree of vertical integration between DBCTM and Pacific National.

[74] DBCT User Group, subs. 11–16, 25; Vale, subs. 10, 26; Aurizon Operations, subs. 24, 28.

- require a level of transparency in the terms and conditions contracted under the OMC
- require DBCTM to obtain regulatory approval prior to exercising any of its rights under the existing OMC, including to amend, assign or terminate the OMC
- require DBCTM to obtain regulatory approval prior to appointing a new Operator under a new OMC
- provide an ability for users to refer a Terminal Regulations dispute to the QCA for an access determination
- remove the clause stating the 2015 DAU would terminate if the 2015 DAU services cease to be declared during the regulatory period
- reinstate the review mechanism in the 2010 AU, limit DBCTM's ability to withdraw a DAAU once the review process is initiated, and require DBCTM to comply with the QCA's final decision on a DAAU review process.

Stakeholders' submissions are described in detail in Chapter 4 of the draft decision on the November 2015 ring-fencing DAAU and in Chapter 3 of our draft decision on the 2015 DAU.

3.4 QCA draft decision

Our draft decision on the 2015 DAU refused to approve DBCTM's proposed scope and administration provisions contained in the 2015 DAU, and proposed to:

- include more information on the scope, standard and efficiency of the services provided by DBCTM in accordance with its obligations under Part 5 of the QCA Act, including:
  - the rights, responsibilities and liabilities underpinning DBCTM's provision of services to access seekers and access holders
  - the nature, scope and efficiency of the services DBCTM sub-contracts to the Operator to provide under the OMC
- the role performed by the Terminal Regulations in governing the Operator's day-to-day performance of its obligations, consistent with DBCTM's obligations to not hinder access to the Terminal and to ensure all access seekers and users are treated in a non-discriminatory manner.
- require DBCTM to sub-contract the role of the Operator to an independent entity which was majority owned by users
- require DBCTM to obtain regulatory approval prior to exercising its rights to:
  - amend, assign or terminate the OMC
  - execute a new or replacement OMC
  - amend or replace the Terminal Regulations included in a new OMC
- specify that the 2015 DAU will terminate on the earliest of either 1 July 2021 or the date that the services cease to be declared under the QCA Act, and remove the termination trigger upon DBCT PL ceasing to be the Operator.

Our draft decision also noted that the QCA had not had sufficient time to fully consider its position following Brookfield's announcement that it would not acquire Pacific National[75], and DBCTM's subsequent withdrawal of its November 2015 ring-fencing DAAU.[76] We asked stakeholders to provide feedback on whether any, or all, of the proposed scope and administration provisions contained in the draft decision on the 2015 DAU remained appropriate.

Our consideration of the scope and administration issues in the 2015 DAU were addressed in detail in Chapter 4 of our draft decision on the November 2015 ring-fencing DAAU and Chapter 3 of our draft decision on the 2015 DAU. Recommended amendments to the scope and administration issues considered in both draft decisions were provided in Appendix A of the draft decision on the 2015 DAU.

3.5 Stakeholders' comments on the draft decision

DBCTM and the DBCT User Group provided a number of submissions in response to the draft decision. These submissions identified that DBCTM and the DBCT User Group had competing views on:

- the manner in which the QCA should respond to Brookfield's announcement that it would not be acquiring Pacific National
- DBCTM's request to remove the scope and administration amendments it had proposed in the November 2015 DAAU from the QCA's consideration of the 2015 DAU.[77]

3.5.1 DBCTM's response

DBCTM submitted that it no longer considered it necessary to incorporate the majority of the QCA's proposed amendments to the scope and administration provisions in the undertaking. Citing the fundamental change in the structure of Brookfield's proposed Asciano transaction, DBCTM submitted a mark-up of the QCA's proposed amendments in Appendix A of the draft decision, which:

- removed the QCA's proposed amendments to:
  - clarify the scope of services
  - require DBCTM to appoint an independent, majority user-owned Operator
  - provide stakeholders with the ability to obtain a summary of the existing OMC
  - require DBCTM to obtain the QCA's written approval prior to exercising rights under the OMC

[75] On 16 March 2016, Brookfield announced it would not continue in its bid to acquire Pacific National. Brookfield advised that it had combined with Qube and six international investment funds to acquire Asciano and that it would be only seeking to acquire a share in Asciano's Patrick Container Terminal business. On 21 July 2016, the ACCC announced it would not oppose the proposed acquisition and there were no longer any competition issues of concern.

[76] On 24 March 2016, DBCTM notified the QCA that it wished to withdraw its November 2015 ring-fencing DAAU.

[77] DBCTM 2016a.

  - require DBCTM to obtain the QCA's approval of a DAAU, prior to appointing a new or replacement Operator with new or replacement OMC and Terminal Regulations
  - include a new Schedule which identifies the minimum requirements for the OMC
  - remove the termination trigger if DBCT PL ceases to be the Operator
- required DBCTM to submit a new DAAU within 28 days of DBCT PL ceasing to be the Operator, and to implement the QCA's final decision on the DAAU as it relates to the amendments required to reflect that DBCT PL is no longer the Operator. [78]

3.5.2 The DBCT User Group's response

The DBCT User Group supported the majority of the QCA's proposed amendments to the scope and administration provisions in the 2015 DAU, but indicated it remained concerned with the termination and review provisions proposed in the draft decision.[79]

The DBCT User Group submitted that it did not consider the draft decision provided sufficient protection or appropriate regulatory certainty for users and access seekers, if the review mechanism triggers during the regulatory period or the services cease to be declared prior to 1 July 2021. Users stated they considered it critical that the QCA retained the power to require DBCTM to submit a review DAAU, not withdraw the review DAAU and to implement the QCA's final decision on the review DAAU.[80]

In supporting the majority of the QCA's proposed scope and administration amendments in the draft decision, the DBCT User Group identified that:[81]

- The effectiveness of the 2015 DAU is critically reliant on the Operator continuing to be an independent, majority user-owned entity who has been contracted by DBCTM to operate and maintain the Terminal on a consistent basis with Schedule I of the draft decision.
- Clauses 1-4 and Schedule E in Appendix A of the draft decision accurately reflected the role and context in which DBCT PL is the Operator.
- In the absence of vertical integration, the QCA could consider removing its proposed restriction on DBCTM's ability to exercise its rights to amend or modify the OMC.
- The requirement for DBCTM to submit a DAAU and obtain QCA approval prior to terminating the OMC and appointing a new Operator should provide a level of protection for users, but the DBCT User Group still considered the 2015 DAU should include a termination trigger in the event DBCT PL ceases to be the Operator.
- Including a termination trigger where the declaration of services was revoked would create a material risk for users—and the DBCT User Group was unpersuaded by the QCA's advice that an access undertaking obligation existed in the PSA, given users are not parties to that agreement and cannot enforce a breach of the PSA.
- The removal of requirements to submit a DAAU at specific timeframes during the regulatory period was accepted—however, it was important that the clause 1.4 review mechanism

[78] DBCTM sub 37: 11 and 61-62.
[79] DBCT User Group, sub. 41: 34-39 and 50-61 (Schedule 2).
[80] The DBCT User Group, sub 41: 18-19 and 50-57 (Schedule 2).
[81] The DBCT User Group, sub 41: 36-39 and 50-57 (Schedule 2).

provided an ability for the QCA to require a mandatory DAAU process where it considers the review trigger has been met, and DBCTM has not submitted a DAAU that can be approved by the QCA.

3.6 QCA staff consultation process

In response to DBCTM's submission providing a full mark-up of Appendix A in the draft decision, QCA staff considered stakeholders should be given the opportunity to respond to DBCTM's proposed removal of the majority of the scope and administration amendments proposed in the draft decision. Four submissions were subsequently received by the QCA.

3.6.1 DBCT User Group's response

The DBCT User Group lodged two submissions which reiterated its position on the scope and administration provisions outlined in its submission of 8 July 2016. It submitted that:

> *Given that the QCA is proposing that the access undertaking will continue following a change in operator, it is critical for the continuing effective operation of the access undertaking that the operator remains:*
>
> *(i) independent and user-owned;*
>
> *(j) subject to substantially the same contractual obligations to DBCTM,*
>
> *and that the QCA has had an opportunity to consider the appropriate changes required to reflect any differences in the new operator or operational arrangements.*[82]

The DBCT User Group identified the key provisions in the 2015 DAU which are premised on the Operator being an independent, majority user-owned entity that is contracted under the existing OMC. These include:[83]

- the pass-through nature of the Operator's operation and maintenance costs, without any consideration being given to prudency and efficiency
- the role of the Operator in proposing changes to the Terminal Regulations
- the role of the Operator in the scheduling arrangements applying to the DBCC
- the responsibility for proposing operating and maintenance cost allocations between Terminal components
- the streamlined approval process for capital expenditure.

The DBCT User Group identified that its concerns regarding the nature and scope of the Operator in the 2015 DAU exist independent of the ring-fencing concerns users identified in response to Brookfield's 2015 proposal to acquire 100 per cent of Pacific National. Consequently, the DBCT User Group rejected DBCTM's attempt to characterise the proposed removal of key scope and administration provisions in the draft decision as simply a consequential amendment to Brookfield not acquiring Pacific National.[84]

[82] DBCT User Group: sub. 46: 13.
[83] DBCT User Group: sub. 46: 13-14.
[84] DBCT User Group: sub. 46: 14.

3.6.2 DBCTM's response

DBCTM lodged two submissions in response to the QCA staff questions, which indicated that it had changed its view on the role of the Operator in the 2015 DAU. DBCTM advised it now supported the 2015 DAU being amended to:

- require DBCTM to sub-contract the operation and maintenance of the Terminal to a third party contractor that is independent of DBCTM and Brookfield
- require DBCTM to submit a DAAU or DAU to the QCA for approval at least 12 months prior to DBCT PL ceasing to be the Operator.

In proposing these amendments, DBCTM acknowledged the importance of ensuring the independence of the Operator and that the QCA's process for assessing the DAAU, including final approval and implementation, should occur before a new Operator is appointed.[85] DBCTM also indicated it remained strongly opposed to any amendments that would restrict its ability to undertake a competitive tender process to sub-contract the provision of the Terminal's operation and maintenance services to an independent third party. DBCTM advised that any narrowing down of its competitive contracting options for the OMC would be inconsistent with its legislative obligations under Part 5 of the QCA Act.[86]

DBCTM also noted that its proposed position in its July 2016 submission did not contemplate that the Operator would be an entity other than DBCT PL. As such, DBCTM advised that it considered its proposed approach would deliver an outcome which is consistent with the DBCT User Group's position—but does not preclude it from appointing an independent, non-user owned Operator at some future time.[87]

3.7 QCA analysis and final decision

Our final decision is to refuse to approve the scope and administration provisions in the 2015 DAU. In doing so, we note that we consider the scope and administration provisions in clauses 1 to 4 of the 2015 DAU must provide appropriate transparency and certainty to stakeholders around a number of important structural arrangements.

These structural arrangements frame the operation of the DAU, and have been important factors which we have taken into account when balancing and weighing the application of the statutory criteria in section 138(2) of the QCA Act, in respect of all issues addressed in this final decision. For example, our acceptance of this factor underpins our final decisions on:

- the approach adopted in the 2015 DAU to a number of cost and revenue-related matters—such as the 'pass-through' of operations and maintenance (O&M) costs, cost allocation issues and NECAP approval. These matters are all dependent on the current operational arrangements remaining in place.
- the approach taken in the provisions in clauses 1 to 4 (and associated Schedules) regarding the scope and standard of services expected to be maintained in the provision of access to the Terminal by DBCTM for the regulatory period.

[85] DBCTM sub. 44: 14.
[86] DBCTM sub. 44: 13.
[87] DBCTM sub. 44: 13–14.

We consider that the provisions in clauses 1 to 4, and 11 and 12, as proposed in the 2015 DAU do not address the important structural arrangements which underpin the provision of the declared service and the operation of the Terminal during the regulatory period. Our concerns include that the 2015 DAU provisions:

- fail to provide sufficient certainty around the continued operational arrangements at the Terminal—including protection against these arrangements being amended during the 2015 DAU regulatory period
- are unduly narrow in the description of the purpose and scope of the DAU
- do not adequately define the performance standards required to be satisfied in respect of provision of the declared service
- do not provide transparency to stakeholders regarding the terms of the contractual arrangements underpinning day-to-day operation of the Terminal by the Operator.

Our draft decision on the 2015 DAU addressed a number of these concerns by adopting the proposed scope and administration amendments proposed in our draft decision on the November 2015 ring-fencing DAAU. Importantly, this meant that our draft decision on the 2015 DAU was premised on the continuing relevance of the November 2015 ring-fencing DAAU, in which DBCTM had proposed very different policy and drafting positions to the positions documented in the 2015 DAU. The withdrawal of the November 2015 ring-fencing DAAU and Brookfield's original transaction has required that we re-assess the scope and administration amendments we require DBCTM make to the 2015 DAU in order for us to approve the 2015 DAU.

The remaining Sections of this chapter provide the contextual basis for the drafting changes we have made in this 2015 DAU final decision. We have divided this contextual information into two main categories, namely the:

- QCA's assessment approach in the final decision
- consistency of the 2015 DAU with the provisions of the QCA Act.

3.8 QCA assessment approach

In making this final decision, we are conscious that DBCTM and the DBCT User Group disagree on the extent to which the scope and administration provisions in the draft decision remain relevant, in the absence of the original transaction to acquire Pacific National. DBCTM's initial response to our draft decision deleted the majority of our amendments, and proposed amended drafting which it indicated reflected its view of 'Option 3' described in Section 9.5 of the draft decision.[88] In contrast, the DBCT User Group argued to retain the draft decision amendments in the final decision.

[88] DBCTM, subs. 37: 11 and sub. 38. DBCTM did not explain why it did not support the draft decision, except by reference to its position on ring-fencing. However, its proposed mark-up removed the vast majority of our proposed amendments in clauses 1–4 of the 2015 DAU.

We acknowledge DBCTM's most recent submission, which supported including an obligation to appoint an independent Operator.[89] However, we do not consider the inclusion of such an obligation, in isolation of all of the other amendments proposed in the draft decision, is appropriate, having regard to the factors in section 138(2) of the QCA Act. We share the concerns raised by the DBCT User Group[90] with respect to the effectiveness of the 2015 DAU proposals, and DBCTM's revised proposals.

3.9 Consistency of the 2015 DAU with the provisions in the QCA Act

At a principle level, the scope and administration arrangements under the 2015 DAU largely continue those under the 2006 and 2010 AUs, and were shaped by the particular context in which the original 2006 AU was developed and approved. At that time, the QCA understands the contractual arrangements with DBCT PL and DBCT Holdings were generally well understood by stakeholders. We accept the existing framework was largely rolled over when the 2010 AU was put in place. While some amendments were made, the 2010 AU largely maintained a light-handed regulatory approach to a number of matters, in recognition of the structural and contractual arrangements that had been in place since 1999 (prior to the lease of the Terminal in 2001). This light-handed regulatory approach is evidenced, for example, by the fact that users supported the 2010 AU streamlining the QCA's capital approval process so that minor NECAP projects could be approved without a detailed prudency review.

However, our consideration of both the November 2015 ring-fencing DAAU and the 2015 DAU have occurred in circumstances that are different to the circumstances that applied in 2006 and 2010, including because:

- Information that was available to stakeholders in the first access undertaking approval process may no longer be readily accessible to stakeholders not involved in that first process—particularly in relation to some of the commercial arrangements in place between DBCTM and DBCT Holdings.
- DBCTM's submissions on the November 2015 ring-fencing DAAU and 2015 DAU referenced contractual obligations that sit in the PSA, OMC and Terminal Regulations—and these were seen as relevant, in particular, to issues raised in the context of both ring-fencing and differential pricing.[91]
- Stakeholders in related markets to the Terminal (the DBCT User Group and Aurizon Operations) identified a need to independently verify DBCTM's references to the obligations that sit in contracts outside of the 2010 AU and 2015 DAU. This information was sought by stakeholders to determine whether or not the 2015 DAU operated in a manner consistent with the provisions in the QCA Act.

In this context, a number of questions were raised in our public consultation processes regarding the role of the QCA in assessing the appropriateness of the 2015 DAU, and its

[89] DBCTM sub. 44: 13-14. The 2015 DAU should acknowledge DBCT PL is the Operator, that the Operator should be independent of DBCTM and Brookfield, and that a regulatory approval process should occur before DBCTM appoints a new Operator.

[90] The 2015 DAU should demonstrate compliance with sections 69E, 137 and 168A of the QCA Act.

[91] For example, DBCTM in its submissions on the 2015 DAU paraphrased its obligations under the PSA, OMC and Terminal Regulations. In addition, the Hatch report and 2016 Terminal Master Plan submitted by DBCTM also included close paraphrases of DBCTM's rehabilitation and master planning obligations in the PSA.

consistency with the provisions in the QCA Act. The legitimacy of such questions was then given further credence when DBCTM sought to rely on commercial-in-confidence considerations in restricting access to the provisions in commercial arrangements (PSA and OMC), which, if released, may demonstrate that DBCTM is obliged to provide the declared service on a basis consistent to the provisions of the QCA Act.

We agree with the DBCT User Group that a number of important elements in the scope and administration provisions of the 2006 and 2010 AUs were premised on the basis of there being an independent, user-owned Operator, which:

- DBCTM contracted with to efficiently operate, use and maintain the Terminal—consistent with the efficiency and service standards set in the OMC[92] and the Terminal Regulations[93]
- had a natural alignment with the users of the Terminal, and which allowed users a means to independently monitor and assess the:
  - efficiency and standards of the Terminal's operations, use and maintenance
  - standard of services being delivered, and whether the services are being provided on a consistent and non-discriminatory basis
  - extent to which DBCTM has sub-contracted roles and responsibilities (and not the liabilities) that DBCTM is obligated to perform under the QCA Act.

We consider that the 2015 DAU's reliance for its operation on contractual arrangements that sit outside the DAU has necessitated that we reassess the scope and administration provisions in the 2015 DAU, and identify whether they remain appropriately complete and transparent.

Our final decision on the scope and administration provisions on this matter is as follows:

- We accept DBCTM's view that the commercial arrangements that have been entered into with third parties may be a relevant consideration in considering the scope and administration provisions of the 2015 DAU.
- We do not accept DBCTM's position that the existence of these commercial arrangements outside of the provisions in the 2015 DAU (regardless of whether the third party is DBCT PL or DBCT Holdings) should be determinative of our assessment of the 2015 DAU, having regard to the statutory factors provided for in section 138(2) of the QCA Act.
- We note that the acceptability of the scope and administration provisions as provided for in the 2006 and 2010 AUs were specifically premised on the basis of there being an independent, user-owned Operator which contracted with DBCTM to operate and maintain the Terminal—consistent with the standards of efficiency and performance set in the existing OMC.[94]
- We accept that an independent, user-owned Operator provides transparency and alignment of interest between DBCTM and the users of the Terminal, such that users are placed in a position to be able to independently assess the:

[92] We consider the efficiency and service standards set out in the PSA reflect the efficiency and service standards required by sections 69E, 137 and 168A of the QCA Act.
[93] The Terminal Regulations are publicly accessible.
[94] The 2006 AU considered the efficiency, pricing and operational service standards in the OMC were consistent with the efficiency and service provisions in the QCA Act.

- efficiency in which the Terminal is operated, used and maintained
- standard of services being delivered, and whether the services are being provided on a consistent and non-discriminatory basis
- standards to which the Terminal is being maintained and operated
- extent to which the Operator is obliged to consider the overall efficiency of the DBCC
- mechanisms that incentivise cost and productivity improvements in the provision of services and the maintenance of the Terminal
- key performance indicators to which the Operator is held accountable
- extent to which DBCTM has sub-contracted roles and responsibilities (and not the liabilities) that DBCTM is obligated to perform under the QCA Act.

Accordingly, in applying our assessment approach (under section 138(2) of the QCA Act) to the 2015 DAU, and specifically to the operational arrangements at the Terminal, we have specified certain features of the framework[95]—given the importance those features had to our decisions that:

- DBCT PL is the Operator of the Terminal, and will remain the Operator for the term of the undertaking.
- DBCT PL is contracted to be the Operator of the Terminal under the OMC until 2021, and any amendments to the OMC must ensure that it nonetheless remains consistent with minimum requirements set out in a new Schedule to the 2015 DAU.
- DBCTM will comply with the Terminal Regulations and ensure DBCT PL complies with the Terminal Regulations for the term of the undertaking (being the Terminal Regulations in place at the commencement date).
- The process for amendment of the Terminal Regulations is addressed in clause 6 of the DAU. In summary, DBCTM can give effect to an amendment in the Terminal Regulations but cannot approve any amendments that would put itself in breach of the Terminal Regulations as approved at the commencement date.

We consider the above amendments are appropriate, having regard to the factors listed in section 138(2) of the QCA Act. We consider that providing certainty around the operational arrangements and associated roles is in the interests of access seekers and access holders (as well as other stakeholders). It also provides transparency and certainty around the operation of the Terminal, and ensures the continued appropriateness of other positions we have reached in this final decision—in reliance upon those current arrangements continuing. If circumstances ever changed to the extent that DBCTM considers changes to the operational arrangements are warranted, DBCTM retains a right under the QCA Act to seek to have the undertaking amended to allow for those changes. The QCA can then reassess proposed changes in that context. We consider this appropriately balances the legitimate interests of DBCTM with the interests of other stakeholders, and the general public interest in providing for transparent and stable regulatory arrangements.

[95] Appendix A, clauses 3.2, 3.3, 4 and 6.

Another benefit of the approach which we have adopted in this final decision in respect of the role of the Operator under clause 3 (and associated Schedules), is that a number of other provisions DBCTM had included in the November 2015 ring-fencing DAAU are no longer required. In particular, those ring-fencing provisions had provided a number of circumstances in which DBCTM undertook to lodge DAAUs to address changes in circumstances, such as the termination of the OMC or any change of Operator. The approach now adopted in this final decision means that those processes are not required, which simplifies the operation of the relevant provisions.

We have also made amendments to the 2015 DAU which we consider are necessary to more accurately and transparently reflect the intended operation of the DAU—in particular, clause 1 has been amended to more appropriately identify the purpose and scope of the undertaking.

A number of further submissions on the draft decision were made about the approach the QCA ought to adopt in relation to existing contractual arrangements with DBCT Holdings—in particular, the PSA.

The QCA accepts that the contractual arrangements entered into by DBCTM may be a relevant consideration in assessing the 2015 DAU, including the scope and administration provisions, but the commercial arrangements entered into with third parties, whether the Operator or DBCT Holdings, will not be determinative of our approach to applying the statutory factors in section 138(2) of the QCA Act.

At the same time, we do not consider that it is the role of the QCA to 'validate' for third parties DBCTM's interpretation of commercial arrangements that sit in private contracts to which they are not privy. The QCA accepts that there may be a tension, at times, between the need for consultation and the confidentiality concerns of DBCTM. In the current circumstances, our balancing of those factors has been influenced by the fact that the substance of most relevant parts of the PSA or OMC has already been made available to stakeholders to enable them to contribute to the process. For example:

- The Australian Competition and Consumer Commission's (ACCC's) October 2015 Statement of Issues regarding the proposed Brookfield acquisition of Asciano refers to the access undertaking obligations in the PSA.
- The 2016 Terminal Master Plan refers to the PSA requirements around development of the plan.
- While DBCTM has redacted exact quotes from the PSA in its submissions on the 2015 DAU, it has not redacted paraphrased descriptions of the obligations.
- The Hatch report, provided as part of DBCTM's 2015 DAU submission, includes a close paraphrase of the rehabilitation obligations from the PSA.
- References to and from the PSA have appeared in documents relating to previous regulatory processes, including documents that have been available on the QCA website for several years.

Finally, we note that the issue of review mechanisms that should sit within the 2015 DAU was the subject of some comment in the DAU assessment process. In its November 2015 ring-fencing DAAU, DBCTM proposed a number of review provisions that required DBCTM to submit a voluntary DAAU under the QCA Act should circumstances change during the regulatory period. While DBCTM withdrew the November 2015 ring-fencing DAAU in March 2016, in its later (August 2016) submission on the 2015 DAU it proposed provisions that would require it to lodge, and comply with a QCA decision on, a DAAU in two circumstances, namely DBCT PL

ceasing to be the Operator; and DBCTM or a related party seeking to enter a related market as a SCB.

As discussed earlier, we consider that a benefit of the approach which we have adopted in this final decision in respect of the role of the Operator is that the operation of some provisions considered as part of the assessment of the 2015 DAU has been simplified because certain processes are not required. This includes the first scenario described above—the proposed requirement for DBCTM to lodge, and comply with a QCA decision on, a DAAU if DBCT PL ceases to be the Operator.[96]

The 2015 DAU also includes a more general undertaking review mechanism in clause 1.4. We have noted the DBCT User Group's view that this mechanism should provide an ability for the QCA to require a mandatory DAAU process where it considers the review trigger has been met, and DBCTM has not submitted a DAAU that can be approved by the QCA. However, we have not adopted this approach. We consider that the review mechanism proposed by DBCTM in clause 1.4 of the 2015 DAU will provide an opportunity for potentially desirable amendments to the undertaking to be identified and considered as part of an assessment process including public consultation. We note that the standard DAAU processes in Part 5 of the QCA Act (ss. 139 and 142) also provide for the undertaking to be amended in appropriate circumstances.

3.10 Final Decision

Our final decision is to refuse to approve the scope and administration provisions in the 2015 DAU. In making this decision, we have had appropriate regard to all of the statutory elements contained in section 138(2) of the QCA Act.[97]

Our final decision and the amendments we consider appropriate for DBCTM to make to the 2015 DAU are provided in Appendix A.[98]

Summary 3.1—Amendments to scope and administration provisions

The QCA's decision is to refuse to approve the scope and administration provisions in DBCTM's 2015 DAU.

The QCA requires DBCTM to amend the scope and administration provisions in the 2015 DAU, in accordance with the amendments included in Appendix A of this final decision.

[96] The second scenario described above is discussed in Chapter 9 of this final decision.
[97] See Chapter 2 of this final decision for more detail on our assessment approach.
[98] See Appendix A clauses 1, 3, 4 and 6.

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 was 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 final decision is to refuse to approve DBCTM's 2015 DAU WACC proposal. We require DBCTM to amend its 2015 DAU to apply a regulatory WACC of 5.82 per cent per annum, comprising a benchmark:

- *cost of equity of 7.48 per cent per annum*
- *cost of debt of 4.72 per cent per annum*
- *capital structure of 60 per cent gearing.*

Our final decision position is consistent with our draft decision with regard to the regulatory WACC for the 2015 DAU (the WACC having been updated for time-variant parameters). Our reasons for this decision are discussed in this chapter and in Chapter 4 of our draft decision.

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 by using a benchmark weighted average cost of capital (WACC) for DBCTM. The QCA uses the Officer (1994) nominal, post-tax 'WACC3' or 'vanilla' WACC.

The WACC for DBCTM comprises three primary components:

- cost of equity—typically calculated with reference to the Capital Asset Pricing Model (CAPM)
- cost of debt—observed or calculated 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.

We have previously undertaken a separate 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'[99] and 'cost of debt decision'[100]) informs our assessment of certain WACC parameters proposed by DBCTM in the 2015 DAU, consistent with the requirements of the QCA Act. We have taken into account that analysis for the purpose of this final decision, and we have updated parameter values 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 final decision.

4.2 Overview of the WACC proposals

DBCTM's approved WACC under the 2010 access undertaking is 9.86 per cent, comprising a benchmark:

- cost of equity of 11.08 per cent per annum
- cost of debt of 9.04 per cent per annum
- capital structure of 60 per cent debt.

4.2.1 DBCTM's proposal

In its original proposal, DBCTM proposed a nominal, post-tax 'vanilla' WACC of 7.46 per cent per annum. Notably, DBCTM's original proposal:

- used a 10-year term to calculate the RFR, compared to our standard methodology of matching the term of the RFR to the term of the regulatory period
- applied a MRP value of 8.0 per cent, compared to our value of 6.5 per cent
- maintained the equity beta of 1.0 from the 2006 and 2010 AUs
- used a gamma value of 0.25, compared to our value of 0.47.

DBCTM stated that its proposed, lower WACC principally reflects a return on debt that is materially lower than the 2010 AU value (5.23% versus 9.04%), given the decreases in the RFR and the debt risk premium. 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.[101]

[99] See QCA 2014b.
[100] See QCA 2014a.
[101] DBCTM, sub. 2: 49–50.

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 values to provide the largest benefit to DBCTM. In this regard, the DBCT User Group noted that, if it had taken a similar approach—that is, ignoring the QCA's preferred WACC methodology and selectively calculating a very low WACC—it would have yielded a 'lower bound' WACC value of 4.84 per cent. However, the DBCT User Group said it chose not to propose its 'lower bound' WACC. Rather, it relied on the analysis of its consultant, PwC, for its proposal of 5.84 per cent, which the DBCT User Group considered to be reasonable.

4.2.3 QCA draft decision

In Chapter 4 of our draft decision, we reached various draft decisions in relation to each of the parameters proposed by DBCTM for the WACC for the 2015 DAU. In a number of instances, we decided to refuse to approve WACC parameters proposed by DBCTM and instead identified the way in which the 2015 DAU should be amended.

Ultimately, we concluded (in draft decision 4.12) that we considered it appropriate for DBCTM to amend its 2015 DAU to set an indicative WACC of 6.10 per cent per annum, incorporating:

- a cost of equity of 7.76 per cent per annum
- a cost of debt of 5.00 per cent per annum
- benchmark gearing of 60 per cent.

Our full analysis and reasoning are contained in Chapter 4 of our draft decision. We have adopted this analysis and reasoning on appropriate WACC parameters for DBCTM, for the purposes of this final decision, subject to the comments below.

Table 3 summarises DBCTM's proposal, as compared to the 2006 and 2010 AUs, the DBCT User Group's proposal and our draft decision.

Table 3 WACC parameters in previous DBCT undertakings and as proposed for the 2015 DAU

Parameter	*DBCT 2006 AU*	*DBCT 2010 AU*[a]	*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)
RFR	5.84%	5.08%	2.8%	2.17%	2.10%
MRP	6.0%	6.0%	8.0%	6.5%	6.5%
Asset beta	0.50	0.50	n/a[b]	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%	n/a	2.32%	2.32%	2.68%
Debt issuance costs			0.108%	0.108%	0.108%
Interest rate swap costs		n/a	n/a	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%

a *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.*

b *DBCTM did not propose an asset beta value.*

n/a = not applicable

4.2.4 Stakeholders' comments on the draft decision

In response to our draft decision, DBCTM proposed a WACC of 6.21 per cent, based on the following parameters:

- RFR: 1.8242 per cent[102]
- debt risk premium: 2.71 per cent
- interest rate swap transaction cost allowance: 0.159 per cent per annum
- equity beta: 1.0
- gamma: 0.25
- MRP: 6.5 per cent. [103]

The DBCT User Group proposed a WACC of 5.61 per cent, based on the following parameters:

- RFR: 1.82 per cent
- debt risk premium: 2.56 per cent
- interest rate swap transaction cost allowance: 0.113 per cent per annum
- equity beta: 0.81
- gamma: 0.47
- MRP: 6.5 per cent. [104]

Glencore submitted that it participated in the DBCT User Group and was fully supportive of the submission made by the DBCT User Group.[105]

In its submission on Incenta's updated advice on the debt risk premium, the DBCT User Group considered a debt risk premium of 2.50 per cent would be appropriate.[106]

Table 4 summarises the respective positions after our draft decision.

[102] DBCTM said it proposed 1.8242 per cent rather than 1.82 per cent to avoid understating the ARR (DBCTM, sub. 37: 12).
[103] DBCTM, sub. 37: 12.
[104] DBCT User Group, sub. 41: 20.
[105] Glencore, sub. 35: 1.
[106] DBCT User Group, sub. 43: 2.

Table 4 WACC parameters proposed after the QCA's draft decision

Parameter	*QCA draft decision*	*DBCTM*	*DBCT User Group*
Averaging period (20 business days up to dd/mm/yy)	30/10/15 (indicative)	31/05/16	31/05/16
RFR	2.10%	1.8242	1.82
MRP	6.5%	6.5%	6.5%
Asset beta	0.45	n/a[a]	0.43
Equity beta	0.87	1.0	0.81
Gamma	0.47	0.25	0.47
Capital structure (% debt)	60%	60%	60%
Credit rating	BBB	BBB	BBB
Debt risk premium (raw)	2.68%	2.71%	2.56%[b]
Debt issuance costs	0.108%	0.108%	0.108%
Interest rate swap costs	0.113%	0.159%	0.113%
Cost of debt	5.00%	4.80%	4.60%
Cost of equity	7.76%	8.32%	7.12%
WACC	6.10%	6.21%	5.61%

a *DBCTM did not propose an asset beta value.*

b *The DBCT User Group later said it considered a debt risk premium of 2.50% was appropriate.*

4.3 Framework matters

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. 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.[107]

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), (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)(b), (f) and 168A(b) should be given less weight, as they are less practically relevant to our assessment of the rate of return.

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

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

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 for WACC purposes, the legitimate business interests of DBCTM will be met if the WACC enables DBCTM to earn a return on capital enabling it to attract efficient debt and equity investment.

Sections 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 two concerns for us to consider in the context of calculating 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.

DBCTM's concerns are discussed in greater detail in Section 4.3.2 of our draft decision.

Pricing principles and uncertainty

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.'[108] DBCTM submitted that, in practice, the regulatory outcome effectively establishes a revenue allowance that DBCTM can earn 'at most', not 'at least'.

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.[109] DBCTM said choosing a WACC above the midpoint from the distribution of possible WACC values is seen as insurance against underinvestment.

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.[110]

WACC methodology

DBCTM considered our approach to WACC calculation 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 our current approach combines the prevailing RFR, which is near historical lows, with a value of the MRP that largely reflects historical averages. DBCTM said the result is a return on equity that varies materially with the RFR.[111] As a result, DBCTM did not view our approach to calculating 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.[112] In support of this view, DBCTM's consultant, Frontier, said '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.'[113]

4.3.3 Stakeholders' submissions

Stakeholders' responses to DBCTM's concerns are discussed in greater detail in Section 4.3.3 of our draft decision.

Pricing principles and uncertainty

The DBCT User Group did not agree with the importance 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; 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

[108] DBCTM, sub. 2: 6.
[109] DBCTM, sub. 2: 16-18.
[110] DBCTM, sub. 2: 30.
[111] DBCTM, sub. 2: 14.
[112] DBCTM, sub. 2: 14.
[113] DBCTM, sub. 5: 29.

undertaking.[114] The DBCT User Group said that section 168A(a) is merely one of multiple factors we must have regard to and weigh in our considerations in determining an appropriate outcome.[115] AL said the QCA 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.

On the matter of uncertainty, the DBCT User Group and AL said that setting the WACC at the highest anticipated spot value over the regulatory term would be, among other factors, inconsistent with the object of Part 5 of the QCA Act.[116] This is because setting prices in this way would yield monopoly profits, resulting in inefficient use of, and overinvestment in, infrastructure.

The DBCT User Group disagreed with aspects of DBCTM's submission on the potential asymmetric consequences of error. Measured over the regulatory period or the longer term, the DBCT User Group considered it would be expected any effect of 'uncertainty' is revenue neutral.[117]

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 highlighted the non-financial parts of that framework, which provide 'insurance' against underinvestment by DBCTM, such as clauses 12.3 and 12.10(a) of the 2015 DAU.[118]

WACC methodology

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)'.[119] 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 be seen as precluding the normal reconsideration of inputs and assumptions that are applied by an economic regulator from time-to-time.'[120]

4.3.4 QCA draft decision

Our analysis and draft decision with regard to pricing principles, uncertainty and WACC methodology are detailed in Section 4.3.4 of our draft decision.

Pricing principles and uncertainty

Our interpretation of the section 138(2) criteria, including the pricing principles, 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 the absence of any statutory directive to the contrary, it is one of multiple factors we must have regard to in determining an appropriate

[114] DBCT User Group, sub. 12: 2.
[115] DBCT User Group, sub. 11: 4.
[116] DBCT User Group, sub. 11: 5; DBCT User Group, sub. 12: 3–4.
[117] DBCT User Group, sub. 11: 5.
[118] DBCT User Group, sub. 12: 4.
[119] DBCT User Group, sub. 11: 6.
[120] DBCT User Group, sub. 11: 6.

outcome. In respect of some matters, there may be other considerations which are in tension, requiring us to undertake a balancing or weighing exercise.[121]

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 these pricing principles, we consider sections 168A(a), (c) and (d) should be given more weight. The detail of our consideration is in Section 4.3.4 of our draft decision. We take the same approach in this final decision.

WACC methodology

We addressed the argument about whether or not the return on equity is more stable than the MRP 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.[122] We do not consider DBCTM has presented any evidence to cause us to alter our view on this matter.

That being said, our market parameters decision's conclusion does not preclude a possible, negative relationship between the RFR and MRP. This analysis, in combination with evidence from a range of estimation methods and consideration of the possibility of heightened investor risk aversion, led us to increase the MRP from 6.0 per cent to 6.5 per cent.[123]

We noted that, while worldwide and Australian RFRs are below historical averages, there is reason to believe that current rates could reflect the 'new normal' for the economy. Therefore, while applying our WACC methodology might produce a return on equity that is lower than recent, historical levels, this does not necessarily imply that it is inconsistent with prevailing market conditions.

4.3.5 Stakeholders' comments on the draft decision

DBCTM said it noted the framework matters raised by the QCA in its draft decision.[124]

The DBCT User Group supported all of the QCA's comments in respect of the interpretation and application of the legislative framework in relation to determining the appropriate WACC.[125] The DBCT User Group:

- strongly supported the correctness of the QCA's interpretation of the pricing principles and how they should be had regard to in determining the appropriate rate of return.
- said that DBCTM's criticism of the QCA's approach to determining the WACC was entirely unwarranted.

4.3.6 QCA analysis and final decision

We have considered stakeholders' comments on our draft decision on framework issues. Given no new argument was presented which caused us to change our views on these framework issues, we consider it appropriate to maintain the views we expressed in Section 4.3.4 of our draft decision.

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[121] DBCT User Group, sub. 11: 4.
[122] QCA 2014b: 78–81; 86–87.
[123] QCA 2014b: 78–81.
[124] DBCTM, sub. 37: 12.
[125] DBCT User Group, sub. 41: 21–22.

4.4 Risk-free rate

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 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.

We explained our approach to estimation of the RFR in Section 4.4 of our draft decision. We also set out a more detailed overview of our approach to estimation of the RFR in Section 3 and Appendix B of our market parameters decision.[126] We have adopted that analysis for the purposes of this final decision, subject to the comments below.

4.4.1 DBCTM's 2015 DAU proposal

In the 2015 DAU, 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.

DBCTM's RFR proposal is discussed in greater detail in Section 4.4 of our draft decision. Based on the advice of its consultant, Frontier Economics, DBCTM supported a 10-year term for the RFR rather than our approach of aligning the term of the RFR with the term of the regulatory period for the following reasons:

- DBCTM considered that our approach is not consistent with the net present value (NPV) = 0 principle and the achievement of economically efficient outcomes.
- A term of 10 years is representative of regulatory practice in Australia and is used in commercial practice.
- For consistency, a 10-year term should be used in both components of the CAPM.

4.4.2 Stakeholders' initial comments

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).

Vale Australia Pty Ltd

Vale generally endorsed the submission of the DBCT User Group. It considered the approach and methodologies used by us in our market parameters decision were relevant for the draft decision, and provided regulatory predictability and consistency to the benefit of all stakeholders.

4.4.3 QCA draft decision

The draft decision refused to approve DBCTM's proposal and proposed that DBCTM amend its 2015 DAU to set an indicative RFR of 2.1 per cent per annum, based on the average of five-year

[126] QCA 2014b.

Commonwealth Government nominal bond yields over the 20 business days to 30 October 2015. Our full analysis and reasoning to estimating the RFR are contained in Section 4.4 of the draft decision. Our approach is consistent with the expert advice we received from Dr Martin Lally. We have again adopted that analysis and reasoning for the purposes of this final decision.

The draft decision on the RFR was as follows:

> *(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.*

In summary, after taking into account the material provided to us by DBCTM and other stakeholders, the draft decision was that our approach to estimating the RFR is appropriate and, therefore, no issue raised by submissions had caused us to revise the methods and analysis set out in our market parameters decision.

In particular, we considered that:

- Our approach should be assessed on its inherent merits rather than on mere observation of existing Australian regulatory practice and related precedent. Moreover, commercial valuation practice is not a suitable basis for determining the appropriate term of the RFR for regulatory purposes.
- Matching the term of the RFR to the regulatory period is necessary to satisfy the NPV = 0 principle, achieves economically efficient valuations, and also satisfies the relevant provisions of the QCA Act.
- Setting different terms for the RFR in the first and second parts of the CAPM is the most appropriate option for regulatory purposes because only in this way is it possible to combine long-term estimates of the MRP with satisfaction of the NPV = 0 principle.

4.4.4 Stakeholders' submissions on the draft decision

DBCTM

DBCTM did not comment further on the term of the RFR. It proposed a RFR estimate of 1.8242 per cent per annum based on five-year Commonwealth Government nominal bond yields over the averaging period of 20 business days to 31 May 2016.[127]

DBCT User Group

The DBCT User Group supported the methodology for determining the RFR set out in the draft decision, including the averaging period of 20 business days to 31 May 2016. The DBCT User Group proposed a RFR estimate of 1.82 per cent per annum accordingly.[128]

[127] For modelling purposes, DBCTM used a RFR of 1.8242% p.a. because using the rounded figure of 1.82% p.a. would understate the ARR (DBCTM, sub. 37: 12).
[128] DBCT User Group, sub. 41: 22 (section 6.4)and 20 (Table 1).

4.4.5 QCA analysis and final decision

Stakeholders have accepted the five-year bond yield for determining the RFR set out in the draft decision, and have agreed with the averaging period of 20 business days to 31 May 2016 for estimation purposes.

Our final decision is to set a RFR of 1.824 per cent per annum based on five-year Commonwealth Government nominal bond yields over the averaging period of 20 business days to 31 May 2016. This RFR reflects the precision of the data and estimation methodology used.[129]

Summary 4.2—Risk-free rate

The QCA's decision in relation to the RFR is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so as to apply a RFR of 1.824 per cent per annum.

4.5 Capital structure and credit rating

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

The benchmark capital structure determines the relative weights to attach to the debt and equity components of the firm's funding. The benchmark credit rating is informed by the capital structure. Specifically, companies that face less risk in their operating environment can in general sustain higher levels of debt for a given rating category.

We explained our approach in Section 4.5 of our draft decision. We have adopted that analysis for the purpose of this final decision.

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

4.5.1 DBCTM's 2015 DAU proposal

DBCTM proposed to maintain the benchmark gearing level of 60 per cent for the 2016–21 regulatory period[130] but said its notional credit rating should be downgraded to BBB.[131]

DBCTM said recent credit ratings applied to DBCT Finance Pty Ltd[132] (DBCT Finance) by the ratings agencies were direct and relevant evidence to support a lower benchmark credit rating for DBCTM. The main factors affecting DBCT Finance's credit ratings were the:

- industry outlook and deteriorating coal market conditions
- risk profile and creditworthiness of DBCT Finance's customer base

[129] The estimate of the RFR was obtained by interpolating the yields of two Commonwealth Government bonds maturing on either side of the five-year target dates for the 20 business days in the averaging period. The resulting interpolated yields for each day (expressed to three decimal places) were annualised and averaged.

[130] DBCTM, sub. 2: 32.

[131] DBCTM, sub. 2: 43.

[132] According to Bloomberg, DBCT Finance Pty Ltd 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, 'DBCT Finance Pty Limited: Private Company Information', *Businessweek*, viewed 14 March).

- prospect of DBCT being subject to lower regulatory returns in the next period.[133]

4.5.2 Stakeholders' initial comments

The DBCT User Group accepted DBCTM's proposed BBB notional credit rating and 60 per cent gearing level.

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

Vale did not specifically comment on DBCTM's proposed benchmark credit rating and gearing level, but it generally endorsed the DBCT User Group's submission.[134]

4.5.3 Incenta's advice

We commissioned Incenta Economic Consulting (Incenta) to advise us on the appropriate values for the benchmark capital structure and credit rating. Incenta's comments are summarised below, with more details in Section 4.5.4 of our draft decision.

Benchmark capital structure

Incenta examined the volatility of cash flows and gearing levels of firms in related industries and concluded that a 60 per cent gearing level was an appropriate capital structure for DBCTM, consistent with the gearing level applied to energy and water entities by Australian regulators.

With regard to the credit rating, 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.[135] This is because DBCT Finance is a project finance vehicle, subject to very different debt arrangements than a standard corporate benchmark firm with senior debt, and has an actual gearing level close to 80 per cent.

Benchmark credit rating

As advised by the QCA, Incenta applied a range of WACC parameters to the QCA's regulatory revenue model to generate expected cash flows for the 2015 DAU regulatory period for three scenarios. From the forecast cash flows, Incenta calculated benchmark credit metrics, with the principal focus on the funds from operations/debt (FFO/debt) ratio.[136] In conjunction with the credit metric results, Incenta took into account the business risk profile and financial risk profile matrix used by S&P to determine what would be the resulting benchmark credit rating for DBCTM in each scenario.

At benchmark 60 per cent gearing, based on its assessment of DBCTM's business and financial risks and its forecasts of DBCTM's FFO/debt ratios under the relevant scenario, Incenta agreed with DBCTM and the DBCT User Group that DBCTM's benchmark credit rating is likely to be BBB.

[133] DBCTM, sub. 2: 42.
[134] Vale, sub. 10: 1.
[135] Incenta 2016a: 49.
[136] Incenta also looked at the FFO/interest cover ratio.

4.5.4 QCA draft decision

Our draft decision was to approve DBCTM's proposed benchmark capital structure of 60 per cent debt and 40 per cent equity, and benchmark credit rating of BBB.

The full reasoning and analysis for our draft decision for the benchmark credit rating and capital structure are contained in Section 4.5 of our draft decision. We have adopted that reasoning and analysis for the purposes of this final decision, subject to the comments below.

In summary, we accepted Incenta's advice that, based on the forecast cash flows and resulting credit metrics, a benchmark credit rating of BBB at 60 per cent gearing is appropriate for DBCTM for the 2015 DAU.

4.5.5 Stakeholders' comments on the draft decision

Both DBCTM and the DBCT User Group accepted the QCA's draft decision to approve DBCTM's proposed benchmark credit rating of BBB and benchmark capital structure of 60 per cent gearing.[137]

4.5.6 Incenta's updated advice

After settling on all the major inputs to the model, we calculated the forecast ARR for DBCTM for the regulatory period, as shown in Table 5.[138] The modelling inputs included a WACC of 5.82 per cent, a remaining asset life of 38 years, a remediation allowance of $7.02 million per year and a benchmark capital structure of 60 per cent.

Table 5 ARR forecast used for credit metrics calculation

	2016–17	***2017–18***	***2018–19***	***2019–20***	***2020–21***
Forecast ARR ($'000)	191,720	192,080	191,521	190,580	192,795

Based on these inputs, we commissioned Incenta to calculate the resulting credit metrics and advise us on whether these supported a benchmark credit rating of BBB for DBCTM.

Incenta calculated the annual credit metrics for the regulatory period—Table 6 summarises the resulting forecast average credit metrics over the five years.

Table 6 Forecast credit metrics for benchmark entity, as calculated by Incenta

	Draft decision 'medium' scenario	***Final decision forecast***
Average FFO/debt[a]	11.8%	12.1%
Average FFO/interest cover[b]	3.22%	3.56%
Resulting credit rating	BBB	BBB

a *Funds flow from operations / debt ratio.*

b *Funds flow from operations / interest cover ratio.*

Incenta examined the business risk profile and financial risk profile matrix used by S&P to determine what would be the resulting credit ratings for DBCTM. To do so, Incenta reviewed

[137] DBCTM, sub. 37: 13; DBCT User Group, sub. 41: 22.

[138] Due to later modelling adjustments, the final decision ARR figures are immaterially higher (i.e. by 0.05% on average across the regulatory period) than the forecast ARR figures.

the updated credit metrics bounds applied by credit rating agencies for relevant comparator businesses.

Incenta considered a benchmark 60-per-cent-geared business with DBCT's characteristics would have a 'strong' business risk profile, consistent with Aurizon Network, and expected DBCTM's benchmark to attract a BBB rating if its FFO/debt ratio was forecast consistently below 13 per cent. For the lower bound, Incenta used APT Pipelines as a comparator to establish that DBCTM's benchmark would need an FFO/debt ratio of at least 8.0 per cent to maintain a BBB rating.

Incenta considered the improved forecast credit metrics from the draft decision position reaffirmed DBCTM's benchmark credit rating of BBB. However, Incenta said the improvement was insufficient for the benchmark credit rating to be any higher (i.e. BBB+).

4.5.7 QCA analysis and final decision

Our draft decision was to approve DBCTM's proposed benchmark capital structure of 60 per cent, and credit rating of BBB. We note DBCTM's proposal was supported by the DBCT User Group, and both stakeholders accepted our draft decision position.

Although we do not consider DBCT Finance's credit ratings to be indicative of the credit rating of a benchmark 60 per cent–geared entity for DBCTM, we have taken into account the updated analysis from credit ratings agencies for DBCT Finance, for context. With regard to the 2015 DAU, S&P noted:

> *We do not consider that the lower tariffs expected following the reset will affect credit quality. This is because the reduced tariffs are offset by a lower interest expense, resulting in no impact on debt service coverage ratios.*[139]

This is consistent with Incenta's findings. We accept Incenta's updated advice, which reaffirms DBCT's benchmark credit rating of BBB. Therefore, our final decision is to approve DBCTM's proposed benchmark capital structure of 60 per cent and BBB benchmark credit rating.

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.

Summary 4.3—Benchmark capital structure and credit rating

The QCA approves DBCTM's proposed benchmark capital structure of 60 per cent and benchmark credit rating of BBB.

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 WACC.

We identified our previous consideration of the cost of debt in Section 4.6 of our draft decision on DBCTM's 2015 DAU. We also set out a more detailed overview of the cost of debt in our cost of debt decision.[140] We have adopted that analysis for the purposes of this final decision.

[139] Standard & Poor's Rating Services 2016a, *Transaction Update: DBCT Finance Pty Ltd*, 26 April: 7.

DBCTM's cost of debt proposal, the DBCT User Group's proposal and our draft decision on the cost of debt, are shown in Table 7 below:

Table 7 Cost of debt proposals

Parameter	*DBCTM 2015 DAU (%)*	*DBCT User Group submission (%)*	*QCA draft decision (%)*
RFR	2.8	2.17	2.10
Debt risk premium	2.32	2.32	2.68
Debt issuance costs	0.108	0.108	0.108
Interest rate swap costs	NA	0.15	0.113
Cost of debt (total)	**5.23**	**4.75**	**5.00**

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 1.824 per cent over the 20-day averaging period ending 31 May 2016.[141]

4.6.2 Debt risk premium

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 2015 DAU proposal

DBCTM proposed a 2.32 per cent debt risk premium as a 'placeholder estimate' for the indicative 20-day averaging period to 21 August 2015 using the simple portfolio econometric estimation methodology.[142] DBCTM said it would submit an updated estimate, based on a subsequent averaging period for the purpose of setting the final cost of debt following our draft decision.[143] DBCTM assumed a 10-year term of debt[144] and a BBB benchmark credit rating to arrive at this estimate.

DBCTM raised some concerns with both the data sources required for implementing the methodology and with the methodology itself. These concerns specifically focused on: the

[140] See QCA 2014a.

[141] This averaging period of the 20 business days ending on 31 May 2016 was confidentially agreed between DBCTM and the QCA in March 2016 and published on the QCA's website in June 2016.

[142] The simple portfolio econometric approach is a cost of debt estimation methodology developed by Dr Michael Lawriwsky of PwC in 2013 for the QCA (since that time, Dr Lawriwsky has left PwC and formed his own consulting company, Incenta Economic Consulting). The methodology involves applying data filtering criteria and testing, formation of an appropriate portfolio of bonds and a regression of the debt risk premium with respect to term to maturity of debt. The 'simple' portfolio refers to a portfolio of domestic bonds only, and the econometric approach applies a linear form, which was found to perform better than more complex forms (e.g. non-linear).

[143] DBCTM, sub. 2: 46.

[144] DBCTM, sub. 2: 46.

availability of the UBS bond data, long-term interest swap rate data, and data to estimate a 10-year BBB debt risk premium, as well as on the possibility of sample bias.[145] These concerns and Incenta's responses to them are discussed in detail in Section 4.6.2 of our draft decision. As DBCTM and stakeholders have not commented on these issues in response to the draft decision, we do not discuss them further here.

Stakeholders' initial comments

DBCT User Group

Based on the advice of its consultant, 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.[146]

Vale

Vale did not comment on the debt risk premium in its submission, but generally endorsed the DBCT User Group's submission.[147]

Incenta's advice

We engaged Incenta to provide us with expert advice to assist with our analysis of DBCTM's cost of debt proposal. For this purpose, we also requested Incenta apply the simple portfolio econometric method for estimating the cost of debt. Incenta's advice is discussed in detail in Section 4.6.2 of our draft decision.

Consistent with our cost of debt framework, Incenta first undertook two benchmarking tasks and concluded:

- an efficient term of debt is 10 years
- a BBB benchmark credit rating is appropriate.

Incenta then provided an estimate of the debt risk premium based on an indicative averaging period to the end of October 2015, by applying the simple portfolio econometric approach, and obtained a debt risk premium of 2.68 per cent.[148]

Consistent with the QCA's cost of debt decision, Incenta cross-checked its estimate against the Bloomberg BVAL estimate and RBA estimate, as per Table 8.

[145] DBCTM, sub. 2: 43–46.
[146] DBCT User Group, sub. 11: 15; DBCT User Group, sub. 13: 17.
[147] Vale, sub. 10: 1.
[148] Based on a 77-bond sample (i.e. pooled BBB, BBB+ and A– bonds), Incenta used regression analysis to estimate 2.48 per cent for the 10-year BBB+ debt risk premium. Incenta noted the average deviation from the pooled regression line for the 28 BBB bonds was 19.8 basis points higher than the 2.48 per cent regression estimate. Adding this average differential to the BBB+ regression estimate of 2.48 per cent translated to a 10-year BBB debt risk premium of 2.68 per cent. (Incenta 2016a)

Table 8 Estimated 10-year debt risk premiums using various methodologies

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

For the reasons detailed in Section 4.6.2 of the draft decision, Incenta recommended a benchmark debt risk premium of 2.68 per cent as its preferred estimate, given a benchmark credit rating of BBB with a 10-year term of debt (for the indicative averaging period).[149]

QCA draft decision

The QCA's draft decision proposed that DBCTM amend its 2015 DAU to apply an indicative debt risk premium of 2.68 per cent per annum.

The full reasoning and analysis of our draft decision for the debt risk premium are contained in Section 4.6.2 of our draft decision. We have adopted that reasoning and analysis for the purposes of this final decision, subject to the comments below.

In summary, we accepted Incenta's advice that:

- an efficient term of debt is 10 years
- a BBB benchmark credit rating is appropriate.

We also accepted that application of the simple portfolio econometric approach for an averaging period of October 2015 produced an appropriate debt risk premium (indicative) of 2.68 per cent. We note this approach involved the following two key steps:

- A BBB+ debt risk premium was estimated by undertaking a regression centred on the BBB+ credit rating using a pooled sample of A–, BBB+ and BBB bonds (a 'pooled BBB+ regression').
- The average debt risk premium differential between the BBB bond observations and the pooled BBB+ regression line was added to the BBB+ debt risk premium at 10 years to calculate the BBB debt risk premium.[150,151]

In our draft decision on DBCTM's 2015 DAU, we expressed our intention for our final decision to:[152]

- use the simple portfolio econometric approach for estimating the BBB debt risk premium—consistent with our cost of debt decision[153]
- use Bloomberg bond yield data instead of UBS data—because of recent changes to UBS data availability

[149] Incenta 2016a: 68.
[150] Incenta 2016b, *DBCT—Debt risk premium to 31 May 2016*, June: 12.
[151] This specific application of the simple portfolio econometric approach is referred to as the 'pooled BBB+ regression with BBB differential' for reference purposes for the remainder of this chapter.
[152] QCA 2016c, *DBCT 2015 DAU*, draft decision, April: 65.
[153] QCA 2014a.

- apply the econometric approach to a pooled sample around the BBB band bonds—that is, including BBB– and BBB+ bonds in the sample for the nominated averaging period
- continue to use estimates from the Bloomberg BVAL or similar approaches as 'cross-checks' on estimates from the econometric approach.

Incenta's updated advice

We engaged Incenta to update the calculation of DBCTM's debt risk premium and RFR for the nominated averaging period of 20 business days to the end of May 2016 for the purpose of setting the final cost of debt, as agreed with DBCTM in March 2016. Consistent with our draft decision, we instructed Incenta to apply the simple portfolio econometric approach to a pooled sample centred on the BBB rated bonds (i.e. 'pooled BBB regression').[154]

However, when calculating the debt risk premium for DBCTM for the nominated averaging period, Incenta found a key pre-condition for applying the simple portfolio econometric methodology (i.e. using a pooled BBB regression) was violated. Specifically, the average differential between BBB and BBB– bonds was materially larger (80 basis points) than the average differential between the BBB and BBB+ bonds (22 basis points), thus violating the key pre-condition of symmetry of debt risk premium differentials.[155] Incenta therefore indicated that applying the pooled BBB regression would be unreliable and result in an upward-biased estimate of the BBB debt risk premium (3.01%). Incenta said this bias is corroborated by the fact that the BBB observations, on average, are below the pooled sample regression line.[156] As a consequence, Incenta did not recommend applying the simple portfolio econometric approach using a pooled BBB sample.

Moreover, Incenta explained that at the time of the averaging period used for the development of the simple portfolio econometric methodology (i.e. October–November 2012), there was relative symmetry around the BBB debt risk premium function. However, Incenta said it is well known that the spreads between the yields of the strongest and weakest credit rating bands can vary with time. For example, the margins between US industrial BBB– and BBB bond yields relative to the margins between BBB and BBB+ bonds are materially higher in 2016 than they were in 2012.[157] We understand this is due to a structural change in the market, with many bonds dropping in ratings while fund managers seek higher rated bonds (and are often not allowed to purchase BBB– bonds).

To overcome the asymmetry problem, Incenta recommended applying the simple portfolio econometric approach, but using only the sample of 25 BBB bonds. This regression results in a 2.65 per cent debt risk premium. In support of this revised sample, Incenta explained that the original logic behind the adoption of a pooled regression was to deal with a situation where the number of bond observations in the sample was too small to be confident of deriving a reasonable estimate of the debt risk premium—Incenta noted this sample size problem generally characterises BBB+ bonds. However, Incenta also noted that, in this case, a sample of 25 bonds was larger than the sample used by Bloomberg in its pooled regression (22 bonds

[154] QCA 2016c: 65.
[155] Incenta 2016b: 10.
[156] Incenta 2016b: 11.
[157] Incenta 2016b: 17.

from three credit rating bands).[158,159] Incenta therefore recommended 2.65 per cent as the best estimate available.[160]

For comparison, Incenta presented the results of alternative methodologies, including three different dummy variable regressions. The dummy variables approach assumes that the same term premium per annum applies to each of the credit rating bands, with the credit rating shifting the intercept.[161]

Incenta also presented the results of a pooled BBB+ regression with BBB differential, which resulted in a 2.50 per cent debt risk premium, for comparison.[162] Incenta noted:

> *However, it may be objected that by constraining the slope of the BBB debt risk premium function to be equal to that of the BBB+ function (based on the pooled regression) this approach does not allow for the fact that the BBB function may be steeper with term.* [163]

For cross-checking purposes, Incenta also calculated the Bloomberg BVAL value and interpolated the RBA value. Incenta tested to see if the average credit ratings of the bonds in Bloomberg's and the RBA's samples were reflective of a BBB credit rating, and concluded that they were.[164] Table 9 summarises Incenta's findings.

Table 9 Summary of debt risk premiums presented by Incenta

Relevance	*Name*	*Credit ratings included*	*Number of observations*	*BBB Debt risk premium (%)*
QCA simple portfolio econometric	BBB only regression	BBB	25	2.65
QCA simple portfolio econometric	Pooled BBB+ regression with BBB differential	BBB, BBB+, A–	72	2.50
QCA simple portfolio econometric	Pooled BBB regression	BBB–, BBB, BBB+	51	3.01
Cross-check comparator	Bloomberg BVAL	BBB–, BBB, BBB+	22	2.76
Cross-check comparator	RBA	BBB–, BBB, BBB+	91	2.77
Alternative method	Dummy variables, all BBB	BBB–, BBB, BBB+	51	2.57
Alternative method	Dummy variables, A–, BBB+, BBB	BBB, BBB+, A–	72	2.54
Alternative method	Dummy variables, all BBB and A–	BBB–, BBB, BBB+, A–	84	2.49

[158] Incenta 2016b: 13.
[159] The Bloomberg sample as at 18 May 2016 included 7 BBB– bonds, 10 BBB bonds and 5 BBB+ bonds.
[160] Incenta 2016b: 19.
[161] Incenta 2016b: 14.
[162] See the previous section for a full explanation of the 'pooled BBB+ regression with BBB differential' approach.
[163] Incenta 2016b: 13.
[164] Incenta 2016b: 17-18.

Stakeholders' comments after the draft decision

DBCTM accepted the QCA's proposed approach for deriving the debt risk premium. Applying this approach to the relevant averaging period, DBCTM estimated a debt risk premium of 2.71 per cent.

However, in noting Incenta's updated advice on the debt risk premium, DBCTM said it was concerned about the QCA's consultant's discretion in sample selection and its ability to modify econometric equations. In particular, DBCTM said this subjectivity creates uncertainty around the debt risk premium estimates from one regulatory period to the next.[165]

In its 8 July 2016 submission, the DBCT User Group supported the form of the simple portfolio econometric methodology used by the QCA in the draft decision to determine the debt risk premium, namely the pooled BBB+ regression with BBB differential (debt risk premium of 2.50%). This approach was also supported by the consultant's report commissioned by the DBCT User Group.[166]

However, in its submission on Incenta's updated advice, the DBCT User Group expressed concern with Incenta's move away from the draft decision approach (i.e. pooled BBB+ regression with BBB differential) and considered the debt risk premium of 2.50 per cent produced from that approach was appropriate.[167]

The DBCT User Group said the economic evidence presented by Incenta was insufficient to support the conclusion that 2.65 per cent is a better estimate than 2.50 per cent. Incenta's dummy variable regressions produced a range of 2.49 to 2.57 per cent, which the DBCT User Group considered better supported the estimate of 2.50 per cent rather than 2.65 percent.[168]

The DBCT User Group also raised the issue of regulatory certainty with moving from the pooled BBB+ regression with BBB differential (2.50%) to a BBB only regression (2.65%), pointing out the QCA had used the former methodology for the:

- SEQ Price Monitoring 2013–15 decision for SEQ retailers
- Price Monitoring 2015–20 decision for the Gladstone Area Water Board (GAWB)
- Draft decision on DBCTM's 2015 DAU.[169]

The DBCT User Group recognised that estimation of the debt risk premium will need to respond to changing market conditions, but said it was not clear under what conditions or specific criteria the QCA considers it appropriate to use each methodology, thus creating regulatory uncertainty.[170]

QCA analysis and final decision

We have considered stakeholders' submissions and note stakeholders did not raise concerns with our draft decision per se, but rather with Incenta's updated advice on the debt risk premium. Having taken into account stakeholders' concerns and Incenta's recommendations,

[165] DBCTM, sub. 37: 13.
[166] DBCT User Group, sub. 41: 22.
[167] DBCT User Group, sub. 43: 2.
[168] DBCT User Group, sub. 43: 3.
[169] DBCT User Group, sub. 43: 3.
[170] DBCT User Group, sub. 43: 4.

our final decision is to set DBCTM's debt risk premium to 2.65 per cent, for the reasons set out below.

The 2013 report on cost of debt estimation methodology recommended:

> *using the credit ratings around the central credit rating in order to maximise observations. For example, a regression estimating the BBB curve would use the available BBB-, BBB and BBB+ observations.*[171]

Consistent with this recommendation, our draft decision stated our intent to use the simple portfolio econometric approach and apply it to a pooled sample around the BBB band bonds.[172]

Consequently, when we commissioned Incenta to advise us on updating the cost of debt for DBCTM's 2015 DAU for the approved averaging period, we expected it would be a straightforward exercise of applying the simple portfolio econometric methodology using a pooled BBB regression (i.e. centred on the BBB credit rating band, so the pooled sample includes BBB–, BBB and BBB+ bonds), and cross-checking the result with the RBA and Bloomberg BVAL values. However, the testing of the sample data for the pooled BBB regression revealed this value was unreliable in this particular case, due to the asymmetry of the debt risk premium differentials.

As a result, it became necessary to consider alternative ways to best utilise the data, while still remaining consistent with the principles of the simple portfolio econometric methodology. While several alternatives were considered, we agree with Incenta that the best approach in this case is the 'BBB only regression', which produces an estimate of DBCTM's BBB debt risk premium for a 10-year term of 2.65 per cent. This is because:

- The sample size of 25 bonds is sufficient—the pooled regression approach was designed to overcome the problem of there not being enough bond observations in a given credit rating band to allow a reliable estimate to be made.[173] In ideal circumstances, the Australian bond market would be very deep in every credit band, and the pooled regressions would never be necessary. As Incenta pointed out, Bloomberg's pooled regression estimate of the broad BBB band has 22 bonds in its sample.[174]
- The regression results for the BBB only regression are appropriate—the scatter of BBB bond observations indicates a reasonably even spread around the regression line.[175]
- It is the best estimate from an econometric approach and is consistent with the underlying principles of the simple portfolio econometric methodology.[176]
- Cross-checks with the Bloomberg BVAL (2.76%) and RBA (2.77%) values, as per the simple portfolio econometric methodology, confirm the BBB only regression result (2.65%) can be considered reasonable.[177]

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[171] PwC 2013b, *A cost of debt estimation methodology for businesses regulated by the Queensland Competition Authority*, June: 66.
[172] QCA 2016c: 65.
[173] Incenta 2016b: 4.
[174] Incenta 2016b: 13.
[175] Incenta 2016b: 13.
[176] Incenta 2016b: 19.
[177] We note that the RBA estimate of 2.77% is given materially lower weight in our considerations, as a key limitation of that method is the lack of consecutive daily estimates. See QCA 2014a: 8.

We note stakeholders' comments on regulatory certainty, and the conditions that would lead us to change an approach and/or modify econometric equations. As pointed out, we have used the pooled BBB+ regression with BBB differential in three recent decisions. We have done so for different reasons each time:

(1) SEQ price monitoring 2013–15 for retail water[178]—the cost of debt report for SEQ water was commissioned prior to the QCA review of the cost of debt estimation methodology. Therefore, the QCA had not yet made its final decision on its preferred cost of debt approach.

(2) GAWB price monitoring 2015–20[179]—it was anticipated GAWB's benchmark credit rating would be in the range of BBB to BBB+. Incenta therefore assembled bond data for the BBB, BBB+ and A– credit rating bands, which allowed it to calculate either a BBB+ or a BBB debt risk premium. At the time, there did not seem to be a material difference between the BBB estimate obtained using the pooled BBB+ regression with BBB differential method versus a pooled BBB regression; therefore, using the pooled BBB+ regression with BBB differential approach was deemed both appropriate and economical.

(3) DBCTM's 2015 DAU draft decision—our initial assessment of DBCTM's rate of return proposal assumed a benchmark credit rating of BBB+ (consistent with the 2006 and 2010 AUs) and estimated a BBB+ debt risk premium. However, given stakeholders' submissions and a forward-looking assessment of benchmark credit metrics (based on expected cash flows), we concluded DBCTM's benchmark credit rating was likely to be BBB. However, at that point, the debt risk premium analysis had already been centred on the BBB+ regression. This is why our draft decision used the pooled BBB+ regression with BBB differential to calculate an indicative debt risk premium, but signalled our intention to use a pooled BBB regression in assessing the final WACC to apply to DBCT for the 2015 DAU.

We understand stakeholders' concerns with maintaining regulatory certainty. However, we are required to consider a number of factors when making a decision on an appropriate value for the debt risk premium. Among these, an important consideration is whether a resulting estimate is appropriate.

In the context of applying the simple portfolio econometric approach to date, there has not been a material difference between the BBB estimate obtained using the pooled BBB+ regression with BBB differential method and the BBB estimate obtained using a pooled BBB regression method.[180]

However, recent data indicate the BBB– to BBB differential has increased materially relative to the BBB to BBB+ differential, which would now bias the result and produce a material over-estimate of the BBB fair value yield if a pooled BBB regression was applied (as noted by Incenta,

[178] See PwC 2013a, *Queensland Competition Authority: Cost of Debt for SEQ distribution-retail water and wastewater entities*, draft, 4 February.

[179] See Incenta 2015a*, WACC parameters for GAWB Price Monitoring Investigation 2015-20*, final report, May.

[180] For example, going back to table 5.12 of PwC 2013b: 67, the average differential between the BBB and BBB+ debt risk premiums was 58.7 basis points for the 20-day averaging period to 28 November 2012. While the differential was increasing slightly with the term, at the 10-year term, it was only 65 basis points. Therefore, using the pooled BBB+ regression with BBB differential would have caused the BBB debt risk premium to be underestimated by only 6.3 basis points.

the spreads between the yields of the strongest and weakest credit rating bands are time-varying[181]). This is why the pooled BBB regression result (3.01%) was deemed unreliable by Incenta.

As to why we did not consider using the pooled BBB+ regression with BBB differential to be appropriate in this case, it is because constraining the slope of the BBB debt risk premium function to equal that of the BBB+ function does not allow for the fact that the BBB function may be steeper with term[182], as was observed in the cost of debt estimation methodology report in 2013:

> *We note that the steepness of each curve increases from A to BBB, which accords with the expectation that an increasing premium for term should be required by investors in successively less worthy credit rating bands.* [183]

Incenta noted this could potentially result in the debt risk premium calculated using a pooled BBB+ regression with BBB differential being understated[184]—which we believe is the case here, at 2.50 per cent. We understand that through time not only the spreads between the yields change, but also the difference in slopes.

While we aim to ensure that the cost of debt estimation methodology is consistent with an approach that maintains regulatory certainty, we also have to ensure each estimate arising from that methodology is appropriate. In this case, the empirical data and bond market conditions are indicating the regression analysis over the BBB only credit rating band is providing the best estimate available. This is because the:

- pooled BBB regression is in this case unreliable
- pooled BBB+ regression with BBB differential can underestimate the debt risk premium, because evidence suggests the BBB curve is likely to be steeper than the BBB+ curve
- dummy variable regressions, while of some relevance, are not in line with the simple portfolio econometric approach. These regressions also fail to address the problem of increased slope steepness from A to BBB. For these reasons, we consider the Bloomberg BVAL and RBA estimates to be more relevant for purposes of comparison.

Conclusion

We consider 2.65 per cent is the best estimate for DBCTM's debt risk premium for the 2015 DAU, and it 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 consider the use of Incenta's recommended approach is most likely to provide an estimate of the debt risk premium for the averaging period 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 matters set out in our cost of debt decision.

[181] Incenta 2016b: 17.
[182] Incenta 2016b: 13.
[183] PwC 2013b: 67.
[184] Incenta 2016b: 19.

Summary 4.4—Debt risk premium

The QCA's decision in relation to the debt-risk premium is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its rate of return for the 2015 DAU so as to include a debt risk premium of 2.65 per cent per annum.

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:

> *The QCA intends to adopt a single estimate of benchmark debt financing costs of 10.8 basis points per annum for all regulated firms. This is consistent with past practice by the QCA in which the same allowance was provided to all firms regulated by the QCA. The QCA considers that providing a single allowance will ensure sufficient debt-raising costs are provided and avoid complexities with a specific estimate based on benchmark debt balance that will not result in a material difference in the transaction cost allowance.* [185]

DBCTM, the DBCT User Group and its consultant all applied the QCA's revised allowance for debt-raising costs of 0.108 per cent per annum.[186]

QCA draft decision

The QCA's draft decision approved DBCTM's proposed debt-raising transaction costs of 0.108 per cent per annum, as per Section 4.6.3 of our draft decision.

Stakeholders' comments on the draft decision

Both DBCTM and the DBCT User Group accepted the QCA's debt-raising transaction costs of 0.108 per cent per annum.[187]

QCA analysis and final decision

Our final decision is to approve DBCTM's proposal of debt-raising transaction costs of 0.108 per cent per annum. We consider that maintaining debt-raising transaction costs of 10.8 basis points is consistent with the application and weighting of the factors set out in section 138(2), including the pricing principles in section 168A, of the QCA Act, and appropriately balances the various competing interests.

[185] QCA 2014a: 13.
[186] DBCTM, sub. 2: 46; DBCT User Group, sub. 11: 15; DBCT User Group, sub. 13: 17.
[187] DBCTM, sub. 37: 13, DBCT User Group, sub. 41: 23.

Summary 4.5—Debt-raising transaction costs

The QCA approves DBCTM's proposal for a rate of return for the 2015 DAU to include debt-raising transaction costs of 0.108 per cent per annum.

4.6.4 Interest rate swap transaction cost allowances

DBCTM's 2015 DAU proposal

DBCTM proposed to use a 10-year term to maturity to estimate the RFR and debt risk premium and therefore did not propose an interest rate swap cost allowance.[188]

Stakeholders' initial comments

The DBCT User Group and its consultant applied an indicative interest rate swap transaction cost of 0.15 per cent per annum to the estimated cost of debt.[189]

QCA draft decision

The QCA's draft decision required DBCTM to amend its 2015 DAU to set interest rate swap costs at 0.113 per cent per annum.

The full reasoning and analysis of our draft decision for the interest rate swap cost allowance are contained in Section 4.6.4 of our draft decision.

In summary, we considered that:

- Incenta had obtained a market quotation of 0.113 per cent to swap the base interest rate component of a BBB+, 10-year (fixed rate) bond yield into a four-year (fixed rate) yield in the context of our assessment of Aurizon Network's 2014 DAU.[190]
- This market quotation was also an appropriate estimate of the interest rate swap cost allowance for DBCTM for the 2015 DAU.

Stakeholders' comments on the draft decision

DBCTM said:

- The quotation used by the QCA is out of date.
- The base swap should have been from 10-year fixed rates to five-year fixed rates (not four-year), consistent with the proposed term of five years for the regulatory period.
- The base swap should have been for a BBB rated entity—not BBB+.

While acknowledging the QCA uses a benchmark, rather than a firm's actual cost, DBCTM supported its position by obtaining three quotes via Brookfield Treasury on the basis of the above assumptions. DBCTM proposed the average of the quotes, which is 0.159 per cent per annum.

The DBCT User Group accepted the QCA's draft decision of 0.113 per cent per annum.

[188] DBCTM, sub. 2: 46.
[189] DBCT User Group, sub. 13: 17.
[190] Incenta 2014a, *Aurizon Network: Review of benchmark credit rating and cost of debt and response to stakeholder comment*, April: 41.

Consultant's advice

In light of stakeholders' submissions, we engaged a consultant, Jeremy Brasington, to advise us on an updated estimate of the interest rate swap transaction costs for DBCTM.

Brasington obtained quotes for hypothetical swaps as on 4 August 2016, for a benchmark entity with a RAB of $2.40 billion, a benchmark credit rating of BBB and a benchmark capital structure of 60 per cent. Brasington found the cost of swapping 10-year fixed BBB rated debt to five-year fixed BBB rated debt, to be 0.135 per cent per annum.[191]

Brasington noted swap pricing and spreads were fairly stable and there would have been little change from the ideal pricing period of 31 May 2016 (to match the approved averaging period) to the period the pricing was obtained (4 August 2016).[192]

Brasington also noted execution spreads have widened leading into 2016, primarily due to the implementation and flow-through to the global markets of bank regulatory changes.[193]

QCA analysis and final decision

We considered DBCTM's submission in seeking updated advice on the benchmark interest rate swap transaction costs, primarily on the basis that our estimate might require updating. In addition, we note DBCTM had not proposed an interest rate swap transaction cost in its initial proposal. However, we have considered DBCTM's submission of 0.159 per cent on its merits. Proposals to date are summarised in Table 10.

Table 10 Summary of interest rate swap costs proposals

DBCTM's 2015 DAU	*DBCT User Group submission (%)*	*QCA draft decision (%)*	*DBCTM submission on draft (%)*	*DBCT User Group submission on draft (%)*	*Brasington Report (%)*	*QCA final decision (%)*
n/a	0.15	0.113	0.159	0.113	0.135	0.135

Having regard to the proposals submitted, we consider Brasington's proposed value of 0.135 per cent to be appropriate for DBCTM's 2015 DAU. This is because it is the most up-to-date interest rate swap cost allowance available for DBCTM. We note that it is also based on the parameters associated with DBCTM's benchmark.

Our final decision is therefore that the rate of return in the 2015 DAU must include an interest rate swap cost allowance of 0.135 per cent per annum. This allowance takes into account and appropriately balances the various factors under section 138(2) of the QCA Act, as identified earlier in this chapter.

[191] Brasington, J 2016, *DBCT Price Review*, Academie, 4 August: 3.
[192] Brasington, J 2016: 4.
[193] Brasington, J 2016: 3.

Summary 4.6—Interest rate swap transaction cost allowance

The QCA's decision in relation to the interest rate swap transaction cost allowance is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its rate of return in the 2015 DAU so as to include an interest rate swap cost allowance of 0.135 per cent per annum.

4.7 Market risk premium

The MRP is the additional return that an equity investor requires to be compensated for the 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 explained our approach to the estimation of the MRP in Section 4.7 of our draft decision. We also set out a more detailed explanation of our approach to estimation of the MRP in Section 4 and Appendix C of our market parameters decision.[194] We have adopted that analysis for the purposes of this final decision, subject to the comments below.

We have also updated our estimates for the individual methods for the time period ending 31 May 2016 and taken into account additional information (e.g. implied volatility measures), consistent with the framework set out in our market parameters decision.

4.7.1 DBCTM's 2015 DAU proposal

In the 2015 DAU, DBCTM proposed a MRP estimate of 8.0 per cent per annum based on the recommendation of its consultant, Frontier Economics.

DBCTM's proposal is discussed in greater detail in Section 4.7 of our draft decision. In summary, DBCTM:

- agreed with our use of the Ibbotson method
- suggested that we address certain assumptions, limitations or treatment of some of the other estimation approaches used—Siegel, Wright, and Cornell methods, and survey evidence and expert reports
- expressed concern that our approach resulted in historically low required returns on equity capital, and suggested this was implausible in the market conditions that have existed since the onset of the global financial crisis (GFC)
- raised concerns with the lack of transparency in applying our judgement to the determination of the overall MRP estimate of 6.5 per cent per annum from the underlying methods used.

4.7.2 Stakeholders' initial comments

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.

[194] QCA 2014b.

Vale Australia Pty Ltd

Vale generally endorsed the submission of the DBCT User Group. It considered the approach and methodologies used by us in our market parameters decision were relevant for the draft decision, and provided regulatory predictability and consistency to the benefit of all stakeholders.

4.7.3 QCA draft decision

The draft decision refused to approve DBCTM's proposal and proposed that DBCTM amend its 2015 DAU to set the MRP at 6.5 per cent per annum. Our full analysis and reasoning to estimating the MRP are contained in Section 4.7 of the draft decision. Our approach is consistent with the expert advice we received from Lally. We have again adopted that analysis and reasoning for the purposes of this final decision, subject to the comments below.

The draft decision on the MRP was as follows:

> *(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.*

In summary, after taking into account the material provided to us by DBCTM and other stakeholders, the draft decision was that our approach to estimating the MRP is appropriate and, therefore, no issue raised by submissions had caused us to revise the methods and analysis set out in our market parameters decision.

In particular, in response to DBCTM's concerns about the underlying methods used to estimate the MRP:

- We did not agree that the Siegel method should not be used for estimating the MRP.
- We considered 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.
- We did not accept DBCTM's proposed dividend growth model (DGM) approach because it did not allow for mean reversion towards a long-term growth rate for the cost of equity and made no adjustments for the 'dilution effect' due to the creation of new firms.
- We did take the Wright method into account in estimating the MRP.
- We did not agree that the use of survey evidence was irrelevant.
- We did not agree that the term of the RFR used in independent expert reports should be used to determine the cost of equity because our regulatory objectives are unrelated to those of commercial valuers.

In response to DBCTM's concerns about how we arrived at our MRP estimate of 6.5 per cent, our approach examined the methods of Ibbotson, Siegel, Cornell and Wright as well as other sources, such as survey evidence and additional information to reflect current conditions.

Using our judgement, we weighed the estimates obtained from these sources based on their perceived objectivity, reliability and fitness for purpose, for the reasons documented in our market parameters decision.

For the draft decision, we updated our underlying MRP estimates for the market parameters decision for the time period ending 30 October 2015, to confirm that our preferred overall MRP estimate of 6.5 per cent remains appropriate.

4.7.4 Stakeholders' submissions on the draft decision

DBCTM

DBCTM[195] did not agree with the draft decision to set a MRP of 6.5 per cent per annum and requested the QCA reconsider that decision based on the arguments DBCTM had previously raised in its submission of 9 October 2015 supporting its 2015 DAU.

DBCTM contended that it would be preferable for the QCA to base its determination of the MRP on the estimate obtained from the Cornell/DGM method rather than on estimates obtained from the four methods it currently uses.

DBCTM's view is that the QCA approach uses certain methods that produce time-invariant MRP estimates which have implausible implications. In particular, the Ibbotson-based estimates of the required return on equity fell sharply both during and following the peak of the GFC, whereas the reverse is true for the Cornell/DGM-based estimates[196]—which DBCTM considers are more representative of the market. In addition, among other things, the cost of equity has declined by more than 20 per cent to historical lows since the QCA's market parameters decision, while debt risk premiums have increased by over 30 per cent.

DBCT User Group

The DBCT User Group[197] accepted the MRP estimate of 6.5 per cent per annum in accordance with the methodology set out in the draft decision.

Although the DBCT User Group considered there was a reasonable basis for a MRP of 6.0 per cent per annum, it accepted that it was not simply a case of averaging the estimates of the various methods used to determine the overall MRP. Moreover, in the absence of any new evidence, which would justify a departure from the QCA's methodology, the DBCT User Group considered that the QCA's approach was reasonable.

Aurizon Network

Aurizon Network did not agree with the draft decision on the MRP for the following reasons:[198]

- The QCA's approach combines historical long-term average estimates of the MRP with the prevailing RFR. This approach implies a nearly one-to-one relationship between the cost of equity and the RFR. It also implies that investors demand lower returns when the economy is less stable and returns are more uncertain. There is no theoretical support for this approach.
- The QCA has not provided sufficient detail about how it used its judgement, including the weights applied, to arrive at its final value for the MRP from the updated range of estimates

[195] DBCTM, sub. 37, section 4.7: 15–17.
[196] DBCTM, sub. 37, section 4.7.2, Figure 3: 16.
[197] DBCTUG, sub. 41, section 6.7: 23.
[198] Aurizon Network, sub. 33: 3–6.

of the several different methods used in its approach. It is not sufficient for the QCA to list the evidence considered and then select a point estimate based on its judgement. Good regulatory practice requires some explanation about how the QCA's judgement was applied, including explanation of the relative weights applied to each piece of the evidence. Only in this way will stakeholders have the opportunity to understand and respond to the QCA's decision rationale.

- The QCA erred in the draft decision for maintaining a MRP range of 5.0 to 7.5 per cent. The QCA's updated estimates for the period ending 30 October 2015 gave a low estimate (Siegel) of 5.4 per cent and a high estimate (Cornell) of 8.2 per cent, suggesting the range has shifted upwards, and the MRP estimate has increased.

4.7.5 QCA analysis and final decision

We have considered the concerns raised in stakeholders' submissions on the draft decision.

As we discussed in the draft decision, the MRP is not directly observable, and there is no single analytical methodology capable of determining the 'right' estimate for the MRP. Recourse to our regulatory judgement is therefore necessary to determine what we consider is an appropriate outcome consistent with the requirements of the QCA Act.

In our view, it is necessary to assess the strengths and weaknesses of available techniques for estimating the MRP, as well as examine other relevant information, to determine an overall value for the MRP.

Our determination of an overall MRP estimate included an examination of the methods of Ibbotson, Siegel, Cornell and survey evidence as well as other sources such as the Wright method, and additional information to reflect current conditions—for example, volatility measures, corporate debt premiums, and liquidity premiums on government bonds. We also took into account the relationship between the RFR and the MRP. To confirm that our estimate of 6.5 per cent from the draft decision remains appropriate, we updated estimates from our primary methods as at the averaging period of May 2016:[199]

- Ibbotson estimates range from 5.7 per cent 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 4.0 per cent to 6.3 per cent, with an estimate of 5.5 per cent for the period 1958–2015.
- Survey evidence supports an estimate of 6.0 per cent (excluding imputation credits), and 6.8 per cent (including imputation credits).
- Cornell dividend growth estimates range from 6.0 per cent to 8.0 per cent, with a median estimate of 7.0 per cent.

[199] The estimate for the Wright method increased from 8.9% to 9.2% from October 2015 to May 2016 for the preferred sample period, 1958–2015. However, as discussed in our market parameters decision, this method is afforded very low weight.

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.[200]

The arguments against our approach raised in stakeholders' submissions on the draft decision have not persuaded us to depart from the approach set out in the market parameters decision.

We do not agree that it would be preferable to base the overall MRP value solely on the estimate obtained from the Cornell/DGM method because (in DBCTM's view) this method is more representative of the way the market operates. For the reasons outlined in our market parameters decision, we consider DGM methods to be worthy of consideration because of their forward-looking nature, but relatively unreliable due to their sensitivity to underlying assumptions and inputs. In this respect, we note that the DGM estimates have declined significantly in May 2016 from their level in October 2015 (from a level of 7.3%–9.0%, with a median of 8.2%, to a level of 6.0%–8.0%, with a median of 7.0%).[201] We therefore consider that relatively less emphasis should be placed on DGM methods than on methods that rely on historical data (such as Siegel and Ibbotson) because of the objectivity and reliability of these latter approaches.

We do not support suggestions that the use of historical-based methods as part of our methodology necessarily implies a number of implausible outcomes—particularly with regard to the relationship among the MRP, RFR and the expected return on equity.[202]

The relationship among the MRP, RFR and the expected return on equity was explored in our market parameters decision where we concluded that there is evidence the MRP is more stable over time than the return on equity. We also found evidential support for a changing relationship over time between the RFR and MRP (i.e. a positive relationship in some periods, but a negative relationship in others). Therefore, the relationship between the RFR and the MRP (and therefore the expected return on equity) was not sufficiently well-founded to form the basis for an ad hoc regulatory adjustment to the MRP.[203]

Moreover, the suggestion that it is implausible for the cost of equity to have decreased during and since the onset of the GFC, and during other periods of financial instability, implies that the MRP must have risen by at least as much as the RFR has fallen during these times. However, no proof has been offered by stakeholders for this contention, and it is doubtful that it can be conclusively proven in any case.

[200] Our assessment of these methods for the final decision included, among other things, the guidance provided by applying a variety of weights to the estimates obtained from these various methods, consistent with our judgement of their relative importance. The weighted median obtained from this approach varied little with the weighting schema used. For example, weights of 30% (Siegel): 10% (surveys): 30% (Ibbotson): 20% (Cornell): 10% (Wright) gave a weighted median of 6.4%; weights of 30%:15%:35%:15%:5% corresponding to this sequence of methods gave a weighted median of 6.4%. Although slightly below the estimate of 6.5% adopted in the draft decision, the difference was not sufficient for us to change the estimate given our assessment of other information relevant to current market circumstances. To shift the weighted median to the Cornell value of 7.0% would require the application of unacceptably low weights to the historical methods that we consider more fit for purpose here.

[201] This is principally due to a marked reduction in cash dividends over the May 2016 averaging period relative to the October 2015 averaging period.

[202] See DBCTM, sub. 37: 16–17; Aurizon Network, sub. 34: 3–4.

[203] QCA 2014b, Appendix C: 78–81.

As mentioned above, although historical-based methods may not be sensitive to short-term changes in the MRP (and therefore may not reflect the current 'true' MRP), they are nevertheless better estimators of the long-term average MRP, the latter of which is the preferred measure for our purposes.

As pointed out by Lally, even though placing significant weight on the Ibbotson and Siegel estimators may imply that the MRP estimate may not react quickly to changes in the 'true' MRP, this approach is nevertheless desirable because:

- In a statistical context, the 'best' estimate of the MRP at the present time is usually understood to mean an estimate that minimises mean squared error (MSE), and this is more likely to occur by placing significant weight on the Ibbotson and Siegel estimators.
- It is important for a regulator to provide appropriate compensation over the life of the regulated assets, and therefore it is important to obtain a good estimate of the long-run average MRP rather than that prevailing at the current time. Consequently, even if use of the Ibbotson and Siegel approaches tends to underestimate the MRP at the present time, they are likely to contribute to better estimates of the long-run average MRP.[204]

We emphasise that our methodology is not founded solely on historical-based methods but also has regard to forward-looking methods such as the DGM approach, surveys, and general market conditions. Moreover, investors' current expectations are likely to be informed by history. In this way, historical measures could be seen as informing estimates of the forward-looking MRP.

Exercising our judgement to assess the relative advantages and disadvantages of various methods and additional information to determine an overall value for the MRP is entirely consistent with our having regard to the relevant factors set out in the QCA Act for assessing DBCTM's 2015 DAU, thereby achieving an appropriate balance between the competing interests of stakeholders. The QCA Act contains no requirements for the QCA to adopt a particular methodology for determining a value for the MRP; nevertheless, substantial detail has been made available in the interests of informing stakeholders on the approach used by the QCA.

4.7.6 Conclusion

Taking into account the material provided to us by stakeholders in response to the draft decision, our analysis and reasoning remain unchanged from that set out in the draft decision and, therefore, we consider that our position in the draft decision remains appropriate.

Our final decision is to refuse to approve the market risk premium of 8.0 per cent per annum proposed by DBCTM in its 2015 DAU.

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

[204] Lally 2015b.

Summary 4.7—Market risk premium

The QCA's decision in relation to the MRP is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so as to apply a MRP of 6.5 per cent per annum.

4.8 Beta

The asset beta (or unlevered equity 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.[205] The levered 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 our draft decision on DBCTM's 2015 DAU, we used the Conine de-levering/re-levering formula to convert equity betas to asset betas and vice versa. The Conine formula requires a value for the debt beta.

4.8.1 Debt beta

We explained our approach to estimating the debt beta in Section 4.8.1 of our draft decision. We have adopted that analysis for the purposes of this final decision, subject to the comments below.

PwC, on behalf of the DBCT User Group, used a debt beta of 0.12 to calculate the equity beta for DBCT[206], while DBCTM did not propose a specific debt beta (or an asset beta) value.

Our draft decision was to refuse to approve DBCTM's proposed debt beta (or absence thereof) and require DBCTM to amend its 2015 DAU to set a debt beta of 0.12 (see draft decision 4.9).

Submissions

DBCTM said it had no comment on the QCA's proposed debt beta.[207] The DBCT User Group said it continued to support a debt beta of 0.12, consistent with its initial submissions, the report provided by PwC, the QCA's decisions in respect of the Aurizon Network, and the QCA's established methodology.[208]

Final decision

After considering stakeholders' comments on our draft decision, our final decision is to refuse to approve DBCTM's proposed debt beta (or absence thereof) and require DBCTM to amend its 2015 DAU to set a debt beta of 0.12.

[205] 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.
[206] DBCT User Group, sub. 13: 16.
[207] DBCTM, sub. 37: 17.
[208] DBCT User Group, sub. 41: 23.

Summary 4.8—Debt beta

The QCA's decision in relation to debt beta is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its rate of return for the 2015 DAU so as to include a debt beta of 0.12.

4.8.2 Equity beta

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.[209] 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 2015 DAU proposal

In its 2015 DAU, DBCTM proposed the equity beta for the 2015 DAU should be at least 1.0.[210] DBCTM's equity beta proposal is discussed in greater detail in Section 4.8.2 of our draft decision. DBCTM presented analysis from its consultant, Frontier, to support its position.

The 2015 DAU context

DBCTM and Frontier contended that several key changes have increased the systematic risk profile of DBCTM, namely:

- change in the industry environment—the fall in benchmark coal prices and inherent volatility in the industry
- change in the competitive environment—the threat of increased competition for DBCT's services, reducing its market power
- credit rating changes—the deteriorating credit quality of DBCT's major customers, and credit rating downgrades for Peabody Energy (which represents 25% of DBCT's throughput) and DBCT Finance Pty Ltd
- term of take-or-pay contracts—DBCTM considered it faces higher systematic risk than in previous undertaking periods, and higher risk than commercial ports on the basis of its current contractual situation.

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 greater than for previous AUs, indicating an equity beta higher than 1.0.[211]

First principles analysis

Frontier said its first principles analysis indicated energy and water businesses are not appropriate comparators for DBCT.[212] DBCTM said the Frontier report highlighted important differences between DBCTM and energy network businesses, leading DBCTM to contend that

[209] 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.
[210] DBCTM, sub. 2: 41.
[211] DBCTM, sub. 5: 19.
[212] DBCTM, sub. 5: 19.

energy network businesses 'are of no relevance whatsoever' in calculating the beta of a coal export terminal.[213] DBCTM said this is because energy network businesses, relative to DBCT, have:

- a lower income elasticity of demand due to the essential nature of energy services
- a different customer base (large numbers of smaller customers compared with a small number of large customers)
- a regulatory framework that immunises against customer default
- greater market power.

Empirical analysis

Frontier's report states 'finding an appropriate set of comparators for DBCT has proved a difficult task', and concludes that commercial ports are the best available set of comparators.[214] Frontier's equity beta values for DBCTM's proposed comparators were:

- Asciano: 2.92 (60% gearing)
- Port of Tauranga: 1.24 (60% gearing)
- Sample of 16 ports (including Asciano): 1.08 (29% gearing).[215]

Consequently, DBCTM said the Frontier analysis supports an equity beta of no less than 1.0, but it was willing to roll forward its existing equity beta of 1.0 to provide some level of certainty to customers.[216]

Finally, DBCTM said it committed to the major expansions of the Terminal 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'.[217]

Stakeholders' initial comments

DBCT User Group

The DBCT User Group proposed an asset beta of 0.43 and equity beta of 0.81 at 60 per cent gearing[218], based on the analysis of its consultant, PwC.

The 2015 DAU context

The DBCT User Group disagreed that DBCTM's risk profile has increased[219], 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[220]

[213] DBCTM, sub. 2: 39.
[214] DBCTM, sub. 5: 20.
[215] DBCTM, sub. 2: 40.
[216] DBCTM, sub. 2: 41.
[217] DBCTM, sub. 2: 40.
[218] PwC said it used a 30% corporate tax rate, 0.47 gamma and 0.12 debt beta. With these parameters, we calculated an equity beta of 0.82.
[219] DBCT User Group, sub. 11: 10.

- increased competition from existing and potential new coal terminals at the ports of Abbot Point and Gladstone[221]—the DBCT User Group considered that several constraints limit the incentive or ability for DBCT's users to switch terminals.

PwC said the systematic risk of DBCTM is low relative to the overall market, as evidenced by:

- DBCTM's revenue having remained stable over the period from March 2012 to June 2015, while the world coal price declined and volumes varied considerably[222]
- the sales price multiples of earnings before interest, taxes, depreciation and amortisation (EBITDA) of four port transactions over the period 2010 to 2015, which led PwC to conclude the 'market is not factoring 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.[223]

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

Empirical analysis

PwC conducted empirical analysis and calculated an asset beta of 0.43, which it converted to an equity beta of 0.81 for DBCT. The DBCT User Group adopted these beta values.

The DBCT User Group said the equity beta calculated by PwC would need to be revised if the QCA were inclined to approve any of DBCTM's proposed changes[224] to the:

- calculation of the remaining useful life (RUL) for DBCT[225]
- term of access agreements[226]
- Notional Contracted Tonnages (NCT) definition.

Vale

Vale submitted that the asset beta for DBCTM should be 0.35, with a resulting equity beta in the range of 0.7 to 0.8.[227] Vale also 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 value (i.e. from 0.47 to 0.25)
- increasing the working capital allowance
- depreciating spares

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[220] DBCT User Group, sub. 11: 10.
[221] DBCT User Group, sub. 11: 10.
[222] DBCT User Group, sub. 13: 13.
[223] DBCT User Group, sub. 13: 15.
[224] DBCT User Group, sub. 11: 19, 38, 39.
[225] DBCT User Group, sub. 11: 19; Vale, sub. 10: 8.
[226] DBCT User Group, sub. 11: 38; Vale, sub. 10: 8.
[227] Vale, sub. 10: 8.

- removing prudency caps for NECAP expenditure
- applying an updated and increased corporate overhead benchmark allowance.[228]

Supplementary submissions

The DBCT User Group provided a supplementary submission which said that users have strong incentives to renew their contracts, including because:

- 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).[229]
- 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).[230]
- 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.[231]

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 the strength of demand relative to the capacity of the Terminal. In circumstances of softening demand in global coal markets, DBCTM considered users of the Terminal are less willing to bear the ongoing obligations of take-or-pay capacity and will instead access available capacity on an ad hoc basis.[232]

Incenta's advice

We engaged Incenta to provide independent, expert advice on an appropriate value for an asset/equity beta for DBCTM and to inform our assessment of DBCTM's beta proposal. Incenta's previous advice to us is discussed in detail in Section 4.8.2 of our draft decision.

The 2015 DAU context

With regard to the current environment and its implications for DBCTM's risk profile, Incenta found that:

- The majority of Australian metallurgical coal production lies at the lower end of the international cost curve[233]—and therefore is highly competitive.

[228] Vale, sub. 10: 8.
[229] DBCT User Group, sub. 29: 4.
[230] DBCT User Group, sub. 29: 4.
[231] DBCT User Group, sub. 29: 3–4.
[232] DBCTM, sub. 30: 5, 7.
[233] Incenta 2016a: 22.

- A number of factors are contributing to DBCTM's strong monopoly position over the course of the next regulatory period[234], including DBCT being the lowest-cost coal terminal in the most efficient coal export industry in the world.[235]
- DBCTM's systematic risk would not be higher due to adverse credit rating changes, because the underlying economic fundamentals of the metallurgical coal industry in the Goonyella system are sound.
- The expiry of a large percentage of DBCTM's take-or-pay contracts over the course of the regulatory period did not increase its systematic risk because:
  - User default would not necessarily trigger subsequent defaults due to the higher price of socialisation, because the economic fundamentals of DBCT's Bowen Basin catchment remain positive over the upcoming regulatory period and the long term.[236]
  - DBCTM's future revenue stream is secure and the market's expectation of returns is what matters when determining beta.[237]

First principles analysis

Incenta undertook a first principles analysis of DBCTM's systematic risk profile to determine appropriate comparator businesses. Incenta's first principles analysis found:

- There is no relationship between DBCTM's contracted capacity and coal shipments and Australian income levels, because the growth in the seaborne metallurgical coal trade is being driven by industrialisation and urbanisation in Asia.[238] By contrast, the demand for container ports' services is linked to the Australian economic cycle.
- With regard to the nature of the customer, Incenta considered the fundamental principle was not the number of customers per se, but whether there is demand sensitivity to changes in market returns or real GDP.[239] 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.
- From a systematic risk perspective, DBCTM's revenue cap regulatory framework makes its asset beta fundamentally the same as regulated energy and water businesses.[240] DBCTM's regulatory framework with a revenue cap results in a smooth revenue stream—unlike container ports.
- DBCTM has take-or-pay contracts and a cost-based regulatory framework, while container ports have unregulated prices and considerable cyclical volume risk.
- DBCTM's monopoly position relative to shippers remains strong.

[234] Incenta 2016a: 26.
[235] Incenta 2016a: 4.
[236] Incenta 2016a: 29.
[237] Incenta 2016a: 4, 28.
[238] Incenta 2016a: 30.
[239] Incenta 2016a: 30.
[240] Incenta 2016a: 33.

In summary, Incenta's first principles analysis suggested DBCTM's asset beta should be similar to the asset beta of regulated energy and water businesses[241]—and therefore relatively low.

Empirical analysis

Incenta conducted empirical analysis, calculating median and average asset betas for a number of industries as potential comparators for DBCT: coal mining, rail, container ports, toll roads, regulated energy, and regulated water. However, given its first principles analysis, Incenta recommended an asset beta of 0.40 for DBCT based on the asset betas of regulated energy and water firms, which converts to an equity beta of 0.76 (using the Conine formula with a benchmark gearing level of 60%, a debt beta of 0.12 and a gamma of 0.47).

QCA draft decision

The QCA's draft decision required DBCTM to amend its 2015 DAU to adopt a value for the equity beta of 0.87, on the basis of 60 per cent benchmark gearing.

The full reasoning and analysis of our draft decision for beta are contained in Section 4.8.2 of our draft decision. We have adopted that reasoning and analysis for the purposes of this final decision, subject to the comments below.

In summary, we agreed with the following aspects of Incenta's analysis:

- Its analysis of the 2015 DAU context and the level of systematic risk faced by DBCTM is persuasive.
- Its first principles and comparator analysis is appropriate, as it 'looks through' the physical characteristics of the operations to the economic fundamentals.
- An asset beta of 0.40 is the best empirical value available.

However, we recognised a reduction of the asset beta from 0.50 to 0.40 would represent a significant change, and we therefore exercised our judgement in applying an asset beta of 0.45 to DBCTM, justified by the following reasons:

- 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.
- A value of 0.45 is the same as the asset beta value proposed for Aurizon Network—which is subject to similar regulation by the same regulator, and operates in the same coal chain, as DBCTM.
- Calculating betas with a high degree of precision is inherently difficult, so some caution should be shown in making significant changes to previous values.

As a consequence, we proposed an asset beta of 0.45 for DBCTM's 2015 DAU and an equity beta of 0.87 (applying the Conine levering formula with 60 per cent leverage, a debt beta of 0.12, and a gamma of 0.47).

Stakeholders' comments on the draft decision

The DBCT User Group

The DBCT User Group and its consultant, PwC, generally supported Incenta's analysis and conclusions on values for the asset and equity beta.[242] However, they did not support the QCA's

[241] Incenta 2016a: 29.

decision to set an asset beta that is uplifted from the value recommended by Incenta. The DBCT User Group proposed that the asset beta be either the 0.40 value recommended by Incenta or the 0.43 value proposed by PwC (or an estimate in between).[243] In particular, the DBCT User Group (and PwC) said:

- It agreed with Incenta that energy and water utilities are an appropriate benchmark for DBCTM. However, PwC provided asset betas from recent regulatory decisions for water and energy entities to demonstrate that relevant precedents show the QCA's uplifted asset beta of 0.45 is out of step with regulatory practice.[244]
- It considered the QCA gave insufficient weight to Incenta's findings[245] in its reasoning as to how it reached a draft value of 0.45:
  - The quantum of movement in one parameter alone should not be a driving consideration; it is the overall impact on the TIC that is important.[246] The size of the change should not be seen as a negative thing where there has been actual change in DBCTM's risk profile. The latter is particularly the case in the context of an unrealistically high beta that reflected the risks of a major expansion, which the QCA considers is no longer a major issue.[247]
  - It is not consistent with the pricing principles in the QCA Act for the QCA to typically increase the beta from the best point estimate available to account for uncertainty in a calculation, as it would lead to DBCTM earning above an efficient return.[248]
  - DBCTM's risk profile is not perfectly commensurate with that of Aurizon Network because:[249]
    - The Terminal has lower asset stranding risk than Aurizon's network—all Terminal users use the same services at a single point, as opposed to some rail lines being used by only some of Aurizon Network's customers.
    - The Terminal handles a larger proportion of metallurgical coal (for which there is no known substitute) versus thermal coal, than Aurizon Network's rail network.
    - DBCTM's risk profile is lower than that of rail infrastructure companies, consistent with Incenta's analysis.
- Users have incentives to renew their contracts at DBCT—there is no evident basis for suggesting the prospects of non-renewal have materially increased.[250]
- Other parts of the QCA's draft decision propose to lower DBCTM's risk profile and should have translated to a reduction in the asset beta, for example:[251]

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[242] DBCT User Group, sub. 41: 23; sub. 42: 13.
[243] DBCT User Group, sub. 41: 23.
[244] DBCT User Group, sub. 41: 25.
[245] DBCT User Group, sub. 41: 25.
[246] DBCT User Group, sub. 42: 14.
[247] DBCT User Group, sub. 41: 25.
[248] DBCT User Group, sub. 41: 26.
[249] DBCT User Group, sub. 41: 26.
[250] DBCT User Group, sub. 41: 26.
[251] DBCT User Group, sub. 41: 27.

- increasing the remediation allowance from the 2010 AU when there has been no change in DBCTM's remediation obligations
- amendments to the definition of NCT, which would result in early socialisation of a user default
- depreciation of spares.

The DBCT User Group said these changes represent a shift in DBCT's systematic risk profile and considered these incremental reductions were, in aggregate, of sufficient materiality to warrant a change in beta, which was not reflected in the QCA's draft decision.[252]

Aurizon Network

Aurizon Network raised two issues which it said affect beta:

- DBCT customers' contract profiles with Aurizon Network are not as long as claimed by Incenta—Aurizon Network said the weighted average (by volume) remaining contract duration with DBCT as final destination is 5.3 years as at 1 July 2016, compared to the 10 to 15 years stated by Incenta. Aurizon Network has observed a general trend in customers requesting shorter term access contracts (less than five years). For example, one Aurizon Network customer extended its below-rail access rights by three years to align its contract with DBCT. Aurizon Network said this trend highlighted the demand uncertainty for Queensland coal resources.[253]
- The long-term demand for Queensland coal is not fully assured—forecast demand may not be realised. The risk of uncertain coal demand is not the complete deterioration of, but a significant reduction in, demand, causing uneconomical prices under revenue cap regulation and ultimately causing a 'death spiral', compounded by similar effects for above-rail and ports services. Recent market activity demonstrates uncertainty in demand (contract non-renewal, capacity not taken up by the queue, Anglo American and Rio Tinto selling coal mines while others scale back production). Investors provide capital to infrastructure based on long-term expectations of returns.[254]

DBCTM

DBCTM said the current equity beta of 1.0 should be maintained for three main reasons:

(1) DBCTM disagreed with the QCA's interpretation of the history of equity beta determination for DBCTM, specifically:

  (a) DBCTM interpreted the 2005 QCA decision as meaning that so long as DBCTM expanded the Terminal and stood ready to undertake any subsequent expansions at the regulated WACC, the QCA would continue to set the WACC on the basis outlined in the 2005 decision.[255]

  (b) In its decision on the 2010 AU, the QCA did not foreshadow a return to a basis other than that approved for the 2005 and 2010 decisions.[256] This was despite the

[252] DBCT User Group, sub. 41: 27.
[253] Aurizon Network, sub. 33: 1–2.
[254] Aurizon Network, sub. 33: 3.
[255] DBCTM, sub. 37: 18.
[256] DBCTM, sub. 37: 20.

fact that, at that time, the expansions contemplated in the 2005 decision were fully commissioned and in service.

(c) Given these considerations, DBCTM considered that the QCA's draft position on the equity beta poses a significant regulatory risk because the position represents a material departure from the current approach. DBCTM said the QCA's draft decision would be perceived as increasing regulatory risk, which would be against DBCTM's legitimate business interest and the public interest (ss. 138(2)(c) and (d)).[257]

(2) DBCTM reiterated that it now faces greater commercial risks than it did in previous regulatory periods:

(a) Increased downside revenue risk—while the draft decision allows DBCTM to socialise revenue shortfalls, the effectiveness of this arrangement is limited. Socialisation of revenue shortfalls can fail in the event of a major downturn in the coal market, leading to a significant share of DBCT users not renewing their contracts or defaulting through bankruptcy, causing a danger of escalating access charges that threatens the viability of remaining customers. DBCTM gave the following as evidence:[258]

(i) Falling coal prices have adversely affected DBCTM's customers' profitability.

(ii) DBCTM is not confident access agreements will be renewed in full when expiring, or that capacity relinquished will be taken up by another user.

(iii) Peabody's filing for Chapter 11 bankruptcy protection in the United States increases the risk attached to DBCTM's prospects of recovering access charges from Peabody's entities contracting with DBCTM, which could lead to an increased TIC for remaining customers and in turn threaten their viability.

(b) Increased competition with other ports—Goonyella mines have already contracted capacity at APCT, meaning DBCTM's services are subject to potential competition. For example, three members of the DBCT User Group have entered into contracts with APCT since 2011, and these contracts jointly account for capacity of up to 25 per cent of DBCT's total contracted capacity.[259] DBCTM also said future competition would be based on expansion infrastructure and DBCT's low-cost status was only relevant when there is spare capacity at the existing Terminal.[260]

(c) Recent behaviour of credit ratings agencies and financiers:[261]

(i) DBCTM's customers' and DBCT Finance Pty Ltd's credit ratings have been downgraded by ratings agencies.

[257] In particular, the QCA should only change its approach if the change is a rational response to a change in circumstances and a response that investors could have anticipated (DBCTM, sub. 37: 18).
[258] DBCTM, sub. 37: 21–22.
[259] DBCTM, sub. 37:22.
[260] DBCTM, sub. 37: 3.
[261] DBCTM, sub. 37: 22–23.

(ii) DBCTM's latest attempt to refinance debt was met by subdued interest by financiers, in stark contrast with its previous refinance in 2011 and 2012, when its offers were oversubscribed.

(iii) It would be incongruous for debtholders to perceive increased risk and for equity holders to perceive reduced risk, as is implied by the QCA's draft decision.

(3) DBCTM said there are material differences in how the regulatory regime applies to DBCTM and Aurizon Network:[262]

(a) Aurizon Network is vertically integrated and has opportunities to exercise market power by favouring its unregulated related-party user, which ring-fencing commitments are ineffective in dealing with—DBCTM is not vertically integrated.

(b) Aurizon Network can request different access conditions from users to invest in significant expansions, as it did for GAPE and WIRP—the PSA prevents DBCTM from doing so, providing, at best, only very limited opportunities for DBCTM to invest at rates of return on equity higher than its regulated rate.

Further submissions

In response to the QCA's staff question on whether the competitive drivers relating to expansion tonnage are likely to differ from those relating to existing tonnage, DBCTM said:[263]

- It provided evidence to date that there is now actual competition to DBCT:
  - GAPE has made APCT accessible for customers in the DBCT catchment area since the 2010 AU.
  - Several DBCT users have contracts at APCT for their Goonyella-based mines.
- The extent to which competing ports will be able to match terms offered by DBCTM in the future will depend on expansion costs and expansion-pricing practices, not on current costs and pricing practices—and DBCTM sees limited value in stakeholders' speculations about future costs.
- DBCT would now be unlikely to pass the 'uneconomical to duplicate' access-declaration criterion from section 76(2) of the QCA Act, because the APCT-GAPE combination effectively represents a duplicate facility for the coal-handling services provided via the DBCT-Goonyella combination.

The DBCT User Group said:[264]

- There is currently surplus capacity at DBCT, for which APCT is clearly not competitive—that is the most relevant data for assessing the extent of competition in the current regulatory period.
- To the extent there ceases to be surplus capacity available at DBCT (such that an expansion would be necessary):

[262] DBCTM, sub. 37: 24–25.
[263] DBCTM, sub. 44: 11–12.
[264] DBCT User Group, sub. 46: 11–12.

  - There is currently no surplus capacity at APCT. Therefore, any analysis of whether competition exists for expansion tonnage should compare the cost of an APCT expansion (expected to be a new, high-cost, stand-alone terminal) to a DBCT expansion.
  - APCT remains uncompetitive for reasons mentioned in previous submissions, such as multi-cargo blending requirements unavailable at other terminals, insufficient below-rail capacity, long-term take-or-pay agreements etc.
- In contrast to DBCTM's claim, the contracting of APCT capacity is not evidence of competition between DBCT and APCT because:
  - DBCTM had indicated to users it was not willing to expand DBCT.
  - The ability to use any terminal was dependent on the ability to obtain below-rail access. However, at the time of seeking access, one or more of the following conditions prevailed:
    - There was a lack of spare below-rail capacity to DBCT.
    - Aurizon Network wanted to invest in GAPE.
    - There was no Standard User Funding Agreement (SUFA) in place for Aurizon Network, for users to fund a different rail access solution to DBCT.
  - The aggregate demand was of such size that it could justify the development of a substantial expansion of APCT—this appears less likely for this regulatory period.
- DBCTM highlighted its cost competitiveness in its proposed Terminal Master Plan.

In a subsequent submission on other matters, DBCTM provided further commentary on commercial uncertainty, particularly with respect to the prospect of contract non-renewals:[265]

- Peabody's five-year business plan will see it wind down its Bowen Basin metallurgical coal production from 15 mtpa in 2016 to 7 mtpa by 2021.
- RTCA has indicated it is unlikely to use its 11 mtpa take-or-pay rail/port contracts to GAPE/APCT. DBCTM said RTCA could offload the capacity to other users at lower prices to minimise its financial exposure to ongoing liabilities. DBCTM said if the costs of the capacity on the secondary market are lower than the costs of contracting/renewing at DBCT, DBCTM faced increased demand risk.

In a supplementary submission, the DBCT User Group responded that:[266]

- Peabody's forecast reduction in coal sales was a consequence of its intention to divest, sell or suspend non-strategic assets and was clearly not reflective of the likely tonnage produced by any mining operation that is sold or divested. Rather, it is the economic viability of the mine that is relevant. A DBCT user suspending a mine would have reason to keep the capacity on foot, in order to sell the mine with infrastructure capacity in place.
- The announcement by RTCA of the onerous contract provisions in its contracts relating to APCT and GAPE does not represent a new form of competition for the Terminal. The DBCT User Group said it is widely known there has been excess capacity in the GAPE system for a

[265] DBCTM, sub. 45: 4–5.
[266] DBCT User Group, sub. 47: 2–3.

number of years and that capacity has not posed a threat to DBCTM to date, because of the issues mentioned in previous submissions, such as:

  - physical infrastructure constraints
  - blending requirements
  - existing long-term, take-or-pay commitments the other users have.

- DBCTM is completely immune to capacity not being contracted, due to the revenue cap form of regulation and socialisation across the remaining users of the Terminal. As such, the DBCT User Group did not consider available uncontracted tonnage had a meaningful impact on DBCTM's risk profile over the regulatory period.
- While DBCTM is insulated from risks from capacity not being contracted, irrespective of spot coal prices, the DBCT User Group noted a sustained rise in the price of metallurgical coal in the period in which the 2015 DAU has been under QCA consideration.

QCA analysis and final decision

We have considered stakeholders' submissions on our draft decision, and the associated beta proposals (Table 11 summarises the beta proposals). None of the arguments presented have persuaded us that the asset and equity betas we proposed in our draft decision are incorrect or inappropriate.

Table 11 Beta values proposed for DBCT, at 60 per cent gearing

	DBCTM 2015 DAU	*DBCT User Group submission*	*Vale*	*Incenta report*	*QCA draft decision*	*DBCTM submission*	*DBCT User Group submission*	*QCA final decision*
Asset beta	n/a	0.43	0.35	0.40	0.45	n/a	0.40–0.43	0.45
Equity beta	1.0	0.81	0.7–0.8	0.76	0.87	1.0	0.76–0.81	0.87

Our final decision is to set an asset beta for DBCTM of 0.45, which converts to an equity beta of 0.87 at 60 per cent gearing (and using a debt beta of 0.12 and gamma of 0.47). In reaching this decision, we have accepted Incenta's best empirical value of 0.40 for the asset beta, based on a comprehensive first principles assessment and associated empirical analysis, and then applied our judgement based on a number of other relevant factors. Our reasons for maintaining our draft decision asset and equity beta values are set out in the remainder of this section.

Key considerations

We have reviewed and carefully considered all of the material before us, from stakeholders and from Incenta, on the issue of appropriate values for the asset and equity betas. Stakeholders have not challenged Incenta's empirical analysis or its results.

However, there are clear fundamental differences of opinion between DBCTM and the DBCT User Group on how the QCA should exercise its judgement to determine beta values: DBCTM proposes the QCA exercise its discretion and maintain the uplifted equity beta of 1.0 set in 2005, while the DBCT User Group proposes the QCA set the asset beta at 0.40, in accordance with Incenta's recommendation. The following sections address the various points raised by stakeholders in their submissions and our consideration of them:

- Interpretation of past QCA decisions
- Increased downside risk
- Comparison between DBCTM and Aurizon Network

- Other aspects of the decision and potential implications for beta
- QCA's regulatory judgement.

Interpretation of past QCA decisions

DBCTM has proposed its own interpretation of the following paragraph from our 2005 decision:

> *For the purpose of assessing financing costs for the opening asset value and the expansion costs to 60 mtpa, the Authority has used a WACC of 8.54%. For the purpose of assessing reference tariffs into the future, the Authority has used a WACC of 9.02%. In doing so, the Authority believes that this WACC provides DBCT Management with an adequate incentive to expand the terminal, particularly as it gives DBCT Management the return it sought for taking on the greater risks associated with any major expansion of DBCT. However, in the event that the terminal is not substantively expanded, the Authority will reassess the equity beta at the next regulatory review.*[267]

DBCTM said it interpreted the QCA's 2005 decision as indicating the QCA would continue to set the WACC on the basis outlined in the 2005 decision, so long as DBCTM expanded the Terminal and stood ready to undertake any subsequent expansions at the regulated WACC.[268] Moreover, DBCTM noted that it has undertaken those subsequent expansions.

We have considered DBCTM's interpretation of the above paragraph, but we do not accept that the interpretation adopted by DBCTM is correct or appropriate. The passage from the 2005 decision should not be read to mean that after 2005 the question of the appropriate rate of return (including the value of the equity beta) would never again be revisited—this would be highly irregular and would amount to an impermissible attempt by us to fetter our future decision-making.

The 2005 decision is simply stating that a higher rate of return had been allowed for the first regulatory period than would have been justified based on the existing capacity and risk profile, to reflect the risks associated with the expansion beyond 60 mtpa, which was expected to be undertaken during that period. This higher rate of return (including the equity beta) would be revisited at the next reset, in any event, which would (without limitation) provide an opportunity for the QCA to assess whether such a higher return associated with the expanded Terminal continued to be justified. The 2005 decision was making clear that if the expansion did not go ahead as planned, the uplift associated with the expansion risk would not automatically extend beyond one regulatory period—given that all of the variables were reassessed each time. This decision was not indicating that, if the expansion did go ahead, the question of the appropriate rate of return (including the value of the equity beta) would never again be revisited.

While we acknowledge DBCTM did expand the Terminal after it was provided the uplifted equity beta in the 2006 AU, we consider the uplift has served its purpose, which was to stimulate investment, and is no longer justified. DBCTM by its own admission is not expecting to expand the Terminal during the regulatory period. We took this factor into account when setting the asset beta in our draft decision on the 2015 DAU.

Further, and as noted in our draft decision, DBCTM has received the higher return associated with the uplifted equity beta on the full RAB (i.e. including the pre-expansion asset base), not

[267] QCA 2005a, *DBCT 2003 DAU*, final decision, April: 150.
[268] DBCTM, sub. 37: 18.

just on the incremental investment. Further, we note this arrangement has been in place for the last two undertakings (i.e. 10 years).[269]

With regard to DBCTM's argument that we gave no indication in our 2010 decision that there would be any change to the approach adopted in 2005 and we did not foreshadow a return to a different basis[270], we note our 2010 final decision 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****.*[271] [emphasis added]

Our 2010 final decision also said more generally:

> *The Authority's consideration of DBCT Management's calculation of revenues and prices has been undertaken in the context where DBCT Management and the terminal's existing users have agreed to rolling forward the existing cost parameters and the resultant revenues and tariffs.*
>
> *In arriving at this agreed position, the Authority accepts that both parties might have been able to mount a case for higher or lower individual components of the cost build-up.* ***The Authority has not, therefore, sought to assess the reasonableness, or otherwise, of the individual cost components****.*[272] [emphasis added]

Having stated the reason why we did not assess the reasonableness of individual cost components in 2010, we consider this implied that, under usual circumstances, each cost component would be reassessed, not that we would not reassess cost components at the next regulatory reset. It also clearly stated that the QCA did not sanction the reasonableness of individual cost components—including the value of beta.

As part of our review of DBCTM's 2015 DAU, we must have regard to the section 138(2) criteria, including the pricing principles in section 168A. This review must be done taking into account the current environment. With regard to the equity beta, we consider that at least the following must be considered at each regulatory reset:

- new or updated data becoming available
- new expert evidence or analysis coming to light
- changes in the risk profile of the regulated entity over time.

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[269] 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. As we said in Section 4.2.4, our consideration of DBCTM's calculation of revenues and prices for its 2010 AU focused 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.

[270] DCTM, sub. 37: 20.

[271] QCA 2010, *DBCT 2010 DAU*, final decision, September: iii.

[272] QCA 2010: 11.

In the present case, taking into account these and other factors, we consider that maintaining the equity beta we set in our 2005 decision would not satisfy the section 138(2) criteria. We do not consider an unjustifiably uplifted equity beta would promote economically efficient operation of, use of and investment in the Terminal (ss. 138(2)(a) and 69E). For example, it might shift the balance between prudent maintenance and capital investment and create gold-plating incentives for DBCTM, thus affecting the use of the Terminal. This would in turn not be in the public interest (s. 138(2)(d)) and be contrary to the pricing principle of return on investment being commensurate with the regulatory and commercial risks involved (s. 168A(a)).

Increased downside risk

We have considered DBCTM's argument that it is now facing more commercial risk than at the 2005 and 2010 regulatory resets.

Market uncertainty and coal prices

We acknowledge that global markets have changed since 2005 (e.g. European sovereign debt crisis, climate policy, Brexit), and as a result some aspects of that environment are riskier. However, the most relevant market for DBCTM is the global coal market. In this context:

- While the metallurgical coal price fell from 2012 levels, it has continued to improve recently due, in part, to a slump in output from China (which produces half of the world's coal)—and about 85 per cent of DBCT's throughput is metallurgical coal.[273] Further, even when the metallurgical coal price was lower than in 2012, it was broadly comparable to levels prevailing at the times of the previous resets.[274]
- To the extent there is volatility in the coal market, DBCTM is protected from it, due to the revenue cap and amended NCT definition, but also, most importantly, due to the fundamentally sound economics of the Goonyella metallurgical coal situation, which remains one of the lowest-cost and internationally competitive coal systems in the world. In this context, we note the reopening of Isaac Plains by Stanmore Coal and Taurus Funds Management's acquisition of the Foxleigh mine.[275]

So while some aspects of the market suggest greater volatility relative to 2005 or 2010, these aspects are either not directly relevant to DBCTM, or DBCTM is insulated from them.

Contract renewals and capacity relinquishment

DBCTM has said it is no longer confident that customers will renew access agreements when they expire or that relinquished capacity will be readily taken up by another user. In particular, DBCTM was concerned about a 'death spiral', whereby reduced contracted tonnages would increase the TIC to such an extent for the remaining tonnages that the viability of DBCTM's remaining customers would potentially be jeopardised. We note Aurizon Network said this death spiral could be compounded by other take-or-pay agreements in the coal chain (i.e. for rail services).

[273] Rieseborough, J 2016, *Australian Thermal Coal Jumps to $100 for First Time Since 2012*, Bloomberg Markets, 18 October.
[274] In other words, the high coal prices just before and after the GFC are the anomalies, rather than coal prices before 2012.
[275] DBCT User Group, sub. 41: 5–6.

We have considered DBCTM's concerns about the possibility of a death spiral scenario eventuating. However, given the information and evidence available to us, we consider the probability of such an event to be very low, for two main reasons.

Firstly, we consider the short-term market outlook for metallurgical coal to be positive, as described in detail in Chapters 1 and 5 of this final decision, particularly in Section 5.1.7. For example, the Office of the Chief Economist (OCE) also considers the outlook for Australia's metallurgical coal exports is 'broadly positive'.[276] This outlook is also relevant to our weighting of the possibility that the combination of take-or-pay arrangements along the supply chain would accelerate the demand deterioration problem, as raised by Aurizon Network.

Secondly, if some users relinquish their over-contracted capacity at DBCT and no other user takes up the spare capacity, the unit TIC will go up for the remaining tonnages, but the users who have relinquished their over-contracted capacity will have reduced their own take-or-pay obligations, therefore offsetting their TIC increase. In that situation, not all users are facing increased total costs.

Our understanding is the TIC could increase moderately before DBCT would lose its status of lowest-cost terminal in Queensland. This is supported by S&P's belief 'DBCT will remain the most competitive export point out of the region'[277] and that:

> *in the short-to-medium term, the socialization aspect embedded in the regulation provides for an equivalent-user replacement framework and the currently low tariff which makes it unlikely that the cash impact of socialization would be material to the remaining users (assuming a tariff of A$3 per tonne, a loss of 25% of the volume would increase tariff by A$1).*[278]

Relevantly, FitchRatings ('Fitch') said mines in the DBCT catchment area in the Bowen Basin are mainly in the lower half of the global seaborne export coal cash cost curve [279], and therefore it is expected those mines could afford a higher TIC if less tonnage was contracted at DBCT.

In conclusion, there is no need to adjust DBCTM's asset beta to account for the unlikely event of a death spiral in this regulatory period.

Commentary on Peabody

We have considered DBCTM's specific concerns relating to the prospects of recovering access charges from Peabody.

However, we understand Peabody plans to sell or suspend non-strategic assets while improving/optimising its strategic assets.[280] We consider Peabody's assets to be like the rest of the Bowen Basin mines: where a particular mine is on the low end of the cost curve, it is reasonable to assume the owner (or a liquidator) will be able to find a buyer for the mine or keep operating it. As for the assets which are not on the low end of the cost curve, we expect that once those are suspended (put in care and maintenance), the remaining users shipping to DBCT will be the ones on the low end of the cost curve and will thus be likely to be able to sustain a moderate increase in the TIC.

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[276] OCE 2016: 50.
[277] Standard & Poor's Rating Services 2016a, *Transaction Update: DBCT Finance Pty Ltd*, 26 April: 3.
[278] Standard & Poor's Rating Services 2016a: 3.
[279] FitchRatings 2016, *Fitch Rates DBCT Finance's Senior Secured Debt 'BBB'/Stable*, media release, 7 June.
[280] Peabody 2016, *2017-2021 Business Plan*, 10 August: 15.

We note S&P said, with regard to Peabody's contracts at DBCT, that S&P continued to expect these to remain in place given the remaining Peabody mines (after closing the higher cost Queensland mine) are profitable and would need a port Terminal contract in order to remain operational or to be sold as a going concern.[281]

We therefore do not see Peabody's situation affecting DBCTM's systematic risk and requiring an adjustment to the asset or equity beta.

Competition with other ports

We considered DBCTM's view that it faces increased competition with other ports, and assessed the arguments presented. In this regard, there are three scenarios presented by DBCTM:[282]

(1) Volumes are maintained, and ports remain contracted at, or close to, capacity.

(2) Volumes increase materially and competition is for expansion capacity.

(3) Volumes decline, users adjust their agreements and some spare capacity is available at existing ports.

With regard to the first scenario, we acknowledge some DBCT users also have contracted capacity at APCT. Consistent with the DBCT User Group's submission, we consider users did not choose to contract at APCT over DBCT. Rather, users contracted at APCT due to the:[283]

- lack of below-rail and port capacity available at DBCT
- unwillingness of DBCT to expand Terminal capacity at the time—beyond meeting new demand with the development of the unregulated Dudgeon Point Coal Terminal project
- aggregate demand at the time being of such size it could justify the development of an expansion at APCT.

As stated in a document quoted by DBCTM in its submission on the draft decision, APCT is now fully contracted until 2020, as summarised in Table 12, and APCT users must provide at least three years' notice if they want to extend the term of a User Agreement.

[281] Standard & Poor's Rating Services 2016a: 6.
[282] DBCTM, sub. 37: 2–6.
[283] DBCT User Group, sub. 46: 11–12.

Table 12 Adani's Abbot Point Coal Terminal users and take-or-pay contracts

APCT contracted user	*Contracted capacity (mtpa)*	*Contract end date*
Xstrata Coal Queensland	13	30/06/2020
Queensland Coal	11	30/06/2028
Lake Vermont	6	30/06/2028
Byerwen	5	30/06/2029
BHP Mitsui	4	31/12/2026
QCoal	4	30/06/2027
Sonoma JV	4	30/11/2024
Middlemount	3	30/06/2027

Source: FIIG 2015, Adani Abbot Point Terminal (AAPT), <https://www.fiig.com.au >.

We note DBCTM speculated that APCT access holders, such as Rio Tinto, could possibly offload APCT-GAPE capacity to other users at prices below those for DBCT-Goonyella capacity.[284] However, we understand the volumes though GAPE and APCT have been light since the commissioning of that infrastructure, and thus expect that, if there had been an interest from DBCT users to purchase APCT capacity on the secondary market, this would have already been realised. Therefore, we consider the weight we should give to the possibility of an APCT user offloading capacity is low, and stakeholders have not provided compelling evidence that APCT will materially compete with DBCT during the course of the next regulatory period.[285]

In addition, we note Fitch said DBCT was unlikely to be fully contracted in the near to medium term, but Fitch expected DBCT's strong market position and the continuing Asian demand for seaborne coal exports to maintain its high level of contracted capacity.[286]

With regard to the second scenario, where future competition is for expansion infrastructure because the terminals are fully contracted, we do not consider this situation likely to arise during the regulatory period, as DBCT has signalled it is not planning expansion.[287,288] Therefore, we consider this scenario is not as relevant to setting the asset beta for DBCTM's 2015 DAU.

We note this scenario contradicts DBCTM's arguments it is facing increased downside revenue risk and the possibility of a death spiral. While we consider the metallurgical coal market outlook to be positive in the short and longer terms, we do not expect buoyant conditions for this regulatory period to cause a rush toward construction of significant expansion infrastructure. We note Fitch said, 'The company's financial forecasts reviewed by Fitch do not require any expansion of the port's current 85 mtpa capacity.'[289]

[284] DBCTM, sub. 45: 5.
[285] Whether APCT will constitute competition for DBCT over a broader time horizon is outside the scope of this decision, which has specifically only focussed on the next regulatory period.
[286] FitchRatings 2016, *Fitch Rates DBCT Finance's Senior Secured Debt 'BBB'/Stable*, Press Release, 7 June.
[287] DBCTM, sub. 2: 50.
[288] Also, we understand the lead time required to bring new mines into production and to ramp up capacity at existing mines suggest the possibility of a major expansion at DBCT this regulatory period is highly unlikely.
[289] FitchRatings 2016, *Fitch Rates DBCT Finance's Senior Secured Debt 'BBB'/ Stable*, Press Release, 7 June.

With regard to the third scenario—where demand is subdued and there is excess existing capacity at the ports—we consider DBCT would be attractive because of its lower access charge, shorter take-or-pay access agreements and lower railing costs from the Goonyella system. In addition, the practical constraints to shifting to other ports would mean DBCT would face only limited competition.

On balance, we still consider the evidence suggests there are many practical and economic barriers to access holders transferring capacity to alternative terminals, particularly in the course of this regulatory period. We note the ACCC reached the same conclusion on this matter.[290] We therefore consider DBCTM remains in a situation of limited competition for its services in this regulatory period.

On this basis, the asset beta we set in our draft decision is appropriate.

Ratings agencies and financiers

We also considered DBCTM's argument that the views of ratings agencies and financiers indicated a change in DBCTM's risk profile.

As we said in our draft decision, we agree with Incenta's conclusion that the credit rating downgrades do not necessarily affect DBCTM's asset beta because:

- DBCT Finance Pty Ltd is a highly geared project finance vehicle (close to 80%) and, as a result, it is not representative of a benchmark corporate (60%).[291]
- The identity of DBCTM's customers is not necessarily determinative, as what matters is that the underlying prospects of the 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.[292]

Further, we note relevant comments made by the ratings agencies in their latest reports on DBCT Finance Pty Ltd, as follows:

- S&P assessed the market risk as very low and believed DBCT will remain the most competitive export point out of the region.[293]
- S&P viewed the cash flow generated by an asset operated under a well-understood and supportive regulatory and operating framework that insulates the project from volume and operational risks as stable and predictable.[294]
- S&P noted that DBCT coal throughput in calendar year 2015 declined only very slightly compared to 2014, supporting S&P's forecast for longer term continued demand for Queensland coal.[295]

[290] ACCC 2015, *Brookfield Consortium—proposed acquisition of Asciano Limited*, Statement of Issues, October: 14.
[291] Incenta 2016a, *DBCT 2015 DAU: Review of WACC parameters*, report prepared for the QCA, March: 27.
[292] Incenta 2016a, *DBCT 2015 DAU: Review of WACC parameters*, report prepared for the QCA, March: 26–27.
[293] Standard & Poor's Rating Services 2016a, *Transaction Update: DBCT Finance Pty Ltd*, 26 April: 3.
[294] Standard & Poor's Rating Services 2016a, *Transaction Update: DBCT Finance Pty Ltd*, 26 April: 4.
[295] Standard & Poor's Rating Services 2016a, *Transaction Update: DBCT Finance Pty Ltd*, 26 April: 6.

- Fitch said, while the coal market downturn has created financial stress for customers and lowered DBCT's contracted capacity to 80.7 mtpa, its view was that slow but steady increases in coal prices and DBCT's strong competitive position will support higher contracted usage in the future.[296]
- Fitch said the regulation of the capital charge portion of DBCT's customer fees imposes some regulatory risk, but also serves to align the company's prices with costs of financing. Fitch saw this as providing a partial mitigant to refinancing risks.[297]
- Fitch said the 4.3 mtpa of contracts expiring in 2016 and not renewed, was due largely to planned mining developments not proceeding, rather than existing coal mines being shut down.[298]

With regard to DBCTM's experience with its recent refinancing activity (via Brookfield), we consider this experience to be a specific situation, where DBCT Finance Pty Ltd is highly geared (80%) and not necessarily reflective of what might be the experience of a benchmark entity geared at 60 per cent. Further, DBCT Finance Pty Ltd's credit rating is BBB–, and the premium investors require on BBB– bonds relative to BBB bonds has materially increased in recent years.[299]

While we acknowledge debt markets have changed and a 60 per cent–geared benchmark firm might have also experienced a different response from financiers in 2016 compared to 2010, a change in the debt markets does not necessarily translate into greater systematic risk for DBCTM.

In total, we do not consider DBCT Finance Pty Ltd's credit rating and DBCTM's refinancing experiences necessarily mean DBCTM's systematic risk has increased, because:

- Coal markets' medium- to long-term outlook is improving, in addition to the recent rally in coal prices. This positive outlook is confirmed by S&P's and Fitch's most recent commentary.
- DBCTM is largely sheltered from the impact of changes in markets by its revenue cap form of regulation with socialisation, including our acceptance of DBCTM's proposed NCT definition.

Link between debt and equity risk

We previously indicated that, to the extent there is an increase or decrease in risk in debt markets, there is not necessarily a direct implication for a change in risk in equity markets. However, DBCTM said 'it would be incongruous for debtholders to perceive increased risk and for equity holders to perceive reduced risk'.[300]

We considered this statement, and we find there is no clear evidence for a well-defined relationship between debt and equity risk. We also considered the argument that the systematic risk components of both debt and equity should move together in our final decision on market parameters[301] and came to the conclusion that a causal relationship was plausible

[296] FitchRatings 2016, *Fitch Rates DBCT Finance's Senior Secured Debt 'BBB'/Stable*, Press Release, 7 June.
[297] FitchRatings 2016, *Fitch Rates DBCT Finance's Senior Secured Debt 'BBB'/Stable*, Press Release, 7 June.
[298] FitchRatings 2016, *Fitch Rates DBCT Finance's Senior Secured Debt 'BBB'/Stable*, Press Release, 7 June.
[299] Incenta 2016b, *DBCT—Debt risk premium to 31 May 2016*, June: 17.
[300] DBCTM, sub. 37: 23.
[301] QCA 2014b, *Cost of capital: market parameters*, final decision, August: 75–78.

but specific arguments could be questioned.[302] We noted this area is complex, and there is not even agreement in the academic literature on a clear relationship. Further, while some papers might suggest a positive or negative relationship, others suggest the relationship can change over time.[303] As we said in our draft decision, the relationship between the cost of equity and the cost of debt is complex and controversial.[304]

We acknowledge the dynamics of debt markets have changed and, in specific contexts, there might be more market uncertainty. However, we are not convinced these translate to increased (or decreased) equity risk—we consider the link is tenuous, as described above. In any case, even if there is an implication for equity risk, DBCTM is protected from that risk, by its revenue cap form of regulation and socialisation. Therefore, we do not consider DBCTM's argument is persuasive and should influence our preferred value of beta.

Comparison between DBCTM and Aurizon Network

Both DBCTM and the DBCT User Group disagreed with our conclusion that DBCT and Aurizon Network are comparable with respect to systematic risk profiles. In this context, they pointed to a number of differences between DBCTM and Aurizon Network affecting their systematic risk profiles, as summarised in Table 13.

Table 13 QCA summary of stakeholders' views on factors affecting DBCTM's and Aurizon Network's systematic risk profiles

	Higher risk for DBCTM	*Lower risk for DBCTM*
1	Aurizon Network is vertically integrated, DBCTM is not—by implication, this limits DBCTM's ability to exercise its market power as widely as a vertically integrated firm, such as Aurizon Network.[a]	DBCTM has a lower asset stranding risk than Aurizon Network—because the Terminal provides the same services to all users at a single geographic point, rather than long rail lines of which some particular parts are only used by some users of the network.[b]
2	Aurizon Network can request access conditions for significant expansions, but DBCTM is prevented from doing so by the PSA (and is obliged to invest in certain circumstances)—DBCTM submitted that the appropriate comparator for DBCT is not Aurizon Network's regulated return on equity but a weighted average of this and the return on equity associated with the access conditions.[a]	The Terminal handles a significantly higher proportion of metallurgical coal versus thermal coal than Aurizon Network's rail network—there is no known substitute to metallurgical coal while gas, renewables and other energy sources can be substituted for thermal coal.[b]
3		DBCTM's risk profile is lower than that of rail infrastructure companies and, by implication, Aurizon Network.[b]

a *DBCTM, sub. 37: 24–25.*

b *DBCT User Group, sub. 41: 26.*

We have considered the points of distinction raised by DBCTM:

(1) While DBCTM raises the fact that Aurizon Network is vertically integrated (and DBCT is not), DBCTM is not clear in suggesting how this difference affects systematic risk.

[302] QCA 2014b, *Cost of capital: market parameters*, final decision, August: 77.

[303] See for example Avramov, D. et al 2009, 'Credit ratings and the cross-section of stock returns', *Journal of Financial Markets*, 12: 469–499, and Hilscher, J. & M. Wilson 2013, *Credit ratings and credit risk: is one enough?*, Working paper series, SAID Business School, University of Oxford, March.

[304] As evidenced by the ERA's recent deliberations on the access arrangement for the Goldfields Gas Pipeline.

However, DBCTM does state that vertical integration gives a monopoly service provider further opportunities to exercise its market power by favouring its unregulated, third-party user relative to other users. However, we note the academic literature is ambiguous on the precise relationship between market power and systematic risk. We also note that Aurizon Network is subject to detailed ring-fencing arrangements.

(2) We do not consider the comparison to be appropriate. DBCTM's present profile is more closely aligned with Aurizon Network's 'existing RAB' profile, not with the profile of major network expansions that are subject to access conditions. This is because there are no major expansions presently in progress for DBCT and none planned for the upcoming regulatory period.

We have also considered the differences highlighted by the DBCT User Group:

(1) With regard to asset stranding risk, we note that, to the extent Aurizon Network's spur lines are underwritten by miners via contracts, the 'network' aspect is a less relevant point of distinction.

(2) While we agree with the DBCT User Group's assessment there is presently no substitute for metallurgical coal, as opposed to thermal coal, we also note metallurgical coal demand is dependent on the construction industry, which can be cyclical, while thermal coal demand rests on electricity generation.

(3) The DBCT User Group's point that DBCTM's risk profile is lower than that of 'rail infrastructure companies' (and Aurizon Network by implication) is not a correct interpretation of Incenta's reports. Incenta, our consultant for Aurizon Network's 2014 DAU, found Aurizon Network's systematic risk at that time to be materially lower than the risk of US Class 1 railroads.[305] Therefore, Incenta did not consider Aurizon Network to be a 'rail company' in the same systematic risk sense as US Class 1 railroads. Incenta's findings for DBCTM are similar to Aurizon Network, in that both firms have materially lower systematic risk than US Class 1 railroads.

After considering submissions on this matter, we accept there are some differences in risk profiles between DBCTM and Aurizon Network. However, we consider that, on balance, DBCTM's and Aurizon Network's systematic risk profiles are broadly comparable. Further, to the extent there are differences in their risk profiles, we do not consider them to be empirically distinguishable at this time. Moreover, the two businesses are part of the same coal supply chain and are subject to the same type of regulatory framework, which is applied by the same regulator.

Other aspects of the decision and potential implications for beta

The DBCT User Group also said we should take into account other parts of our decision which might act to lower DBCTM's risk profile and thereby result in a reduction in the asset beta:

- increased remediation allowance compared to the 2010 AU
- amendments to the definition of NCT
- depreciation of spares.

[305] Incenta 2014b, *Review of Regulatory Capital Structure and Asset / Equity Beta for Aurizon Network and response to stakeholder comments*, April: 22.

Accordingly, in reaching our view on an appropriate value of the asset beta, we have considered these changes. Our view is that the changes in the remediation allowance and the depreciation of spares are not relevant to DBCTM's systematic risk. This is because these changes do not affect the covariance of DBCT's returns with the returns to the market.

As we stated in our draft decision, while our acceptance of the proposed change in the definition of NCT is relevant to systematic risk, we note that any effect—to the extent it is material—is already reflected in the empirical beta value. This is because the latter is based on the observed equity betas of regulated energy firms that are subject to revenue caps. The objective of a revenue cap is to provide a certain expected revenue independent of volume risk, and the NCT definition assists in achieving this objective.

QCA's regulatory judgement

We have considered the DBCT User Group's objections to the QCA using its judgement in applying an asset beta of 0.45.

Estimation of the asset and equity beta necessarily requires the exercise of regulatory judgement. It involves weighing of quantitative and qualitative evidence, having regard to the strengths and weaknesses of each piece of evidence.

In this case, we have exercised our regulatory judgement to arrive at an estimate for the asset beta of 0.45. We have taken into account empirical evidence which points to an asset beta estimate of 0.40. However, in arriving at a final estimate, we have also taken into account other considerations, and used our regulatory judgement to weigh up these various considerations. In particular, we have taken into account the potential for large changes in beta estimates between regulatory periods to cause investment uncertainty.

We note there are regulatory precedents in adopting a beta different to the central empirical value, for example:

- In its 2009 final decision on the review of electricity distribution and transmission WACC parameters, the AER said that while market data suggested an equity beta value lower than 0.8, it considered the value of 0.8 was appropriate.[306]
- The AER in 2013 proposed to apply a 0.7 equity beta point estimate from a 0.4 to 0.7 range.[307]
- The New Zealand Commerce Commission setting the WACC at the 67th percentile.[308]
- In our final decision on Aurizon Network's 2014 DAU, we used our best judgement to set an asset beta of 0.45, slightly above Incenta's technical recommendation of 0.41, noting it was well within the range of 0.35 to 0.49 identified by Incenta.[309]

[306] AER 2009, *Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters*, Final decision, May: 343.
[307] AER 2013b, *Explanatory Statement Rate of Return Guideline*, Appendices, December: 46.
[308] Commerce Commission 2014, *Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services*, Reasons paper, 30 October: 9.
[309] QCA 2016b, *Aurizon Network 2014 Draft Access Undertaking—Volume IV Maximum Allowable Revenue*, final decision, April: 249–250, 266.

We consider a large change in DBCTM's beta could cause investment uncertainty. We consider calculating betas with a high degree of precision is inherently difficult, so some caution should be shown in making significant changes to previous values.

Conclusions

Our assessment of the 2015 DAU proposal against the criteria in the QCA Act (s. 138(2)) involves having to balance the legitimate business interests of DBCTM with the public interest and the interests of access seekers and access holders to the declared service, as well as considering whether the proposed arrangements promote the economically efficient operation of, use of and investment in significant infrastructure.

In applying these criteria, it is important to consider context, including changes in context since previous regulatory resets. As indicated previously, relevant context for this decision is that DBCTM is no longer contemplating a large expansion in the forthcoming regulatory period. As a result, the Terminal is now in a situation comparable to the pre-expansion situation prevailing in 2005, with respect to systematic risk. As summarised by Incenta:

> *[T]he 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.*[310]

While we acknowledge DBCTM's concern that we are reducing the equity beta from 1.0 to 0.87, we consider that our position on this matter is reasonable. We say this with the knowledge that DBCTM received a substantial uplift in the equity beta (i.e. from 0.8 to 1.0, or 25%) for the past two regulatory cycles and earned that uplift on the pre-expansion asset base for the entirety of those periods, as well as on the expansion assets. Further, we are not proposing to remove that uplift entirely, but only to reduce it at this time. As explained above, in exercising our regulatory judgement to arrive at a beta estimate slightly above Incenta's best empirical estimate, we have taken into account the potential for large changes in beta estimates between regulatory periods to cause investment uncertainty.

There are also relevant precedents where regulators have exercised their judgement to adjust arrangements from time to time. For example:

- The New Zealand Commerce Commission originally set the 75th percentile for the regulatory WACC determined under its cost of capital methodology (2010), but in 2014 amended it to the 67th percentile.[311]
- The QCA introduced the maintenance cost index (MCI) for Aurizon Network in its 2010 AU to account for the local construction costs in the central Queensland coal network.

Most relevantly, there are similar precedents in relation to the equity beta. For example, in its 2009 final decision on the review of electricity distribution and transmission WACC parameters, the AER said that while market data suggested an equity beta value lower than 0.8, it

[310] Incenta 2016a, *DBCT 2015 DAU: Review of WACC parameters*, report prepared for the QCA, March: 46.
[311] New Zealand Commerce Commission 2014, *Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services*, Reasons paper, 30 October: 9.

considered the value of 0.8 was appropriate. The AER concluded there was persuasive evidence to depart from the previously adopted equity beta of 1.0 or 0.9.[312]

As part of its 2013 rate of return guideline explanatory statement, the AER found 'the relevant Australian empirical estimates indicate the equity beta of a benchmark efficient entity is in the range of 0.4 to 0.7.'[313] As a consequence, the AER revised the equity beta for some firms, including Ergon and Energex, from 0.8 for 2010–15[314] to 0.7 for 2015–20[315], and for ActewAGL, from 1.0 for 2009–14 to 0.7 for 2016–19.[316]

In summary, when looking at historical values of equity betas set by the AER, it appears there are other entities which were provided equity betas of 1.0 in 2005 or 2006 but later had the equity betas reassessed at 0.7 (e.g. TransGrid, Directlink, the Victorian electricity distributors). So, the lowering of the equity beta is not a DBCTM-specific phenomenon, but generally reflects the trend toward lower allowed regulatory WACCs in the current market environment.

Aurizon Network has also faced a reduction in asset beta since 2006, as summarised in Table 14.

Table 14 Summary of Aurizon Network's betas over time

Access undertaking	*Asset beta*	*Equity beta (55% gearing)*	*Debt beta*
2001	0.45	0.76	0.20
2006	0.50	0.90	0.12
2010	0.45	0.80	0.12
2014	0.45	0.80	0.12

For QR's[317] 2001 AU, the QCA accepted an asset beta of 0.45. The QCA indicated that its value was at the upper end of a range from 0.35 to 0.45.[318]

For QR's 2006 AU, the QCA accepted that an asset beta of 0.45 would be reasonable, with a possible range being 0.35 to 0.50. However, the QCA settled on an asset beta of 0.50 to ensure there was sufficient incentive for QR to undertake timely investment in major new infrastructure, similar to DBCTM in 2005. At the benchmark gearing of 55 per cent, the asset beta of 0.50 gave QR an equity beta of 0.90.[319]

When assessing QR Network's 2009 DAU[320], the QCA concluded the previous uplift to the equity beta, from 0.80 to 0.90, could no longer be justified. Rather, the QCA noted there was a strong case for an equity beta lower than 0.80 and that even an equity beta of 0.70 could be justified, but did not propose to reduce the equity beta further to 0.70. The QCA said 0.80 was a

[312] AER 2009, *Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters*, Final decision, May: 343.
[313] AER 2013b, *Explanatory Statement Rate of Return Guideline*, Appendices, December: 46.
[314] AER 2010, *Queensland distribution determination 2010-11 to 2014-15*, Final decision, May: 267.
[315] AER 2015e, *Rate of return fact sheet*, October: 2.
[316] AER 2015d, *ActewAGL distribution determination 2015-16 to 2018-19—Overview*, final decision, April: 27.
[317] QR Network Pty Ltd became Aurizon Network Pty Ltd in December 2012.
[318] QCA 2005b, *QR's 2005 Draft Access Undertaking*, decision, December: 26.
[319] QCA 2010a, *QR Network's 2010 DAU - Tariffs and Schedule F*, draft decision, June: 43.
[320] The QR Network 2009 DAU became the 2010 AU.

conservative value given, among other considerations, the risk mitigation measures available to QR Network.[321]

The case of Aurizon Network illustrates that DBCTM might not necessarily have been provided with an equity beta of 1.0 for its 2010 AU, had it not struck an agreement with the DBCT User Group. Assuming assessment at that time had confirmed systematic risk comparable to the present situation, one can reasonably conclude that DBCTM's asset beta might have been reduced to 0.45 in 2010, had the QCA reviewed it.

Final decision

Taking into account all of the above factors, we have decided to maintain our position that we will refuse to approve DBCTM's proposed equity beta. We consider it appropriate to set an asset beta of 0.45, and an equity beta of 0.87 (with 60% gearing).

We consider this decision 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, thereby achieving an appropriate balance between the competing interests of the various stakeholders.

Summary 4.9—Asset and equity beta

The QCA's decision in relation to asset and equity beta is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its rate of return in the 2015 DAU so as to include an asset beta of 0.45 and an equity beta of 0.87.

4.9 Gamma

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
- utilisation rate—a value-weighted average over the utilisation rates (of imputation credits) of all investors in the market.

We set out the background to gamma in Section 4.9 of the draft decision; a more detailed overview of gamma can also be found in Section 5 and Appendix D of our market parameters decision.[322] We have adopted that analysis for the purposes of this final decision.

[321] QCA 2009a, *QR Network 2009 draft access undertaking*, draft decision, December: 20.
[322] QCA 2014b.

4.9.1 DBCTM's 2015 DAU proposal

In the 2015 DAU, DBCTM proposed a gamma estimate of 0.25, comprising a distribution rate of 0.7 and a utilisation rate (theta) of 0.35, based on the recommendation of its consultant, Frontier Economics.

DBCTM's proposal is discussed in greater detail in Section 4.9 of our draft decision. In summary, DBCTM:

- rejected our estimate of 0.84 for the distribution rate as being too high (and instead proposed a value of 0.7), given the available evidence and concerns about our definitions of the distribution rate and the benchmark entity
- rejected our estimate of 0.56 for the utilisation rate as being too high (and instead proposed a value of 0.35), given concerns about the definitions, assumptions and methodologies underlying our estimate.

4.9.2 Stakeholders' initial comments

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.

Vale Australia Pty Ltd

Vale generally endorsed the submission of the DBCT User Group. It considered the approach and methodologies used by us in our market parameters decision were relevant for the draft decision, and provided regulatory predictability and consistency to the benefit of all stakeholders.

4.9.3 QCA draft decision

The draft decision refused to approve DBCTM's proposed gamma estimate of 0.25 and required DBCTM to amend its 2015 DAU to reflect our gamma estimate of 0.47, comprising a distribution rate of 0.84 and a utilisation rate of 0.56. Our full analysis and reasoning are contained in Section 4.9 of our draft decision. Our approach was consistent with the expert advice we received from Lally. We have again adopted that analysis and reasoning for the purposes of this final decision, subject to the comments below.

The draft decision on gamma was as follows:

> *(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.*

In summary, after taking into account the material provided to us by DBCTM and other stakeholders, the draft decision was that our approach to estimating gamma is appropriate and,

therefore, no issue raised by submissions, or other matters[323], had caused us to revise the methods and analysis set out in our market parameters decision. In particular:

- In response to DBCTM's submission about the distribution rate:
  - A robust estimate of the distribution rate could not be obtained from ATO data, and there were strong advantages of using annual report data over ATO tax data to estimate the distribution rate.
  - Our definition of the distribution rate was not inconsistent with that used by Lally.
  - Australian regulatory precedent did not support the use of an estimate of 0.7 for the distribution rate. In contrast, we believe there is no conceptual or practical consensus on the estimate of the distribution rate among Australian regulators.
  - 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 response to DBCTM's submission about the utilisation rate:
  - As set out in our market parameters decision, we adopted an estimate of 0.56 for the utilisation rate based on an evaluation of several estimation methods—dividend drop-off studies, redemption studies, equity ownership approach, the conceptual test, and other supporting evidence. This evaluation included 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 concept—a weighted average of utilisation rates across investors. It is also transparent and based on reliable data.
  - We gave less emphasis to dividend drop-off studies and the conceptual test. We applied a relatively low weight to estimates from dividend drop-off studies because the utilisation rate should not be defined as a market-value concept. Rigorous derivations of the Officer CAPM define the utilisation rate as the weighted average of the utilisation rates of individual investors. We also applied a low weight to the conceptual test estimate because of the uncertainty about the range of estimates of that test.

4.9.4 Stakeholders' submissions on the draft decision

DBCTM

DBCTM did not agree with the draft decision to set a gamma of 0.47 for the following reasons:[324]

[323] In this regard, our draft decision included consideration of the decisions by the Australian Competition Tribunal (the Tribunal) to set aside and remit the AER's 2015 determinations for each of the appeals brought by the NSW and ACT electricity distributors (*Applications by Public Interest Advocacy Centre Ltd and Ausgrid* [2016] ACompT 1)('*PIAC-Ausgrid case*'). Among other matters, the AER is required to remake its decision by reference to a gamma of 0.25. We note that, on 24 March 2016, the AER applied to the Federal Court for a judicial review of the Tribunal's decisions.

[324] DBCTM, sub. 37: section 4.9, pp. 26–30.

- The QCA should use market data to estimate the utilisation rate rather than the proportion of imputation credits that are available for redemption. This view is supported by the recent decision by the Australian Competition Tribunal (the Tribunal) in the *PIAC-Ausgrid case*.
- The QCA should use Australian Taxation Office (ATO) data on total imputation credits created and distributed to estimate the distribution rate (0.7) rather than data from 20 large Australian listed companies, which are largely multinationals with significant foreign-sourced income (0.84). This view is supported by the Tribunal in the *PIAC-Ausgrid case*.
- The QCA has not provided adequate reasons for rejection of the Tribunal's findings in the *PIAC-Ausgrid case*. In particular, DBCTM noted that the Tribunal considered and rejected all the arguments upon which the QCA relied to justify a gamma value of 0.47. Therefore, while noting that the QCA is not formally bound by the Tribunal's decision, DBCTM proposed that the QCA should adopt the Tribunal's preferred value for gamma of 0.25.
- The QCA's table of regulatory estimates was out of date and no regulator has adopted a gamma greater than 0.25 since the Tribunal's decision in the *PIAC-Ausgrid case*. A gamma of 0.25 is the current estimate adopted by the Tribunal, IPART and the Economic Regulation Authority of Western Australia (ERAWA).[325]

DBCT User Group

The DBCT User Group[326] agreed with the gamma estimate of 0.47 in accordance with the methodology and reasoning set out in the draft decision.

The DBCT User Group considered that the Tribunal's recently proposed gamma of 0.25 does not provide grounds for the QCA to change its approach to estimating gamma. In particular:

- The Tribunal's decision in respect of gamma largely turned on how much weight should be given to dividend drop-off studies. However, the QCA is not bound by the Tribunal's view of an appropriate gamma or the relative weight that the Tribunal has given to various estimation tools in making that determination.
- There is no universally accepted value of gamma, and it is appropriate that the QCA should consider the academic models and estimation tools available to it—including dividend drop-off studies, redemption rates, equity ownership, practitioner behaviour and Lally's conceptual test—and determine the appropriate weight to be given to them in making its assessment of an appropriate gamma.
- The conceptual and empirical concerns that the QCA notes in respect of dividend drop-off studies in its market parameters decision remain relevant. In particular:
  - Interpretation of the utilisation rate as a market value of imputation credits is inconsistent with its conceptual meaning in the Officer CAPM framework, and leads to an unwarranted focus on dividend drop-off studies.
  - Empirical concerns with dividend drop-off studies are likely to be exacerbated in the current more volatile stock market conditions because the indirect evidence studies of this type are supposed to provide is likely to be even less accurate.

[325] As noted by DBCTM, the Tribunal's decision in the *PIAC-Ausgrid case* is currently under judicial review by the Federal Court (sub. 37: section 4.9.5, p. 29).
[326] DBCTUG, sub. 41: section 6.10, pp. 27–29.

- The QCA is in a better position than the Tribunal to consider and make determinations of this nature. Whereas the Tribunal is limited to the information before it in relation to an individual proceeding, the QCA has greater flexibility to investigate and assess the competing views submitted to it.
- It is important for confidence in the consistency and predictability of the regulatory framework in Queensland that the QCA continues to apply a gamma value of 0.47, given that:
  - Since the rejection of its proposal in the draft decision, DBCTM has not presented any new evidence to suggest the QCA's current approach is inappropriate.
  - Other recent decisions by the QCA have affirmed its position that a gamma of 0.47 is appropriate.

Aurizon Network

Aurizon Network did not agree with the draft decision to set a gamma of 0.47 for the following reasons:[327]

- The better estimate of the distribution rate is 0.7 (using ATO Franking Account Balance (FAB) data), rather than the QCA's estimate of 0.84 (using Lally's ASX20 annual report approach), because:
  - The QCA's use of Lally's ASX20 approach overestimates the distribution rate due to the existence of foreign tax. With no foreign source of income (which is the assumption underlying the efficient benchmark entity), it would not be possible for the 20 firms in Lally's sample to pay out 84 per cent of the franking credits with a dividend payout ratio of only 71 per cent.
  - The QCA's rejection of ATO data to estimate the distribution rate because of unexplained discrepancies between ATO dividend data and ATO FAB data is misplaced. FAB data are generally considered reliable[328] and a suspected problem with one source of ATO data should not preclude the reliability of the other.
- The QCA should provide further explanation of its rejection of the Tribunal's view in the PIAC-Ausgrid case that theta (utilisation rate) should be defined as a market value.

4.9.5 Lally's advice

The QCA commissioned Lally to provide further comment and analysis on the Tribunal's reasoning in its *PIAC-Ausgrid* decision and, in particular, on definitional issues relating to gamma.[329] Lally's main findings are summarised below.

[327] Aurizon Network, sub. 33: 6–8.
[328] Aurizon Network states that this was affirmed by the Tribunal in the *PIAC-Ausgrid* case (Aurizon Network, sub. 33: 7).
[329] Lally 2016. Although we generally agree with Lally's views, we do not support his preferred position that the utilisation rate should be 1.0 for the reasons set out in our market parameters decision (QCA 2014, Appendix D).

Theoretical considerations

Lally concluded that rigorous proofs of the Officer model show that theta is a weighted average over the utilisation rates for imputation credits by individual investors, and these utilisation rates are 1.0 if investors can fully use the credits to reduce their tax obligations and zero if they cannot use them. Therefore, theta is not the market value of the credits. Transaction and administrative costs cannot be dealt with by reducing the estimate for theta and, if considered important, would need to be addressed through an extension of the Officer model. Moreover, the definition of theta as a weighted average over utilisation rates is consistent with the way in which company taxes are treated in tax regimes without imputation.[330]

Estimation of theta

Lally's preferred estimate for theta is 1.0. As the Officer version of the CAPM assumes complete segmentation of national equity markets—implying that all investors are able to use the credits—the natural choice for theta is 1.0 despite the fact that many investors in Australian equities are foreigners who cannot use the credits. Moreover, given that national equity markets are partly integrated, estimating theta at 1.0 seems to be the only approach that leads to estimates of the cost of equity that will typically lie within the range arising under complete segmentation and complete integration of national equity markets.

However, if foreign investors are recognised when estimating theta, then these investors also should be recognised in defining theta. Under these circumstances, Lally's second preference for the theta estimate is the proportion of Australian equities held by local investors (the equity ownership approach). For this approach, Lally's preference is to use all equity rather than only listed equity, and therefore an estimate for theta of at least 60 per cent is appropriate. This conclusion is strengthened by the existence of any successful tax-trading around ex-dividend days (tax arbitrage), which would raise theta above the proportion of Australian equities held by local investors, and possibly weakened by consideration of terms other than the market weights in the formula for theta. The net effect of these two forces is unclear. Therefore, any estimate of theta of this type is subject to errors in either direction and therefore is not an upper bound on an estimate of theta.

Lally's third preference for estimating theta, conditional on recognising the existence of foreign investors, is the redemption rate for imputation credits. If correctly measured, this rate would overestimate theta because local investors would tilt their portfolios towards stocks with high imputation credit yields and because of terms other than market weights in the formula for theta. Furthermore, the ATO data from which the redemption rate is estimated contains significant unexplained discrepancies, which give rise to two significantly different estimates of the redemption rate. Accordingly, any estimate of theta of this type is very unreliable, and therefore inferior to the equity ownership approach.

Lally's least preferred method for estimating theta, conditional on recognising the existence of foreign investors, is the use of market prices to estimate the value of the credits. The conditions under which the use of market prices would generate an unbiased estimate of theta are unrealistic and therefore it is highly likely that the estimates are biased (but of unknown direction). In addition, such estimates are highly variable according to the type of market data used (with dividend drop-off studies being one such type), the choice of statistical model, the

[330] Lally 2016, section 2.1: 14.

criteria for selecting data, and the treatment of outliers in the data. On both counts, estimates of theta based on market prices are undesirable and likely to be worse than estimates based on the redemption rate.[331]

Estimation of the distribution rate

Lally[332] advised that, for pragmatic reasons, market-wide data should be used to estimate the distribution rate. Moreover, the distribution rate for regulated businesses should be estimated from listed equity because the distribution rates for listed and unlisted businesses are significantly different, and (private) regulated businesses are either listed, or subsidiaries of listed, businesses. Lally preferred the use of financial statement data for a subset of high-value firms to estimate the distribution rate, because the alternative, ATO data on all-listed equity, contains significant unresolved discrepancies.[333] Many of these firms have significant foreign operations, which are irrelevant to an estimate of the distribution rate for regulated businesses. However, the effect of this characteristic is to underestimate rather than overestimate the distribution rate for the benchmark firm.

Response to the Tribunal's decision

Lally's comments on the Tribunal's reasoning are set out below.

The Tribunal contends that, based on the Officer model, theta is the market value of the imputation credits. However, the Tribunal fails to explain how Officer's analysis leads to this conclusion. Rigorous derivations of the Officer model show that theta is a complex weighted average over the utilisation rates of credits by investors, with the utilisation rate being the eligibility to use the credits.[334] Further, while the Tribunal does refer to Lally and van Zijl (2003) on the question of the definition of theta, the Tribunal's claim that this paper is not relevant because it generalises the Officer model is incorrect.[335]

Contrary to the Tribunal's view, there is no inconsistency in the Officer model caused by theta not being a market value while the costs of debt and equity are market values. The model includes some parameters that are defined as market values (such as the cost of equity) and others that are not (such as corporate tax liabilities and theta).

As theta is not a market value, using estimates of the market value of the credits to estimate theta is not the natural approach. The usefulness of market-value estimates, together with estimates from alternative methods for estimating theta, must be assessed by how well they

[331] Lally 2016, section 2.2.
[332] Lally 2016, section 2.3.
[333] For example, see NERA 2013, where NERA suggests that the distribution rate estimated from ATO data may be overestimated due to the credits in the franking accounts of bankrupt businesses not being reported to the ATO (but treated as distributed); and either over or underestimated due to some businesses failing to report their franking account balances to the ATO depending on whether the level of underreporting rises or falls, respectively. Moreover, the Tribunal accepts the ATO data is flawed to the extent that the existence or otherwise of $180 billion of dividends cannot be reconciled with the data (*PIAC-Ausgrid case*, para 1092).
[334] Lally and van Zijl 2003, section 3.
[335] It is correct that Lally and van Zijl (in Lally and van Zijl 2003) generalise the Officer model, by allowing the personal tax rates on dividends and capital gains to differ, whereas Officer assumes these tax rates are equal. However, this means that the Officer model is then a special case of the Lally and van Zijl model, and Lally and van Zijl (2003) provide a derivation of the Officer model simply by imposing the Officer assumption at all relevant points in their proof. So, in contrast to the Tribunal's belief, Lally and van Zijl (2003) provide a derivation of the Officer model as well as a proof of a generalisation of it.

reflect the appropriate definition of theta. Estimates of the market value of the credits are biased and highly variable estimators, and are inferior to estimates obtained by all other estimation methods considered.

It is understandable that the Tribunal would prefer market studies to other types of evidence given its acceptance that theta is the market value of the credits. However, the Tribunal fails to explain why it prefers the theta estimate of 0.35 from SFG's dividend drop-off study to any of the other three market study methodologies that have been used, and why it prefers SFG's study to a more recent dividend drop-off study by other authors. In addition, the Tribunal fails to explain its acceptance of results from a methodology that is highly sensitive to a number of irrelevant factors—such as the degree of tax arbitrage, anomalous behaviour around ex-dividend days, and bid/ask price bounce.

The Tribunal's view that the redemption rate and the estimate from the equity ownership approach are upper bounds on the estimate of theta—because of time delays, administrative costs in distributing the credits, portfolio effects, and the effect of the 45-day rule appears to follow from its acceptance that theta is the market value of the credits. However, theta is not the market value of the credits; but even if it was, the belief that the equity ownership proportion is necessarily above the market value of the credits because of time delays, administrative costs, and so forth, is incorrect. For example, if 50 per cent of Australian equities were foreign-owned, tax arbitrage involving local investors buying shares shortly before ex-dividend days and selling them shortly afterwards could lead to all credits being redeemed by locals and therefore the market value on the credits could be above 0.5.

In relation to the Tribunal's views on the distribution rate, its preference for past practice leads it to adopt an estimate of 0.70 for all equities using ATO data. However, this is not supported by any reasoning from the Tribunal. As outlined above, the ATO data are flawed and the distribution rate is best estimated using data from listed companies and in particular from the financial statements of the 20 largest listed firms.[336]

4.9.6 Stakeholders' submissions on Lally's advice to the QCA

On 25 July 2016, the QCA published Lally's advice on the Tribunal's reasoning in relation to gamma in the *PIAC-Ausgrid case*, and sought submissions from stakeholders. Stakeholders' comments are summarised below.

Aurizon Network

In a letter to the QCA dated 22 August 2016, Aurizon Network advised that:

- It agreed with the Tribunal's assessment that the best estimate of gamma at present is 0.25, based on estimating the market value of imputation credits.
- The QCA's continued application of a gamma estimate of 0.47 is inconsistent with the pricing principles contained in section 168A of the QCA Act.
- It would provide further comments on its consideration of gamma to the QCA as part of its submission of a compulsory DAU to the QCA by 9 September 2016.[337]

[336] Lally 2016, section 3.

[337] Aurizon Network 2016. Aurizon Network's submission deadline for the UT5 DAU was subsequently extended by the QCA to 30 November 2016.

Queensland Resources Council (QRC)

In a letter to the QCA dated 26 August 2016, the QRC advised that:[338]

- It agreed with Lally that a value of at least 0.6 would be appropriate for theta if foreign investors were recognised, but that the most appropriate value of theta would be 1.0 because this value is consistent with the Officer framework. In addition, a value of 0.83 (based on 20 high-value listed firms) would underestimate the distribution rate.
- An underestimated distribution rate of 0.83 combined with the most appropriate theta value of 1.0 would result in an underestimated gamma; similarly, a distribution rate of 0.83 combined with a theta of 0.6 (which is inconsistent with Officer) would also result in an underestimated gamma of 0.5.
- It agreed with the QCA's Aurizon Network final decision (for the 2014 DAU) that there was nothing in the Tribunal's reasoning in the *PIAC-Ausgrid case* that demonstrated that the QCA's approach to estimating gamma is inappropriate.

However, the QRC remains concerned that the QCA's estimate of gamma of 0.47 errs on the low side, rather than reflecting the best estimate available, resulting in overestimation of the service provider's efficient costs, including the costs of taxation. The QRC considers that Lally's analysis supports its view that a gamma value of 0.5 would be at the lower end of a reasonable range.

DBCT User Group

In relation to Lally's advice to the QCA on the Tribunal's decision on gamma, the DBCT User Group:[339]

- agreed with Lally's assessment of the Tribunal's decision, including his identification of material flaws in the methodology relied on by the Tribunal in deciding on a gamma estimate of 0.25
- supported the QCA's existing methodology and approach to estimating gamma
- noted there continues to be a diversity of views among Australian economic regulators on the appropriate estimate of gamma. Although there is currently no clear consensus, the QCA's estimate of 0.47 lies within the range of recent estimates applied by regulators (0.4–0.5)—other than IPART and the Tribunal's decision (0.25)[340]
- stated that Tribunal decisions are not binding on the QCA, and that other Australian economic regulators are typically better placed than the Tribunal to reach an appropriate estimate of gamma because of their more thorough consultation and consideration processes.

DBCTM

In relation to Lally's advice to the QCA on the Tribunal's decision on gamma, DBCTM:

- considered that Lally's review of the Tribunal's decision was mainly a restatement of his previous positions and a series of assertions that the Tribunal had not adequately substantiated its rulings. His review also established that he did not accept the Tribunal's

[338] QRC 2016.
[339] DBCT User Group 2016.
[340] DBCT User Group 2016: 5 (table and associated discussion).

decision that his views were in tension with key requirements of Australian regulatory determinations.

- disagreed with Lally's view that the Tribunal's preferred approach to estimating gamma was theoretically incompatible with the Officer framework
- was concerned that the QCA might retain its existing approach to gamma determination, even if the Federal Court dismisses the AER's judicial review application
- believed the Tribunal's decision was one of the approaches that could legitimately be adopted (not necessarily the only approach) consistent with the Officer framework and the way that framework is applied by Australian regulators.[341]

In support of its submission, DBCTM sought advice from Professor Officer ('Officer') on Lally's review of the Tribunal's decision.[342]

- On theoretical issues, Officer considered:
  - Lally and van Zijl[343] did not provide a rigorous proof of the Officer model; they did not re-define gamma or provide a unique way of estimating gamma; their derivation did not have the generality of the Officer model; and their approach was simply one way of extending the Officer model to derive estimates
  - Officer's model used a domestic definition of the return on the market portfolio because nearly all uses of the CAPM in an Australian context adopt an estimate based on this definition, and estimates of the MRP are typically based on a period when the company tax system had no imputation credits. Lally's view that Officer's model implies that all investors can use the credits and the value of theta should be 1.0 despite the existence of foreign equity investors is incorrect. Officer's paper does point out the effect of foreign investment on the value of credits.
- On the estimation of theta, Officer:
  - agreed with Lally's contention that the proportion of Australian equities held by local investors is a suitable estimate for theta (if foreign investors are recognised). However, this is not an economic issue but a legal one.
  - supported Lally's rejection of redemption rates based on ATO data, because of the unreliability of that data
  - thought that several of Lally's reasons for believing that dividend drop-off methods were unreliable due to econometric problems were contentious. However, he did not reject Lally's arguments.
- On the estimation of the distribution rate, Officer:
  - agreed with Lally's claim that the distribution rate is firm-specific. However, he does not agree with Lally that theta is a market-wide parameter, but rather is firm-specific, and therefore considers that Lally's views are inconsistent.

[341] DBCTM 2016: 3–4.
[342] DBCTM 2016, attached advice by RR Officer, 'Commentary on the DBCT matter before the QCA: Focussing on Gamma in the Officer (1994) Model'.
[343] Lally & van Zijl 2003.

- stated that Lally's estimate of the distribution rate is market-based, but that Lally failed to recognise that there is no clear market for trading credits because such trading is illegal
- disagreed with Lally's view that using firm-based distribution rates would allow firms to manipulate their regulatory costs of capital estimated from the Officer model.

A number of other points were made by Officer about his definitions of WACC and estimation of gamma as follows:

- Officer's alternative definitions of WACC relate to an individual company; are consistently derived from particular definitions of cash flows using a perpetuity framework; and are not empirical models. Models are consistent whether markets are segmented or non-segmented, and whether investors are domestic or international.
- In the context of these definitions, gamma is defined as the value of $1 of imputation tax credits, bounded between 0.0 (for no use of credits) and 1.0 (for full use of credits). Gamma is also defined as the proportion of tax collected from the company, which is applied as a credit against personal taxation. Not all of the tax collected from the company is company tax—the tax actually paid by the company is reduced by the proportion—that is, gamma.
- Officer's various WACC definitions say nothing about how gamma should be estimated. However, Officer discussed the pros and cons of the following estimation approaches, specifically using:
  - where distributed credits are contemporaneous with company tax payments, a pragmatic estimate which calculates the weighted average of the proportion of credits used (valued at 1.0) and the proportion not used (valued at 0.0). However, where distributed credits and company tax payments are not contemporaneous, the value of credits when earned may diminish because of the time value of money
  - a market value for gamma in a legitimate and organised setting. However, this is prohibited by legislation
  - a 'black market' value for gamma (e.g. using 'dividend drop-off' studies), but this is likely to be very unreliable due to the information constraints and the variable nature of such 'markets'. Given the econometric difficulties associated with obtaining reliable estimates using a large number of companies over extended time periods, the application of dividend drop-off studies to individual companies would be too unreliable to use for estimating gamma
  - direct interrogation of 'black markets' for a value, as there is still an indirect trade in imputation credits. However, the difficulty of finding evidence that would 'stand up in court' has generally precluded this approach
  - a company-specific approach that pragmatically estimates gamma based on the proportion of credits distributed and the proportion of investors who can use them
  - an estimate of gamma based on the marginal investor—whether domestic (gamma of 1.0) or international (gamma of 0.0). However, the difficulty in determining the marginal investor and the greater variance in the gamma estimate may discourage use of this approach
  - tax statistics to estimate gamma, based on the average proportion of company taxable income paid out as franked dividends (i.e. proportion of available credits distributed) multiplied by the average proportion of credit claims against personal tax. This approach

is only justifiable if the average gamma for Australian companies is considered a suitable estimate for the company's gamma. Moreover, the tax statistics for imputation credits are considered unreliable.

DBCTM interpreted Officer's advice as follows:

- Officer's framework of definitions says nothing about how gamma should be estimated. Officer asserts only that, theoretically, the value of gamma is bounded by 0.0 and 1.0.
- Officer rejects Lally's claim that Lally and van Zijl (2003) provide proof of the Officer model, which implies a unique legitimate approach for estimating gamma.
- The value of an imputation credit to a shareholder is its face value if the credits can be redeemed at no cost and contemporaneously with the company tax payments that they reflect.
- As there is no explicit market for direct trading in credits, market-based approaches need to rely on estimates of credit values inferred from share trading (e.g. dividend drop-off studies). These markets do not have the properties that would result in a direct market in credits yielding the face value as the market value for credits.[344]

DBCTM also stated that Officer's framework does not take into account the following matters which are important for economic regulation:

- Officer's framework is concerned with the value of imputation credits for a particular firm, rather than for a hypothetical efficient benchmark firm for the regulated entity.
- Officer's framework does not deal with factors that might cause investors' ex ante valuations of credits to diverge from their ex post face values (e.g. differences in timing between company tax payments and the earning of credits).[345]

Based on Officer's advice, DBCTM retained the view it adopted in its response to the draft decision—that the Tribunal's decision is consistent with the Officer framework. Moreover, the Tribunal had considered and rejected the arguments relied on by the QCA to justify its gamma estimate of 0.47. Therefore, notwithstanding that the QCA is not bound by the Tribunal's decision, it should adopt the Tribunal's preferred value of gamma of 0.25.

4.9.7 QCA analysis

We have considered stakeholders' submissions on the draft decision and on Lally's review of the Tribunal's *PIAC-Ausgrid* decision, including the advice provided to DBCTM by Professor Officer.

We do not consider that the reasoning and analysis put forward in those submissions, or in the Tribunal's *PIAC-Ausgrid* decision, are sufficient to persuade us to change our draft decision that a reasonable estimate of gamma is 0.47—comprising a distribution rate of 0.84 and a utilisation rate (theta) of 0.56—for the reasons set out below.

The theoretical case for a market-value definition of theta in the context of our valuation models has not been established to our satisfaction either by stakeholders or by the Tribunal in the *PIAC-Ausgrid case*. Our view continues to be that the appropriate definition of theta is a weighted average over the utilisation rates of imputation credits of all investors in the market.

[344] DBCTM 2016: 5–6.
[345] DBCTM 2016: 6.

The 1994 Officer paper does not provide a rigorous proof of the CAPM presented by him. Moreover, Officer defines gamma as the 'value of a dollar of tax credit to the shareholder', and also as 'the proportion of tax collected from the company which gives rise to the tax credit associated with a franked dividend'. Officer also states that the 'value' of gamma equals 1.0 when the shareholder can fully use the credits and 0.0 when the shareholder cannot use the credits.[346] These definitions of gamma are also included in Officer's advice to DBCTM.[347]

In our view, Officer's statements on the definition of gamma are consistent only if the value of gamma is defined as its face value or 'numerical level', rather than its market value. This view is supported by:

- Officer's calculation of gamma in his illustrative numerical example in Officer (1994)[348]
- Lally's analysis that the equity market value increment from the imputation credits requires that the face value of the credits must be divided by the cost of equity to allow for both the time value of money and risk[349]
- the Lally and van Zijl derivation, which is consistent with the face-value rather than the market-value definition of theta, and which can be reduced to the Officer model as a special case[350]
- Lally's demonstration that defining theta as an average over investors' utilisation rates for credits (1.0 for fully usable and 0.0 for not usable) is not only consistent with the Officer framework but also with the treatment of taxes in a non-imputation regime.[351]

We interpret Officer's 'market' comments in footnote 5 of his 1994 paper as a reference to possible ways to estimate gamma, not as a way to define gamma in his theoretical framework. Moreover, market-based and marginal-shareholder approaches have since been questioned by Officer in his advice to DBCTM.[352]

As we do not accept the market-value definition of theta, we also do not accept that estimates of the market value of the imputation credits should be the sole, or even primary, method for estimating theta. Our preferred method for estimating theta is to consider the relative importance of several estimation methods, taking into account the conceptual and practical issues involved.[353]

Officer does not dispute that various approaches can be used to estimate theta, some better than others. In particular, he agrees that ATO data are unreliable for estimating redemption rates, and the econometric difficulties associated with the use of implicit methods to estimate the market value of credits make it difficult to obtain reliable estimates. He also agrees that the

[346] Officer 1994: 4 and footnote 5.
[347] DBCTM 2016, attached advice by Officer: 3.
[348] Officer 1994, appendix: 11–17.
[349] Lally 2016, section 2.1: 11.
[350] Lally & van Zijl, 2003.
[351] Lally 2016, section 2.1: 14.
[352] DBCTM 2016: attached advice by Officer, 4–6.
[353] As outlined in our market parameters decision, the methods considered were the equity ownership approach, redemption approach, dividend drop-off studies, Lally's conceptual test, and practitioner behaviour. Our assessment of these methods for the draft decision included, among other things, the guidance provided by Lally on relative weightings that could be applied to the estimates obtained from these various methods (e.g. see Lally 2015a: 15).

proportion of Australian equities held by local investors is a suitable estimate for theta (if foreign investors are recognised).[354] Notably, Officer, in his advice to DBCTM, also expresses the view that he does not believe the Tribunal has 'properly considered alternative approaches' to using market rates for estimating gamma.[355]

We do not agree with the Tribunal's view that the estimate of the distribution rate should be founded on ATO data, because we consider that data unreliable. Our preferred approach is to use the financial statement data of listed companies because financial statement data are audited; it is possible to personally identify data for particular firms rather than relying on ATO data, which are 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.

Officer's contention that Lally's estimate for the distribution rate is market-based, while failing to recognise the absence of a suitable market for trading credits, appears to confuse the estimation of theta with the estimation of the distribution rate. In addition, Lally's estimate of the distribution rate uses market-wide financial statement data, not market prices.

We do not support Officer's rejection of Lally's arguments for using market-wide, rather than firm-based, estimates of the distribution rate. Lally argues that applying the Officer framework on a regulated-firm basis provides an incentive for the firm to reduce its fully franked dividends and therefore reduce its distributed credits. This in turn lowers the distribution rate and raises allowable revenues and prices. We find this argument persuasive, given the effect on regulatory cash flows of changes in the distribution rate, and therefore gamma.

We do not agree with Aurizon Network that our use of the financial statement approach overestimates the distribution rate due to the existence of foreign tax. As Lally demonstrates, the effect of this characteristic is to underestimate rather than overestimate the distribution rate for the benchmark firm.[356]

We do not agree with DBCTM that the Officer framework is not applicable to the use of benchmarks in regulatory analysis. However, we agree that Officer's theoretical framework—like that of Lally and van Zijl—is expectations-based, or ex ante, in nature. Estimates on the other hand, of necessity, rely on ex post data. In our view, the salient issue is the extent to which the estimation methods used best represent the parameter definitions used in the Officer model, which is the framework assumed for regulatory valuation purposes. As mentioned above, our preferred approach is to assess several estimation methods to see how well they align to parameter definitions, taking into account the advantages and disadvantages of these methods.

We do not accept the views of DBCTM and Aurizon Network that we should necessarily follow the findings of the Tribunal's decision in the *PIAC-Ausgrid case* on an appropriate estimate for gamma. We have considered the reasoning and findings of the Tribunal and note that the Tribunal's decision is not binding on the QCA. The decision is made with reference to a different regulatory framework (namely, the National Electricity Rules which specifically require an

[354] DBCTM 2016, attached advice by Officer.
[355] DBCTM 2016, attached advice by Officer: 8.
[356] Lally 2016: 35–37.

estimate of the value of imputation credits[357]). Moreover, the Tribunal's interpretation of that framework is presently the subject of judicial review.[358]

We also note the comment by the DBCT User Group that, whereas there is currently no clear consensus among Australian economic regulators on the appropriate estimate of gamma, the QCA's estimate of 0.47 lies within a fairly close range of recent estimates applied by regulators (0.4–0.5)—other than IPART and the Tribunal's decision (0.25).

However, although we have taken into account the views of other economic regulators, including the Tribunal, in reaching our decision, we consider that our methodology must stand on its inherent merits. In this regard, we are generally persuaded by the analysis of our consultant, Dr Lally, particularly with regard to the definitional and estimation issues involved (as discussed above).

4.9.8 QCA final decision

Taking into account the material provided to us by stakeholders in response to the draft decision and subsequent submissions, our analysis and reasoning remain the same as set out in the draft decision and, therefore, we consider our position in the draft decision remains appropriate.

Our final decision is to refuse to approve the gamma of 0.25 proposed by DBCTM in its 2015 DAU.

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

Summary 4.10—Gamma

The QCA's decision in relation to gamma is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so as to apply a gamma of 0.47.

4.10 Conclusion

Based on the parameter estimates discussed in this chapter, we consider an appropriate post-tax nominal (vanilla) WACC for DBCTM is 5.82 per cent per annum. This figure incorporates a

[357] National Electricity Rules, section 6, rule 6.5.3.

[358] In this regard, we note that the Tribunal has differing views on the conceptual nature of gamma and the appropriate methodology for estimating it. In its more recent determination—*Application by SA Power Networks* [2016] ACompT 11 (the '*SAPN case*') dated 28 October 2016—the Tribunal said that the regulator did not err, nor was unreasonable, in forming a judgement on an appropriate estimate of gamma by weighing the evidence from a range of alternative approaches, taking into account the diversity of views of experts on the merits of these approaches (both theoretical and empirical). The Tribunal recognised that the SAPN decision is the converse of that made by a differently constituted Tribunal in the *PIAC-Ausgrid case*. The SAPN Tribunal gave two reasons for this difference. First, that submissions in the SAPN hearing gave greater attention to the theoretical underpinnings of the post-tax revenue model (PTRM) and the 'vanilla WACC' framework. Second, that dividend drop-off evidence should be viewed in the context of the theoretical model underpinning it, and that there are too many uncertainties associated with extracting reliable evidence to place sole, or even major, weight on such studies for the estimation of the value of franking credits in the context of the PTRM.

cost of debt of 4.72 per cent, and a cost of equity of 7.48 per cent, and is based on 60 per cent gearing.

Values for all parameters, as compared to DBCTM's proposal, and the DBCT User Group's position, are contained in Table 15.

Summary 4.11—Rate of return

The QCA's decision in relation to the rate of return is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so as to set a post-tax nominal (vanilla) WACC of 5.82 per cent per annum, incorporating:

- **a cost of equity of 7.48 per cent per annum**
- **a cost of debt of 4.72 per cent per annum**
- **a benchmark gearing of 60 per cent.**

Table 15 Proposed WACC parameters for DBCTM's 2015 DAU and the QCA's final decision

	Parameter	*DBCTM's 2015 DAU proposal*	*DBCT User Group submission*	*QCA draft decision*	*DBCTM submission (post draft decision)*	*DBCT User Group submission (post draft decision)*	*QCA final decision*
2.	**Averaging period** (20 business days up to DD/MM/YY)	21/08/15 (indicative)	21/08/15 (indicative)	30/10/15 (indicative)	31/05/2016	31/05/2016	31/05/2016
3.	**RFR**	2.8%	2.17%	2.10%	1.8242%	1.82%	1.824%
4.	**MRP**	8.0%	6.5%	6.5%	6.5%	6.5%	6.5%
5.	**Asset beta**	NA[a]	0.43	0.45	NA[a]	0.43	0.45
6.	**Equity beta**	1.0	0.81	0.87	1.0	0.81	0.87
7.	**Gamma**	0.25	0.47	0.47	0.25	0.47	0.47
8.	**Capital structure** (% debt)	60%	60%	60%	60%	60%	60%
9.	**Credit rating**	BBB	BBB	BBB	BBB	BBB	BBB
10.	**Debt risk premium** (raw)	2.32%	2.32%	2.68%	2.71%	2.56%[b]	2.65%
11.	**Debt issuance costs**	0.108%	0.108%	0.108%	0.108%	0.108%	0.108%
12.	**Interest rate swap costs**	NA	0.150%	0.113%	0.159%	0.113%	0.135%
13.	**Total debt risk premium** (including transaction costs)	2.43%	2.58%	2.90%	2.98%	2.78%	2.89%
14.	**Cost of debt**	5.23%	4.75%	5.00%	4.80%	4.60%	4.72%
15.	**Cost of equity**	10.8%	7.47%	7.76%	8.32%	7.12%	7.48%
16.	**Equity premium**	8.0%	5.27%	5.66%	6.50%	5.27%	5.66%
17.	**WACC premium** (above risk-free rate)	4.66%	3.67%	4.00%	4.39%	3.79%	4.00%
18.	**WACC**	7.46%	5.84%	6.10%	6.21%	5.61%	5.82%

a *DBCTM did not propose an asset beta value*

b *The DBCT User Group later said it considered a debt risk premium of 2.50 per cent was appropriate.*

5 DEPRECIATION

Depreciation (the return of capital) allows asset owners to recover their initial investment. DBCTM's 2015 DAU proposed to apply a depreciation profile to the RAB that matches the weighted average mine life (WAML) of the mines in the DBCT catchment. DBCTM proposed to review the WAML at each undertaking reset.

Our draft decision was to refuse to approve DBCTM's depreciation proposal. We considered DBCTM should amend the 2015 DAU to maintain the economic life used in the 2006 and 2010 AUs—that is, 38 years from 2016. We considered DBCTM had failed to provide sufficient 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.

In response to our draft decision, DBCTM proposed an alternative methodology for determining the period over which DBCT assets are depreciated—based on the remaining term of DBCTM's lease (which ends on 15 September 2051, although DBCTM proposed to use June 2051 for modelling purposes). After considering DBCTM's alternative proposal, we consider DBCTM has not provided sufficient evidence that asset stranding risk has materially increased. Therefore, our final decision is to maintain the economic life as the basis for calculating depreciation. This is consistent with the previous AUs.

However, consistent with our draft decision, we approve DBCTM's separate proposal to depreciate spares attributed to the original RAB over 15 years. We consider it is consistent with the way spares associated with expansions are treated, and will allow DBCTM to recover its original capital invested in spares.

5.1 Background

Since the 2006 AU was approved, a 50-year economic constraint (to 2054) has been applied to the lives of the DBCT assets. 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. The constraint was based upon the economic life of the coal reserves in the catchment area and was informed by two consultants' reports.[359]

The 2010 AU maintained the 50-year economic constraint on the Terminal's asset lives. However, the depreciation allowance in the 2010 AU was not considered in isolation, given the 2010 AU reflected a commercially negotiated 'package' between DBCTM and the DBCT User Group.

5.1.1 DBCTM's 2015 DAU proposal

DBCTM's 2015 DAU proposal is discussed in greater detail in Section 5.2.2 of our draft decision. In summary, DBCTM proposed to:

[359] 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.

- reduce the economic life of DBCT by 13 years from 2054 to 2041. This reduced life was based on an assessment by Wood Mackenzie of the weighted average mine life (WAML) of mines serviced by DBCT
- review the WAML at each regulatory reset to account for changes in the reserve base of mines in the DBCT catchment.

DBCTM proposed the reduced economic life due to 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.

5.1.2 Stakeholders' initial comments

The DBCT User Group and Vale commented on the WAML proposal in their submissions on the 2015 DAU.[360] In summary, the DBCT User Group and Vale said:

- The risk of asset stranding is less than inferred by DBCTM.
- DBCTM's proposed WAML will always be based on relatively short-term assumptions and is unnecessarily shortened, given it excludes future mining projects.
- The WAML proposal does not reflect the expected growth in seaborne coal forecasted by Wood Mackenzie.
- Competition between terminals is limited, as there are many other practical barriers to access holders transferring capacity, such as the cost advantages of DBCT and long-term take-or-pay commitments.

DBCTM provided a supplementary submission which said:

- The DBCT User Group's submission on the incentive to renew contractual arrangements fails to take into account the impact of softening in global coal markets.
- 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.
- If the demand outlook softens to the point where there is no unmet demand, the Terminal's users will be less willing to bear the ongoing obligations of holding take-or-pay capacity and will be more willing to access available capacity on an ad hoc basis.[361]

DBCTM provided its supplementary submission to us shortly before the release of our draft decision. Given the timing, we were limited in the weight which we could afford to the submission. We have given further consideration to DBCTM's supplementary submission in our analysis for this final decision.

5.1.3 QCA consultant's advice

We engaged Resource Management International (RMI) to independently assess DBCTM's proposed WAML and provide an estimate of the mine lives within the DBCT catchment.[362] In

[360]. Vale, sub. 10: 8; DBCT User Group, sub. 11: 17–19.
[361] DBCTM, sub. 30: 5–8.

summary, RMI concluded DBCTM's WAML may significantly underestimate the viable supply of coal to DBCT for three reasons:

- The methodology disregards tonnages to DBCT from those mines with a life longer than the weighted average.
- The estimate uses only 'marketable reserves' and appears to disregard measured and indicated resources under the JORC code[363], which may legitimately be used for mine planning purposes.
- The estimate excludes, from the economic life analysis, all projects that are unlikely to commence in the next regulatory period.

RMI also independently reviewed the mine lives within the DBCT catchment area. RMI estimated DBCT's economic life to be 40 years from 2015 (to 2055)—14 years longer than Wood Mackenzie's estimate of 25 years from 2016 (to 2041).

5.1.4 QCA draft decision

Our draft decision was to refuse to approve DBCTM's proposal. We proposed to require DBCTM to amend the 2015 DAU to apply the economic life used in the 2006 and 2010 AUs (i.e. to 2054).

Our full reasoning and analysis for our draft decision are contained in Section 5.2.6 of our draft decision. We have adopted that reasoning and analysis for the purposes of this final decision, subject to the comments below.

In summary, we were not persuaded by DBCTM that its asset stranding risk had increased materially. In particular, we noted:

- The sound economic fundamentals of the Queensland metallurgical coal industry, which includes firms in the DBCT catchment, position the industry as being on the lower part of the international cost curve and able to withstand significant and protracted coal market downturns.
- Economic barriers (e.g. additional railing costs) and practical barriers (e.g. lack of below-rail capacity) which are likely to prevent most users from transferring capacity to alternative terminals, and which therefore limits competition from other ports.
- 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.

5.1.5 Stakeholders' comments on the draft decision

DBCTM

DBCTM said the QCA's draft decision relies too heavily on the medium- and long-term prospects of the metallurgical coal industry in Australia. DBCTM said 'the short-term risks DBCTM faces are sufficient to threaten DBCTM's prospects in the medium- and long-term market.'[364]

DBCTM reiterated that its asset stranding risk had materially increased, given:

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[362] RMI 2015. A copy of RMI's report is available on the QCA website.
[363] The Joint Ore Reserves Committee Code (JORC Code) provides a globally recognised convention for referring to coal resources and reserves.
[364] DBCTM, sub, 37: 8.

- the genuine threat of competition from APCT. As evidence, DBCTM proffered that several Goonyella mines, including those owned by Peabody, BMC and BMA, had contracted 15-year port access agreements with APCT since its last access undertaking.
- access holders have not renewed contracts for 6.3 mtpa of existing capacity. The contract profile 'drop off' for DBCTM is 'markedly different' from that in the 2010 AU.
- Peabody Australia recorded a $2.7 billion loss in calendar year 2015 and its parent company (in the United States) filed for Chapter 11 bankruptcy protection.
- DBCTM said take-or-pay contracts provide some revenue protection, but they cannot insulate access providers from a situation where contracts are not renewed and infrastructure charges increase to a point that threatens the viability of remaining users.

Given these risks, DBCTM proposed that the depreciation profile be aligned with the initial lease term (i.e. the end of its lease be the terminating point for measuring depreciation). DBCTM said:

- Using 'information that is certain reflects a balanced outcome between an access provider and its customers' and eliminates the need to address differences in opinion between consultants.
- There is no certainty that the lease will be extended and it is not appropriate for the QCA to assume that DBCTM will extend its lease.
- If DBCT's economic life is the reference point for calculating depreciation, there is a risk DBCTM will not recover its return of capital on assets over the September 2051[365] to 30 June 2054 period. This would be inconsistent with the pricing principles and DBCTM's legitimate business interests (ss. 138(2)(g) and (c) of the QCA Act).[366]

DBCT User Group

On the QCA's draft decision, the DBCT User Group:

- supported maintaining the useful life of the Terminal to 2054—as applies under the existing AU
- said adopting Wood Mackenzie's WAML approach was not appropriate.

The DBCT User Group considered there is 'no real risk of the Terminal not being utilised prior to the QCA's current assumed life', as:

- the outlook for coal, particularly metallurgical coal, is positive
- Goonyella coal mines are particularly well placed to continue to achieve current volumes due to the mines typically being in the lowest portions of the cost curve and mostly producing metallurgical coal, for which there are less potential sources outside the Bowen Basin and no known substitutes for use in iron ore production
- the Terminal is not subject to any practical competition from other terminals.[367]

[365] For revenue modelling simplicity, DBCTM proposed to use June 2051 as the depreciation terminating point rather than the end of the initial term of the lease in September 2051.
[366] DBCTM, sub. 37: 32.
[367] DBCT User Group, sub. 41: 29–30.

5.1.6 Submissions in response to QCA staff questions

DBCTM

DBCTM reiterated its submission on the draft decision and said:

- The Terminal is exposed to more potential competition than when its previous access undertakings were approved.
- The extent to which competing ports will be able to match terms offered by DBCTM in the future will depend on expansion costs and expansion-pricing practices, not on current costs and pricing practices.
- The existence of the of AAPT[368]-Gape facility suggests that DBCT would be unlikely to pass the 'uneconomical to duplicate' access criterion in section 76(2) of the QCA Act. DBCTM said that DBCT being unlikely to pass this criterion (in its view) is evidence that the Terminal now faces substantially more competitive pressure than when the QCA approved the 2006 and 2010 AUs.[369]

DBCT User Group

The DBCT User Group disagreed that users contracting capacity at APCT is evidence of competition between the terminals, given the following:

- Users did not choose APCT over DBCT. DCBTM had indicated to users that it was unwilling to expand DBCT to meet the demand for Terminal capacity.
- At the time, access seekers faced a combination of:
  - system capacity being below capacity at DBCT and greater supply chain losses
  - Aurizon Network wanting to invest in GAPE
  - Aurizon Network's access regime not providing an effective user funding model for access seekers wanting an alternative rail access solution to DBCT.
  - The aggregate demand which existed could justify a substantial expansion of APCT. This is less likely to be the case during the next regulatory period.[370]

5.1.7 QCA analysis and final decision

Our draft decision on the 2015 DAU said we are open to adjusting the 50-year economic life of DBCT, where DBCTM can provide robust evidence that its asset stranding risk has materially increased. At the time of the draft decision, we were not persuaded that asset stranding risk has materially increased.

As outlined above, DBCTM has provided further material to support its claim that asset stranding risk has materially increased over the next regulatory period due to:

- access holders not renewing capacity and the short-term risks of contract profile 'drop-off'. DBCTM said these short-term risks are sufficient to threaten its prospects in the medium- and long-term.

[368] DBCTM refers to the Abbot Point Coal Terminal (APCT) as AAPT (Adani Abbot Point Terminal).
[369] DBCTM, sub. 44: 11–12.
[370] DBCT User Group, sub. 46: 11–12.

- the threat of competition from APCT.

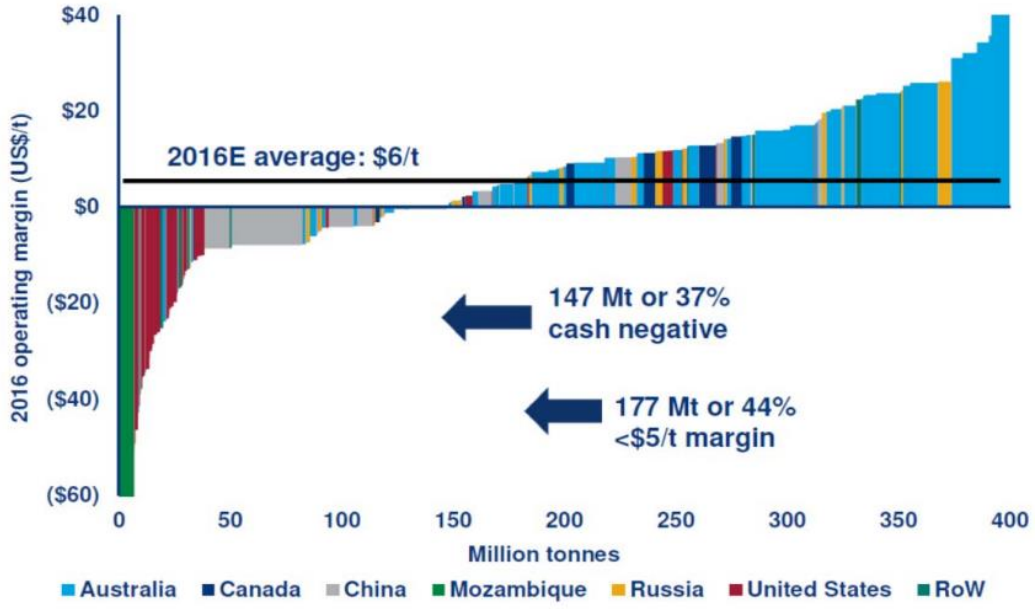
We have considered DBCTM's additional material on asset stranding risk—both in its supplementary submission (submitted prior to our draft decision) and its submissions following our draft decision. We are not persuaded that reducing the economic life of the Terminal is justified at this time, as its asset stranding risk over the forthcoming regulatory period, or the longer term, has not materially increased, in our view. The remainder of the chapter sets out our reasoning for our decision.

Short-term outlook for the metallurgical coal market

We disagree with DBCTM's submission that DBCTM's short-term risks have increased sufficiently to threaten the Terminal's prospects in the medium and long term.[371] The DBCT User Group submitted relevant evidence that indicates the market for seaborne metallurgical coal remains positive in the short term.

Figure 4 (from Wood Mackenzie) shows that the operating margin of most Australian metallurgical coal mines is positive—with Australian metallurgical coal producers better placed than most international competitors.

Figure 4 2016 Seaborne metallurgical coal cash margins

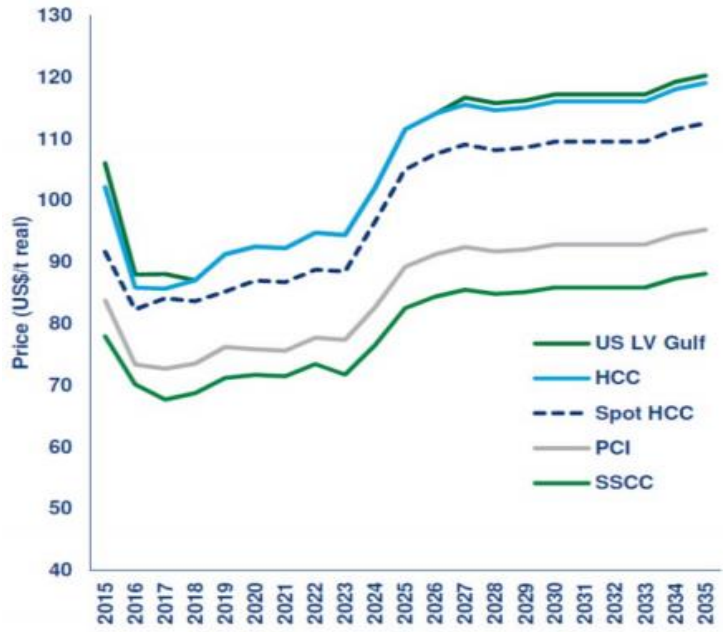


Source: DBCT User Group, sub. 41: 7.

Furthermore, the DBCT User Group noted that Wood Mackenzie has forecast the price of metallurgical coal to improve across the forthcoming regulatory period. In addition, Wood Mackenzie forecasts stronger price growth over the medium to longer term (Figure 5).

[371] DBCTM, sub. 37: 8.

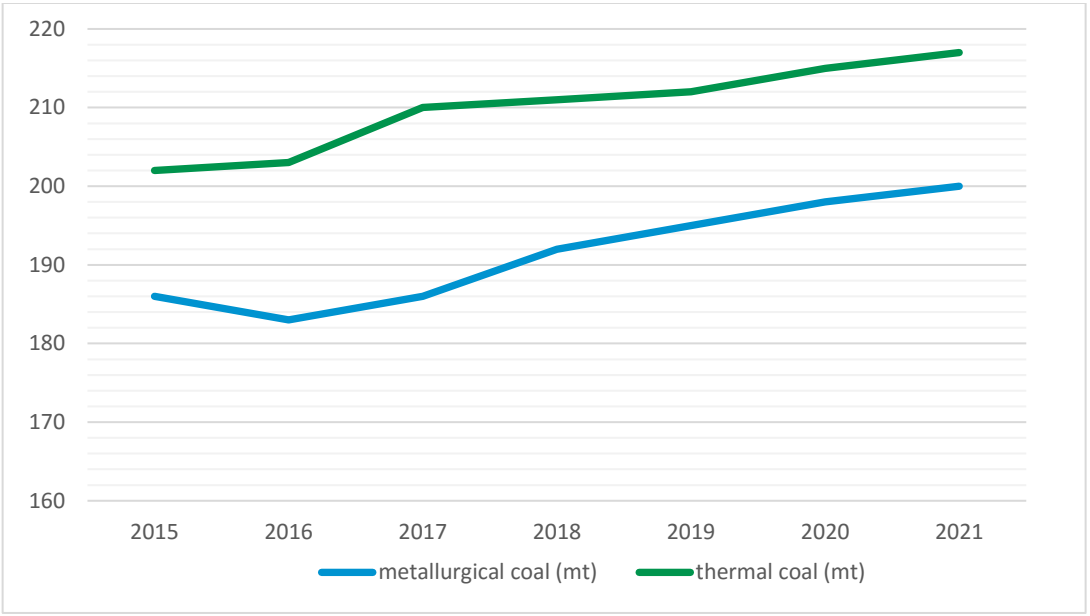
Figure 5 Wood Mackenzie metallurgical coal price forecast to 2035 (US$, real)



Source: DBCT User Group, sub. 41: 6.

The Office of the Chief Economist (OCE) also considers the outlook for Australia's metallurgical coal exports is 'broadly positive'.[372] Over the forthcoming regulatory period, the OCE expects Australian seaborne coal exports to increase by an average two per cent a year to 199 million tonnes in 2020–21, supported by increased production and demand (Figure 6).

Figure 6 Australia's seaborne coal exports 2015–2021



Note: 2016–17 are forecasts, while 2018–21 are projections.

Source: Office of the Chief Economist 2016.

[372] OCE 2016: 50.

We do not consider this evidence—the forecasted increasing volumes, improving price, and positive cash margin positions of Australian metallurgical coal producers—supports a contention that asset stranding risk has materially increased over the forthcoming regulatory period or at least sufficiently to warrant a change in our approach for determining depreciation. However, we have also considered additional evidence, including the financial performance of individual coal miners (discussed in the next section).

Financial performance of individual coal miners

DBCTM said the softening demand environment is a significant risk to DBCTM as it reduces the likelihood of users renewing Terminal capacity.[373] DBCTM submitted that events such as Peabody Energy Corporation's filing for bankruptcy protection could contribute to a situation where contracts are not renewed and infrastructure charges increase to a point that threatens the viability of remaining users.

We maintain our draft decision position that, consistent with Incenta's analysis[374], should an individual coal company default due to poor financial performance in other countries, the sound economics of the Queensland metallurgical coal industry means those Queensland operations are likely to be sold or restructured as independent entities that would continue operations. Indeed, the reopening of Isaac Plains by Stanmore Coal, and Taurus Funds Management's acquisition of the Foxleigh mine provide practical examples of the sound economics of mines in the DBCT catchment area.[375]

Furthermore, S&P has a similarly positive view of Peabody's mines in the DBCT catchment area, despite Peabody's parent company filing for bankruptcy in the United States. In April 2016, S&P said:

> *The Australian subsidiary [of Peabody] reported modest positive cash flow margins for its Millenium and North Goonyella mines of US$5.34 and US$2.92 per tonne. This supports our view of the continued viability of these mines despite the current depressed environment. We understand that production from Peabody Australia's Moorvale mine is also profitable. We continue to expect these contracts to remain in place given that the remaining Peabody mines are profitable and would need a port terminal contract in order to remain operational or to be sold as a going concern.*[376]

Similarly, on the sale of Anglo American's Queensland coal mines, S&P said:

> *We believe these mines are among the lower cost mines globally and are currently solidly profitable. We therefore expect that these mines will continue producing and shipping coal via the port post a sale, if any.*[377]

Finally, DBCTM said there is 'a strong likelihood' that Peabody will only partially renew its expiring access agreements, as Peabody plans to reduce its Australian metallurgical coal production to 7 mtpa by 2021—down from 15 mtpa in 2016.[378] We accept that Peabody's reduced production may also reduce DBCTM's contracted capacity. However, given the revenue

[373] DBCTM, sub. 29: 7; DBCTM, sub. 37: 32.
[374] Incenta 2016a: 26–27.
[375] DBCT User Group, sub. 41: 5–6.
[376] S&P 2016a: 6.
[377] S&P 2016a:7.
[378] DBCTM, sub. 45: 5; Peabody 2016: 39.

cap socialises any uncontracted capacity (including any capacity available due to a user default[379]), DBCTM's annual revenue requirement will be unaffected.

We agree with the DBCT User Group that a small amount of uncontracted capacity at DBCT does not necessarily foreshadow a long-term decrease in demand or a substantial increase in the risks of non-renewal of access agreements over the forthcoming regulatory period.[380] We consider DBCT users are unlikely to reduce their contracted capacity to a point that threatens the viability of the remaining users, given the forecasted increase in Australian metallurgical coal exports identified above. Therefore, we consider DBCTM's asset stranding risk over the forthcoming regulatory period has not materially increased due to the financial performance of individual coal miners.

Medium- and long-term outlook for the metallurgical coal market

Section 5.2.6 of our draft decision identified several independent forecasts that suggested stronger growth in the metallurgical coal market is expected in the medium to long term. We noted Wood Mackenzie has forecast the Australian supply of metallurgical coal to grow at a 1.1 per cent compound annual growth rate (CAGR) from 2015 to 2035. In addition, our consultant, RMI, estimated DBCT's economic life to be 40 years from 2015 (to 2055).[381]

Stakeholders have not provided evidence contrary to those forecasts or RMI's economic life estimate. Therefore, we maintain our position from the draft decision that stronger growth in the metallurgical coal market is expected in the medium to long term.

Competition among ports and asset stranding

Our draft decision accepted that DBCT may compete with other terminals in limited circumstances. However, given the findings of the ACCC[382], and evidence submitted by the DBCT User Group and Vale[383], we said a number of cost and practical barriers are likely to constrain access holders transferring capacity to other coal terminals. We maintain this position for our final decision.

We accept the view of DBCTM that the Terminal may compete with other East Coast terminals such as APCT for a future expansion—and there may be circumstances where it is more cost-effective for other terminals to expand before DBCT. However, we do not consider the competition for capacity expansions materially increases the risk of asset stranding for existing capacity over the forthcoming regulatory period.

In assessing DBCTM's depreciation proposal, we consider the relevant question is whether DBCT users could transfer substantial capacity to APCT to a point that threatens the viability of the remaining DBCT users. The evidence presented to us suggests this outcome is improbable.

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[379] Our final decision on the 2015 DAU approves DBCTM's proposal to socialise the revenue lost from the early termination of a user's agreement due to default or insolvency. See Chapter 12 of this final decision.
[380] DBCT User Group, sub. 41: 13.
[381] DBCTM, sub. 3: 2; RMI 2015: 3.
[382] ACCC 2015, *Brookfield Consortium—proposed acquisition of Asciano Limited*, Statement of Issues, October: [88].
[383] DBCT User Group, sub. 11: 10–13; Vale, sub. 10: 4–5.

We recognise that several members of the DBCT User Group have access agreements at APCT for mines in the Goonyella system. However, we do not consider those agreements are evidence of effective competition between DBCT and APCT.

We also note the DBCT User Group's submission, which suggests those users did not choose to contract at APCT over DBCT. Rather, users contracted at APCT due to the:

- lack of below-rail and port capacity available at DBCT
- unwillingness of DBCT to expand Terminal capacity at the time—beyond meeting new demand with the development of the unregulated Dudgeon Point Coal Terminal project
- aggregate demand that existed, which could justify the development of an expansion at APCT.[384]

We maintain that APCT currently appears unlikely to provide effective competition to DBCT. Both DBCTM and the DBCT User Group submitted that APCT is almost fully contracted over DBCT's next regulatory period, providing limited scope for users to transfer capacity away from DBCT. Furthermore, DBCTM provided evidence to suggest the earliest access agreement at APCT does not expire until June 2020, with a majority not expiring until after November 2024—three years after the end of the forthcoming regulatory period.[385]

Despite APCT being fully contracted, DBCTM said APCT access holders, such as Rio Tinto, could possibly transfer APCT access agreements to other users at below cost.[386] DBCTM has not provided evidence to suggest this arrangement is likely to occur, and we consider the weight we should give to this possibility is low. In any event, it is not clear how this alone constitutes evidence of a likely reduction in future utilisation at DBCT.

Beyond the evidence in our draft decision, we note a number of credit ratings agencies have since made further comments on the competitive position of DBCT. In May 2016, S&P said that when compared to APCT:

> *DBCT benefits from lower costs because of its first-mover advantage, which underpins its ability to offer strong competitive pricing. This advantage will be difficult for any new port to match.*[387]

While Fitch said:

> *DBCT is the largest and lowest price coal export terminal serving Australia's Bowen Basin in central Queensland, which has the country's highest quality metallurgical coal and low average costs relative to other coal producing regions globally.*
>
> *While the coal market downturn has created financial stress for customers and lowered DBCT's contracted capacity to 80.7mtpa, Fitch's view is that slow-but-steady increases in coal prices and DBCT's strong competitive position will support higher contracted usage in the future.*[388]

Finally, DBCTM said its view that it is unlikely to pass the 'uneconomical to duplicate' criterion in section 76(2) of the QCA Act is evidence that the Terminal now faces substantially more competitive pressure than in previous undertakings. We do not make any findings as to whether

[384] DBCT User Group, sub. 46: 11–12.
[385] DBCTM, sub. 37:2; DBCT User Group, sub. 46: 11.
[386] DBCTM, sub. 45: 5.
[387] S&P 2016b: 3.
[388] Fitch 2016: 1.

DBCT continues to satisfy the criterion in section 76(2). We simply note DBCT is declared under Part 5 of the QCA Act until 8 September 2020.

Therefore, given the analysis in Section 5.2.6 of the draft decision, and noting the further evidence above, we are not persuaded that asset stranding risk has materially increased due to increased competition among ports.

DBCTM's alternative depreciation proposal

We consider that, as a general principle, DBCTM's depreciation allowance should return its capital over the economically useful life of the Terminal. This provides DBCTM with a return that is commensurate with the regulatory and commercial risks involved (ss. 138(2)(c) and (g)).

DBCTM saw 'merit in shortening the depreciation period' and has proposed to use the end of the initial lease term as the reference point for calculating depreciation.[389] To support the alternative proposal, DBCTM identified two key risks that may prevent it from receiving its return of capital:

- asset stranding risk
- DBCTM not extending its lease beyond the initial term—adopting an economic life to 2054 implies DBCTM would need to exercise its 49-year extension option to recover its return of capital.

For the reasons outlined earlier in this chapter, we disagree that DBCTM's asset stranding risk has materially increased since the 2006 AU, when the initial 50-year economic constraint was applied. Therefore, we consider DBCTM's alternative proposal does not align with the economically useful life of the Terminal.

We accept that if DBCTM terminated its lease after the initial term, it would not have an opportunity to recover its return of capital. We are therefore open to reducing the economic life at future regulatory resets where DBCTM can provide evidence to suggest it will not extend its lease.

DBCTM said that prior to extending its lease for a further 49 years, it would need to decide whether taking on the obligations in the PSA is in its business interests.[390] However, we note that beyond DBCTM's existing obligations, the PSA does not contain additional costs associated with extending the lease.

Given the initial lease term only ends in approximately 35 years, and uncertainty exists over whether DBCTM will extend its lease beyond the initial term, we do not consider it appropriate to reduce DBCTM's economic life at this time for the purposes of depreciation.

Consistent with our draft decision, we consider adjusting or reducing the depreciation profile has implications for intergenerational equity. If the depreciation profile is arbitrarily weighted towards short term cost recovery in the absence of a justifiable reason to do so, 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.

[389] DBCTM, sub. 37: 32.
[390] DBCTM, sub. 37: 32.

5.1.8 Conclusion

We have considered DBCTM's additional material on asset stranding—in both its supplementary submission prior to our draft decision and its submissions following our draft decision. We are not persuaded that reducing the period over which assets are depreciated, or altering the methodology for calculating the period for the Terminal is justified at this point in time—recognising that we may do so in future regulatory resets if circumstances justify it.

We consider DBCTM's asset stranding risk has not materially increased over the forthcoming regulatory period given:

- The outlook for the Queensland metallurgical coal industry remains positive in the short term (and beyond). The coal mines in the DBCT catchment are generally on the low part of the international cost curve, with positive cash margins. Furthermore, Australian metallurgical coal exports and prices are expected to increase over the regulatory period.
- Economic and practical barriers substantially limit users from transferring capacity to other terminals.
- RMI has estimated that the economic life of the DBCT assets is 40 years from 2015 (to 2055).

Furthermore, DBCTM has not provided evidence to suggest that it will not extend its lease beyond the initial term.

Therefore, after having regard to section 138(2) of the QCA Act, we do not consider it appropriate to approve DBCTM's initial or alternative depreciation proposals. We consider the proposals do 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)).

We consider the economic life, as applied in the 2006 and 2010 AUs, represents the most appropriate basis for calculating depreciation. However, should asset stranding risk increase materially, or if it becomes apparent that DBCTM may not extend beyond the initial term, we could consider changes to the economic life as part of a future regulatory reset.

Summary 5.12—Depreciation methodology

The QCA's decision in relation to depreciation is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so as 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.

5.2 Depreciation of spares

5.2.1 DBCTM's 2015 DAU proposal

In the 2015 DAU, DBCTM proposed to depreciate spares that form part of its original DORC asset valuation over 15 years. DBCTM proposed the 15-year life for spares, given it does not maintain and assign spares to each individual asset or asset class for modelling purposes.

For the 2006 and 2010 AUs, DBCTM received a return on capital for these spares, but not a return of capital. DBCTM said, should the current approach continue, it would not have an opportunity to recover its capital when operations cease.

5.2.2 Stakeholders' initial comments

The DBCT User Group said:

- The existing treatment of spares should be retained for the upcoming regulatory period.
- The principle of Maunsell Australia Pty Ltd (the QCA's consultant for the 2006 AU)—that spares should not be depreciated—still holds.[391]
- DBCTM receives the return of capital component on the spares once they are in use.[392]

5.2.3 QCA draft decision

Our draft decision was to approve DBCTM's proposal. Our full reasoning and analysis for our draft decision are contained in Section 5.3.3 of our draft decision. We have adopted that reasoning and analysis for the purposes of this final decision, subject to the comments in Section 5.2.5 further below.

In summary, we noted the QCA previously approved two different approaches for depreciating spares—depending on whether the spares form part of the initial DORC valuation or an expansion.

We considered it the better view that DBCTM should receive a return of capital on its spares. Maintaining an inventory of spares is a necessary and prudent cost for providing access to the services at DBCT. Therefore, DBCTM should receive a return that is at least enough to meet the efficient costs of providing access.

We disagreed with the DBCT User Group's submission that DBCTM receives the return of capital component on the initial spares once they are in use. The QCA confirmed that the spares associated with the original assets have been used and DBCTM has not received its return of capital on those spares.

We considered a 15-year depreciation period to be appropriate, given:

- DBCTM does not maintain and assign spares to each individual asset or class.
- Depreciation would be calculated consistently between spares related to the initial DORC assets and expansion assets.
- Stakeholders have not raised concerns with the existing 15-year life applied to expansion spares.

5.2.4 Stakeholders' comments on the draft decision

DBCTM

DBCTM said it supports the QCA's position on the depreciation of spares—including a 15-year asset life for spares. It said recovering investment costs, particularly via the return of capital, is important for managing its asset stranding risks.[393]

[391] Maunsell, 2005.
[392] DBCT User Group, sub. 11: 21.
[393] DBCTM, sub. 37: 33.

DBCT User Group

The DBCT User Group said it was willing to accept depreciating spares over the remaining life of the Terminal. However, the User Group noted that doing so would result in a change in DBCTM's risk profile and asked us to reconsider whether the asset beta remains appropriate.[394]

5.2.5 QCA analysis and final decision

Our final decision is to approve DBCTM's proposal to depreciate the spares for its initial assets over 15 years. We note the DBCT User Group proposed to accept the proposal, provided the spares are depreciated over the remaining life of the Terminal. However, we are not dissuaded from our position that a 15-year depreciation period is appropriate, as:

- the spares associated with the original assets have been used, and DBCTM has not received its return of capital on those spares
- stakeholders have not raised concerns with the existing 15-year life applied to expansion spares
- depreciation would be calculated consistently between spares related to the initial DORC assets and expansion assets.

Therefore, after having regard to the relevant factors in section 138(2) of the QCA Act, our final decision is to maintain our draft decision on the depreciation of spares.

Impact on the asset and equity beta

We note the DBCT User Group said approving the proposal represents a change in the risk profile of DBCTM—therefore, the QCA should reconsider DBCTM's asset beta.

We have taken into account our approval of this proposal when estimating an appropriate asset and equity beta for DBCTM. Section 4.8 of this final decision discusses the impact on DBCTM's asset and equity betas.

Summary 5.13—Depreciation of spares

We approve DBCTM's proposal in its 2015 DAU to depreciate spares that form part of DBCTM's original DORC valuation over a 15-year period.

[394] DBCT User Group, sub. 41: 30.

6 REMEDIATION ALLOWANCE

DBCTM proposed in its 2015 DAU a significant increase to the annual remediation allowance—from $0.95 million to $12.8 million. The increase was largely due to a significant increase in the estimated costs of site rehabilitation.

Our draft decision was to refuse to approve DBCTM's proposal. Based on advice from our consultant, Turner & Townsend (T&T), we considered DBCTM's estimated site rehabilitation cost was not efficient. In particular, T&T considered that the standard of rehabilitation DBCTM assumed for the basis of its estimate was too high. In addition, we considered DBCTM had not supplied sufficient evidence to justify a term to remediation shorter than the economic life of DBCT. We therefore proposed to decrease DBCTM's annual remediation allowance to $5.7 million.

Following our draft decision, stakeholders' responses were divided on the interpretation of DBCTM's rehabilitation obligations in the PSA. After reviewing stakeholders' submissions, we consider it is appropriate to assume DBCTM is required to rehabilitate the site to the higher standard of returning the site to its natural state and condition.

Consistent with the T&T 'first principles' methodology we adopted in our draft decision, our decision is to reject DBCTM's proposed remediation allowance. However, using an updated rehabilitation estimate from T&T ($432.69 million), which reflects the higher remediation standard, and maintaining the same term to remediation as our draft decision (38 years from 2016), we consider an annual remediation allowance of $7.02 million is appropriate.

6.1 Annual remediation allowance

The Port Services Agreement (PSA), an agreement between DBCTM and DBCT Holdings (representing the State), obligates DBCTM to rehabilitate the Terminal site at the end of the Terminal's life.

In the 2006 AU, the QCA approved a $952,710 annual site remediation allowance to meet this future rehabilitation cost. The annual allowance represented the fixed annuity payment required to accumulate the expected future rehabilitation costs and was based on:

- 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 this $952,710 annual remediation allowance. However, the 2010 AU comprised an agreed package of measures between DBCTM and the DBCT User Group. Therefore, the QCA did not undertake a detailed review of the annual remediation allowance or the estimated cost of site rehabilitation in isolation.[395]

[395] QCA 2010b: iii.

6.1.1 DBCTM's 2015 DAU proposal

In its 2015 DAU, DBCTM proposed to increase the annual remediation allowance to $12.8 million. DBCTM considered the original estimate is only likely to fund an amount sufficient to mothball the Terminal.[396] Furthermore, DBCTM said the scope of the remediation has since increased to include a number of expansions and NECAP works completed since 2006.[397]

DBCTM said the proposed increase in the annual remediation allowance was largely driven by a report from its consultant, Hatch, which estimated the full rehabilitation cost for the Terminal at $847 million (2015–16 dollars). Hatch adopted a factored approach for its estimate—which calculates the rehabilitation costs as a percentage of the unit replacement cost for each asset. Hatch provided three estimates of the rehabilitation costs at DBCT:

Table 16 Hatch estimates of DBCT remediation costs ($m, June 2015)

Mothball	*Do minimal*	*Full rehabilitation*
34.6	439.4	826.6

Source: DBCTM, sub. 8: 14.

From the three estimates in Table 16, DBCTM assumed full rehabilitation is required, given its interpretation of the PSA.

Assumptions for annuity calculation

Adopting Hatch's full rehabilitation estimate, DBCTM engaged Finity to calculate an annual remediation allowance to fund the potential future obligations. Similar to the previous AUs, Finity calculated this allowance by applying an annuity model.

Key assumptions for the proposed annual remediation allowance include:

- a 32-year term until remediation—based on a range of probability-weighted shutdown scenarios
- a total rehabilitation cost of $847 million estimated by Hatch (June 2016 dollars)
- an inflation rate of 2.5 per cent per annum
- an interest rate (i.e. the discount rate for the purpose of determining the annuity) of 7.46 per cent per annum—consistent with DBCTM's proposed WACC
- a sinking fund comprising the remediation charges already collected—accrued at the relevant WACC for each regulatory period.

DBCTM also proposed to review the assumptions and probabilities as part of each access undertaking review.

6.1.2 Stakeholders' initial comments

The DBCT User Group and Vale made a number of comments on the annual remediation allowance. Their submissions are discussed in greater detail in our draft decision, but in summary, both the DBCT User Group and Vale said:

- There is significant uncertainty over the standard of remediation required.

[396] DBCTM, sub. 2: 54.
[397] DBCTM, sub. 2: 52.

- It is likely that DBCTM will exercise its option to extend the lease by another 49 years.
- Technological advancements could provide alternative remediation options at lower cost.[398]

6.1.3 QCA consultant's advice

The QCA engaged T&T to review the prudency and efficiency of Hatch's estimates and provide an independent estimate of the site rehabilitation costs.[399]

In summary, T&T considered Hatch's proposed costs are not efficient and identified a number of concerns with the estimate. These included (among other things) the use of a factored approach, the lack of a defined approach to determining the factor applied, and the extent to which costs increase from the 'Do minimal' to the 'Full rehabilitation' scenario.

T&T estimated the cost of rehabilitating the DBCT site to be $389.69 million. T&T constructed its estimate on a 'first-principles' basis where possible, using a 'semi-detailed approach'.

In preparing its independent estimate, T&T reviewed the PSA's rehabilitation requirement as understood and described by Hatch.[400] T&T interpreted the project scope to require a combination of the 'Do minimal' and 'Full rehabilitation' scenarios listed in the Hatch report. Specifically, T&T said:

> *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.*[401]

In addition, 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.*[402]

6.1.4 QCA draft decision

Our draft decision was to refuse to approve DBCTM's proposal. Our full reasoning and analysis are contained in Section 6.5 of our draft decision. In summary, we were not persuaded that DBCTM's proposed allowance was appropriate, given:

- T&T identified a number of concerns with the Hatch estimate.[403]

[398] DBCT User Group, sub. 11: 16–17; Vale, sub. 10: 9–10.
[399] T&T 2016a. A copy of T&T's report is available on the QCA's website.
[400] DBCTM, sub. 8: 4–5.
[401] T&T 2016a: 19.
[402] T&T 2016a: 19.
[403] T&T 2016a: 2.

- DBCTM did not provide sufficient evidence to support its term to remediation assumption, noting the term was inconsistent with the economic life of the Terminal assumed in previous AUs.

We noted that stakeholders disagreed on the standard of rehabilitation required for the Terminal site. We considered the better position was to accept T&T's advice on the required scope of rehabilitation, given:

- The PSA refers to rehabilitating the Terminal site in accordance with DBCT Holdings' reasonable conditions and requirements—T&T said this wording suggests a more appropriate assessment of the rehabilitation scope would be to return the site to a stable and productive condition.
- Returning the site to a stable and productive condition is consistent with industry standard practice and rehabilitation requirements at similar assets.[404]
- We considered T&T's concerns with the Hatch estimate to be reasonable and noted that DBCTM's submission did not provide sufficient reason for us to displace these concerns.

Our draft decision required DBCTM to amend its DAU to adopt an annual remediation allowance of $5.7 million. This allowance was calculated using:

- an estimated rehabilitation cost of $389 million (T&T's estimate)
- an interest rate of 6.10 per cent—the QCA's indicative WACC in the draft decision
- a 38-year term to remediation (equal to the economic life adopted for depreciation)
- a mid-year timing assumption for the collection of the remediation allowance.

6.1.5 Stakeholders' comments on the draft decision

DBCTM

DBCTM supported T&T's first principles approach to estimating site rehabilitation costs. However, DBCTM said T&T's interpretation of the PSA 'makes an assumption that is not express or implied in the clause.'[405] DBCTM said T&T's interpretation does not draw the distinction between:

- the manner in which DBCTM may be directed by DBCT Holdings to undertake the rehabilitation works
- the state in which the premises must exist upon completion of the remediation works.

DBCTM said the rehabilitation requirement 'should be interpreted as it is written'[406], and expected that doing so, while applying T&T's first principles approach, could result in estimated rehabilitation costs increasing by 10–20 per cent.[407]

On the term to remediation, DBCTM:

- proposed to align the term with its alternative depreciation proposal—that is, a 35-year term to remediation consistent with the end date of the initial term of its lease

[404] T&T 2016a: 18.
[405] DBCTM, sub. 37: 36.
[406] DBCTM, sub. 37: 35.
[407] DBCTM, sub. 37: 36.

- said that if the lease is not extended, it is reasonable to assume that DBCT Holdings will request that DBCTM rehabilitate the facility at the end of its lease.[408]

DBCTM submitted Finity's updated estimate of the notional sinking fund which reflects monthly collection of remediation payments—the collection frequency assumed in the QCA's draft decision. This change in the timing assumption reduces the notional sinking fund from $21.3 million to $20.8 million as at 30 June 2016.[409]

DBCTM also proposed to maintain a 2.5 per cent inflation assumption for the purposes of escalating rehabilitation costs. Although this assumption differs from its proposal for inflation for the forthcoming regulatory period, DBCTM said this assumption is appropriate, as it is consistent with the midpoint of the RBA's target inflation band over the long term.[410]

DBCT User Group

The DBCT User Group accepted that the current remediation allowance 'may be insufficient', but said it 'is strongly opposed to the size of the increase in the remediation allowance proposed in the QCA's Draft Decision'.[411] In addition, the DBCT User Group said:

- The increase is not justified by the evidence provided by DBCTM.
- DBCTM has not demonstrated a 'step-change' in the remediation activities it now anticipates from those previously anticipated, and the PSA's remediation obligations have not changed.
- The QCA's draft decision gives insufficient weight to the likely outcome that technological advances may provide alternative remediation options at a lower cost in the future. It is appropriate to provide some form of discount for that possibility.

On the term to remediation, the DBCT User Group said:

- The QCA's draft decision gives insufficient regard to the likelihood of DBCTM renewing its lease. Even if it is accepted 'that it is not absolutely certain' that DBCTM will renew the lease, the DBCT User Group said the term to remediation should weigh the two most likely options, rather than completely excluding one of those likely outcomes.
- DBCTM will not make its lease renewal decision based on spot coal prices but based on the medium- to longer-term outlook.
- There are substantial coal deposits within the DBCT catchment that are likely to extend the life of the Terminal beyond 2054, but which have not yet been classified as 'Measured and Indicated Resources'.[412]

On the scope of remediation, the DBCT User Group commented:

- It agreed with the QCA's conclusion in its draft decision (based on the findings of T&T) that DBCTM's proposed estimate of rehabilitation costs is in excess of the efficient costs of remediation.

[408] DBCTM, sub. 37: 35–36.
[409] DBCTM, sub. 37: 69.
[410] DBCTM, sub. 37: 37.
[411] DBCT User Group, sub. 41: 30.
[412] DBCT User Group, sub. 41: 31.

- DBCTM is 'effectively asserting that it should be assumed that the State will require the 'gold-plated' full rehabilitation option, despite the fact that is well in excess of what has been required at other industrial sites'.
- T&T's assessment of the PSA's requirements seems to be a more reasonable and balanced assessment of the extent of rehabilitation that is practically going to be required. [413]

On the annuity methodology used to calculate the annual remediation allowance, the DBCT User Group said it supports:

- indexing previous remediation contributions at WACC
- applying the WACC from previous undertakings to calculate the amount of the current notional sinking fund
- assuming monthly payments of the remediation allowance
- applying a 2.5 per cent per annum inflation rate (assuming a fixed rate of inflation is applied in each future period).[414]

6.1.6 QCA analysis and final decision

We maintain our draft decision position that the original site rehabilitation estimate of $30 million (as approved in the 2006 and 2010 AUs) is unlikely to reflect the costs of remediating the Terminal site.

However, we consider both the annual remediation allowance DBCTM proposed in the 2015 DAU and the revised allowance it proposed after our draft decision do not reflect the efficient costs of remediation and are not appropriate.

Therefore, our final decision is to refuse to approve both DBCTM's proposed remediation allowance in the 2015 DAU and its revised allowance proposed after our draft decision. Our reasoning and analysis in reaching this final decision are below.

Interpretation of required standard of rehabilitation

Based on the advice of T&T, and given the PSA refers to rehabilitating the Terminal site in accordance with DBCT Holdings' reasonable conditions and requirements, our draft decision said an appropriate rehabilitation standard would be to return the site to a stable and productive condition suitable for open land use. T&T said this assumption complied with the industry standard of returning disturbed land to a stable and productive condition.[415]

However, following our draft decision, stakeholders submitted differing views on the standard of rehabilitation required. DBCTM said it disagreed with T&T's interpretation of the PSA's rehabilitation obligations. In particular, DBCTM highlighted the 'important distinction' between the manner in which DBCTM may be directed by DBCT Holdings to undertake the relevant rehabilitation works and the state in which the premises must exist upon completion of remediation works.[416]

[413] DBCT User Group, sub. 41: 31–32.
[414] DBCT User Group, sub. 41: 32–33.
[415] T&T 2016a: 19.
[416] DBCTM, sub. 37: 36.

In contrast, the DBCT User Group said that DBCTM's interpretation is that 'the State will require the 'gold-plated' full rehabilitation option' and DBCTM's assumed standard is 'well in excess of what has been required at other industrial sites'. Furthermore, the DBCT User Group said that DBCTM has formed its assumption 'in the absence of any information about what the State will require'.[417]

Having reviewed the PSA and stakeholders' submissions, we agree with DBCTM's interpretation of the PSA. We are inclined to accept DBCTM's submission that the 'reasonable conditions clause' (22.4(b)) does not reduce the standard to which DBCTM must rehabilitate the premises. Therefore, we consider it appropriate to interpret the PSA's obligation as rehabilitating the site to its natural state and condition as existed prior to development.

We accept that T&T's interpretation of the required rehabilitation standard, as per our draft decision, is consistent with industry standards. Similarly, we acknowledge the DBCT User Group's submission that returning the site to its natural state and condition may exceed standard industry practice.

However, we consider it is appropriate for the remediation allowance to allow DBCTM to meet the standard of rehabilitation required in the PSA, given DBCTM is contractually obliged to meet that standard. Furthermore, we have no evidence to suggest that DBCT Holdings is likely to require anything less than returning the site to its natural state and condition.

Therefore, for the purpose of calculating the annual remediation allowance, we have assumed that the rehabilitation standard in the PSA requires returning the site to its natural state and condition. We consider that adopting this standard is consistent with the legitimate business interests of DBCTM and provides DBCTM with expected revenue which is at least enough to meet the expected efficient cost of rehabilitating the Terminal site (ss. 138(2)(c) and (g) of the QCA Act).

T&T's alternative estimate of rehabilitation requirements

The QCA engaged T&T to update its estimate of the DBCT site rehabilitation costs to account for returning the site to its natural state and condition as existed prior to development. A copy of T&T's report is available on the QCA's website, with the key changes summarised below.

T&T's alternative estimate applied the same estimation methodology as its initial estimate—that is, a 'first principles' approach. Furthermore, T&T outlined its alternative estimate by exception from its initial estimate.[418]

T&T used original site layouts and topographical drawings to define the requirements in accordance with returning the site to its natural state and condition. T&T identified a number of areas where further remediation would be required beyond the initial estimate to return the site to its natural state and condition.[419]

The cost variance between T&T's initial estimate and its alternative estimate is outlined in Table 17 below.

[417] DBCT User Group, sub. 41: 32.
[418] T&T 2016b: 7.
[419] T&T 2016b: 7.

Table 17 Variance between T&T's initial and alternative rehabilitation estimates

Area	*Initial estimate ($ million)*	*Alternative estimate ($ million)*	*Variance*
Rail loop and receival	17.74	18.33	3%
Inloading	9.43	9.10	(4%)
Stockyard	34.38	66.37	93%
Outloading	236.82	230.82	(3%)
Infrastructure/other civil works	20.9	23.03	10%
Site generally	4.19	6.50	55%
Final site rehabilitation	66.22	78.54	19%
Total	**389.69**	**432.69**	**11%**

Notes: The initial and alternative estimates are in Q4 2015 dollars. T&T said the inloading and outloading costs in the alternative estimate decreased due to the areas receiving a lower relative distribution of indirect costs.

Source: T&T 2016b.

Estimate of rehabilitation costs

Consistent with our reasoning in Section 6.4 of our draft decision, we do not consider DBCTM's proposed rehabilitation estimate in the 2015 DAU, prepared by Hatch, is appropriate. We consider DBCTM's proposed estimate is inconsistent with the pricing principles of the QCA Act, as the estimate is likely to be above the efficient costs of rehabilitating the Terminal site (s. 138(2)(g)). In particular, we note T&T raised a number of concerns with the Hatch estimate including (among other things):

- the high-level nature and subjective use of the methodology applied
- 'double dipping' of rehabilitation costs
- treatment percentages that show a lack of sensitivity and a disregard of the cost of materials
- inconsistencies between factors applied in rehabilitation scenarios.

Furthermore, DBCTM said in its submission on our draft decision that it supports T&T's first principles approach and acknowledges the limitations of Hatch's factored approach.[420]

We consider T&T's alternative estimate is more likely to provide an appropriate 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.[421]

Furthermore, adopting T&T's alternative estimate for the purposes of calculating a remediation allowance is:

- consistent with the pricing principles, as it allows DBCTM to recover its efficient costs of providing access to the declared service (s. 138(2)(g))
- in the public interest, by ensuring appropriate and efficient funding is available for the site's future rehabilitation (s. 138(2)(d)).

[420] DBCTM, sub. 37: 36.
[421] T&T 2016b.

Separately, we note the DBCT User Group maintained its position that the rehabilitation estimate should account for the possibility that technological advances may provide alternative remediation options at lower cost.[422]

We agree with the DBCT User Group that future technological advances may reduce the cost of remediating the DBCT site. However, T&T has previously advised that:

- 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.[423]

Therefore, we do not consider it appropriate to account for technological advances in the absence of robust evidence.

Annuity methodology

Our draft decision supported using DBCTM's proposed annuity approach to estimate the annual allowance, noting it is similar to the annuity methodology used in the 2006 and 2010 AUs.[424] We continue to support using the annuity methodology for calculating the annual remediation allowance, and note that stakeholders have not objected to the methodology itself.

However, aside from the rehabilitation cost estimate above, the annuity methodology relies on a number of inputs:

- term to remediation
- timing of DBCTM's collection of the annual remediation payments each year
- applicable interest rate
- size of the current notional sinking fund
- rate of inflation.

Our analysis of each assumption in the annuity calculation follows below.

Term to remediation

Our position in our draft decision was that, as a general principle, the term to remediation assumption should equal the economic life used for depreciation. We considered that the Terminal's economic life provides the most appropriate basis for estimating the term to remediation (and, similarly, the period over which Terminal assets are depreciated). This is because it reflects the underlying risk of the Terminal—given the economic life represents the expected supply of coal to the Terminal over the medium- to long-term.[425]

Since our draft decision, DBCTM proposed an alternative term to remediation that aligns with the end of its initial lease term in September 2051 (June 2051 for modelling purposes).[426] This term to remediation is consistent with its alternative proposal for depreciation.

[422] DBCT User Group, sub. 41: 32.
[423] T&T 2016a.
[424] QCA 2016c: 143.
[425] Chapter 5 of this final decision discusses the economic life of DBCT.
[426] DBCTM, sub. 37: 36.

In contrast, the DBCT User Group said that aligning the term to remediation with the economic life, 'gives insufficient regard to the likelihood of DBCTM renewing the lease' and the possibility of DBCTM extending its lease 'should clearly be taken into account by a weighting between the two most likely options'.[427]

We agree with the DBCT User Group that DBCTM may extend its lease beyond the initial term. However, as discussed in Chapter 5, the initial lease term does not end for 35 years and it is uncertain if DBCTM will extend its lease beyond the initial term. We consider extending or shortening the term to remediation to reflect a weighting of possible outcomes, in the absence of robust evidence, is likely to inappropriately transfer costs between either current or future access holders and seekers.

We maintain that the term to remediation assumption should seek to equal the operating life of the Terminal—as the operating life represents the time period over which DBCTM can recover a remediation allowance from users. We consider the economic life used for DBCTM's depreciation allowance is the most appropriate estimate of DBCT's life and reflects the underlying risk profile of the Terminal at this time (see Chapter 5).

Therefore, after having regard to section 138(2) of the QCA Act, we do not consider it appropriate to approve either DBCTM's initial or alternative term to remediation proposals. We consider the shorter terms to remediation inappropriately transfer costs from future access seekers to current access holders and seekers through a higher than necessary remediation allowance over the forthcoming regulatory period (ss. 138(2)(c), (e) and (h)). Consistent with our draft decision, our final decision is to maintain a term to remediation equivalent to the economic life of DBCT—that is, 38 years from 2016.

Timing of payments each year

Our draft decision proposed to assume the annual remediation allowance is recovered in equal monthly instalments over the financial year. For modelling purposes, this is equivalent to assuming DBCTM recovers the total annual allowance in the middle of each financial year.

In response to our draft decision, DBCTM and the DBCT User Group accepted the mid-year assumption for calculating the annual remediation allowance.[428] Therefore, for the reasons outlined in Section 6.5 of our draft decision, we consider it appropriate to assume a mid-year collection of the remediation allowance for this final decision.

Interest rate for calculating remediation allowance

In our draft decision, we said it was appropriate to use the QCA-approved WACC as the interest rate, given the WACC represents the opportunity cost of funds accrued through the annual remediation allowance.

We note stakeholders have not provided evidence or analysis to dissuade us from our position on the use of the QCA-approved WACC. Therefore, our final decision is to apply the QCA-approved WACC as the relevant interest rate for the purposes of calculating the annual remediation allowance.

[427] DBCT User Group, sub. 41: 31.
[428] DBCTM, sub. 37: 68; DBCT User Group, sub. 41: 33.

This final decision approves a WACC of 5.82 per cent per annum for the forthcoming regulatory period. However, we note the QCA-approved WACC is likely to change across future access undertaking periods.

Size of current notional sinking fund

In our draft decision, we approved DBCTM's proposal to use the WACC from previous AUs to estimate the value of the annual remediation charges already collected. This approach applies the same opportunity cost principle to previously collected amounts as to amounts to be collected in future regulatory periods (discussed above).

We note DBCTM and the DBCT User Group supported our general approach to calculating the size of the current notional sinking fund.[429] Therefore, for the reasons included in our draft decision, we propose to maintain the same approach in this final decision.

However, since our draft decision, DBCTM has submitted an updated estimate of the notional sinking fund—that is, $20.8 million, down from $21.3 million in the 2015 DAU submission. The decrease is a result of assuming the past annual remediation allowances were collected mid-year rather than at the beginning of each year (the mid-year timing assumption).[430]

Consistent with our approach to the assumed timing of future payments, we consider it appropriate to account for the mid-year timing when calculating the value of annual remediation charges already collected. Therefore, we consider it appropriate to adopt DBCTM's proposed sinking fund of $20.8 million—consistent with DBCTM's submission—for the purposes of calculating the annual remediation allowance. We have verified that the calculation of the sinking fund balance of $20.8 million is correct.

In isolation, this adjustment to the notional sinking fund increases our proposed annual remediation allowance by approximately $32,000 per annum.

Rate of inflation

The DBCT User Group and DBCTM supported the QCA's draft decision to approve a 2.5 per cent per annum inflation assumption when calculating the remediation allowance.[431]

We recognise that DBCTM has since submitted a revised approach for expected inflation over the forthcoming regulatory period. However, we maintain that a 2.5 per cent inflation assumption is appropriate for escalating rehabilitation costs over the long term, given 2.5 per cent is the midpoint of the RBA's target band over the long term. Therefore, our final decision approves a 2.5 per cent per annum inflation assumption for calculating the annual remediation allowance.

6.1.7 Conclusion

We accept that the remediation allowance approved in the 2006 and 2010 AUs is unlikely to meet DBCTM's expected future rehabilitation obligations in the PSA. However, consistent with our draft decision, we maintain that DBCTM's initial 2015 DAU proposal of $12.8 million per annum is not appropriate given:

[429] DBCTM, sub. 37: 69; DBCT User Group, sub. 41: 32.
[430] DBCTM, sub. 37: 69.
[431] DBCTM, sub. 37: 37; DBCT User Group, sub. 41: 33.

- DBCTM's initial estimate of future rehabilitation costs of $826 million is unlikely to be efficient due to the subjective and high-level nature of the estimate provided.
- DBCTM's proposed term to remediation is not consistent with the economic life of the Terminal (38 years to 2054).

We also consider DBCTM's revised proposal of $6.4 million per annum is not appropriate either given:

- The revised estimate of rehabilitation costs of $389.69 million is unlikely to be sufficient to meet the expected future costs of rehabilitation at the Terminal site.
- DBCTM's revised term to remediation is not consistent with the economic life of the Terminal (38 years to 2054).

Therefore, after having regard to the criteria in section 138(2) of the QCA Act, we do not consider it is appropriate to approve DBCTM's 2015 DAU proposal or its revised remediation allowance proposal, as the proposals:

- are not likely to provide DBCTM with an annual remediation allowance that reflects efficient costs of future remediation—given the inefficient site rehabilitation estimate of DBCTM's 2015 DAU proposal and the re-interpretation of the rehabilitation required, since DBCTM's revised proposal (s. 138(2)(g) of the QCA Act)
- inappropriately transfer costs to current access holders from future access holders, given the shorter term to remediation than the economic life approved by the QCA (ss. 138(2)(e) and (h) of the QCA Act)
- do not promote the economically efficient investment, operation and use of DBCT, given the imbalance between DBCTM and access seekers outlined above (s. 138(2)(a) of the QCA Act).

Therefore, we propose to substitute our parameters into DBCTM's proposed annuity methodology—as outlined in Table 18.

Table 18 Remediation allowance comparison—DBCTM revised proposal and QCA final decision

Allowance parameter	*DBCTM revised proposal*	*QCA final decision*
Interest rate	6.21% (DBCTM's revised WACC proposal)	5.82% (QCA's final decision on DBCTM's WACC)
Term to remediation	35 years (end of initial lease term)	38 years (economic life of DBCT)
Cost of remediation	$389.69 million (subject to QCA's response on revised remediation requirements)	$432.69 million
Annual remediation allowance	$6.4 million (subject to QCA's final decision on relevant parameters).	$7.02 million

Source: DBCTM, sub. 37: 37; T&T 2016b.

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 access holders, and current and future access seekers given the term to remediation is consistent with the economic life of the Terminal (ss. 138(2)(e) and (h)).

We note the WACC and term to remediation assumptions are time-variant and we expect them to fluctuate across access undertaking periods. Therefore, it is 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.

Summary 6.14—Site remediation allowance

The QCA's decision in relation to DBCTM's remediation allowance is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU to include an annual remediation allowance of $7.02 million per annum, which is calculated using the parameters presented in Table 18.

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 final 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 $7.29 million per annum (2016–17 dollars), after adjusting the revenue assumption to align with our proposed 2016–17 ARR value.

7.1 Background

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 are therefore not incorporated into DBCTM's allowable revenue.

However, DBCTM does incur some operating expenditure which needs to be recovered via allowable revenue, including corporate overhead costs.

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 by the parties and escalated to a nominal value of $6.1 million for the 2015–16 year.

Details of our approach to estimating the corporate overhead cost allowance for the 2015 DAU are set out in Chapter 7 of our draft decision.

7.2 DBCTM's 2015 DAU proposal

DBCTM's corporate overheads proposal is discussed in greater detail in Section 7.2 of our draft decision.

DBCTM proposed an annual corporate overhead allowance of $8.2 million (2016–17) compared with the 2015–16 allowance of $6.1 million based on a review of its corporate overhead costs by its consultant, Stephen Meyrick (Meyrick).

Meyrick recommended that DBCTM adopt the median of the estimates of corporate costs obtained using three benchmarking methods—high level, component costs, and bottom-up—which differed in their research approach and analysis.

DBCTM agreed with Meyrick's recommended final estimate of $8.2 million (2016–17 dollars).

7.3 Stakeholders' initial comments

The DBCT User Group submitted that an increase in the corporate overhead cost allowance was not justified. It submitted that the increase did not reflect expected productivity gains from cost-reduction and efficiency-improvement programs consistent with current coal industry conditions.

Vale did not agree with DBCTM's proposal, believing the proposal did not give sufficient consideration to efficiency measures to reduce corporate costs. Vale also disagreed with aspects of Meyrick's analysis including using revenue as the main driver of costs; the lack of clarity in benchmarking samples on overhead costs applicable to ownership as opposed to operation; the view that costs had increased because of increased complexity; and the non-inclusion of an analysis of historical costs to complement his benchmarking methodology.

7.4 QCA draft decision

The draft decision proposed that DBCTM amend its 2015 DAU and set a corporate overhead cost allowance of $7.23 million per annum (in 2016–17 dollars). Our full analysis and reasoning for this estimate are contained in Chapter 7 of the draft decision.

The draft decision on the corporate cost allowance was as follows:

> *(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.*

In summary, the draft decision was to not accept the estimates of corporate overhead costs obtained through Meyrick's high-level costs and component costs benchmarking methods because of our concerns with certain aspects of these methods.

However, despite some reservations, we concluded that Meyrick's bottom-up benchmarking method provides a plausible approach to estimating the corporate overhead cost allowance. We reached this conclusion after taking into account the increase in scale of DBCT's activities, the associated benefits of economies of scale, and the efficiencies achieved through general productivity improvements since the 2006 AU. Meyrick's estimate of $7.8 million was adjusted to align Meyrick's revenue assumption with our proposed 2016–17 ARR value.

7.5 Stakeholders' comments on the draft decision

DBCTM

DBCTM did not comment further on this matter and agreed with the draft decision of a corporate overhead cost allowance of $7.23 million per annum in 2016–17 prices, indexed annually for inflation.[432]

DBCT User Group

The DBCT User Group[433] broadly supported the use of the bottom-up benchmarking approach, rather than the alternative methods used by Meyrick, because the bottom-up approach resulted in a more plausible estimate of corporate overheads for a benchmark regulated firm in the same business as DBCTM.

[432] DBCTM, sub. 37: 38.
[433] DBCTUG, sub. 41: 33.

The DBCT User Group also supported our view that any increase in corporate overhead costs should be less than proportional to revenue growth due to economies of scale and general productivity efficiencies.

Nevertheless, the DBCT User Group considered that the current indexed corporate cost allowance should continue to be applied because any increase of that allowance would not be prudent or efficient. It would imply that efficient costs have exceeded inflation and would not adequately recognise the reductions in costs in the industry in response to unfavourable market conditions. The DBCT User Group continued to believe 'that an increase in level of corporate overhead cost allowance is unjustified.'[434]

7.6 QCA analysis and final decision

We have considered the DBCT User Group's submission, and believe that an increase in the corporate overhead cost allowance is justified.

Our full analysis and reasoning are contained in Chapter 7 of the draft decision and we adopt that analysis and reasoning for the purposes of this final decision.

We do not accept the estimates of corporate overhead costs obtained using Meyrick's high-level costs and component costs benchmarking methods because of our concerns with certain aspects of these methods. However, despite some reservations, we consider Meyrick's bottom-up benchmarking method does provide a plausible approach to estimating the corporate overhead cost allowance.

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.

The ratio of corporate costs to scale has decreased over time, reflecting to some extent the gains from economies of scale and the efficiencies achieved through general productivity improvements.

As the DBCT User Group agrees, 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 corporate overhead costs of an efficient benchmark entity over the full period of analysis, given the increase in scale involved.

7.7 Conclusion

Taking into account the material provided to us by stakeholders in response to the draft decision, we have not changed our analysis and reasoning from the way it is set out in the draft decision; therefore, we consider that our general position in the draft decision remains appropriate.

Our final decision is to set a corporate overhead cost allowance of $7.29 million per annum (in 2016–17 dollars) indexed annually for inflation. This figure differs from the value proposed in the draft decision, as the ARR has changed (due to decisions explained elsewhere in this final decision).

[434] DBCT User Group, sub. 41: 33.

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

Summary 7.15—Corporate overheads

The QCA's decision in relation to corporate overheads is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so as to apply a corporate overhead cost allowance of $7.29 million per annum (in 2016–17 dollars), indexed annually for inflation, over the regulatory term.

8 TERMINAL INFRASTRUCTURE CHARGE AND MODELLING

DBCTM proposed in its 2015 DAU to roll forward the regulated asset base (RAB) to 1 July 2016 by applying the same general approach approved in 2006 and 2010.

In its 2015 DAU submission, DBCTM proposed to use that same framework; however, DBCTM has proposed changes to some modelling inputs and to other pricing-related 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 final decision on all pricing matters (including those addressed elsewhere) is included below in Table 19.

Table 19 DBCTM's proposed changes to modelling inputs and pricing assumptions—2015 DAU

Input/assumption	*DBCTM revised proposal (post–draft decision)*	*DBCT User Group response*	*QCA final decision in response to DBCTM's proposal*	*Impact of QCA final decision on DBCTM's proposed TIC %[a]*
Inflation modelling: i) Forecast method for expected inflation. ii) The inflation rate to use in the RAB roll-forward.	Inflation modelling: i) Use indexed bond method (1.45%). ii) Use expected inflation in roll-forward.	Inflation modelling: i) Use RBA inflation target midpoint (2.5%). ii) Use outturn inflation in roll-forward.	Refused to approve DBCTM's proposal: i) Use geometric mean of RBA short-term forecasts and midpoint of inflation target range (2.0%). ii) Use outturn inflation in roll-forward.	–5.78%
WACC	6.21%	5.59%	5.82%	–4.74%
Gamma	0.25	0.47	0.47	–2.96%
Remaining useful life of the Terminal (Chapter 5)	35 years from 2016–17.	Proposed to maintain remaining useful life of Terminal at 38 years.	Refused to approve DBCTM's proposal. Maintained remaining useful life of Terminal at 38 years.	–1.10%
Annual site remediation fee (Chapter 6)	$6.4 million/year (annuity).	Did not propose an alternative value.	Refused to approve DBCTM's proposal. Estimated $7.02 million/year (annuity).	+0.28%
Corporate overhead allowance (Chapter 7)	Accepted $7.23 million.	Did not propose an alternative value.	Approved DBCTM's revised proposal. Updated to $7.29 million.	+0.03%
Reduce scrap	Depreciate the 2.5%	Proposed to	Approved DBCTM's	n/a

Input/assumption	*DBCTM revised proposal (post–draft decision)*	*DBCT User Group response*	*QCA final decision in response to DBCTM's proposal*	*Impact of QCA final decision on DBCTM's proposed TIC %[a]*
value of initial assets to zero	scrap value assigned to some initial assets.	maintain 2.5% scrap value of assets (until end of asset lives).	proposal.	
Working capital allowance	Accepted recommended 30 debtor days.	Accepted recommended 30 debtor days.	Approved DBCTM's revised proposal	n/a
Depreciation of spares for initial assets (Chapter 5)	Depreciate spares included in the initial asset base over the next 15 years.	Retain current treatment of spares.	Approved DBCTM's proposal.	n/a

a *The estimated impact on the TIC of the QCA's final decision on each proposal assumes all other proposals are unchanged. Each impact is measured relative to DBCTM's proposed TIC. Also, the impact of each element may change slightly depending on the sequence in which they are estimated.*

8.1 Regulated asset base roll-forward 2010–11 H2 to 2015–16

DBCTM proposed an opening RAB of $2.4 billion. 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.

Stakeholders' initial comments

Stakeholders did not comment on the roll-forward of the RAB.

QCA draft decision

The QCA draft decision was to approve DBCTM's proposed roll-forward of the RAB. We considered it has been undertaken in an appropriate manner and is consistent with the approach determined for the 2010 AU period.

Stakeholders' comments on the draft decision

DBCTM agreed with the QCA's draft decision on the RAB roll-forward.

The DBCT User Group maintained its support for the typical building blocks roll-forward approach employed by the QCA.[435]

QCA final decision

After having regard to all submissions on this matter, we adopt our draft decision in this regard (see Section 8.3.1 of the draft decision).

Summary 8.16—RAB roll-forward

The QCA's decision in relation to the RAB roll-forward is to approve DBCTM's 2015 DAU.

[435] DBCT User Group sub. 41: 33.

8.2 Building blocks (2016–17 to 2020–21)

The financial modelling in DBCTM's 2015 DAU is consistent with the approach used 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 are described in more detail in our draft decision (Section 8.1.2), and include:

- return on capital
- operating expenditure
- return of capital
- tax payable.[436]

The ARR is calculated annually, and includes a return on capital based on applying a nominal WACC. At the end of the year, the RAB is also adjusted for inflation (using outturn inflation). Given the RAB inflation adjustment, the ARR calculation requires a deduction for inflationary gain to eliminate the double-counting of inflation.

In response to the draft decision, DBCTM proposed changes to how expected inflation is calculated and what inflation rate is applied in the RAB roll-forward. These are discussed below (Section 8.2.1).

DBCTM proposed values for the RAB, ARR and TIC in its DAU submission. These can be found in Table 22 and Table 23 of the draft decision.

QCA draft decision

Our draft decision was to refuse to approve DBCTM's proposed RAB, ARR and TIC. We proposed changes to DBCTM's 2015 DAU, which would result in different RAB, ARR and TIC values. These are outlined below and in Chapters 4, 5, 6 and 7 of our draft decision.

Table 20 QCA draft decision – 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

[436] As described in Section 8.1.2. of our draft decision, the return on capital, return of capital and operating expenditure components of allowed revenue are adjusted to mid-year values. This adjustment reflects the fact that the benchmark firm's receipt of revenue is assumed to occur evenly across the year, rather than at the end of a year.

Table 21 QCA draft decision – 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[a]	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

a *Totals may not add correctly due to rounding.*

Stakeholders' comments on the draft decision

DBCTM

In response to the draft decision, DBCTM proposed a number of changes, compared to the submission that accompanied the DAU (Table 22 and Table 23).[437] The numbers below have been taken from DBCTM's financial model, and may differ slightly from those submitted.

Table 22 DBCTM (post–draft decision) – proposed RAB ($ million)

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Opening RAB	2,371.1	2,320.4	2,268.4	2,215.6	2,162.3
Indexation	34.3	33.6	32.9	32.1	31.3
Nominal depreciation	85.0	85.6	85.7	85.4	86.7
Closing RAB	2,320.4	2,268.4	2,215.6	2,162.3	2,106.9

[437] DBCTM sub. 37: 40; DBCTM's financial modelling.

Table 23 DBCTM (post–draft decision) – proposed ARR and TIC ($ million)

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Return on asset	144.0	140.9	137.8	134.6	131.4
Return of asset (depreciation)	82.4	83.1	83.1	82.9	84.1
Less indexation	(33.3)	(32.6)	(31.9)	(31.1)	(30.4)
Corporate overheads	7.2	7.3	7.4	7.5	7.7
Regulatory levy	0.1	0.4	0.4	0.4	2.0
Remediation fee	6.4	6.4	6.4	6.4	6.4
Net tax allowance	18.0	18.0	18.0	18.0	18.1
ARR[a]	224.8	223.5	221.3	218.7	219.2
Reference tonnage (mtpa)	80.700	78.700	78.700	78.700	78.700
TIC ($/tonne)	2.7857	2.8399	2.8118	2.7786	2.7857

a *Totals may not add correctly due to rounding.*

The DBCT User Group

The DBCT User Group raised concerns with specific elements of the pricing chapter, as discussed below. The DBCT User Group maintained its support for the typical building blocks roll-forward approach employed by the QCA.[438]

QCA analysis

Our final decision is to refuse to approve DBCTM's proposed RAB, ARR and TIC. For reasons explained below, we refuse to approve several of DBCTM's proposed inputs into the calculation of the RAB, ARR and TIC and require DBCTM to amend these inputs. Amending these inputs results in different RAB, ARR and TIC values, as set out in Table 24 and Table 25 below.

As a number of our draft decision positions on tariffs and pricing were not contested, they are restated below as final decision positions, but are not discussed in detail in this chapter.

Where applicable, we have also referred to analysis elsewhere in this final decision (or the draft decision), rather than reproduce all tariff and pricing discussions here.

[438] DBCT User Group sub. 41: 33.

Table 24 QCA final decision – RAB ($ million)

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Opening RAB	2,371.08	2,335.59	2,298.32	2,259.82	2,220.36
Indexation	47.42	46.71	45.97	45.20	44.41
Nominal depreciation	(82.91)	(83.98)	(84.47)	(84.65)	(86.35)
Closing RAB	2,335.59	2,298.32	2,259.82	2,220.36	2,178.42

Table 25 QCA final decision – ARR and TIC ($ million)[a]

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Return on asset	135.04	133.03	130.92	128.74	126.52
Return of asset (depreciation)	80.60	81.64	82.11	82.29	83.94
Less indexation	(46.10)	(45.41)	(44.68)	(43.94)	(43.17)
Corporate overheads	7.29	7.44	7.58	7.74	7.89
Regulatory levy	0.10	0.40	0.40	0.40	2.00
Remediation fee	7.02	7.02	7.02	7.02	7.02
Net tax allowance	7.83	8.02	8.23	8.39	8.66
ARR[b]	191.78	192.14	191.58	190.64	192.86
Reference tonnage (mtpa)	80.700	78.700	78.700	78.700	78.700
TIC ($/tonne)	2.3765	2.4414	2.4344	2.4224	2.4506

a The increase in the TIC from draft to final decision is more than proportional to the increase in ARR because expected contracted tonnage over the regulatory period has reduced by around 8.1% due to some users not renewing contracts for the full tonnage.

b Totals may not add correctly due to rounding.

We note DBCTM's claim that the QCA's draft decision would reduce its revenues by 33 per cent, from $260 million in 2015–16 to $175 million in 2016–17, which DBCTM compared to the QCA's recent decisions on Aurizon Network and Queensland Rail. This claim was made in the context of DBCTM saying its primary concern was the reduction in its return on equity. We have considered DBCTM's claims and note:

- DBCTM's claim does not appear to be correct. Our draft decision proposed an average ARR of $186.4 million, not $175 million, which represented a drop in revenue of 28 per cent, rather than 33 per cent.
- It is inappropriate and potentially misleading to directly compare DBCTM's revenues with the regulated rail networks' revenues because the majority of DBCT's operations and maintenance costs are not included in its revenue cap, in contrast to Aurizon Network and Queensland Rail. For example, operating and maintenance expenditure combined represented 41 per cent of Aurizon Network's average MAR for the UT4 period, in comparison to 4.0 per cent for DBCTM's ARR. By contrast, the return on capital represented

47 per cent of Aurizon Network's average MAR for the UT4 period, in comparison to 68 per cent for DBCTM.[439] Generally, below-rail infrastructure maintenance costs have been rising, due to the aging of the Queensland networks. This has somewhat countered the effects on allowed revenues of the lower rates of return included in these recent rail decisions.

- It is also inappropriate to directly compare the allowed revenues of different entities because the underlying WACCs are based on different averaging periods and reflect different market conditions. With regard to the return on equity, Aurizon Network's WACC was calculated using the 20 business days to 31 October 2013, resulting in a materially higher RFR (3.21%) and WACC (7.17%) than that of DBCT. By comparison, Queensland Rail used an averaging period in March 2016 which resulted in a RFR of 2.0 per cent and a WACC of 5.73 per cent, which are closer to DBCTM's rates.

This final decision, having adjusted the inflation forecast and remediation allowance from the draft decision, sets the ARR for DBCTM at $191.8 million for 2016–17, a reduction of 26 per cent since 2015–16.

8.2.1 Return on capital

DBCTM initially proposed a WACC of 7.46 per cent per annum, as discussed in detail in Chapter 4 of the draft decision.

Stakeholders' initial comments

The DBCT User Group proposed amendments to the WACC submitted in DBCTM's 2015 DAU. These are summarised in Chapter 4, and shown below in **Error! Reference source not found.**.

QCA draft decision

A summary of our draft decision on DBCTM's proposed changes to the estimation of the WACC is provided in Chapter 4.

Our draft and final decision WACC values, and the relevant input assumptions are provided in **Error! Reference source not found.**.

Stakeholders' comments on the draft decision

Our consideration of stakeholders' submissions on the estimation of the WACC is provided in Chapter 4. Stakeholders' proposed assumptions are summarised in **Error! Reference source not found.** below.

QCA analysis

The detail of our final decision on WACC is provided in Chapter 4. Our final WACC parameters are provided in Table 15.

8.2.2 Working capital

In the 2015 DAU, DBCTM proposed to change the number of debtor-days from 30 to 45 (calendar) days receivable, for the purpose of setting its working capital allowance.

[439] See QCA 2016, Aurizon Network 2014 Access Undertaking, Volume IV—Maximum Allowable Revenue, April: 11, Table 8. The estimates are based on Aurizon Network's total unsmoothed MAR for the Central Queensland Coal Network. The MAR includes the regulated revenue from WIRP, but not the revenue that is the subject of access conditions.

Stakeholders' initial comments

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.

The DBCT User Group considered that DBCTM's approach to calculating working capital should be aligned with the approach proposed for Queensland Rail, and an allowance for working capital set at 0.3 per cent of the ARR.

QCA draft decision

In our draft decision, we proposed to refuse to approve DBCTM's proposed approach to calculate working capital using a 45-day calculation period.

We considered that:

- The current 30-day working capital allowance does not compensate DBCTM for the 15 days between mid-month and end-of-month because it is up to DBCTM to manage those intra-month cash flows, consistent with prudent financial management practices.
- The 30-day period creates an incentive for DBCTM to reduce its actual net debtor-days, as it will directly capture the benefit.
- In the absence of negotiated outcomes specific to a regulated service or differences in regulatory circumstances, the working capital approach should be consistent across regulated entities.
- Queensland Rail and Aurizon Network's working capital period broadly reflects negotiated outcomes specific to their payment terms (15 days for the rail entities).
- SEQ water grid's working capital period reflected the Queensland Government's instructions for us to apply an accounts receivable/accounts payable formula as defined in its 'manual', and is therefore not a comparable regulatory example.

Our full analysis is in Section 8.3.2 of the draft decision.

Stakeholders' comments on the draft decision

DBCTM accepted the QCA's draft decision on working capital.[440]

The DBCT User Group also supported the QCA's draft decision on working capital. It considered the QCA's draft decision reflected the actual payment terms that exist under the user agreements, and was consistent with the previous treatment of this issue in respect of DBCT.[441]

QCA analysis and final decision

Both DBCTM and the DBCT User Group accepted our draft decision, and no other stakeholders addressed this topic.

Our final decision is to maintain our draft decision: that the assumption of 30 debtor days be maintained in working capital calculations for the DBCT building blocks model for the 2016–21 regulatory period.

[440] DBCTM sub. 37: 41.
[441] DBCT User Group sub. 41: 33.

Summary 8.17—Working capital

The QCA's decision in relation to working capital is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU to apply an assumption of 30 debtor days to the calculation of working capital.

8.2.3 Inflation and the building blocks model

Background

As indicated in Section 8.2, the asset base is rolled forward for inflation at the end of the year to maintain the real value of those assets. This roll-forward involves applying an actual (i.e. outturn) inflation rate.[442] It follows from the RAB inflation adjustment that a revenue deduction from the ARR is required to avoid double-counting. However, as revenues are set ex ante and outturn inflation is unknown at that time, a forecast is required.

DBCTM proposed two changes relating to this process:

- the method for forecasting expected inflation
- the use of expected, rather than outturn, inflation in the end-of-year RAB roll-forward.

Methodology to forecast expected inflation

In the supporting (modelling) material for its initial 2015 DAU submission, DBCTM proposed an expected inflation rate of 2.5 per cent. In a subsequent submission, DBCTM said this was consistent with the Reserve Bank of Australia's (RBA's) August 2015 Statement of Monetary Policy short-term forecasts and the midpoint of 2.5 per cent of the RBA's inflation target range.[443,444]

Stakeholders' comments on the draft decision

DBCTM

DBCTM noted that the draft decision applied an expected inflation rate of 2.5 per cent, consistent with DBCTM's October 2015 submission. However, DBCTM highlighted that recent RBA announcements indicated that inflation would remain below the inflation target range until at least 2018, but with a substantial degree of uncertainty. DBCTM Management therefore considered that the previously applied forecast of 2.5 per cent is no longer a valid reflection of the RBA's views and proposed to revise the estimate of expected inflation to apply for the 2016–21 regulatory period. [445] Applying a similar, but not identical, approach to the one DBCTM applied for the 2010 AU period[446], DBCTM calculated that the forecast of expected inflation for

[442] During the 2010 AU period, the RAB was indexed annually using the March to March annual CPI (ABS 2015). In September 2012, the data were re-indexed (ABS 2012). DBCTM applied the relevant re-referencing conversion factor of 0.5567 from Table 17 (Weighted average of eight capital cities, All Groups CPI).

[443] DBCTM sub. 37: 43; RBA, Statement on Monetary Policy, August 2015, Table 6.1.

[444] The short-term forecasts (one-year, two-year and three-year ahead) as well as the inflation target midpoint were all 2.5% in the statement at this time.

[445] DBCTM sub. 37: 43.

[446] The 'RBA forecast method' is used to mean the geometric average of the RBA's short-term forecast inflation rates (for the first three years of the regulatory period) and the midpoint of the RBA's inflation target range where short-term forecasts are not available (for the last two years of the regulatory period). In the 2010 AU

the 2016–21 regulatory period should be 2.0 per cent, based on a combination of RBA short-term forecasts and the midpoint of the inflation target range (the 'RBA forecast method').

However, DBCTM submitted that this approach is likely to be unreliable due to its potentially unrealistic implications for real rates of interest; accordingly, DBCTM proposed that a new methodology is needed to estimate inflation.[447]

Specifically, DBCTM contended that, if the forecast of inflation in our decision (e.g. 2.5% from the draft decision or 2.0% based on the RBA forecast method) is higher than the five-year RFR in the nominal WACC (1.824%), then the QCA's decision would imply that Commonwealth Government nominal, five-year bonds imply a negative real rate of interest for this regulatory period.[448] DBCTM concluded that if this outcome is considered implausible, then the inflation expectation implicit in the WACC must be less than the estimate applied (e.g. 2.5% or 2.0%), which would result in under-compensation for DBCTM.

DBCTM therefore proposed an alternative approach to forecasting expected inflation that would not imply a negative RFR. This approach infers market expectations of inflation by comparing the yields of nominal and indexed five-year Treasury bonds via the Fisher relationship (the 'indexed bond method').[449,450] DBCTM compared the indexed bond method and the RBA forecast method, over the two previous regulatory periods. For the 2006 and 2010 AUs, the inflation estimates from the two methods were similar, but for the 2016–21 regulatory period, DBCTM found they diverged somewhat. DBCTM considered this inconsistency indicated that the RBA forecast method had become less reliable.[451] DBCTM therefore concluded that the indexed bond method provides a more plausible forecast than the RBA forecast method.

In making this proposal, DBCTM acknowledged that the indexed bond method is often criticised as having insufficient liquidity to provide robust forecasts of inflation. However, DBCTM cited evidence from the Australian Government Securities Program, which indicated that liquidity in this market is currently strong (Figure 7).

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period, DBCTM applied the RBA's short-term forecasts and the midpoint of the inflation target band but with some variations in the methodology (see discussion in Section 8.2.1).

[447] DBCTM sub. 37: 44.

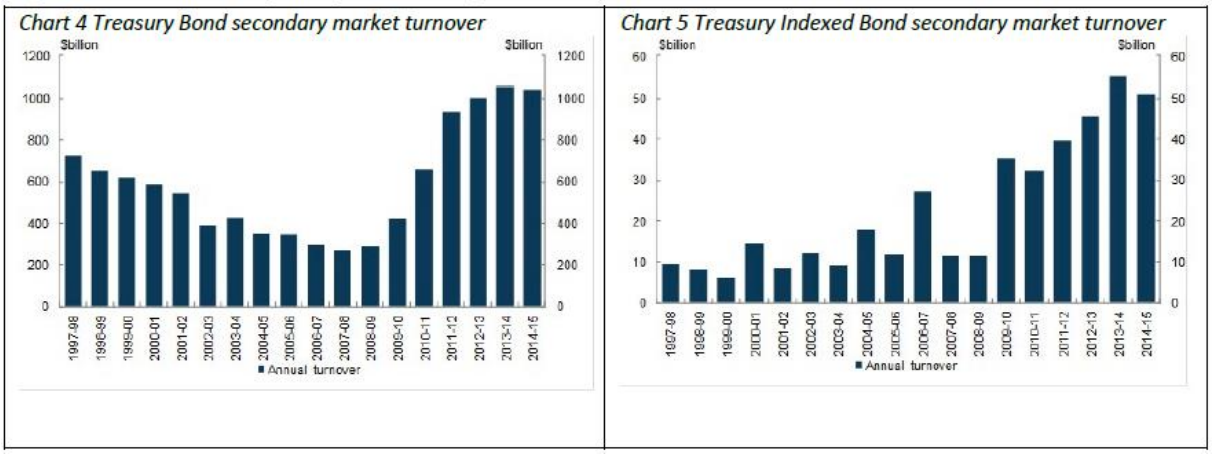
[448] Unless stated otherwise, references in this section to nominal and indexed bonds are references to Commonwealth Government debt securities.

[449] DBCTM sub. 37: 42–47.

[450] The approach is also known as the 'Treasury bond method'.

[451] DBCTM sub. 37: 46.

Figure 7 Indicative liquidity in Treasury bond market



Source: DBCTM sub. 37: 45.

In support of its proposal, DBCTM noted that the indexed bond approach is similar to those recommended or applied below:

- ERAWA—rate of return guidelines for Western Power (2013)
- ESCOSA—advice on regulatory rate of return for SA Water (2012)
- QCA—determination on regulated electricity distribution (2001)
- QCA—recommended to potential DBCT lessees (2001)
- QCA—recommended for use at DBCT as part of the WACC(3) determination process (2006 AU period).[452]

For these reasons, DBCTM proposed to forecast inflation using the indexed bond approach and to use that value to calculate the ARR inflation deduction.

The DBCT User Group

In its response to the QCA's additional questions, the DBCT User Group noted that the QCA's established practice is to adopt the midpoint of 2.5 per cent of the RBA's inflation target range as an estimate of expected inflation over the relevant regulatory period.[453]

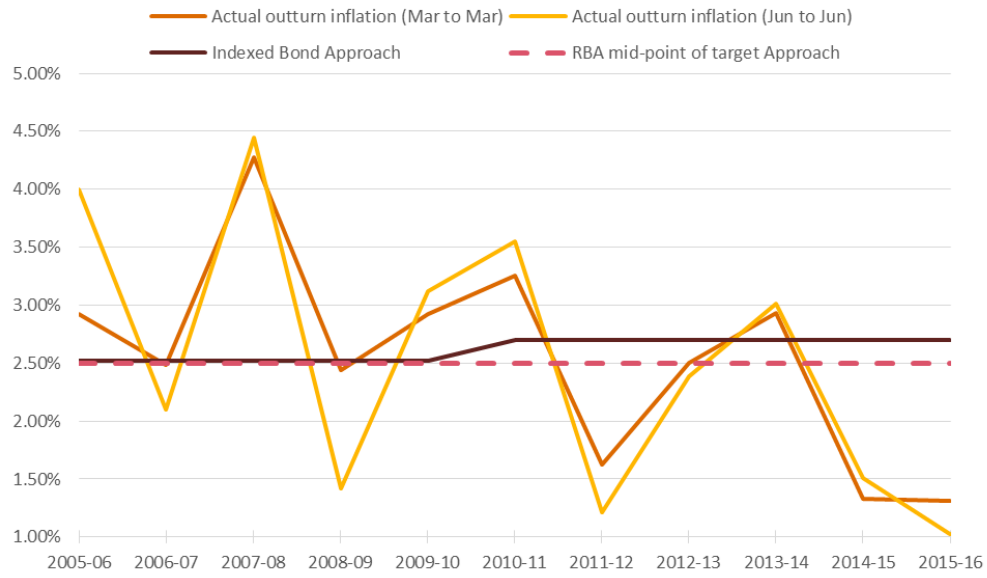
While it acknowledged that the efficacy of any estimation method ought to be reviewed periodically, the DBCT User Group did not support DBCTM's proposed change to the way that expected inflation is forecast.

To demonstrate that the indexed bond approach proposed by DBCTM was no better a predictor of expected inflation than the midpoint of the RBA inflation target range, the DBCT User Group submitted a comparison of the historical performance of both methods (i.e. the inflation target midpoint and the indexed bond approach) over the previous two regulatory periods and compared them to outturn inflation (both March to March, and June to June) (Figure 8). The DBCT User Group said the comparison showed that over this decade inflation has trended down while the indexed bond method suggests inflation was higher in the second five-year period.

[452] DBCTM sub. 37: 46.
[453] DBCT User Group sub. 46: 6.

Further, the DBCT User Group cited an RBA discussion paper that suggests the indexed bond method may overstate expected inflation[454], and therefore be an unreliable estimator.

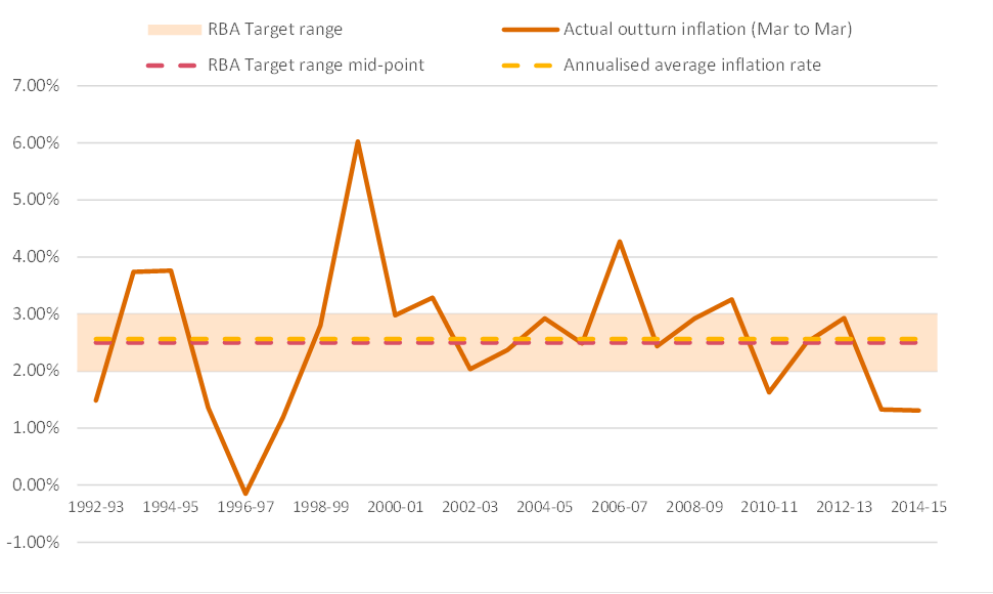
Figure 8 Comparison of actual inflation versus expected inflation methodologies



Source: DBCT User Group sub. 46: 7.

The DBCT User Group also submitted a comparison of outturn inflation and the RBA's inflation target midpoint (Figure 9), to demonstrate that since inflation targeting commenced in 1993, the annualised inflation rate (Australian All Groups CPI) has been only marginally higher (2.6%) than the midpoint of the RBA's inflation target range (2.5%).

Figure 9 Comparison of actual inflation to the RBA target range



Source: DBCT User Group sub. 46: 8.

[454] DBCT User Group sub. 46: 8.

Finally, the DBCT User Group noted that the indexed bond method was inconsistent with the practice of most Australian regulators, and that the AER had found that the indexed bond approach has a number of potential sources of bias, 'including: the effect of bond convexity[455]; inflation risk premiums, liquidity premiums, and inflation indexation lag on nominal and/or indexed bond yields'.[456]

QCA analysis and final decision

The approach for forecasting expected inflation in the 2010 AU submitted by DBCTM (and approved as part of those regulatory arrangements) used short-term RBA forecasts coupled with the midpoint of the RBA inflation target band for later years to give a forecast of 2.69 per cent for the 2010 AU regulatory period.[457] As these arrangements were presented to us as a negotiated package, we did not seek to assess the various components, including the method for forecasting expected inflation.

However, as both DBCTM and the DBCT User Group have proposed to adopt a different method for forecasting inflation for the 2015 DAU regulatory period, there is clearly a demand for us to examine how expected inflation should be forecast and to formalise a position on this matter for DBCT.

As a starting point, DBCTM indicated the inflation rate used in the revenue deduction should match the expected inflation rate in the nominal regulatory WACC.[458] We agree with this point. However, the expected rate implicit in the nominal WACC is unobservable. Therefore, this issue distils to whether or not the forecast of inflation is an unbiased estimate of the inflation rate over the next regulatory period.

Given this context, stakeholders presented three possible forecasting methods:

- RBA inflation target method—the midpoint (2.5%) of the RBA's inflation target band of two to three per cent
- RBA forecast method—the geometric mean of RBA short-term inflation forecasts (one-year, two-year and three-year ahead) coupled with the RBA inflation target midpoint for the remainder of the forecasting period
- Indexed bond method—the implied inflation forecast from nominal and indexed bonds of the same maturity using the Fisher relationship.

We have considered these methods, with the objective of determining the best method for obtaining an unbiased estimate of the expected inflation rate over the forecasting period. In this context, we note the DBCT User Group's submission that, since inflation targeting began in

[455] Bond prices are more sensitive to decreases in yield than to increases in yield due to interest rate compounding (i.e. bond prices are a convex function of yield). The combination of bond convexity and interest rate volatility raises bond prices, which reduces forward rates. This effect is known as the 'convexity bias'. Convexity bias therefore results in a downward bias, and nominal bonds are, in general, more downwardly biased than indexed bonds. This is because convexity bias is sensitive to yield volatility, and nominal bond yields are typically more volatile than indexed bond yields.

[456] DBCT User Group sub. 46: 9.

[457] There are two principal differences between this methodology and the RBA forecast method DBCTM discussed in its 2015 DAU submissions. In the 2010 AU, the forecast was a 10-year forecast, and the mean was arithmetic, rather than geometric.

[458] DBCTM sub. 44: 6.

1993, the annualised inflation rate has been 2.6 per cent, which is close to the midpoint of the RBA's inflation target band.[459,460]

This evidence indicates that the RBA inflation target is an approximately unbiased estimator of the inflation rate. However, an unbiased estimator can still have a high variance and therefore might not be preferred for forecasting purposes. The typical way of evaluating different forecasting methods (taking both bias and variance into account) is by calculating their root mean square errors (RMSEs).

An appropriate assessment would therefore evaluate these competing methods using this criterion in order to assess the accuracy of their forecasting ability. For CPI inflation, Tulip and Wallace (2012) have tested the explanatory power of the RBA's short-term forecasts against alternatives, such as the RBA's inflation target midpoint and a random walk. Most relevantly, they have reported that the RBA one-year ahead forecast is materially superior (and statistically significant) relative to the inflation target, and the RBA second-year ahead forecast is marginally superior (and not statistically significant) on the basis of RMSE.[461] This evidence indicates that using either the one-year ahead, or one-year and two-year ahead, forecasts, coupled with the midpoint of the inflation target band over the remaining years of the regulatory period ('RBA forecast method'), will provide a superior estimate of expected inflation relative to exclusive reliance on the inflation target midpoint ('RBA inflation target method').

The third approach is the indexed bond method proposed by DBCTM. Unfortunately, sufficient data are not available on yields of one-year inflation-indexed bonds to test the indexed bond method in the same way as the other two methods. However, we have undertaken alternative investigations, noting DBCTM's proposal and the DBCT User Group's concerns with this approach.

The indexed bond method is based on the rationale that the nominal rate is comprised of both a real rate and an expected inflation rate. There are a number of assumptions underlying this method, including:

- Nominal and indexed bonds are available with the same maturity dates.
- Inflation-indexed bonds compensate for inflation over the period from the current point in time until their maturity (i.e. no lags).
- Investors are indifferent to inflation risk on nominal bonds.
- Nominal and indexed bonds have the same liquidity.

The most significant of these assumptions are the last two—that is, investors are indifferent to inflation risk on nominal bonds; and nominal and indexed bonds have the same liquidity.

[459] DBCT User Group sub. 46: 8.

[460] Using the RBA's Table G1, the CPI (All Groups) data are 60.8 for June 1993 and 108.6 for June 2016. The growth in CPI from June 1993 to June 2016 implies a geometric mean of 2.55%.

[461] Specifically, the RBA one-year and two-year forecasts have RMSEs of 0.89 and 1.27 relative to RMSEs of 1.41 and 1.36 respectively for the RBA inflation target. Further, for the one-year forecast, the un-centred R^2 statistic is 0.60, which indicates that the one-year forecast explains more than half the variance in changes in CPI inflation over the first forecast year. The comparable statistic for the two-year forecast is 0.13. (An un-centred R^2 of zero means the forecast is as accurate as the uninformed alternative.) The authors do not test the three-year ahead forecast. See: Tulip, P & S Wallace 2012, *Estimates of Uncertainty around the RBA's Forecasts*, Discussion Paper 2012-07, Reserve Bank of Australia, November.

Specifically, investors (presumably) care about their real, not nominal, returns on a bond. Given this reasonable assumption, indexed bonds are risk-free, while nominal bonds are risky because their real return depends on the actual inflation rate that occurs during the relevant period. It is therefore commonly assumed nominal bonds have an inflation risk premium. This is typically assumed to be positive, but the issue is controversial. The relevant academic literature indicates 'the inflation risk premium' bias could be in either direction.[462]

Also, indexed bonds are materially less liquid than nominal bonds on the basis that the volume of outstanding indexed bonds is lower, and the ratio of turnover to outstanding bonds is lower.[463] The implication is that yields on indexed bonds incorporate a premium for inferior liquidity relative to nominal bonds. This means that the indexed bond method may result in an underestimate of expected inflation, with the actual difference varying, depending on the specific bonds and time periods being considered.

We note DBCTM's observation that the liquidity of indexed bonds has been higher in recent years.[464] However, this increase in liquidity applies to both nominal and indexed bonds, and it is the relativity that matters. In this context, the volume of indexed bonds remains small relative to the former. Over the period 2012–2016, the average volume of nominal bonds on issue was about 12.5 times the volume of indexed bonds on issue.[465] Even more relevantly, based on data for 2014–15, the liquidity ratio of nominal bonds was 3.3 in comparison to a liquidity ratio of 2.0 for indexed bonds.[466,467] This liquidity differential is substantial.

Therefore, the yield on indexed bonds impounds a premium for illiquidity, and this will bias downward the inflation estimate obtained from this method. Of course, if there is a negative inflation risk premium on nominal bonds, then this effect will reinforce the illiquidity premium and bias downward the estimate of expected inflation using the indexed bond method.

While the United States' and other countries' bond market experiences are relevant, the Australian market is the most relevant for this analysis. Based on Australian data over 1992–2010, Finlay and Wende (2012) estimate that the net impact of both the inflation risk and illiquidity effects varies from 2.5 per cent to –1.0 per cent over both five and 10-year periods. In addition to the variation being wide, the sign of this net effect is inconsistent.[468]

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[462] If there are deflationary concerns, then the inflation risk premium can be negative. If this is the case, then an estimate of expected inflation using the indexed bond method will be biased down. For the United States, in the more stable inflationary period of 2000–2008, estimates of the inflation risk premium are negative, statistically significant, and up to –0.50%. See: Grishchenko, OV & J Huang 2012, *Inflation Risk Premium: Evidence from the TIPS Market*, Finance and Economics Discussion Series Working Paper 2012–06, United States Federal Reserve Board.

[463] See: Devlin, W & D Patwardhan 2012, 'Measuring Market Inflation Expectations', *Economic Roundup*, no. 2, the Australian Government Treasury.

[464] DBCTM sub. 37: 44.

[465] See: Australian Office of Financial Management (AOFM), Table H12, http://aofm.gov.au/statistics/historical-data/commonwealth-government-securities-on-issue/.

[466] The liquidity ratio is the ratio of annual bond turnover to total bonds outstanding.

[467] The data on bonds outstanding are from the AOFM, Table H12 (see above), and the data on bond turnover are from Australian Financial Markets Association (AFMA) 2015, 2015 Australian Financial Markets Report: 20–21. The year 2014–15 is the latest year for which AFMA data is available.

[468] Finlay, R & S Wende 2012, 'Estimating Inflation Expectations with a Limited Number of Inflation-Indexed Bonds', *International Journal of Central Banking*, vol. 8, no. 2, pp. 111–142.

These two phenomena explain DBCTM's observation that the current approach implies a negative real five-year interest rate.[469] For example, applying the indexed bond method using a nominal five-year RFR of 1.824 per cent and an expected inflation rate of 2.0 per cent gives an implied five-year real rate of –0.17 per cent. However, an inflation risk premium of –0.45 per cent on nominal bonds, for example, is well within the bounds of the estimates from the Australian data given above. Taking into account this premium implies a real rate of return of 0.27 per cent.[470] By comparison, the average yield on five-year indexed bonds over May 2016 was 0.37 per cent.[471] The difference is 0.10 per cent, and this could be readily attributable to the presence of a premium on the indexed bonds for their inferior liquidity. Therefore, we do not accept that the RBA forecast approach, which produces a forecast of 2.0 per cent, implies any particular anomaly or inconsistency.

However, we do accept it is relatively unusual to observe a yield on five-year nominal bonds that is less than an estimate of the expected inflation rate (i.e. 2.0%) over the next five years. But this phenomenon arises simply because the yield on May 2016 indexed bonds is very low—it does not demonstrate that the expected inflation rate must be less than 1.824 per cent.

All of these points taken together suggest the indexed bond method is likely to be a relatively poor estimator of the expected inflation rate. Further, there is no reason to expect the errors to balance out to zero over the life of the Terminal.

We note that the AER has raised similar concerns about the indexed bond methodology[472] and that in most recent decisions, Australian regulators (besides the ERAWA) have adopted expected inflation rates that incorporate RBA forecasts and/or the midpoint of the RBA's target inflation range. In response to DBCTM's examples of instances when the QCA has applied or recommended the indexed bond method, we also note that none of these has occurred in recent regulatory resets.

As indicated, the midpoint of the RBA's target range (2.5%) is very close to the historical average (2.55%), which suggests that over time, if we adopted the DBCT User Group's proposal, the over and under estimates would approximately offset. However, as discussed, the best estimator will possess the lowest RMSE and exclusive use of the inflation target method (2.5%) is inferior to the RBA forecast method on this basis. As the RBA forecast method provides materially better forecasts of outturn inflation, this method is our preferred approach.

As no forecasting method is perfect, outturn inflation may deviate from the forecast year-to-year. However, over the life of the Terminal, the RBA forecast method is more likely to provide the best estimate of inflation. Our final decision is to use the RBA forecast method—that is, by taking the geometric average of the RBA's one-year ahead, two-year ahead and three-year ahead short-term inflation forecasts, in conjunction with the midpoint of the inflation target

[469] DBCTM sub. 37: 44.

[470] The real rate of return is $R_r = [(1+.01824 – (–.0045))/(1+.02)] – 1 = 0.0027$.

[471] The estimate of the real RFR was obtained by interpolating the yields of two Commonwealth Government indexed bonds maturing on either side of the five-year target dates for the 20 business days in the averaging period ending 31 May 2016. The resulting interpolated yields for each day were annualised and averaged. The bonds are TIB 406 maturing 20 August 2020 and TIB 409 maturing 21 February 2022. The relevant yields were obtained from the RBA's Table F16.

[472] For example, see: Australian Energy Regulator 2016, *AusNet Services Transmission Determination 2017–18 to 2021–22*, Attachment 3—Rate of Return, Draft Decision: 129–136.

range (2.5%) for the remaining two years of the five-year forecast period—as the estimate of the expected inflation rate for the 2015 DAU regulatory period (Table 26).

Table 26 QCA final decision: expected inflation forecast[473]

Source	*Inflation forecast*
RBA forecast, June 2016	1.0%
RBA forecast, June 2017	2.0%
RBA forecast, June 2018	2.0%
Midpoint of the RBA target range	2.5%
Midpoint of the RBA target range	2.5%
Geometric average for 2015 DAU regulatory period	2.0%

Adopting the RBA forecast method (Table 26) and using the short-term forecasts in the RBA's May 2016 Statement of Monetary Policy give an inflation forecast of 2.0 per cent.[474] Updating the draft decision inflation forecast of 2.5 per cent to 2.0 per cent increases DBCTM's ARR by an average of around $11 million per year.

Inflation estimate for the RAB roll-forward

The second change proposed by DBCTM is to use expected inflation to calculate inflation on the RAB for the roll-forward at the end of each year. DBCTM first presented this preferred roll-forward method in its supplementary submission to the 2015 DAU.[475] DBCTM considered the current approach—using outturn inflation to roll forward the RAB and expected inflation for the revenue deduction—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).[476]

To address its concerns, DBCTM proposed to use the expected inflation rate rather than the outturn inflation rate to roll forward the RAB. DBCTM's submissions on this topic are summarised in Section 8.2.2 of the draft decision.

[473] RBA 2016, Statement of Monetary Policy May 2016, Table 6.1.

[474] The RBA November 2016 Statement of Monetary Policy was publicly released before this final decision and confirms the forecasts used in this decision (i.e. from May 2016). However, we consider it is not directly applicable to this final decision, which will apply from 1 July 2016. The most appropriate statement is the latest one available before the commencement of the 2016–21 regulatory period.

[475] DBCTM originally commented on this issue in its initial 2015 DAU submission but withdrew Section 3.7 on this point before the release of our draft decision, on the basis the proposed method was not characterised correctly (DBCTM sub. 2: 57–58). In its supplementary submission, submitted just prior to the release of our draft decision, DBCTM proposed its preferred approach at Attachment 2 (See DBCTM sub. 30: 15).

[476] DBCTM sub. 30: 15.

Stakeholders' initial comments

Stakeholders had not yet had an opportunity to comment on DBCTM's updated proposal when our draft decision was published.

QCA draft decision

Due to the timing of DBCTM's supplementary submission, we were not able to fully consider and analyse DBCTM's proposal prior to the draft decision. In the draft decision, we proposed to maintain the current approach but indicated we would consider further submissions on this matter and undertake additional analysis.

Stakeholders' comments on the draft decision

DBCTM

In its submission on the draft decision, DBCTM re-stated its proposal to use the expected inflation rate to index the RAB each year, instead of outturn inflation:

> *This [indexing the RAB using outturn inflation] creates a problem if the expected inflation rate used in calculating the inflation deduction in a particular year is not well aligned with the inflation expectation implicit in the nominal WACC. If the deduction expectation exceeds the implicit WACC expectation, DBCTM will be undercompensated for inflation in that year. However, if the deduction expectation is lower than the implicit WACC expectation, DBCTM will be overcompensated.*[477]

DBCTM submitted that the current practice of using the outturn inflation rate to annually index DBCTM's RAB could not guarantee that DBCTM would be appropriately compensated for the full effects of inflation over the regulatory period.[478] DBCTM emphasised that the NPV = 0 principle is necessary to ensure that DBCTM is appropriately compensated for its investments.[479] In its supplementary submission, DBCTM provided examples of the configuration of inflation rates (for the ARR deduction, the RAB roll-forward, and implicit in the regulatory WACC) to demonstrate:

- If the inflation rate used to index the RAB does not match the inflation rate used for the ARR deduction, the NPV = 0 principle will not be satisfied.
- If the inflation rate for RAB indexation matches the rate for the ARR deduction, but differs from the inflation rate implicit in the nominal WACC, DBCTM is appropriately compensated over the life of the RAB, but not over the regulatory period.[480]

DBCTM therefore proposed, for consistency, to apply the expected rate of inflation (i.e. the forecast rate used for calculating the revenue deduction) to the RAB roll-forward and to base this estimate on its preferred approach (i.e. the indexed bond method) (see the previous Section).[481]

Further, DBCTM submitted that its proposal was consistent with the principle of providing certainty in contractual agreements, which the QCA draft decision discussed.[482] It considered the current practice created uncertainty about future reference tariffs for all stakeholders and

[477] DBCTM sub. 37: 42.
[478] DBCTM sub. 37: 45.
[479] DBCTM sub. 44: 6.
[480] DBCTM sub. 44: 6.
[481] DBCTM sub. 44: 6–9.
[482] DBCTM sub. 44: 9.

that the outturn inflation rate was the only parameter for the roll-forward process that was not agreed upon at the start of the regulatory period.

The DBCT User Group

In the DBCT User Group's first submission on the draft decision, it supported maintaining the current approach to inflation, on the basis that it was 'not clear that the issues referred to by DBCTM justify the proposed change'.[483] It considered there should be no change to how inflation is applied, if it would result in an increase in revenue or pricing to DBCTM.

In its supplementary submission on the draft decision, the DBCT User Group highlighted that DBCTM acknowledged that the current approach is not systematically biased—it could lead to DBCTM over- or under-recovering revenue in any particular year.[484] The DBCT User Group said, when outturn inflation is higher (lower) than expected, the regulated business (Terminal users) would benefit from the current approach. With this context, the DBCT User Group was concerned that DBCTM has now proposed the change because it expects to benefit from such a change over the coming regulatory period. The DBCT User Group estimated that if expected inflation had been applied since 2005–06, DBCTM would have recovered $15 million less than under the current approach.

The DBCT User Group stated that changing the methodologies would introduce an inconsistency between the QCA's approach for DBCTM, and the approach used for Aurizon Network's amended 2014 DAU and every other decision the QCA had made this decade.[485]

QCA analysis and final decision

Before addressing the methodological change proposed by DBCTM, we consider it appropriate to address the NPV = 0 concept, as it applies to DBCTM (and more generally).

In estimating almost all of the parameters used to determine the ARR, the QCA assumes values that could reasonably expect to apply to a similar benchmark entity. We accept that in reality, DBCTM will face a different set of parameters. Aside from those values which are agreed to be straight pass-through costs, such as the site remediation fee and regulatory levy, we do not adjust the ARR to reflect DBCTM's actual costs and revenues. In this regard, price regulation at the Terminal (including the NPV = 0 principle) is an ex ante concept. By applying the best possible forecast values, we endeavour to achieve NPV = 0 on an ex ante basis.

With that as background, we evaluated DBCTM's proposal, focusing particularly on its implications for:

- the NPV = 0 principle
- the effects of inflation on stakeholders (including DBCTM)
- consistency of the regulatory regime.

DBCTM commented that the NPV = 0 principle ensures that it is compensated for its investments.[486] As stated in the QCA's *Statement of Regulatory Pricing Principles* (August 2013):

[483] DBCT User Group sub. 41: 34.
[484] DBCT User Group sub. 46: 9.
[485] DBCT User Group sub. 46: 10.
[486] DBCTM sub. 44: 6.

> *The 'NPV=0 principle' means that the expected present value of the future cash flows of the regulated firm should equal the value of initial investment, using a discount rate that reflects the opportunity cost of the investment.* [487]

An important element of this definition is that future cash flows are defined on an 'expected' basis, not an 'actual' basis.[488] In other words, the principle is satisfied if NPV = 0 ex ante, rather than ex post. In this respect, DBCTM has effectively proposed a valuation model that uses the forecast of expected inflation in both the revenue deduction and in the rate for the RAB roll-forward. As the expectation of the revenue deduction equals the expectation of the RAB adjustment, this approach will satisfy the NPV = 0 principle.

However, this is not the only way the principle can be satisfied. Under the QCA's current approach for DBCT, the inflation rate implicit in the revenue deduction is a forecast of expected inflation, while the rate in the RAB roll-forward is an outturn rate. This approach will also satisfy the NPV = 0 principle on an ex ante basis, if the forecast of expected inflation is an unbiased estimator of the actual inflation rate. This will be the case if the proposed inflation forecast is the best unbiased estimator of the outturn rate. In the previous section, we explained why we believe that the preferred RBA forecast method (i.e. coupling short-term inflation forecasts with the midpoint of the inflation target band) produces such an estimator.

DBCTM's proposal involves a treatment of inflation that differs from the current approach, which has implications for stakeholders. Under its proposal, the RAB would roll forward in accordance with expected inflation, rather than actual inflation—there would be no connection between outturn inflation (which DBCTM and users face implicitly in all of their costs) and expected inflation.[489] As a result, prices would be relatively more stable. However, DBCTM's real revenues and users' real expenditures would be vulnerable to inflation shocks. Over the life of the regulated assets, such impacts would be expected to offset each other.

Alternatively, under the current approach, the RAB evolves according to outturn inflation. The year-to-year indexation process means the allowed revenues, and therefore users' expenditures, are correlated with changes in outturn inflation. As a result, both DBCTM and users are largely protected from inflation risk. However, and in contrast to DBCTM's proposal, there will be more movement in prices from year to year.

Finally, the current approach has applied since the commencement of regulation. If we were to adopt the approach proposed by DBCTM for the upcoming regulatory period, the outcome could favour DBCTM if outturn inflation is less than expected inflation, and conversely, could benefit users if outturn inflation is more than expected inflation. In its initial submission, DBCTM noted that these effects could be expected to cancel out over time (i.e. such that NPV = 0). However, we consider this outcome is best achieved if such a regime is applied for the entire life of the assets. This is not the context of the proposal here. Therefore, we do not consider DBCTM's proposal for 'switching' the approach to the treatment of inflation—materially after the commencement of regulation—to be appropriate in this situation.

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[487] QCA 2013, *Statement of Regulatory Pricing Principles*, August: 10.

[488] See Lally, M 2012, *The Risk Free Rate and the Present Value Principle*, report for the Australian Energy Regulator, 22 August.

[489] Further, under DBCTM's approach, the adjustment would happen at each regulatory reset. This is in contrast to the current approach, where the adjustment to the RAB occurs incrementally each year.

In a new regulatory situation (i.e. where regulation is initially commencing), we would consider the matter to be finely balanced. This is because both approaches would satisfy the NPV = 0 principle over the life of the assets. The primary difference would be the different inflation regimes, each of which has its own benefits and costs. However, the regulatory regime in place for DBCT has already been established, and therefore we do not accept DBCTM's proposal.

Therefore, we consider the best approach is to maintain a link between the roll-forward of the RAB and outturn inflation for the reasons stated previously. We acknowledge that outturn inflation may not exactly match its forecast, and as a result, there may be short-term deviations between the outturn and expected inflation rates. However, applying the best unbiased estimator available to forecast inflation (i.e. the estimate of expected inflation from the RBA forecast method) is likely to produce an estimate that aligns more closely with average outturn inflation.[490] As a result, there should be a minimal net impact on DBCTM and users over the life of the assets.

We also note DBCTM's claim that the average March-to-March outturn inflation rate might not be a good proxy for the average June-to-June outturn inflation rate.[491] However, the data are from the same index, with the March-to-March rate reflecting a one quarter lag (relative to June). Over the life of the assets, any differences between the values will be negligible.

Summary 8.18—Treatment of inflation

The QCA's decision in relation to the treatment of inflation is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU to provide that the:

(1) method for estimating expected inflation is to apply the geometric average of RBA forecasts (one-year ahead, two-year ahead and three-year ahead) and the midpoint of the RBA target range (for the remaining two years of the regulatory period), in calculating the ARR and TIC for the 2015 regulatory period (which gives a value of 2.0%)

(2) 2010 AU approach of applying outturn inflation to inflate the RAB is maintained.

8.2.4 Operating expenditure

DBCTM's operating expenditure comprises three components:

- corporate overheads
- site remediation allowance
- QCA regulatory levy.

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 final decision and the amounts proposed included in Table 27.

[490] The five-year geometric average of RBA short-term forecasts (i.e. one-year, two-year and three-year ahead) and the midpoint of the inflation target range.

[491] The June-to-June data is not available in time to roll forward the RAB and to release new prices by 1 July.

Also included in Table 27 is DBCTM's proposed draft regulatory levy. DBCTM submitted that the regulatory levy has yet to be approved, and is subject to change.

Stakeholders' initial comments

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 views are summarised in Chapters 6 and 7 of the draft decision.

QCA draft decision

The QCA approved DBCTM's proposed allowance for the QCA regulatory levy (see Table 29 of the draft decision), noting that the actual levy would differ from these estimates.

As summarised in Chapters 6 and 7, the QCA refused to approve DBCTM's proposed site remediation and corporate overhead allowances.

Stakeholders' comments on the draft decision

Stakeholders' comments on site remediation and corporate overheads are addressed in Chapters 6 and 7. DBCTM's proposed values and the QCA's draft and final decision values are shown in Table 27.

DBCTM submitted revised figures for the regulatory levy, which other stakeholders did not comment on.

Table 27 Operating expenditure: QCA draft decision; DBCTM's revised figures; QCA final decision

	2016–17	*2017–18*	*2018–19*	*2019–20*	*2020–21*
Draft decision					
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	15.6
DBCTM revised figures					
Site remediation	6.4	6.4	6.4	6.4	6.4
Corporate overheads	7.2	7.3	7.4	7.5	7.7
Regulatory levy	0.1	0.4	0.4	0.4	2.0
Total opex	13.7	14.1	14.2	14.3	16.1
Final decision					
Site remediation	7.0	7.0	7.0	7.0	7.0
Corporate overheads	7.3	7.4	7.6	7.7	7.9
Regulatory levy	0.1	0.4	0.4	0.4	2.0
Total opex	14.4	14.9	15.0	15.2	16.9

QCA analysis and final decision

The analysis supporting our final decision on operating expenditure is provided in Chapters 6 and 7. The operating expenditure values we have used to calculate the ARR and TIC in this final decision are provided in Table 27.

We maintain the position from our draft decision to approve the regulatory levy, noting that the actual levy will differ from these estimates.

> **Summary 8.19—Operating expenditure**
>
> **The QCA's decision in relation to operating expenditure is to refuse to approve DBCTM's 2015 DAU.**
>
> **The QCA requires DBCTM to amend its proposed corporate overheads and site remediation estimates, contained it its 2015 DAU, as outlined in Chapters 6 and 7 of this final decision.**
>
> **The QCA approves DBCTM's estimates of the regulatory levy, noting that these will be adjusted throughout the regulatory period.**

8.2.5 Return of capital

DBCTM proposed a number of changes to the calculation of depreciation in the 2015 DAU:

- adopt a WAML[492] approach to depreciation
- depreciate spares in the initial asset base
- reduce the residual, or scrap, value of relevant initial assets to zero.

DBCTM's proposed changes to depreciation and the treatment of spares are summarised in Chapter 5.

Stakeholders' initial comments

Stakeholders' submissions on the proposed changes to depreciation and the treatment of spares are summarised in Chapter 5 of this final decision, and in the draft decision.

QCA draft decision

The QCA determined it was appropriate to maintain an asset life of 50 years from June 2004 for the Terminal. We also accepted DBCTM's proposal to add spares into the RAB for depreciation purposes. Spares will be depreciated over a 15-year period. Depreciation is discussed in detail in Chapter 5 of this final decision.

Stakeholders' comments on the draft decision

DBCTM

DBCTM supported the QCA's position on the depreciation of spares, including to keep the asset life of spares at 15 years.[493]

[492] Weighted Average Mine Life.
[493] DBCTM sub. 37: 33.

In place of the WAML in the submission that accompanied the 2015 DAU, DBCTM proposed that the remaining asset life be the lesser of an assets' remaining useful life or the number of financial years to June 2051 (the end of DBCTM's lease with DBCT Holdings).[494]

The DBCT User Group

In its response to the draft decision, the DBCT User Group supported the QCA's decision regarding the depreciation of spares across the remaining useful life of the Terminal, subject to the comments described in Chapter 5. The DBCT User Group also supported the QCA's decision to maintain the current life of the Terminal until 2054.[495]

The submissions from both DBCTM and the DBCT User Group are considered in more detail in Chapter 5.

QCA analysis and final decision

We determined that the initial value of spares would be depreciated over 15 years, as proposed by DBCTM.

We also determined to maintain the asset life from the 2010 AU period (50 years from June 2004).

Our analysis on these issues is provided in Chapter 5 of this final decision.

8.2.6 Residual value of initial assets

DBCTM submitted that the regulatory depreciation profiles of initial assets should be updated to reflect residual (i.e. scrap) values of zero at the beginning of the 2016–21 undertaking period (some of which were originally assigned a scrap value of 2.5% of the initial asset value).

Stakeholders' initial comments

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. It considered there could be alternative future uses for the Terminal's assets, and that applying a zero residual value discounted that possibility, and ignored any potential future scrap value.

QCA draft decision

The QCA refused to approve DBCTM's proposal that the residual value of initial assets be reduced to zero from the beginning of the next regulatory period.

We considered that both DBCTM and the DBCT User Group raised valid points, and we were minded to approve an approach that reduced the residual value to zero and allowed DBCTM to recover the associated return of capital sooner than otherwise. However, we did not consider that DBCTM's proposed approach satisfactorily addressed users' concerns with respect to the potential for double-counting.

[494] DBCTM sub. 37: 33.
[495] DBCT User Group, sub. 41: 29–30.

Stakeholders' comments on the draft decision

DBCTM sought to address users' concerns that, if the scrap value of initial assets was reduced to zero, DBCTM could potentially recover the residual value of those assets twice: once from the RAB and then again when the assets are replaced.

DBCTM highlighted that the existing review event provisions in the 2015 DAU (and those in previous AUs) already address the issue. As part of a review event, the RAB and the TIC are adjusted to reflect DBCTM's net proceeds from selling assets. DBCTM cannot retain the net proceeds of the sale of any Terminal asset—the proceeds must be deducted from the RAB. DBCTM provided examples of how scrap proceeds from two previous disposals of assets had been accounted for.[496]

On this basis, DBCTM retained its proposal to update the residual value of assets to zero from 2016–17 onwards.

The DBCT User Group supported the QCA's draft decision, and indicated that it would appreciate the opportunity to comment on any alternative proposal put forward by DBCTM.[497]

QCA analysis and final decision

Having reviewed stakeholders' submissions and the 2015 DAU, we agree with DBCTM's conclusion that the 2015 DAU would make it difficult for DBCTM to double-count the value of scrapped assets in the RAB, or to under-recover the market value of the scrapped assets.

We also note that DBCTM provided relevant examples of its experience in obtaining value for scrapped assets in the past.

Both the 2010 AU and the 2015 DAU obligate DBCTM to undertake capital works consistent with its Tender and Contract Management Processes (TCMP), as approved by the QCA.[498]

DBCTM's current TCMP includes a number of stipulations that could apply to the removal of scrapped assets, and to ensure that DBCTM achieves the highest scrap value possible. For example:

- The basis of payment for works is clearly specified and the basis for undertaking the works is in accordance with good commercial practice (cl. 12.5(i)(2)(C)).
- There is a process for managing contracts before and after award that accords with good commercial practice and provides appropriate guidance on the criteria that DBCTM should apply to decisions regarding the management of Terminal capacity expansions, including but not limited to:
  - minimising whole of asset life costs including future maintenance and operating costs (cl. 12.5(j)(2)(D)(vi))
  - minimising total project cost which may at times not be consistent with minimisation of individual contract costs (cl.12.5(j)(2)(D)(vii)).
- The QCA will be obliged to accept that NECAP is prudent and include it in the relevant RAB, if the expenditure is unanimously approved by all access holders (cl. 12.10(b)(2)(A)).

[496] DBCTM 37: 34.
[497] DBCT User Group sub. 41: 34.
[498] 2015 DAU, clause 12.5(j).

- The QCA will accept capital expenditure into the relevant RAB, if the QCA forms the view that such expenditure is prudent having regard to (among other things) the circumstances prevailing in the markets for engineering, equipment supply and construction; and minimising the whole-of-asset-life costs (cl. 12.10 (c)(3) and (9)).

Clause (4f) of Schedule C requires that if a review event occurs (the trigger for which includes the sale of assets comprised in the Terminal during the previous 12 months (Schedule H)), DBCTM will submit a request to amend the undertaking to make the necessary amendments to the ARR, revenue cap and the reference tariff.

If users become concerned that DBCTM has not sought to maximise the value of scrapped assets, as required by the undertaking, users are able to initiate a dispute under clause 17.

On this basis, we consider that:

- DBCTM is already required to seek the best market value possible for scrapped assets.
- DBCTM is unable to double-count the return from the sale of scrapped assets.
- Users have the ability under the existing dispute mechanisms to address any concerns they may have that DBCTM has failed to meet its obligations.

Our final decision is that the scrap value of initial assets should be reduced to zero, with the total residual value of initial assets depreciated over the remaining life of each asset.

Summary 8.20 —Residual value of initial assets

The QCA's decision is to approve DBCTM's 2015 DAU proposal that the scrap value of initial assets should be reduced to zero, with the total residual value of each initial asset being depreciated over the remaining life of that asset.

8.2.7 Tax payable

DBCTM proposed a statutory corporate tax rate of 30 per cent, consistent with the methodology and assumptions approved for the 2010 AU. DBCTM also applied an estimate of 0.25 for the value of dividend imputation credits (gamma) for the purpose of determining the imputation-adjusted tax rate. The gamma estimate of 0.25 contrasted with our preferred estimate of 0.47 for this parameter (see Chapter 4).

Stakeholders' initial comments

The DBCT User Group did not propose any changes to the approach for estimating DBCTM's tax allowance. However, the DBCT User Group did propose an alternative gamma estimate (see the discussion in Chapter 4).

QCA draft decision

Our draft decision was to approve DBCTM’s proposed approach to calculating tax, which was consistent with the approach approved by the QCA for both the 2006 and 2010 AUs, but not to approve the proposed gamma estimates.

Stakeholders' comments on the draft decision

DBCTM supported the QCA's draft decision on the calculation of tax (but not the draft decision on gamma–see Chapter 4).[499]

The DBCT User Group continued to support the typical building blocks roll-forward model employed by the QCA but did not comment specifically on tax payable.[500]

QCA analysis and final decision

Both DBCTM and the DBCT User Group accepted our draft decision (except in relation to gamma), and no other stakeholders addressed this topic.

In Chapter 4, we address our decision to refuse to approve DBCTM's gamma value of 0.25.

Our final decision on the corporate tax rate, and methodology, however, is to maintain our draft decision and to approve DBCTM's proposed statutory corporate tax rate of 30 per cent, and to continue to apply the methodology used in the 2010 AU.

Summary 8.21—Tax payable

The QCA's decision is to approve DBCTM's 2015 DAU proposal of a statutory corporate tax rate of 30 per cent, and the methodology used to calculate tax payable.

8.2.8 True-up mechanism

On 16 June 2016, the QCA approved DBCTM's April 2016 extension DAAU. The extension DAAU, among other things, amended the 2010 AU to:

- extend the terminating date of the 2010 AU to the earlier of 30 June 2017 or the date on which a QCA-approved replacement undertaking takes effect (or when the Operator changes)
- provide for transitional tariffs to be charged in the period between 1 July 2016 and when a replacement undertaking takes effect
- provide an adjustment to capital charges through the operation of a true-up mechanism.

In particular, the extension DAAU amended the 2010 AU to include the following provision (relating to the operation of the true-up mechanism):

> *11.11(d) DBCT Management's obligations under Section 11.11 apply notwithstanding the expiry of this Undertaking.*

Given the presence of this clause in the amended 2010 AU, we consider that the operation of the true-up mechanism would be effective. However, for the avoidance of doubt, we have decided to require DBCTM to amend its 2015 DAU to include a cross-reference to the relevant provisions in the 2010 AU.

[499] DBCTM 37: 42.
[500] DBCT User Group 41: 33.

Summary 8.22—True-up mechanism

The QCA's decision in relation to the true-up mechanism is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU to adopt and implement the true-up mechanism contained in the 2010 AU. The amendments required to the 2015 DAU are contained in the QCA's marked-up Schedule C of the 2015 DAU at Appendix A.

9 RING-FENCING MATTERS

Our draft decision was to refuse to approve the ring-fencing arrangements proposed in DBCTM's 2015 DAU. We proposed a number of detailed amendments to the ring-fencing arrangement provisions based on the assumption that DBCTM would be vertically integrated with Pacific National during the proposed regulatory period.

Brookfield's withdrawal of its previous bid to acquire Asciano (including Pacific National) occurred too late in our DAU assessment process for it to be properly considered in our draft decision. Our draft decision asked stakeholders to comment on whether the draft decision amendments remain appropriate, in the absence of vertical integration.

The final decision is to refuse to approve the ring-fencing arrangements contained in clause 9 of the 2015 DAU. The final decision adopts DBCTM's proposed replacement clause 9, except where the provisions have been amended or modified by this final decision.

It is important to note that this final decision is made on the basis that DBCTM and related parties do not (either directly or indirectly) have an interest in any SCB, other than the Trading SCB (as defined in the final decision).

The provisions in the QCA Act appropriately give DBCTM a broad power to submit voluntary DAAUs during the regulatory period.

9.1 Overview

The QCA Act[501] contemplates that an access undertaking may include ring-fencing arrangements where the operator of the declared service is vertically integrated in the upstream and/or downstream markets to the facility by which the services are provided.

Ring-fencing arrangements were not included in DBCTM's 2006 and 2010 AUs because DBCTM and its owners were not vertically integrated. However, clause 9 of the 2010 AU requires that, if interests in upstream or downstream markets arise in the future, DBCTM will inform the QCA and (if required by the QCA) submit a DAAU to the QCA which sets out DBCTM's obligations in relation to ring-fencing matters.

In August 2015, DBCTM advised the QCA that a consortium of Brookfield companies intended to acquire 100 per cent of the shares in Asciano[502] and had applied to the ACCC for informal merger clearance. On 9 October 2015, DBCTM lodged the October 2015 ring-fencing DAAU and DBCTM included these amendments in the 2015 DAU it lodged in response to the QCA's initial undertaking notice.

In response to stakeholder concerns submitted in response to the October 2015 DAAU process, DBCTM withdrew the October 2015 DAAU and lodged the November 2015 ring-fencing DAAU.

[501] Section 137(1A) and (2)(ea)

[502] 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.

At the same time, DBCTM committed to incorporate the QCA's decision on the November 2015 ring-fencing DAAU in its 2015 DAU following the QCA's approval of the November 2015 ring-fencing DAAU.

On 29 February 2016, we released a draft decision to not approve the November 2015 ring-fencing DAAU, and proposed a suite of amendments we considered necessary to approve the DAAU consistent with our obligations under the QCA Act. On 24 March 2016, DBCTM withdrew the November 2015 ring-fencing DAAU and identified that it no longer considered the ring-fencing arrangements in clause 9 of its 2015 DAU were required, in light of its withdrawal of its bid for Asciano.

DBCTM's withdrawal of the November 2015 ring-fencing DAAU recognised that Brookfield had withdrawn its original Asciano bid, and that its participation in a restructured bid to acquire particular businesses of Asciano would remove the competition concerns previously identified by the ACCC (which related to the potential ownership of Pacific National).[503] On 21 July 2016, the ACCC gave Brookfield and its consortium partners informal merger clearance to proceed with the restructured transaction.

Brookfield's withdrawal of its previous bid to acquire Asciano (including Pacific National) and DBCTM's withdrawal of its November 2015 ring-fencing DAAU occurred too late in our DAU assessment process for it to be properly considered in our draft decision on the 2015 DAU released in April 2016.

Our draft decision on the ring-fencing amendments in the 2015 DAU:

- refused to approve the treatment of ring-fencing arrangements in the 2015 DAU
- proposed amendments that we considered necessary to enable us to approve the ring-fencing arrangements in the 2015 DAU, in accordance with the statutory criteria in section 138(2) of the QCA Act. The proposed amendments were identical to the clause 9 amendments that we had included in our draft decision on the November 2015 ring-fencing DAAU.
- asked stakeholders to indicate their views on whether our proposed clause 9 amendments remain necessary, in the absence of Brookfield's previous bid for Asciano.

DBCTM, the DBCT User Group and Aurizon Operations all lodged submissions to identify the issues we should take into account when assessing the ring-fencing matters to be addressed in the final decision. Both DBCTM and the DBCT User Group submitted their recommended approaches to the clause 9 amendments that should be included in the final decision. DBCTM and the DBCT User Group also provided follow up submissions in response to the issues addressed by the other in their initial submissions to the QCA on the draft decision.

Way forward in the final decision

Our final decision is to refuse to approve the ring-fencing arrangements contained in clause 9 of the 2015 DAU. Clause 9 of the 2015 DAU is no longer supported by DBCTM. Accordingly, we have adapted our draft decision position for this final decision.

We have reviewed all submissions on whether the proposed clause 9 amendments (or parts of those amendments) in the draft decision remain necessary, in light of the change of

[503] ACCC 2015.

circumstances arising from the restructuring of the Asciano transaction. We accept that the proposed ring-fencing amendments in the draft decision are no longer supported by DBCTM and stakeholders. We also accept the full scope of amendments in the draft decision is unlikely to be justified in the absence of the vertical integration issues associated with Brookfield's previous bid to acquire Asciano.

We have adopted the following approach in considering the nature and scope of the ring-fencing amendments we require DBCTM to make to the 2015 DAU:

- The 2015 DAU was submitted by DBCTM in response to an initial undertaking notice. We acknowledge that circumstances have changed and DBCTM should be given the opportunity to propose the clause 9 provisions required to respond to the changed circumstances (DBCTM's replacement clause 9). We consider DBCTM's 26 August 2016 submission proposes DBCTM's replacement clause 9.
- DBCTM's replacement clause 9 closely aligns to the drafting submitted by the DBCT User Group in response to our draft decision.

This final decision assesses the appropriateness of DBCTM's replacement clause 9 provisions in balancing all of the matters listed under section 138(2), and assesses whether the provisions, as now proposed by DBCTM, can be approved consistent with section 138(2) of the QCA Act. This chapter considers all of the issues raised by DBCTM and stakeholders in order to reach a final decision on DBCTM's proposed ring-fencing provisions in the 2015 DAU.

9.2 DBCTM submission on new ring-fencing provisions

In its responses to the draft decision, DBCTM has proposed to remove the ring-fencing provisions in the 2015 DAU and replace them with new drafting in clauses 3, 6 and 9 and in the Undertaking to be given by the Trading SCB. The principles underpinning the new drafting may be summarised as follows:

Amend clause 3

- The Operator is to be independent of DBCTM or a related party.[504]
- DAAU mechanism to require DBCTM to comply with a QCA final decision on a DAAU that will be lodged by DBCTM:[505]
  - at least 12 months prior to the Operator ceasing to be a user-controlled entity
  - if it obtains a direct or indirect interest in any SCB, other than Brookfield's Trading SCB.

DBCTM's replacement clause 9

- Non-discrimination provisions prohibit DBCTM from exercising its rights to approve or not approve assignments and transfers for the purpose of benefiting a SCB.

[504] DBCTM, sub. 44: 13-14. We have adopted DBCTM's proposed policy position provided on 25 August to be DBCTM's proposed drafting position that was submitted to us on 26 August 2016 (sub. 45: Appendix A). We note DBCTM's revised drafting proposal did not include a requirement to submit a DAAU at least 12 months prior to DBCT PL ceasing to be the Operator. However, we have viewed this inconsistency to be a drafting oversight rather than intentional.

[505] DBCTM, sub. 44: 13-14, 45: Appendix A.

- Trading SCB cannot acquire access from DBCTM and can only acquire access from access holders in the secondary capacity trading market.
- DBCTM will require its directors to execute a confidentiality deed (consistent with the deed approved in Schedule D of the draft decision).
- Complaint handling provisions:
  - enable affected parties to lodge a written complaint with DBCTM
  - require DBCTM to advise the QCA on receipt of the complaint
  - require DBCTM to promptly respond to the complainant with DBCTM's proposed response.

Amend undertaking given by Trading SCB

- Removing the changed circumstances from the ring-fencing provisions and removing the requirement to give the deed in favour of each rail operator.

Deleted ring-fencing provisions

- Work restrictions on DBCTM management and employees working with, or having management responsibility for, a SCB, other than the Trading SCB.
- Prohibition on employee secondees and transfers between DBCTM and a SCB.
- Maintenance of a ring-fencing register to identify when persons in a related business and SCB have access to protected information.
- Compliance responsibilities with confidentiality provisions and processes to protect confidential information from release to a SCB.

DBCTM has advised it considers the above ring-fencing provisions to be representative of a 'compromise approach.' In submitting the new provisions on 26 August 2016, DBCTM advised that it had addressed the issues raised in stakeholders' submissions on the draft decision.[506]

9.3 Stakeholders' submissions in response to the draft decision

Aurizon Operations recommended that the QCA consider the scope of ring-fencing provisions that may be required in the 2015 DAU to address the minority cross-ownership issues that will exist in the 2015 DAU.[507] Aurizon Operations identified that should the ACCC approve the new consortium's bid for Asciano, bcIMC[508] could potentially have a 12 per cent interest in Pacific National as well as its existing 9 per cent interest in DBCTM. The minority cross-ownership issue arises as a result of Brookfield's participation in the consortium that is acquiring different elements of Asciano's business activities.

The DBCT User Group proposed new drafting for clauses 3, 6 and 9, which included the following provisions:[509]

[506] DBCTM, sub. no. 45: 6–8, 12–13.
[507] Aurizon Operations, sub. no. 34: 1–4.
[508] British Columbia Investment Management Corporation.
[509] DBCT User Group, sub. No. 41: 35–39.

Amend clause 3

- Require DBCTM to sub-contract the operation and management of the Terminal to an independent Operator that is also majority user-owned.
- Include a DAAU mechanism to require DBCTM to comply with a QCA final decision on a DAAU that will be lodged by DBCTM on a new or replacement OMC.

Amend clause 9

- Appropriately separate the Trading SCB's activities from DBCTM's activities, including requiring the Trading SCB to give an undertaking to comply with the 2015 DAU—in favour of access holders and access seekers (but remove the requirement for it to be given in favour of rail operators).
- Establish rules regarding changes to the Terminal Regulations.
- Implement appropriate ring-fencing complaint mechanisms.

Amend undertaking given by Trading SCB

- Removing the changed circumstances from the ring-fencing provisions and removing the requirement to give the deed in favour of each rail operator.

9.4 QCA analysis and final decision

Our final decision is to refuse to approve the ring-fencing provisions as they are proposed in clause 9, and the schedule detailing the SCB ring-fencing Undertaking, in the 2015 DAU. In doing so, we recognise that Clause 9 of the 2015 DAU is no longer supported by DBCTM, Aurizon Operations or the DBCT User Group.

We have identified the following proposed amendments we require DBCTM to make to the 2015 DAU to appropriately address the need for ring-fencing arrangements, having regard to our statutory criteria in sections 134 and 138(2) of the QCA Act.

Ring-fencing provisions relevant to clauses 3 and 6

The final decision on the scope and administration provisions in the 2015 DAU is addressed in Chapter 3 of this final decision (including a discussion of the amendments we require to clauses 3 and 6).[510] DBCTM's compliance with the final decision on clauses 3 and 6 of the 2015 DAU will address and remove the ring-fencing concerns with these matters that were identified by DBCTM and the DBCT User Group in response to our draft decision.

DBCTM's replacement clause 9

The final decision on the ring-fencing provisions in the 2015 DAU adopts DBCTM's proposed replacement clause 9[511], except where the provisions have been amended or modified by this final decision. The modifications that have been made to the 'replacement clause 9' are addressed below.

[510] See Appendix A, clauses 3 and 6.
[511] DBCTM, sub. 45: 19–20.

Amended undertaking if need for ring-fencing arises (cl. 9.1)

> *9.1 (a) As at the Commencement Date, DBCT Management and its Related Bodies Corporate do not own or operate any Supply Chain Business (other than a Trading SCB) that is connected to or uses the Terminal.*

The final decision is to approve the proposed clause 9.1(a) in DBCTM's proposed replacement clause 9. Having regard to section 138(2) of the QCA Act, the approval of the ring-fencing arrangements in DBCTM's proposed clause 9 in the 26 August 2016 submission[512] is on the basis that neither DBCTM nor related parties have, either directly or indirectly, an interest in a SCB, other than the Trading SCB (as defined in the final decision).[513]

Consistent with this view, our final decision is to remove DBCTM's proposed replacement clauses 9.1(b) to 9.1(c). Should it become apparent to DBCTM during the term of the approved undertaking that either DBCTM or a related party is considering the acquisition of a direct or indirect interest in any related market to the Terminal, then DBCTM can exercise its rights under sections 133-147 of the QCA Act (in order to seek to have the AU amended to modify the constraint in clause 9.1(a)).

In making the final decision, we have considered Aurizon Operations' concern regarding minority cross-ownership issues. We note the ACCC's detailed consideration of the cross-ownership issues involved with bcIMC's shareholding in both Pacific National and DBCTM:[514]

> *The ACCC considered the various interests of all of the Rail Consortium parties and did not consider that there were any other competitive overlaps or relationships with Pacific National that would be likely to give rise to potential competition concerns in any relevant market.*

Having regard to section 138(2) of the QCA Act, we consider the interest held by bcIMC in this case does not create sufficient risk of discriminatory conduct or similar incentives to make it necessary for us to place any further restrictions around the cross-ownership of entities in the 2015 DAU (or limitations on cross-directorships), at this time. In doing so, we note that the operation of the Terminal continues to be undertaken by a user-owned Operator and there are also general protections against discrimination—which we have required to be extended to include 'Rail Operators' (see below).

Non-discrimination (cl. 9.2)

> *(2) unfairly differentiate between Access Seekers, Access Holders or Rail Operators …*

It is appropriate for DBCTM to be required to not unfairly differentiate between the rail operators who currently, or propose to, transport coal to the Terminal. This is because rail operators currently compete in markets that are related to the Terminal. We also note that this is relevant to responding to Aurizon Operation's concerns regarding bcIMC's minority stake in Pacific National.

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[512] DBCTM, sub. 45: 19–20.

[513] This amendment aligns with the final decision to define the terminating date for the 2015 DAU as 1 July 2021 or the date that the handling of coal at the Terminal ceases to be a declared service for the purpose of the QCA Act, whichever is the earliest.

[514] ACCC 2016, *Proposed acquisition of Asciano by a consortium comprising Brookfield, Qube and Others*, Public Competition Assessment, July 2016: 22–23.

As such, we consider that this amendment appropriately balances the statutory criteria in section 138(2), with particular regard to section 138(2)(d) of the QCA Act (the public interest, including the public interest in having competition in markets).

SCB Trading (cl. 9.3)

> *Trading SCB means Brookfield Port Capacity Pty Ltd ACN 134 741 567 which on the basis that it engages in the trading of secondary capacity at the Terminal is subject to the following market restraints:*
>
> *(a) any access rights held, from time to time, are held solely on an intermediary basis in order to facilitate the transfer of such access rights between third parties*
>
> *(b) DBCTM will not supply Access directly to any Trading SCB.*

The final decision requires DBCTM to define the scope of the Trading SCB's activities in the secondary access market that is related to the Terminal. Our approval of the 2015 DAU is reliant on the Trading SCB not competing in markets unrelated to the approved scope. We consider this amendment appropriate, having regard to sections 137(1A) (preventing unfair differentiation) and 138(2)(a), (c), (d) and (e) of the QCA Act (the object of Part 5, the legitimate business interests of the operator, the public interest, and the interests of persons who may seek access).

Confidentiality undertaking by board members (cl. 9.4)

> *(a) to only use or disclose Confidential Information obtained as a director of DBCT Management in connection with its role as a director of DBCT Management; and*
>
> *(b) not to disclose Confidential Information to any Supply Chain Business.*

We consider it appropriate that the ring-fencing confidentiality obligations apply to both use and disclosure of information. We also consider it important to make clear that the disclosure of Confidential Information to any Supply Chain Business is strictly prohibited, unless a relevant exception applies. While DBCTM may not itself own or operate a Supply Chain Business, it is still necessary to ensure that its commercial arrangements with other operators do not contemplate or involve the potential disclosure of Confidential Information—which could have a detrimental effect on competition in related markets.

Undertaking by Trading SCB

> *This deed poll is given… in favour of: … Each Rail Operator (as that term is defined in the Access Undertaking) from time to time …*

We consider it appropriate for the Trading SCB to execute the deed in favour of the rail operators who currently, or propose to, transport coal to the Terminal. We consider that this amendment appropriately balances the statutory criteria in section 138(2), with particular regard to section 138(2)(d) of the QCA Act (the public interest, including the public interest in having competition in markets).

> *Amend the confidentiality deed attached to the deed so it is consistent with the definition of confidential information in the final decision on the 2015 DAU.*

It is appropriate that the Trading SCB's confidentiality obligations are consistent with the final decision on the confidentiality provisions in the 2015 DAU. We consider this amendment appropriate, having regard to sections 137(1A) and 138(2) of the QCA Act.

Final decision

Having regard to section 138(2) of the QCA Act, our final decision is to refuse to approve the ring-fencing arrangements in the 2015 DAU. Appendix A of this final decision sets out the

amendments we require DBCTM to make to the 2015 DAU, in accordance with section 134(2) of the QCA Act to enable us to approve it.[515]

Summary 9.23—Ring-fencing

The QCA's decision in relation to ring-fencing provisions is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend the ring-fencing provisions in the 2015 DAU to be consistent with Part 5 of the QCA Act. The amendments we require DBCTM to make are provided in Appendix A.

[515] See Appendix A, clause 9 and Schedule H.

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 framework and associated capital processes in clauses 5 and 12–15 and the associated schedules of the 2015 DAU should provide access seekers with certainty and transparency concerning the process DBCTM follows when considering their applications for access to the Terminal, including those applications that can only be accommodated with a Terminal capacity expansion.

Our final decision is to refuse to approve the negotiation framework and associated capital processes proposed in DBCTM's 2015 DAU.

We have identified the suite of amendments to the 2015 DAU (in Appendices A and B) that we require DBCTM to make before approving the 2015 DAU, including to:

- *clarify and provide greater certainty around the rights, obligations and processes that DBCTM is to comply with when considering access applications and when negotiating access agreements, including in relation to access that is conditional on a Terminal expansion and/or conditional on the negotiation of non-standard terms and conditions to be included in an access agreement*
- *improve information flows so parties have all the necessary information to make informed access decisions in a timely manner*
- *appropriately balance the interests of DBCTM, access seekers, users and the public in negotiating and providing access to the declared service*
- *provide greater clarity and transparency in the allocation of limited available capacity*
- *clarify and provide greater certainty on the principles to govern the negotiation of non-standard terms and conditions to be included in a conditional access agreement*
- *provide greater transparency and accountability in DBCTM's administration of access transfers*
- *require DBCTM to develop, if required, a template funding agreement*
- *ensure the negotiation and capital processes are subject to the dispute resolution provisions in the 2015 DAU.*

10.1 Overview

Transparent and accountable negotiation and capital processes are critical elements in the 2015 DAU. This is because, in the absence of effective negotiation and capital processes, DBCTM could use its monopoly position to hinder access, unfairly differentiate between access seekers and users, earn monopoly profits, and inefficiently distort production and/or consumption

decisions of access seekers, access holders and third parties operating in related upstream and downstream markets.

Consistent with Part 5 of the QCA Act[516], the negotiation and capital processes in the 2015 DAU should comprise the following three elements:

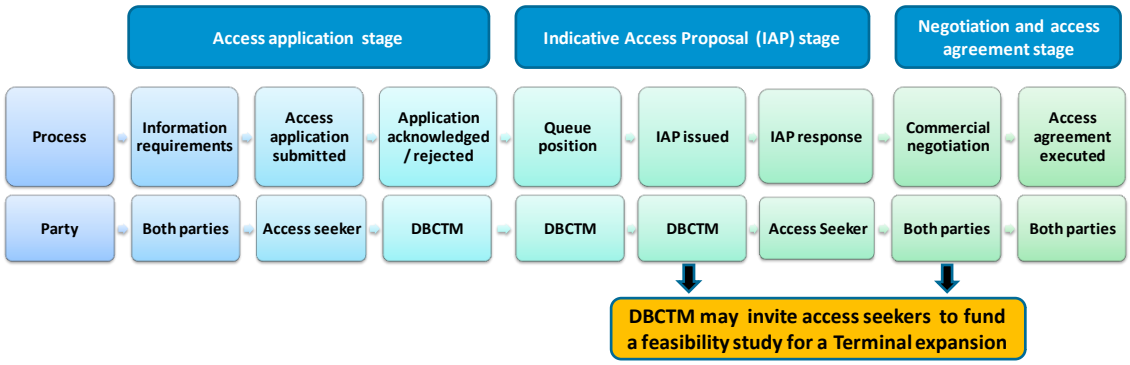
- negotiation process
- capital process
- planning process.

Negotiation process

An effective negotiation process should allow access seekers and renewing access holders to obtain access to the declared service and users to transfer or assign access rights, in all or in part, to other users and third parties.

DBCTM's proposed negotiation process is outlined in clauses 5, 12, 13 and the associated schedules of the 2015 DAU. Figure 10 identifies all of the negotiation processes provided for in the 2015 DAU.

Figure 10 Access negotiation processes in the 2015 DAU



Capital process

The capital process should identify the arrangements through which DBCTM will prudently invest in capital works at the Terminal to:

- maintain the safe operation of the Terminal infrastructure
- maintain the effective life of the Terminal infrastructure
- provide optimum[517], reliable and efficient access to services to users and access seekers.

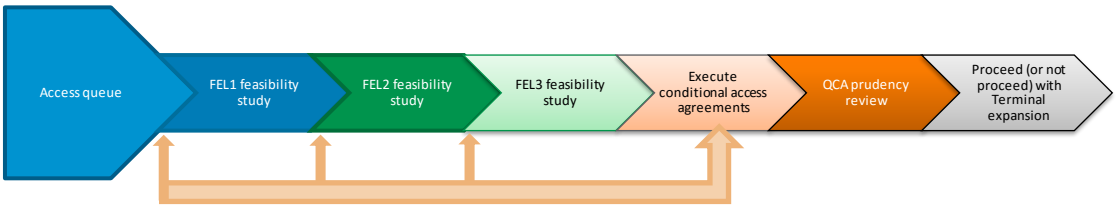
The capital process should also detail the terms relating to the extension of the Terminal, including the arrangements through which DBCTM will plan, scope and undertake feasibility studies on expansion projects required to provide access seekers with access to the declared service.

[516] See s. 137(2) of the QCA Act.

[517] This obligation is referenced in section 12.10(a) of the 2015 DAU. Under the PSA, 'optimum' is defined to include (without priority) lowest whole of life cost, and reliability, efficiency and economy of performance (see DBCTM, sub. 30: 2).

DBCTM's proposed capital process is outlined in clauses 5, 12–15 and the associated schedules of the 2015 DAU. Figure 11 identifies the capital processes provided for in the 2015 DAU.

Figure 11 Access negotiation processes for a Terminal expansion in the 2015 DAU



The 2015 DAU provides a number of negotiation processes that may be relied on by DBCTM and/or access seekers to trigger a Terminal expansion to accommodate actual and reasonable demand growth and/or their access applications. We accept there are advantages in the 2015 DAU providing flexibility in the negotiation arrangements and allowing DBCTM and access seekers to consider the merits of the different negotiation pathways available to them under the 2015 DAU.

The following two examples show the different approaches that could be taken by parties seeking to trigger the negotiation arrangements under clauses 5 and 12–13 of the 2015 DAU.[518] Table 28 provides case studies of the negotiation processes which were used by parties investigating coal terminal developments during the 2010 AU regulatory term.

Large green- or brownfield mine development

In one scenario a coal company is investigating the feasibility of a new coal mine. The company may require DBCTM to progress a feasibility study on a capacity expansion in order to be able to submit a mine feasibility report to its Board. The provision of this information would enable the company to 'stage-gate' a large scale mine investment through to the next stage of the project.

In this circumstance, the coal company may want to negotiate with DBCTM on the 'likely' terms and pricing arrangements that might be applied to any expansion consistent with the 2015 DAU. However, the coal company may be a listed entity and may not want to formally trigger the access negotiation arrangements in clauses 5.4 and 5.10 until it is prepared to publicly announce its proposed mine project.

Multiple access applications which combine to justify a Terminal expansion

Another scenario involves multiple coal companies looking to expand mining operations in anticipation of future market fluctuations. This may necessitate DBCTM specifying a discrete capacity expansion project as the most logical and efficient expansion of the Terminal.

In the circumstances where the specified expansion cannot accommodate all of the access requests in the queue, DBCTM may seek to narrow the field of access seekers to a discrete group. The discrete group would be those access seekers that are willing to fund relevant feasibility studies and/or commence negotiations on the proposed pricing arrangements and

[518] These examples outline two of the different negotiation pathways used by some coal companies in recent years—GAPE/APCT X50 rail and port projects, the WIRP/WICET Stage 1 rail and port projects, the WICET stage 2 and 3 terminal projects, and the GAPE/APCT X75 and X100 rail and port projects.

different terms that may be required to mitigate the financing risks associated with the specified expansion. In this scenario, DBCTM may elect to notify all access seekers of the specific capacity expansion, and request they submit either a signed conditional access agreement or a signed funding agreement in order to progress the specified expansion project.

Table 28 Negotiation processes previously used by other parties investigating coal terminal developments in Queensland.

Examples of negotiation processes to increase coal chain capacity in the last six years
Hay Point Coal Terminal In 2010, BHP Billiton announced it would expand the terminal (HPX3) to increase the volume of coal it can deliver to meet increased demand requirements in the global coal market. The HPX3 project also required the construction of a rail capacity expansion to align the capacity rating of the Goonyella System to accommodate the additional capacity created with HPX3. Following the official opening of HPX3, BHP Billiton released a press statement, indicating that 'the increased capacity at HPX3 enhanced [its] ability to run an even more productive 'value chain' when delivering coal to market. See: http://www.bhpbilliton.com/investors/news/new-bma-hay-point-coal-terminal-boosts-queenslands-coal-exports
Dudgeon Point Coal Terminal In late 2011, a Brookfield SCB (Dudgeon Point Project Management) commenced negotiations with access seekers to build a new coal terminal at Dudgeon Point. At the same time, Aurizon Network initiated an expression of interest on access rights to a rail expansion which would align with the additional terminal capacity created at Dudgeon Point. The access negotiation process initiated by the SCB, identified the need for access seekers to coordinate their negotiations to develop a commercially feasible expansion project. In 2012, coal companies were successful in obtaining ACCC interim authorisation to collectively negotiate with the SCB and Aurizon Network. Access negotiations with the SCB commenced with parties using the Terminal's 2010 SAA as the basis for the negotiation of different terms, including pricing arrangements. To some extent, the SCB negotiation of different terms based on the 2010 SAA and the ACCC collective bargaining interim authorisation aligns with the negotiation arrangements in clause 5 of the 2015 DAU. See ACCC Authorisation numbers: A91350 & A91351.
Other proposed coal terminal developments Since 2010, a number of interim ACCC authorisations were obtained by coal companies seeking to undertake collective access negotiations with coal chain infrastructure providers in central Queensland: WICET/Aurizon Network for a new coal terminal at Wiggins Island and associated capacity expansion of the Blackwater system Adani/Aurizon Network for a new terminal at Dudgeon Point and associated capacity expansion of the Goonyella system Adani/Aurizon Network for a X75 and X100 APCT expansion and associated capacity expansion of the GAPE/Newlands system. See http://registers.accc.gov.au .

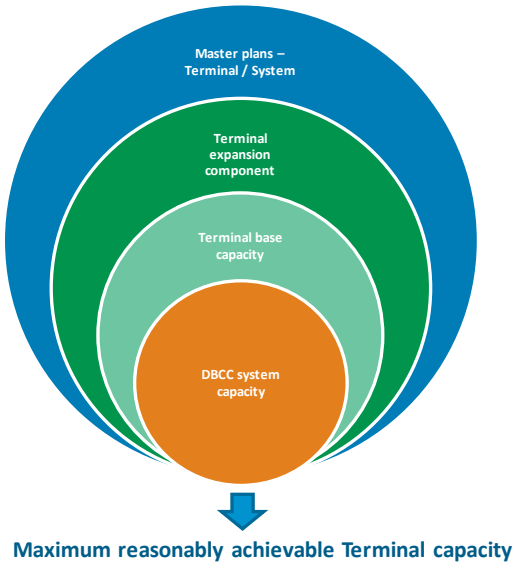
Planning process

Effective negotiation and capital processes should incorporate an appropriate Terminal planning process. The Terminal planning process should provide users, access seekers and DBCC service providers with the confidence that DBCTM has appropriate planning processes in place to accommodate the actual and reasonably anticipated future demand for the use of the Terminal by users and access seekers.

DBCTM's proposed Terminal planning processes are outlined in clauses 14–15 and schedule F of the 2015 DAU. Clause 14 outlines how DBCTM will engage with other stakeholders to develop

and implement mechanisms to improve the overall efficiency of the DBCC. Clause 15 outlines the process through which DBCTM will develop and update the Terminal Master Plan during the regulatory period. Schedule F attaches the most recent Terminal Master Plan which identifies DBCTM's preferred expansion path beyond the current nameplate capacity of 85 mtpa. Figure 12 below summarises how the planning processes work together to maximise coal throughput at the Terminal during the regulatory period.[519]

Figure 12 Master planning process in the 2015 DAU



Draft decision on the 2015 DAU

The draft decision on the 2015 DAU proposed to refuse to approve the negotiation and capital processes (including the planning process) contained in the 2015 DAU.[520] The draft decision outlined the proposed amendments to the 2015 DAU that would need to be made by DBCTM before the QCA could consider approving the 2015 DAU. The amendments in the draft decision sought to:

- clarify the rights and obligations of access seekers, users and DBCTM
- set 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.

[519] DBCTM, sub. 39: 6–8.

[520] See Chapter 10 and Appendices A and B of the draft decision for more information on the QCA's preliminary views on the 2015 DAU.

DBCTM and stakeholders were invited to provide further submissions to the QCA on the draft decision and the 2015 DAU—including, if relevant, identifying any specific concerns with the QCA's preliminary views on the issues raised by DBCTM and stakeholders during the consultation process.

Stakeholders' submissions on the draft decision

DBCTM and stakeholders have provided detailed submissions to the QCA on the draft decision, including eight substantive submissions on the negotiation and capital processes outlined in the draft decision.

DBCTM's five submissions outlined specific concerns with the negotiation and capital processes included in the draft decision, and proposed alternative drafting to replace the QCA's proposed amendments in the draft decision. Relevantly, DBCTM proposed amendments to the 2015 DAU that would have the effect of moving all of the differential pricing arrangements out of the body of the 2015 DAU and into a new Schedule J. Schedule J would then only take effect if the QCA determined that differential pricing arrangements should apply to a proposed Terminal expansion.[521]

The DBCT User Group submitted two submissions in support of the negotiation and capital processes provided for in the draft decision. The DBCT User Group submission only focused on a narrow list of concerns and included drafting refinements for the QCA to consider in its final decision. The DBCT User Group also rejected DBCTM's proposal to develop a new Schedule J and indicated that any substantive drafting changes made to the draft decision, at this late stage, risked creating unintended consequences. It said this would particularly be the case if the new drafting did not give effect to the differential pricing arrangements approved in the draft decision.[522]

10.2 Final decision on the 2015 DAU

Our final decision is to refuse to approve the negotiation and capital processes (including the planning process) provided for in the 2015 DAU.

This chapter broadly sets out the major themes and important issues relevant to assessing the negotiation framework and capital processes in the 2015 DAU. We have also proposed detailed amendments to the negotiation framework and capital processes in the 2015 DAU to ensure it has had appropriate regard to each of the matters listed in section 138(2) of the QCA Act. These amendments are largely consistent with the draft decision and are provided in a marked-up format in Appendix A of this final decision.

This final decision does not seek to repeat the discussion of all issues addressed in the draft decision.[523] Rather, in making this final decision we have adopted the reasoning in the draft decision and, subject to the comments in this final decision, we have taken into account that:

[521] See Chapter 11 for our final decision in relation to Schedule J.

[522] DBCT User Group, sub. 46: 5.

[523] The drafting which comprised the negotiation framework and capital processes in the 2015 DAU required our consideration of the operative interplay between clauses 5, 12–15 and Schedules A, B, E, F, H and I in the 2015 DAU. Similarly, the suite of amendments we proposed in the draft decision necessitated an extensive mark-up of clauses 4–5 and 12–15 and of Schedules A, B, E, G, H and I in Appendices A and B of the draft decision.

- DBCTM and stakeholders have provided detailed submissions to the QCA in support of their respective positions on the negotiation framework and capital processes in the draft decision
- these submissions, in broad terms, have supported the QCA's proposed suite of amendments in Appendices A and B of the draft decision
- a narrow list of matters remain in dispute between DBCTM and stakeholders.

In this final decision, we have considered the issues raised by DBCTM and stakeholders within the following three broad categories:[524]

- negotiation framework for access agreements that are conditional on a Terminal expansion (cls. 5, 10–15 and Schedules B, E, F and G of the draft decision).
- negotiation framework for access agreements that are not conditional on a Terminal expansion (cls. 5, 10–15 and Schedules A, B, E, G and H of the draft decision)
- capital processes to underpin the negotiation framework (cls. 12, 14–15 and Schedules E, F and I of the draft decision).

Negotiation framework for access agreements that are conditional on a Terminal expansion

The QCA has considered the various propositions and views put forward by DBCTM and other stakeholders on key elements of the negotiation framework applying to Terminal expansions in the draft decision.

DBCTM and stakeholders held strong and opposing views on key elements of the negotiation framework applying to Terminal expansions in the draft decision.

We consider that the negotiation framework applying to a Terminal expansion should be consistent with section 138(2) of the QCA Act if it:

- appropriately balances the allocation of risks, rights and responsibilities between the parties involved in, or affected by, a Terminal expansion
- provides clarity and certainty on the obligations and processes that apply to the negotiation and execution of conditional access agreements
- provides a non-discriminatory and equitable approach to negotiating terms for inclusion in the conditional access agreement associated with an expansion.

Our final decision on the negotiation framework to apply to Terminal expansions is provided in Sections 10.3–10.5 of this chapter.

Negotiation framework for access agreements that are not conditional on a Terminal expansion

No substantial changes were proposed to the existing negotiation framework for spare capacity which becomes available, and which does not involve or require a Terminal expansion. However, the processes governing transfers of existing capacity were discussed in some submissions.

[524] Note the numbered clauses in the list refer to relevant clauses in the 2015 DAU.

Our final decision on the access transfer arrangements to include in the 2015 DAU is provided in Section 10.6 of this chapter.

Capital processes required to underpin the negotiation framework

DBCTM and stakeholders' submissions generally supported the capital processes in the draft decision, but stakeholders voiced concerns about two matters:

- 2016 Terminal Master Plan
- treatment of non-expansion capital expenditure (NECAP) in the draft decision.

Our final decision on the 2016 Terminal Master Plan and NECAP approval process in the 2015 DAU is provided in Sections 10.7 and 10.8 of this chapter.

10.3 Balanced risk allocation

The balance between contracting parties in allocating the risks, rights and obligations in the negotiation arrangements (including the Standard Access Agreement, referred to as the '2015 SAA'), is important in ensuring the overall effectiveness of the 2015 DAU. This is because the negotiation arrangements in the 2015 DAU will be used to facilitate the timely negotiation and execution of access agreements, including conditional access agreements.

10.3.1 DBCTM's 2015 DAU proposal

DBCTM restructured the 2010 AU negotiation arrangements for inclusion in the 2015 DAU to enable DBCTM to negotiate with access seekers to expand the Terminal when there is insufficient system capacity available to accommodate the access sought. In particular, DBCTM proposed a number of amendments in the 2015 DAU[525] enabling it to execute conditional access agreements when it reached a negotiated agreement with access seekers on the:[526]

- most logical and efficient Terminal expansion to address the access applications in the queue (cls. 5.5, 5.10, 11, 12.2, 12.6 and 12.9)
- scope, standard and estimated cost of the proposed Terminal expansion (cls. 5.10 and 12.5)
- terms and conditions of a conditional access agreement (cls. 5.4 and 13 and 2015 SAA) for the Terminal expansion including:
  - conditions precedent[527] regarding the Terminal capacity expansion being available on commissioning, and DBCC system capacity being available on the completion of the expansion of other DBCC elements (cl. 5.4)
  - the application of a capacity waterfall to the treatment of capacity created by a Terminal expansion (cl. 5.4)
  - pricing arrangements for the specified expansion (cls. 11 and 12.6, and Schedule C).

[525] Clauses 5.4, 5.5, 5.10, 13 and the 2015 SAA (Schedule B) in the 2015 DAU.
[526] Note the numbered clauses in the list refer to relevant clauses in the 2015 DAU.
[527] Conditions precedent in a contract describe events that must occur before performance under the contract becomes due—i.e. before any contractual duty exists between the parties.

During these negotiations, DBCTM would execute conditional access agreements and/or feasibility funding agreements with access seekers in the order aligned with the queuing principles in clauses 5.4 and 5.10.

Following successful access negotiations on all of these elements, DBCTM would submit a Terminal expansion application to the QCA for approval under clause 12.5, which would also include a request for a price ruling from the QCA in relation to DBCTM's proposed pricing arrangements.

Executed conditional access agreements would not become unconditional until after the Terminal expansion component had been completed and assessed as operating at a nameplate capacity equivalent to the contracted conditional access rights. DBCTM's determination of Terminal capacity and system capacity, post completion of the Terminal expansion and related DBCC expansion, would be dealt with in clause 12.

Clause 5.4(i) identifies the process DBCTM would follow if the re-determination of nameplate capacity of the Terminal, post completion of the expansion, is less than the capacity contracted in access agreements plus conditional access agreements. DBCTM proposed the 2010 AU capacity waterfall would continue to apply, except where an expansion was differentially priced. If differentially priced, DBCTM would fully allocate the capacity from the expansion to the conditional access agreements.

10.3.2 Stakeholders' initial position

In initial submissions on the 2015 DAU, the DBCT User Group and other stakeholders argued that DBCTM had failed to include the necessary complementary arrangements to ensure that DBCTM will:

- negotiate with access seekers to expand the Terminal based on an appropriately balanced risk allocation between DBCTM and the access seeker
- ensure existing users would not be adversely affected by the expansion in terms of their use of contracted access rights (with regard to both price and capacity).

The DBCT User Group provided a mark up to the negotiation framework and capital processes (cls. 5, 12, 13, 14, 15) of the 2015 DAU—and set out what it considered to be an appropriate allocation of rights and obligations between all parties involved in, or affected by, future negotiations between DBCTM and an access seeker to execute access agreements conditional on a Terminal expansion.

Stakeholders' views on the negotiation arrangements in the 2015 DAU are discussed in the relevant Sections of the QCA's draft decision on the 2015 DAU.

10.3.3 QCA draft decision

Our draft decision was to refuse to approve the arrangements underpinning the negotiation of access agreements conditional on a Terminal expansion. We considered the 2015 DAU should be amended to provide access seekers, users and third parties (operating in related markets) with sufficient clarity, transparency and accountability on the rights, obligations, risks and liabilities of all parties that are reliant on access to the Terminal in order to compete in their markets.

In the draft decision, we considered the different elements comprising the Terminal's expansion process and proposed what we considered to be the minimum set of amendments required to ensure the negotiation, planning and expansion arrangements in the 2015 DAU appropriately addressed and balanced the matters identified in section 138(2) of the QCA Act.

Intentionally, we considered it important to work within the drafting form and structure of the 2015 DAU, as submitted by DBCTM. This is because the 2015 DAU was submitted as a mark-up to the 2010 AU and reflects the regulatory precedent previously established in the approved 2006 and 2010 AUs, therefore providing commercial continuity for DBCTM, access seekers and access holders in relation to a framework that is understood.

At the same time, we recognised the need for the 2015 DAU to implement a number of amendments set out in our draft decision, including the implementation of differential pricing arrangements to apply to Terminal expansions in appropriate circumstances. Our views on differential pricing arrangements and the amendments required to implement these arrangements are detailed in the relevant Sections of the draft decision on the 2015 DAU. In particular, we considered it critical that all parties have an opportunity to consider their commercial position when DBCTM considers the different terms and funding arrangements it may require from access seekers in order to underwrite its decision to expand the Terminal. In such negotiations we considered:

- DBCTM should be able to require an initial 10-year term on all access agreements reliant on a Terminal expansion for the access sought.[528]
- DBCTM should be able to seek reasonable and appropriate terms to mitigate its exposure to the additional costs or risks that would be associated with a differentially priced Terminal expansion.[529]
- DBCTM should be able to consider its commercial position when considering whether or not to proceed with a Terminal expansion.[530]
- Access seekers should be protected against unreasonable and inappropriate terms being imposed by DBCTM as a condition to obtaining access to the Terminal, where access is conditional on the commissioning of a Terminal expansion.[531]
- Access seekers should be able to consider their commercial position when considering whether or not to execute conditional access agreements and/or funding agreements for a Terminal expansion.[532]
- Users should be able to consider their commercial position when considering whether or not a Terminal expansion would impact on their ability to use all of their contracted access rights in an expanded Terminal.[533]
- In order for parties to consider their commercial position, DBCTM, users and access seekers should have clarity on the:
  - pricing arrangements to apply to a proposed Terminal expansion, including whether differential pricing would apply to some or all of the expansion consistent with the expansion pricing principles in the 2015 DAU[534]

[528] QCA 2016c, Appendix A: cl. 13.
[529] QCA 2016c, Appendix A: cls. 5.4 and 13.
[530] QCA 2016c, Appendix A: cls. 5.4, 12 and 13.
[531] QCA 2016c, Appendix A: cls. 5.4 and 13.
[532] QCA 2016c, Appendix A: cls. 5.4 and 13.
[533] QCA 2016c, Appendix A: cls. 5.4, 5.10, 5.12, 12.1 and 12.5.
[534] QCA 2016c, Appendix A: cls. 5.4, 5.5, 5.12, 11.13, 12.5 and 13.

  - capacity rating of the existing Terminal as well as the proposed capacity rating for the proposed Terminal expansion, in order to assess how the capacity waterfall test would be applied to the expansion.[535]

- The QCA should be able to consider the prudency of a proposed Terminal expansion application—and approve the pricing arrangements, capacity waterfall and terms and conditions that would apply to a Terminal expansion.[536]

The draft decision proposed amendments to clauses 5, 11, 12, 13, 14 and 15 of the 2015 DAU to ensure all parties were able to fully consider their respective commercial position when, and if, DBCTM sought to negotiate with access seekers to expand the Terminal during the forthcoming regulatory period. In so doing, the QCA considered the draft decision would deliver regulatory certainty for all parties and ensure the Terminal is efficiently operated, used and extended—consistent with the object of Part 5 of the QCA Act.

10.3.4 DBCTM's proposed mark-up of the draft decision

In response to the draft decision, DBCTM submitted a mark-up to the draft decision, which moved the differential pricing arrangements to a new Schedule J. DBCTM submitted that this would simplify and improve the readability of the 2015 DAU, particularly given that the arrangements would only apply in the event that an expansion component is to be differentially priced.

DBCTM submitted that its proposed re-drafting was reasonable, on the basis that the differential pricing schedule would only apply when the QCA determined that a future Terminal expansion would be differentiated. In the event the QCA so determined, then the 2015 DAU would be amended in accordance with DBCTM's proposed new Schedule J. DBCTM also marked up a number of consequential changes in the negotiation framework applying to a Terminal expansion:

- DBCTM deleted consequential clauses that would apply if the QCA determined that differential pricing arrangements would apply to a Terminal expansion.
- DBCTM re-inserted its proposal to require a standard initial term of 15 years in a conditional access agreement.

Deleted consequential clauses regarding the negotiation process underpinning a price differentiated Terminal expansion were not included in the new Schedule J, because DBCTM no longer considered them necessary in the streamlined 2015 DAU.

10.3.5 Stakeholders' response to DBCTM's proposed mark-up of the draft decision

The DBCT User Group supported the draft decision and the amendments proposed by the QCA. This included consequential amendments proposed to clauses 5, 12–15 to implement the QCA's recommended differential pricing arrangements in clause 11.

The DBCT User Group indicated it had significant concern with the revised 'mark-up' of the 2015 DAU submitted by DBCTM in response to the QCA's draft decision. DBCTM's creation of a new Schedule J was of particular concern to the DBCT User Group:

[535] QCA 2016c, Appendix A: cls. 5.4, 11.13 and 12.1.
[536] QCA 2016c, Appendix A: cls. 5.4, 5.12, 11.13, 12.5 and 13.

> *A review of Schedule J indicates that it does not contain all of the amendments that would be required to implement differential pricing (and yet DBCTM appear to have deleted the other consequential changes from the body of the undertaking as well), such that DBCTM's proposed Schedule J is clearly not appropriate.*[537]

The DBCT User Group submitted that there was no compelling reason to introduce the structural change of Schedule J at this late stage in the regulatory process.

The DBCT User Group considered the QCA's draft decision had dealt with all the consequential changes that were required to provide for the negotiation of a Terminal expansion to accommodate access applications in the queue, and to implement differential pricing arrangements in compliance with the pricing principles in the QCA Act. The DBCT User Group submitted that any move away from the structure of the draft decision at this late stage risked unintended consequences if the recommended consequential changes in the draft decision were inadvertently not reflected in the final decision. Such an outcome would risk compromising the integrity of the differential pricing arrangements and the Terminal expansion process approved in the 2015 DAU.

10.3.6 QCA analysis and final decision

Our final decision is to refuse to approve the negotiation arrangements in the 2015 DAU. We do not consider the allocation of rights and obligations between DBCTM, access seekers and users are appropriate, having regard to section 138(2) of the QCA Act.

In forming this final decision, the QCA has undertaken a detailed, clause-by-clause review of DBCTM's revised marked-up 2015 DAU, including the new Schedule J. This review identified that DBCTM had either deleted or modified a number of provisions contained in the draft decision. For example, clause 5.12 in Appendix A of the draft decision was removed by DBCTM but not replicated in its proposed new Schedule J. This removed the QCA price ruling process that had been recommended to provide DBCTM, access seekers and users with regulatory certainty on the pricing and capacity arrangements applying to an expansion.

We are of the view that DBCTM's proposed removal of these provisions would weaken the negotiating position of access seekers when negotiating with DBCTM to obtain access to the Terminal, where access is conditional on a Terminal expansion, including where the expansion is to be differentially priced. We believe the removal of key amendments in clause 5 of our draft decision mark-up would lessen the ability of existing users to determine whether they would be adversely impacted by the proposed pricing and capacity arrangements applying to a Terminal expansion. We do not consider that DBCTM has adequately explained or established reasons for removing these clauses in its response to the draft decision. As a consequence, we do not consider DBCTM's revised 2015 DAU, inclusive of Schedule J, appropriately balances the matters listed in section 138(2) of the QCA Act.

We consider the negotiation arrangements in the draft decision provide an appropriate balance in the allocation of risks, rights and responsibilities between DBCTM, access seekers and users.

[537] DBCT User Group, sub. 46: 5.

In particular, we consider the package of amendments proposed to clauses 5, 11, 12, 13, 14, 15 and the associated schedules of the 2015 DAU in the draft decision:[538]

- balances the commercial and operational timeframes of DBCTM and access seekers who may seek to negotiate a Terminal expansion (cls. 5.4, 5.10, 5.12 and 13)
- addresses the information asymmetries that exist between DBCTM, access seekers and users when DBCTM is negotiating a Terminal expansion to accommodate the access applications in the queue (cls. 5.4, 5.10 and 5.12)
- appropriately allocates the risks, rights and responsibilities between DBCTM, access seekers and users involved in, or affected by, a Terminal expansion (cls. 5.4, 5.10, 5.12 and 13)
- provides for terms and conditions for access seekers (in relation to an expansion) to be determined on a non-discriminatory basis (cls. 5.4, 5.10, 5.12, 11, 13 and Schedule B)
- allows DBCTM and access seekers to negotiate different terms to address financial, commercial and contractual risks specific to a Terminal expansion (cls. 5.4, 5.10, 5.12, 11 and 13)
- provides for the QCA to arbitrate disputes that may arise in relation to an expansion negotiation (cl. 17)
- provides a reference 2015 SAA to facilitate the timely negotiation processes and execution of access agreements, including access agreements conditional on a Terminal expansion (Schedule B).

We accept that the draft decision proposals add an additional layer of drafting complexity in the negotiation arrangements—given the need to provide for the negotiation arrangements to facilitate the provision of access conditional on a Terminal expansion, inclusive of differential pricing arrangements. However, we do not accept DBCTM's position that this complexity should be removed because it is unlikely a differentiated Terminal expansion will be completed in this regulatory period. We consider the commercial and operational timeframes involved in a Terminal expansion, and the information asymmetries associated with progressing commercial negotiations with a monopoly service provider necessitate the inclusion of robust negotiation arrangements. We consider the inclusion of clear, transparent and accountable negotiation arrangements establish a level playing field for all parties to obtain access to the declared service, particularly where access is conditional on a Terminal expansion.

Practically, given the final decision to amend the 2015 DAU provides for differentially priced Terminal expansions, it is also appropriate to include the negotiation arrangements that would support such an outcome (rather than leave this to be implemented in a later undertaking).

Accordingly, we reaffirm the position in our draft decision. This final decision has adopted this position and requires DBCTM to amend clauses 5, 11–15 of the 2015 DAU.

[538] The specific clause references provided in the list below directly references our recommended drafting in Appendix A and B of this final decision. However, for the purposes of comparison, they similarly can be applied to reference the same clauses that we proposed in our draft decision on the 2015 DAU.

Summary 10.24—Negotiation framework conditional on an expansion

The QCA's decision in relation to the negotiation framework for an expansion is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so as to include a negotiation framework for expansions that provides an appropriate balance in the allocation of risks, rights and responsibilities between DBCTM, access seekers and users.

10.4 Streamlined negotiations underpinning a Terminal expansion

Clause 5 of the 2015 DAU, when combined with clauses 12–15, establishes the steps underpinning DBCTM's negotiations with access seekers about expanding the Terminal to accommodate the access rights in the queue. In this final decision, the totality of those steps is referred to as the expansion process in the 2015 DAU.

10.4.1 DBCTM's 2015 DAU proposal

The key elements of DBCTM's proposed negotiation process to expand the Terminal during the 2015 DAU regulatory period are the:

- access application and indicative access proposal stage (IAP) (cl. 5)
- negotiation stage
  - to enter into a conditional access agreement (CAA) (cls. 5, 12 and 13)
  - to undertake the relevant FEL 1, FEL 2 and FEL 3 feasibility studies (cls. 5 and 12)
  - to enter into a feasibility funding agreement for a FEL 1 and/or FEL 2 feasibility study (cl. 5.10)
- execution stage
  - subject to the application of queuing principles when the access sought exceeds the expected capacity to be created by a Terminal expansion (cl. 5.4)
- regulatory approval stage
  - DBCTM makes a decision to proceed with a Terminal expansion and lodges a Terminal expansion application (cl. 12.5)
  - QCA assesses a Terminal expansion application and determines the pricing arrangements that will apply to the capacity created by the Terminal expansion (cl. 5.12 and 12.5).

Each of the above stages are summarised below in Table 29.

Table 29 DBCTM's proposed negotiation arrangements for a Terminal expansion

Negotiations underpinning a Terminal expansion	
Indicative access proposal (IAP) stage	DBCTM will include in an IAP, a preliminary view on whether a capacity expansion project could accommodate the access sought, the scope and cost of the expansion project and the estimated access charge, based on a non-binding view on whether the expansion project would be socialised or differentiated.
Negotiation process	When more than one access seeker applies for capacity that can only be created from a Terminal expansion, DBCTM establishes a queue in accordance with cl. 5.4. If DBCTM considers there is sufficient demand to justify a Terminal expansion, DBCTM may: • request that access seekers sign and return a conditional access agreement; and/or • undertake a feasibility study on an expansion project either at its own cost or at the cost of the access seekers in the access queue. These two negotiation processes are not explicitly linked in the 2015 DAU and could be conducted simultaneously or separately.
Conditional access agreement (CAA)	The conditions precedent in a CAA ensure DBCTM retains absolute discretion on whether or not to expand the Terminal. If DBCTM issue a cl. 5.4(h) notice, then access seekers must submit signed conditional access agreements to secure access to the capacity created by an expansion. DBCTM will execute signed agreements in order of the priority of the queue and access seekers may jump the queue if parties above them have not returned signed agreements. If an access seeker exercises the right under cl. 5.4(d) to notify DBCTM it is prepared to enter into an access agreement with DBCTM, DBCTM is then obliged to notify all access seekers in the queue above the notifying access seeker and give them an opportunity to submit signed access agreements. DBCTM must then execute agreements in accordance with the queue.
Feasibility studies	DBCTM may undertake a FEL1 or FEL 2 feasibility study of a Terminal expansion at its own cost or at the cost of access seekers. Following completion of a FEL 2 study, DBCTM will advise access seekers of its decision on whether to socialise or differentiate the cost of the expansion. DBCTM, acting reasonably and prudently, retains absolute discretion to decide whether to proceed to a FEL 3 study.
Funding agreement	DBCTM may request access seekers sign a funding agreement to justify DBCTM undertaking a feasibility study. DBCTM will execute signed agreements in order of the priority of the queue and access seekers can jump the queue if parties above them in the queue have not returned signed agreements.
Queue	Access seekers who sign conditional access agreements and/or funding agreements are treated as 'equal first' in the queue for the capacity to be created by the expansion project. If the expansion does not proceed, access seekers return to their original position in the queue. If the expansion does proceed, funding access seekers are refunded their costs following the commencement of substantial site works.
Regulatory process	If DBCTM decides to proceed with the Terminal expansion, it will submit a Terminal expansion application to the QCA for approval. Subject to the QCA's interim approval of the expansion's scope, standard, estimated cost and estimated pricing method, DBCTM will expand the Terminal. DBCTM applied conditions to an access holders' eligibility to vote in a cl. 12.5(i) (60/60 Requirement). When an expansion is commissioned, DBCTM will seek QCA determination on the relevant RAB value and reference tariff applicable to the expansion.

10.4.2 Stakeholders' initial position

The DBCT User Group and Vale raised concerns regarding the lack of clarity and certainty in the negotiation arrangements underpinning a Terminal expansion, and recommended extensive amendments be made to the 2015 DAU (the DBCT User Group included those amendments in a full mark-up to the 2015 DAU). Key stakeholder concerns and proposed remedies are summarised in Table 30.

Table 30 DBCT User Group's concerns and proposed amendments to the negotiation arrangements for a Terminal expansion

Concerns	*Proposed amendments*
Lack of robust information provided to access seekers during each stage of the negotiation process.	Strengthen DBCTM's information obligations in each step of the negotiation process to ensure access seekers and access holders have sufficient information as they progress through each negotiation stage.
Lack of clarity on the processes, rights and obligations of DBCTM and access seekers in the negotiation of funding or underwriting agreements for feasibility studies.	Require DBCTM to obtain QCA approval to a template funding agreement prior to requesting access seekers fund a FEL 1 or FEL 2 feasibility study.
Absence of a regulatory price ruling process.	Require DBCTM to apply to the QCA for a ruling on the pricing method to apply to a specified expansion following FEL 2 completion.
Restrictions placed on the participation of existing users in the negotiation of a Terminal expansion.	Require DBCTM to remove proposed restrictions on access holders participating in a 60/60 customer requirement.

10.4.3 QCA draft decision

In our draft decision, we indicated the QCA had formed the view that the negotiation arrangements underpinning a Terminal expansion process did not appropriately balance all of the matters listed in section 138(2) of the QCA Act. The draft decision proposed amendments to the negotiation arrangements to provide additional regulatory certainty and clarity on the expansion pathway, the negotiation stages and the rights and responsibilities of all the parties when DBCTM negotiates with an access seeker to expand the Terminal to accommodate the access seeker's access application. Key amendments to the negotiation arrangements underpinning a Terminal expansion proposed in the draft decision are summarised in Table 31.

Table 31 QCA's draft decision amendments to the negotiation arrangements for a Terminal expansion

QCA's proposed amendments to the negotiation arrangements underpinning a Terminal expansion in the draft decision[539]	
IAP and negotiation process (cl. 5)	Strengthen DBCTM information obligations in the auxiliary negotiation process: • the IAP to include an interim estimate of the access charge and the pricing method applicable to the access sought, relevant QCA rulings and the expansion pricing principles • DBCTM to re-issue an updated IAP following completion of a FEL 1 study.
Conditional access agreement(cl. 5.4, 5.12, 12 and 13)	Provide DBCTM and access seekers with the ability to propose and negotiate different terms in a conditional access agreement with a condition precedent that allows those different terms to be subject to the QCA dispute process.
Price ruling process (cl. 5.12)	Require DBCTM to apply to the QCA for a ruling on the pricing method that will apply to a specified expansion following completion of the FEL 2 feasibility study.
Feasibility studies (cl. 5.10)	Require DBCTM to follow a robust investment stage-gate process when undertaking FEL 1, FEL 2 and FEL 3 feasibility studies on a specified expansion. Clarify the scope, standard, cost estimate and deliverables for each feasibility stage. Provide access holders and relevant DBCC parties with an opportunity to have their views addressed by DBCTM in each feasibility stage. Leave parties free to vary the scope of a feasibility study by agreement. Provide for FEL 2 funding access seekers to have a 'first right' to fund a FEL 3 study when DBCTM elects to proceed with a FEL 3 study.
Standard funding agreement (SFA) (cl. 5.10)	Require DBCTM to develop a SFA and publish it on the QCA website prior to requesting access seekers fund or underwrite the cost of any feasibility study, including a FEL 3 feasibility study. In developing the agreements, DBCTM should consult with users and access seekers and have regard to the 2015 DAU and s. 138(2) of the QCA Act. The published SFA can be disputed by users and access seekers. If disputed, the QCA's access determination becomes the approved standard under the 2015 DAU.
User funded Terminal expansion (no clause required)	Seek DBCTM and stakeholders' comments on whether the 2015 DAU should oblige DBCTM to expand the Terminal where DBCTM has been relieved of its cl. 12 expansion obligation and an access seeker is willing to fund the expansion.

10.4.4 Stakeholders' comments on the draft decision

Stakeholders were divided in their position on the negotiation arrangements underpinning a Terminal expansion proposed in the draft decision:

- DBCTM sought to modify a number of elements in the negotiation arrangements for a Terminal expansion.
- The DBCT User Group largely supported the draft decision.

Key items of difference between the stakeholders are identified in Table 32.

[539] Clauses reference the QCA draft decision at Appendix A (QCA 2016c).

Table 32 Stakeholder issues with the negotiation arrangements to facilitate a Terminal expansion in the QCA draft decision

Key stakeholder issues with the negotiation arrangements to facilitate expansions in the QCA draft decision	
IAP stage	DBCTM wanted to modify its obligation to provide capacity and pricing information to access seekers during the IAP and negotiation stages. DBCTM wanted to remove the obligation to issue an updated IAP following the completion of a FEL 1 study. The DBCT User Group supported the QCA's draft decision.
Conditional access agreement	DBCTM wanted to remove the condition precedent to allow different terms to be amended to reflect the outcome of a QCA access dispute regarding those terms. The DBCT User Group supported the QCA's draft decision.
Negotiating process	DBCTM wanted to remove the QCA ruling process step after the FEL 2 study. Instead DBCTM wanted to advise access seekers within four weeks of completing a FEL 2 study whether it considered a specified expansion would be socialised or differentiated. DBCTM considered the cl. 12.1 regulatory approval process was sufficient for the purposes of giving QCA determinative powers to approve the pricing method to apply to a Terminal expansion application. The DBCT User Group supported the QCA's draft decision.
Feasibility studies	DBCTM wanted to remove the QCA's definitions of the FEL 1, FEL 2 and FEL 3 feasibility studies and leave scope and deliverables to be negotiated between the parties on a case-by-case basis. DBCTM rejected the need for a cl. 12.1 capacity assessment within the scope of a feasibility study. DBCTM only proposed to undertake a cl. 12.1 capacity assessment of the existing Terminal and DBCC system capacities once (timing at DBCTM's option) during the expansion process. DBCTM did not want to allow existing users to be privy to DBCTM's capacity assessment of the specified expansion project subject to negotiation with access seekers. The DBCT User Group supported, with one exception, the QCA's draft decision. The exception was that users opposed users funding the FEL 3 study as they considered it to be DBCTM's responsibility to fund a FEL 3 study.
SFA	DBCTM wanted a sunset clause for the lodgement of an access dispute regarding the SFA. Users and access seekers would only have 30 days to lodge an access dispute once published. The DBCT User Group supported the QCA's draft decision.
User funded expansions	DBCTM opposed the inclusion of provisions to allow a user to fund a Terminal expansion deemed unreasonable and uneconomic by DBCTM and DBCT Holdings. The DBCT User Group supported DBCTM to expand the Terminal if an access seeker was willing to fund the Terminal expansion and DBCTM was released from its obligation to expand under the PSA.

10.4.5 QCA analysis and final decision

Our final decision is to refuse to approve the negotiation arrangements underpinning a Terminal expansion in the 2015 DAU. We do not consider these negotiation arrangements reflect an appropriate balance of all the matters listed in section 138(2) of the QCA Act. We consider an appropriately balanced negotiation process underpinning a Terminal expansion needs to provide DBCTM, access seekers and users with certainty and clarity on the negotiation stages through which access seekers move in order to obtain access to the Terminal, when access is conditional on the Terminal expansion.

Detailed drafting on the amendments we require DBCTM to make to the 2015 DAU are outlined in Appendix A of this final decision.

Summary 10.25— Negotiation arrangements to facilitate a Terminal expansion

The QCA's decision is to refuse to approve the negotiation arrangements underpinning a Terminal expansion in DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so as to include negotiation arrangements that provide all parties with certainty and clarity on the negotiation stages through which an access seeker must progress in order to obtain access, where the access sought is conditional on a Terminal expansion.

10.5 Terms and conditions of access conditional on a Terminal expansion

The terms and conditions of access that is conditional on a Terminal expansion have largely remained unchanged since the approval of the SAA in the 2006 AU (the 2006 SAA).

10.5.1 DBCTM's 2015 DAU proposal

DBCTM proposed a number of substantive amendments to the terms in the 2015 SAA, which would apply to access agreements that are conditional on a Terminal expansion (referred to as conditional access agreements).

Under clauses 5.4 and 13 of the 2015 DAU, DBCTM proposed a number of DAU amendments intended to address the nature and scope of the pricing arrangements, capacity allocation rules and financial risks associated with undertaking a Terminal capacity expansion.

In particular, DBCTM submitted:

> *The current market for funding of capital expansions of infrastructure projects servicing the mining industry is weak. DBCTM's ability to obtain funding for capacity at the Terminal is largely dependent on the access agreements which will provide DBCTM with the revenue needed to repay its funding costs.*[540]

DBCTM's proposed new terms are summarised in Table 33. They were also discussed in more detail in Chapter 10 of the QCA's draft decision on the 2015 DAU.

Table 33 Standard terms in a conditional access agreement in the 2015 DAU

DBCTM's proposed standard terms for inclusion in a conditional access agreement	
Term	The initial term is equal to a minimum weighted average term of 15 years, with a 100% take-or-pay commitment over that term.
Conditions precedent	A conditional access holder's rights to the access contracted are subject to: • the triggering of relevant clauses in the 2015 DAU requiring DBCTM to expand the Terminal • other service providers in the DBCC undertaking relevant expansion projects to ensure available system capacity can accommodate the capacity expansion project • commissioning of the capacity expansion component and a cl. 12.1 assessment of the capacity of the Terminal (inclusive of the expansion project) • system capacity being available to accommodate the capacity created by the Terminal expansion project.

[540] DBCTM, sub. 31: 87.

DBCTM's proposed standard terms for inclusion in a conditional access agreement	
Capacity waterfall threshold test	If the cl. 12.1 capacity assessment determines that the capacity created by a Terminal expansion is insufficient to accommodate all conditional access rights contracted in conditional access agreements, then DBCTM will apply a capacity waterfall schedule to the allocation of capacity to the conditional access holders. The waterfall schedule to be applied depends on whether the pricing method applying to the Terminal expansion is socialised or differentiated. For example, where the capacity expansion has been: • socialised—DBCTM will first allocate capacity to fulfil existing users' contracted access rights (where a shortfall exists) and then will proportionally reduce the volume of access rights held by conditional access holders • differentiated—DBCTM will fully allocate all access rights that have been created by the expansion to the conditional access holders. Conditional access holders, whose access rights are reduced following the application of the capacity waterfall schedule, will revert back to their original position in the queue for the tonnes reduced.
Contracted tonnage	After the first 10 years of the initial term (first anniversary date), users can notify DBCTM of a reduction in the annual contract tonnage only if the user can demonstrate the reduction is due to the expected end-of-mine-life of the source mine.
Renewal rights	Renewal rights are to 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, 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.
Termination rights	After the first anniversary date, users may give DBCTM at least five years notice of the expiry, termination or reduction in annual contract tonnes in the agreement. Users remain liable for their contracted tonnage in the five-year notice period, unless DBCTM submits to the QCA a review event application under Schedule C of the 2015 DAU to amend the TIC due to a change in reference and non-reference tonnage under contract.

10.5.2 Stakeholders' initial position

The DBCT User Group did not support all of the terms proposed by DBCTM in the 2015 DAU. Table 34 outlines the terms not supported by the DBCT User Group.

Table 34 DBCT User Group's concerns with the terms in a conditional access agreement

DBCT User Group's concerns with the terms in a conditional access agreement	
Term	DBCTM has not sufficiently justified why the initial term of a conditional access agreement needs to be changed.
Renewal rights	DBCTM has not sufficiently justified why the renewal rights in a conditional access agreement need to be amended.
Capacity waterfall threshold test	The DBCT User Group raised significant concerns with the capacity waterfall schedule applying to allocate use of the capacity from a differentiated expansion to differentiated access holders. Its specific concern relates to the non-separability of the expanded Terminal infrastructure—all users (including differentiated users) access the same level of service through the same Terminal infrastructure and so it is not operationally practical to restrict existing users' access to the expanded Terminal infrastructure. DBCTM's approach will adversely affect users' ability to receive the full use of their contracted access rights.
Termination rights	DBCTM has not sufficiently justified why the renewal rights in a conditional access agreement need to be amended.

The DBCT User Group did not agree with DBCTM's proposed reasoning to increase the initial term, contract renewal and termination provisions of a conditional access agreement. The DBCT User Group requested that the QCA consider whether the proposed amendments have had appropriate regard to all of the matters listed in section 138(2) of the QCA Act.

10.5.3 QCA draft decision

In our draft decision, we refused to approve the new terms on the basis that they did not reflect an appropriately balanced risk allocation as between the parties to the negotiation. Having regard to the matters listed in section 138(2) of the QCA Act[541], we recommended amendments to the standard terms proposed in clauses 5 and 13 and Schedule B of the 2015 DAU. Our draft decision position is summarised in Table 35.

Table 35 QCA draft decision on the standard terms in a conditional access agreement

QCA's recommended amendments to the terms proposed by DBCTM in a conditional access agreement	
Term, renewal and termination provisions	Re-instate the current 2010 AU contract term, renewal and termination provisions for a conditional access agreement.[542]
Different terms	Allow DBCTM and access seekers to negotiate and execute different terms in a conditional access agreement subject to the outcome of an access dispute on those terms.[543]
Conditions precedent	Include a number of additional conditions precedent in a conditional access agreement:[544] • DBCTM being reasonably satisfied that the conditional access holder holds matching entitlements to the rail infrastructure connecting the mine(s) to the Terminal • both parties agreeing to amend the different terms executed in a conditional access agreement to reflect the outcome of any access dispute regarding those terms • DBCTM completing the capacity expansion and undertaking a cl. 12.1 assessment of the capacity rating of the Terminal and DBCC (inclusive of the expansion project) • DBCTM being reasonably satisfied that system capacity is available to accommodate the capacity created by the Terminal expansion project.
Capacity waterfall threshold test	Approve DBCTM's proposal to first allocate capacity created by a differentially priced expansion to the conditional access holders.[545]
Clause 12.1 capacity assessment process	Require DBCTM to broaden the auxiliary negotiation process to ensure existing users have the opportunity to consider whether a sustained shortfall in Terminal capacity exists and whether the existing shortfall needs to be addressed by DBCTM in the feasibility studies and by the QCA in the price ruling determination.

[541] The QCA took into account the interests of all stakeholders, in particular, the obligations of DBCTM to expand the Terminal in a way that does not adversely affect its legitimate business interests (under cl. 12 of the DAU), the interests of existing users to be assured that their continued use of their contracted access rights[541] will not be adversely affected and the public interest, particularly in relation to fostering competition in markets.

[542] QCA 2016c, Appendix A: cl.13; Appendix B: cls 2, 19–20, and Schedule 1.

[543] QCA 2016c, Appendix A: cl. 13.

[544] QCA 2016c, Appendix A: cl. 5.4.

[545] QCA 2016c, Appendix A: cl. 5.4.

10.5.4 Stakeholders' comments on the draft decision

DBCTM and stakeholders largely accepted the QCA's draft decision. However, DBCTM and stakeholders disagreed on some of the specific amended terms in the draft decision. These are outlined in Table 36.

Table 36 Standard terms—DBCTM and other stakeholders' views on the draft decision

Stakeholders' views on the key issues in the QCA's draft decision	
Term, renewal and termination provisions	DBCTM accepts the contract renewal and termination terms proposed by the QCA in the draft decision. DBCTM does not support the initial term of a conditional access agreement being 10 years. The DBCT User Group supports the QCA's draft decision.
Different terms	DBCTM accepts flexibility in the negotiation of different terms in a conditional access agreement but requires access disputes on those terms be resolved prior to the execution of a conditional access agreement. The DBCT User Group supports the QCA's draft decision.
Conditions precedent	DBCTM largely accepts the QCA's additional conditions precedent, but oppose the inclusion of a condition precedent to amend any agreed different terms post execution of a conditional access agreement. The DBCT User Group supports the QCA's draft decision.
Capacity waterfall threshold test	DBCTM supports the QCA's draft decision. The DBCT User Group supports the QCA's draft decision, but has proposed alternative drafting to give effect to the QCA's position.
Clause 12.1 capacity assessment process	DBCTM supports undertaking one cl. 12.1 capacity assessment process for the existing Terminal during the negotiation process underpinning a specified expansion project, but does not agree to allow existing users the opportunity to review any capacity studies that might be undertaken on a specified expansion. The timing of this cl. 12.1 process is at DBCTM's choosing. DBCTM has removed all requirements to conduct a cl. 12.1 capacity assessment process in each feasibility stage of a specified expansion. The DBCT User Group supports the QCA's draft decision.

10.5.5 QCA analysis and final decision

We have considered the concerns raised by DBCTM and stakeholders in submissions on the draft decision (including supplementary submissions, where relevant).

Our final decision remains to refuse to approve the DAU provisions proposed by DBCTM in relation to the development and negotiation of terms in a conditional access agreement. We do not consider the DAU reflects an appropriate balance of all the matters listed in section 138(2) of the QCA Act.

We re-affirm our position in the draft decision and we have included in this final decision (in Appendices A and B) detailed amendments to the 2015 DAU, which we require DBCTM to make in order to provide appropriate certainty and clarity in relation to the:

- risks, rights and responsibilities of all the parties when DBCTM is negotiating with access seekers to enter into a conditional access agreement, including by[546]
  - approving certain conditions precedent to be included in a conditional access agreement
  - providing flexibility for parties to negotiate different terms, including post execution of a conditional access agreement and prior to an agreed date for the financial close of a Terminal expansion
  - requiring DBCTM to develop a SFA and publish it prior to requesting access seekers fund a feasibility study
  - requiring DBCTM to apply to the QCA for a price ruling following a FEL 2 feasibility study, to ensure all parties can consider the recommended pricing and capacity impacts associated with a Terminal expansion
  - providing parties with the ability to lodge an access dispute at any stage in the expansion process.
- expansion pathway and trigger mechanisms to move an expansion project through each stage of the expansion process, including by[547]
  - outlining DBCTM's information obligations at each stage of the process
  - providing certainty on the standard, scope and project deliverables for each feasibility study—but leaving open the flexibility for parties to vary the scope by negotiation
  - identifying negotiation and regulatory mechanisms to ensure existing users' price and capacity concerns can be addressed by DBCTM and the QCA during the negotiation of a Terminal expansion.

In making these changes, we believe the final decision appropriately addresses all of the matters listed in section 138(2) of the QCA Act.

The details of our full required amendments to the 2015 DAU are contained in Appendice A and B to this final decision.

Summary 10.26—Conditional access agreements

The QCA's decision is to refuse to approve the negotiation framework, as it applies to access negotiations conditional on a Terminal expansion, in DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU to include a negotiation framework that provides an appropriately balanced and comprehensive process to facilitate the provision of access to the Terminal, when the access sought is conditional on a Terminal expansion.

10.6 Access transfer arrangements

Brookfield's Trading SCB currently operates in the secondary access market where it may acquire, aggregate and sell 'secondary' Terminal access rights using the clause 12 transfer mechanism in User Agreements. The 2015 DAU acknowledges that the Trading SCB is a related party to DBCTM. Schedule I of the 2015 DAU identifies the undertaking that DBCTM must

[546] Appendix A, cls. 5, 11–14; Appendix B, cl 2, 19–20, and Schedule 1.
[547] Appendix A, cls. 5, 11–12; Appendix B, cl 19–20, and Schedule 2.

procure from the Trading SCB, with respect to its participation in the secondary access market downstream from the Terminal.

10.6.1 DBCTM's 2015 DAU proposal

Clause 12 of the 2015 SAA 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. The 2015 DAU is silent on DBCTM's management of negotiations with parties to give effect to the transfer provisions in the 2015 SAA.

10.6.2 Stakeholders' initial position

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:[548]

- DBCTM may be incentivised to keep its investment in the Terminal to a minimum.
- DBCTM may be incentivised to slow down the bilateral negotiation process for assignments and/or refuse to consent to assignments, if this makes it more commercially attractive for access holders to instead use the Trading SCB for seeking to transfer Terminal 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 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.*[549]

10.6.3 QCA draft decision

Our draft decision proposed not to approve the access transfer arrangements in the 2015 DAU, and sought the views of all stakeholders on the level of transparency and accountability required to apply to the access transfer arrangements which underpin the operation of the secondary trading market. We considered this necessary to mitigate the ability of DBCTM to use its monopoly power to negotiate and/or administer access transfers to:

- unfairly discriminate between different access holders and access seekers
- hinder access to the Terminal
- commercially benefit a related Trading SCB.

[548] DBCT User Group, sub 11: 29–30.
[549] Aurizon, sub. 28: 5.

The draft decision noted that, to date, there have been no access disputes between parties seeking to participate in the secondary access market. However, given the above issues raised by stakeholders[550], and the fact that a related party to DBCTM operates in the secondary access market[551], we considered the transfer arrangements in the 2015 DAU should be transparent and workable for all users, access seekers and third parties seeking to participate in the secondary market. The draft decision invited DBCTM and stakeholders to provide their views on the nature and scope of the transfer arrangements required to facilitate the efficient transfer of access rights within the regulatory period.

10.6.4 Stakeholders' comments on the draft decision

Stakeholders' submissions on the draft decision[552] largely supported the QCA's proposal to increase transparency and accountability in the administration of access transfer requests in the 2015 DAU. Stakeholders recommended the QCA include in the 2015 DAU the elements identified in Table 37.

Table 37 Stakeholders' submissions on the draft decision—access transfer arrangements

Stakeholders' submissions on the QCA draft decision	
DBCTM	Recommends amending the 2015 DAU to include: • Assessment criteria—when considering an access transfer request, DBCTM will consider the counterparty's financial capability; evidence of matching DBCC infrastructure contracts; agreement to comply with Terminal Regulations; and, if relevant, evidence of compliance with Terminal Regulations to date. • Assessment timeframes—DBCTM will make a decision on an access transfer request within 50 business days (10 weeks) if the transfer is for less than 12 months (short term) and 75 days (15 weeks) where transfer is for 12 months or more (long term). • Dispute trigger—parties can trigger a CEO dispute resolution process if the relevant assessment timeframe is exceeded by 14 days. If CEOs cannot resolve the dispute and the relevant timeframe exceeds 28 days, then parties can refer the dispute to the QCA for a determination.
DBCT User Group	Recommends amending the 2015 DAU to include: • the proposed deed poll contained in schedule I of the November 2015 ring-fencing DAAU • an obligation on the Trading SCB to execute the deed poll and fulfil the obligations therein • a prohibition on DBCTM offering more favourable transfer terms to its related party than it is prepared to offer the competitors of its related party.

10.6.5 QCA analysis and final decision

Following consideration of stakeholders' submissions on the draft decision, we have inserted drafting in the marked-up 2015 DAU and 2015 SAA to affirm the position proposed in the draft decision. The draft decision on the 2015 DAU did not propose specific drafting but requested stakeholders provide advice on this matter in their responses to the draft decision. We have incorporated the drafting provisions recommended by the DBCT User Group. We have also

[550] DBCT User Group, sub. 11, 14, 15, 41 and 46; Aurizon Operations, sub. 24, 28 and 34; Vale, sub. 10 and 26.
[551] Regarding DBCTM's ability to use its position in the secondary access market to advantage the commercial position of the Trading SCB.
[552] DBCTM, sub. 37: 51–53; DBCT User Group, sub. 41: 37–38.

worked closely with DBCTM to identify its preferred drafting approach for the access transfer provisions in the DAU. DBCTM proposed to give effect to its policy position through amendments to the SAA. In accepting these changes, we have also included the operative provisions of the access transfer arrangements in the body of the DAU as well as the 2015 SAA. We consider this is consistent with the approach previously adopted in relation to both Aurizon Network and Queensland Rail.

The drafting reflects the positions of DBCTM and the DBCT User Group by[553]:

- requiring that DBCTM approve a transfer unless it is reasonably satisfied that the assignor is in breach of the undertaking, or the assignee would not be ready, willing or able to perform under an access agreement
- requiring the transferor to provide information reasonably required by DBCTM to assess the application
- requiring DBCTM to process the assessment within a reasonable and reportable timeframe
- allowing either the access holder or access seeker to bring a dispute to the QCA through the normal clause 17 channels in the undertaking.

The drafting of the amendments that we require DBCTM to make to the 2015 DAU and SAA are in Appendices A and B of this final decision.[554]

As set out above, we have generally accepted DBCTM's proposed assessment criteria for the handling of access requests, although we have added a new sub-clause 10.2(g) to require DBCTM to report on its administration of all access transfers in its publicly available annual compliance report.[555] We consider the gathering of this information over the regulatory period will enable all parties to independently:

- monitor DBCTM's compliance with its obligations to not unfairly discriminate between access holders and access seekers, and to not hinder access to the Terminal
- assess DBCTM's handling of access transfer requests where one of the parties (either transferor or transferee) is a related party
- determine the reasonableness, or otherwise, of the access transfer timeframes in the 2015 DAU, and identify whether they need to be tightened in the next regulatory period.

We have not incorporated DBCTM's proposed access transfer assessment timeframes and dispute triggers. Having regard to section 138(2) of the QCA Act, we do not consider it appropriate to fetter the ability of parties to trigger an access dispute during negotiations with DBCTM regarding the approval or non-approval of access transfer requests. In coming to this decision, we have taken into account that, to date, there have been no complaints or access disputes regarding DBCTM's administration of access transfer requests. The concerns of stakeholders raised during this regulatory process have focused on preventing DBCTM from using its role in approving access transfer requests to advantage the commercial position of the Trading SCB in the secondary access market.

[553] Appendix A, cl. 5.13; Appendix B, cl 12 and Schedules 6 and 7.
[554] Appendix A, cl. 5.13; Appendix B, cl 12.
[555] For example, the negotiation timeframe required by DBCTM in order to make a decision on each transfer request, and whether any disputes were triggered and addressed without referral to the QCA.

The DBCT User Group identified that its concerns regarding the operation of the access transfer provisions could be addressed by implementing the DBCT User Group's position on the ring-fencing arrangements in the final decision. We have incorporated the DBCT User Group's position on access transfers in the ring-fencing arrangements in the final decision.[556]

We consider it appropriate to make the above amendments to the DAU, having regard to each of the matters set out in section 138(2) of the QCA Act, for the reasons set out in the draft decision, and expanded upon above. In particular, we note that including the provisions in the DAU takes into account the interests of access seekers who are not transferees. We also consider that providing transparency around this process in the undertaking is in accordance with the expectations of stakeholders and is reasonable in light of our obligations under section 138(2) of the QCA Act. The full required amendments to the 2015 DAU are contained in Appendices A and B to this final decision.

Summary 10.27—Access transfer provisions

The QCA's decision in relation to the access transfer provisions is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU to specify the access transfer assessment criteria that will be applied to all access transfer requests on a non-discriminatory basis, and provide for DBCTM to report on its performance in the handling of each access transfer request in its annual compliance report.

10.7 Terminal Master Plan

The Terminal Master Plan should provide a framework for the Terminal to be expanded in the most logical and efficient way. The Terminal Master Plan must be developed in accordance with DBCTM's obligations in the PSA and included in Schedule F of the 2015 DAU. It must also be cognisant of the DBCC, system capacity and, if relevant, be integrated with a DBCC system master plan.

10.7.1 DBCTM's 2015 DAU proposal

The 2015 DAU included the 2009 Terminal Master Plan as a placeholder for the 2015 (now 2016 or 'new') Terminal Master Plan, which was still subject to finalisation—following further consultation with DBCT PL, DBCC service providers, users, access seekers and DBCT Holdings. DBCTM advised that it would provide the QCA and stakeholders with a copy of the new Terminal Master Plan when the document had been finalised with DBCT PL, and approved by DBCT Holdings.

10.7.2 Stakeholders' initial position

Stakeholders were unable to comment on the new Terminal Master Plan because it was not in the 2015 DAU.

[556] We did not explicitly draw attention to the DBCT User Group's ring-fencing provisions within the context of access transfers. This is because the DBCT User Group's proposed amendments on ring-fencing arrangements accommodated a number of user concerns and were not just specific to the access transfer arrangements.

10.7.3 QCA draft decision

The draft decision requested that DBCTM provide a copy of the new Terminal Master Plan to the QCA and stakeholders for consultation purposes. The QCA considered it would be unable to approve the 2015 DAU without first considering whether the new Terminal Master Plan complied with the master planning provisions contained in clause 15 of the 2015 DAU.

10.7.4 Stakeholders' comments on the draft decision

On 8 July 2016, DBCTM submitted the 2016 Terminal Master Plan to the QCA, when it formally responded to the QCA's draft decision. DBCTM advised that the 2016 Terminal Master Plan had been approved by DBCT Holdings.[557]

In light of the fact the 2016 Terminal Master Plan was new information (not previously considered by stakeholders), the QCA sought stakeholder feedback on the 2016 Terminal Master Plan (as part of the QCA staff questions for stakeholders).

In response to the QCA's request for stakeholders' comments, DBCTM advised that its replacement of the 2009 Terminal Master Plan with the 2016 Terminal Master Plan was a routine administrative matter and did not require approval as part of the 2015 DAU. DBCTM advised that the 2016 Terminal Master Plan had been approved by DBCT Holdings—in accordance with the PSA—following extensive consultation with all stakeholders over an 18-month period.

In a supplementary submission lodged on 26 August 2016[558], the DBCT User Group advised that the 2016 Terminal Master Plan:

- provided a forward looking assessment of the prudency of future expansion options, but the prudency or otherwise of those expansion options should be assessed closer to the timing of when DBCTM plans to undertake the expansion
- should be re-balanced to remove DBCTM's focus on its perceived risks relating to the existing contract profile, when assessing its future expansion options.

> *Section 2.4 seeks to emphasise DBCTM's perceived risks relating to the existing contract profile, while not comparing that to the level of comfort that can be derived from the coal market supply and demand analysis and the level of existing access requests. In particular, the DBCT User Group continues to dispute some of the comments made about the coal market for the same reasons given in previous submissions [on the 2015 DAU].*[559]

10.7.5 QCA analysis and final decision

Our final decision is to approve the 2016 Terminal Master Plan that will be contained in Schedule F of the 2015 DAU.

The 2015 DAU acknowledges that the Terminal Master Plan, and any amendments, is a contractual document which is subject to the approval of DBCT Holdings in accordance with the PSA. Clause 15 of the 2015 DAU provides the QCA and stakeholders with consultation rights in the development of DBCTM's Terminal Master Plan, and in the development of any amendments that may be submitted to DBCT Holdings for approval over the regulatory period.

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[557] See DBCTM, sub. 36 (cover letter) and DBCTM, sub. 39 (2016 Terminal Master Plan document).
[558] DBCTM User Group, sub. 46: 14.
[559] DBCT User Group, sub. 46: 14.

Chapter 7 of the 2016 Terminal Master Plan contains detailed information on the consultation process DBCTM has undertaken with access seekers, users, DBCT PL, DBCC service providers, North Queensland Bulk Ports Corporation, relevant government departments, the local community and DBCT Holdings.

However, it should not be inferred that the QCA's approval of the 2016 Terminal Master Plan's inclusion in the 2015 DAU constitutes an:

- approval of the prudency of the proposed expansions, including estimated costs, contained in the Master Plan
- endorsement of views expressed in the Master Plan regarding DBCTM's risk profile or the coal market climate. The QCA's views on these matters are discussed elsewhere in this final decision.

The QCA confirms that it will consider the prudency of a capital expansion at a future point in time when DBCTM submits a Terminal capacity expansion application to the QCA for approval. The process to be followed by the QCA when considering the prudency of the scope, standard and cost of a future capital expansion is provided for under clause 12.5 of the 2015 DAU.

Summary 10.28—Terminal Master Plan

The QCA accepts that DBCTM will replace the 2009 Terminal Master Plan in Schedule F of the 2015 DAU with the 2016 Terminal Master Plan.

10.8 NECAP

10.8.1 Background

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.

In the 2010 AU, we 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.

Details of our proposed approach to NECAP for the 2015 DAU is set out in Section 10.8 of our draft decision.

10.8.2 DBCTM's 2015 DAU proposal

DBCTM's NECAP proposal is discussed in greater detail in Section 10.8.1 of our draft decision.

Because NECAP approval had been uncontentious in the past, DBCTM proposed that the streamlined approval process set out in section 12.10(b) of the 2010 AU should now apply to all NECAP, subject to the proposed NECAP being recommended by the Operator and approved by access holders. If these conditions were not satisfied, then the streamlined approval process would not apply and the QCA would need to review and approve the proposed NECAP in accordance with clause 12.10(c) of the 2015 DAU.

10.8.3 Stakeholders' initial comments

The DBCT User Group supported DBCTM's proposed amendments to clauses 12.10(b) and 12.10(c) in the 2015 DAU because these provisions continued to provide sufficient protections against imprudent NECAP—that is, overinvestment in NECAP.

However, the DBCT User Group expressed concerns—supported by written evidence—about the potential for underinvestment by DBCTM in prudent NECAP, which could result in users bearing inefficient O&M costs and possible sub-optimal outcomes for the Terminal in terms of total whole-of-life cost, reliability, economy of performance, and economic life.

To address these concerns, the DBCT User Group submitted that clause 12.10(a) of the 2015 DAU should be amended to require DBCTM to invest in NECAP to ensure the whole-of-asset-life costs of the Terminal were minimised, taking into account both future capital investment and O&M costs.

For similar reasons, Vale agreed with the DBCT User Group that there was potential for underinvestment by DBCTM in prudent NECAP to result in reduced efficiency and productivity and, therefore, Vale also disagreed with DBCTM's proposal.

Vale also submitted that a cap on NECAP needed to be maintained 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.

DBCTM did not agree with the DBCT User Group's views on NECAP issues and, in particular, did not support the proposal to include an additional provision for the incurrence of NECAP—based on a 'whole-of-life' cost test—in clause 12.10(a) of the 2015 DAU.

DBCTM considered its current contractual obligations for NECAP under the access undertaking, the User Agreements, and the PSA were sufficient and appropriate, and considered its actions with regard to NECAP projects were compliant with these obligations.

In addition, DBCTM considered that the QCA did not have the power to impose the DBCT User Group's proposed change to clause 12.10(a). In particular, DBCTM noted that section 119 of the QCA Act specifies that, except in limited circumstances, the QCA cannot through an access determination require DBCTM to fund an extension. DBCTM submitted that the definition of 'extension' under the QCA Act, as used in section 119, is broad enough to include a NECAP project.

10.8.4 QCA draft decision

Our draft decision proposed to accept DBCTM's proposal for the approval process for NECAP set out in clauses 12.10(b) and 12.10(c) of the 2015 DAU. Our full analysis and reasoning for this position are contained in Section 10.8 of the draft decision.

The draft decision on NECAP was as follows:

> *(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.*

In summary, the draft decision was to accept DBCTM's proposal for streamlined NECAP approvals.

We also considered that the provisions of the 2015 DAU and the QCA Act addressed the issues raised by the DBCT User Group on NECAP, without the need for the DBCT User Group's proposed amendment to clause 12.10(a).

10.8.5 Stakeholders' comments on the draft decision

DBCTM

DBCTM supported the draft decision on NECAP, and noted that the whole-of-life elements of the draft decision were consistent with the requirements of the QCA Act.[560]

DBCT User Group

The DBCT User Group did not accept the draft decision on NECAP and submitted that:[561]

- It stood by its proposal to amend DBCTM's 2015 DAU to include an obligation on DBCTM to fund prudent NECAP to ensure the whole-of-life costs of the Terminal's assets are minimised. The DBCT User Group maintained that the QCA has the power under section 137 of the QCA Act to impose this amendment, and that the amendment would better align with factors the QCA is required to have regard to under section 138(2) of the QCA Act, including Part 5 and the pricing principles.
- The provisions of the access undertaking, PSA or User Agreements referred to in the draft decision do not mitigate the risks of concern to the DBCT User Group, but are protections against 'gold-plating' or overspending on NECAP. The DBCT User Group's concern is not that the Terminal will not be safe, available to meet access requirements of users or operated and maintained properly. Those matters will be able to be managed by how DBCT PL operates and maintains the Terminal. However, where DBCTM underinvests in prudent NECAP, DBCT PL will need to incur higher O&M costs to achieve those outcomes, thus resulting in an inefficient balance between capital and operating expenditure.
- Section 158A of the QCA Act does not provide the protection for the DBCT User Group assumed in the draft decision, because there is no provision in the 2015 DAU that would be breached by underinvestment by DBCTM in prudent NECAP.

[560] DBCTM, sub. 37: 55; DBCTM, sub. 44: 10.
[561] DBCT User Group, sub. 41: 40-41; DBCT User Group, sub. 46: 10-11.

- Section 119 of the QCA Act is not relevant because this section of the Act applies only to access determinations—not access undertakings.
- If the QCA is unwilling to impose the DBCT User Group's proposed amendment, it should instead:
  - require Schedule C of the 2015 DAU to be amended to reflect the QCA's comment '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'
  - retain the wording the QCA has proposed in clause 11 of Schedule E (and appropriately reference in cl. 12.10)
  - further review this matter at the time of the next regulatory reset (when it is likely that the consequences of underinvestment and the impact on O&M costs will have become evident).

10.8.6 QCA analysis and final decision

We have considered the concerns raised by the DBCT User Group's submission on the draft decision.

We do not consider the arguments put forward in that submission are sufficient to persuade us to change our draft decision to approve DBCTM's proposal for the NECAP approval process, for the reasons set out below.

Underinvestment in prudent NECAP and section 158A

We do not agree that the provisions of the 2015 DAU and other relevant documents referred to in the draft decision are protections only against 'gold-plating' or overspending on NECAP. We consider these provisions could, in appropriate circumstances, also operate to require investment in appropriate circumstances. DBCTM's obligations to comply with good operating and maintenance practice, and with the terms of the PSA, include its responsibility to optimise the efficiency of the Terminal. This would reasonably include achieving an efficient balance between capital and operating expenditure so as to achieve, as far as practicable, the lowest whole-of-life cost of operating and maintaining the Terminal. In our view, underinvestment in prudent NECAP is likely to result in such efficiencies not being achieved.

Moreover, DBCTM's failure to invest in necessary NECAP may also give rise to a number of other breaches of the 2015 DAU. These might include, for example, not fulfilling contractual obligations to users under the User Agreement; not meeting performance indicators under the undertaking; and not ensuring the ongoing safe operation of the facility. There are also a range of factors that must be taken into account by DBCTM when providing the services set out under clause 11 of Schedule E in the DAU amendments included at Appendix A, which we anticipate may be impacted by a failure to adequately and efficiently undertake NECAP activities.

These omissions would be likely to constitute breaches of the terms of the access undertaking, and therefore be subject to the protections afforded to users and other affected stakeholders under section 158A of the QCA Act.

Section 119

We agree with the DBCT User Group that, strictly speaking, section 119 of the QCA Act relates to access determinations, as opposed to access undertakings. However, we accept that section

119(2)(c) might, in appropriate circumstances, inform the permissible content of an access undertaking.

Among other things, section 119 places limitations on the ability of the QCA to make an access determination that would have the effect of requiring DBCTM to 'extend' the Terminal. However, we do not consider that this would prevent us from requiring DBCTM in appropriate circumstances to undertake expenditure associated with ordinary maintenance activities, including (potentially) expenditure on certain replacement parts. We consider this interpretation is consistent with the statutory framework, which anticipates that an access undertaking can provide for both the efficient and safe operation of a facility (ss. 137 and 69E).

Formalisation of terms for controlling underinvestment in prudent NECAP

Notwithstanding the above discussion, while we do not accept that the QCA is necessarily prevented from requiring NECAP to be undertaken in appropriate circumstances, we consider that sufficient protections against underinvestment in prudent NECAP by DBCTM are already provided for in the 2015 DAU and the QCA Act (and, to the extent relevant, in other documents such as the PSA).

Moreover, when assessing DBCTM's revenue requirement at future reset periods, it would be open to the DBCT User Group or other stakeholders to identify whether DBCTM's failure to invest prudently in NECAP during the regulatory period resulted in O&M expenditure which was, or which was expected to be, inefficiently high.

The QCA considers that the DAU approval processes set out in Part 5 of the QCA Act are sufficiently flexible to enable us to consider and address any identified issues at a future reset, if required. We note, for example, the statutory objective in section 69E, which requires us to seek to promote the economically efficient operation of, use of and investment in the Terminal. The pricing principles in section 168A also focus attention on the need to permit the opportunity for DBCTM to recover efficient costs, while where possible seeking to provide incentives to reduce costs or improve productivity.

Therefore, we do not see the need to amend the 2015 DAU specifically to include terms that seek to reopen the revenue process during the regulatory period to address this issue. We consider this approach balances the legitimate interests of DBCTM and users in maintaining a predictable revenue process during the period, with the interests of access holders and the public in ensuring that the Terminal is operated safely and that the costs of doing so are efficient.

Conclusion

Taking into account the material provided to us by stakeholders in response to the draft decision, our analysis and reasoning remain unchanged from that set out in the draft decision and, therefore, we consider that our position in the draft decision remains appropriate.

Our final decision is to approve the approval process for NECAP proposed by DBCTM in its 2015 DAU.

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

Summary 10.29—NECAP

The QCA's final decision is to approve the process for NECAP set out in clauses 12.10(b) and 12.10(c) of DBCTM's 2015 DAU.

11 DIFFERENTIAL PRICING

Since our draft decision on the 2015 DAU, DBCTM did not resubmit its previously preferred separability approach, although it noted that it anticipated applying for an exemption from the incremental up/average down approach in most instances.

DBCTM proposed additional criteria to be included in the list of factors used to determine if a Terminal Expansion Project that increases the TIC, should still be uniformly priced. DBCTM also proposed changes to the wording of the approach: the removal of the word 'exceptional' and clarification that it would be possible for a Terminal expansion project to be part-differentially, and part-uniformly priced.

DBCTM proposed a new metric (Total Access Charge, TAC) to be used when initially applying the incremental up/average down approach, rather than the Terminal Infrastructure Charge (TIC). DBCTM has also proposed changes to the timing of a QCA price ruling, and other implementation issues.

The DBCT User Group responded to a number of the issues raised by DBCTM as well as the allocation of O&M and NECAP costs post-completion of a Terminal expansion project, and the queueing mechanisms for spare capacity (where both differentially and uniformly priced Terminal capacity exists).

Our final decision is to maintain the incremental up/average down *approach to Terminal* e*xpansion pricing from our draft decision, with only minor changes, as described below.*

11.1 Background

We previously considered pricing arrangements for capacity expansion at DBCT in our reviews of the 2006 and 2010 DBCT draft access undertakings (DAUs), our final decision on DBCTM's Differential Pricing DAAU, our draft decision on the 2015 DAU, 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's Network's 2014 DAU. The views expressed by DBCTM, the DBCT User Group and the QCA in these processes are summarised in the table below.

Table 38 Consideration of differential pricing

Period considered	*Entity*	*View*
2006 DAU[562]	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.

[562] QCA 2006, *Dalrymple Bay Coal Terminal 2006 Draft Access Undertaking*, final decision, June.

Period considered	*Entity*	*View*
2010 DAU[563]	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[564]	QCA	The QCA concluded: • 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.[565] 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.[566]
Aurizon Network 2014 DAU draft decision (policy and pricing) — 2015[567]	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. These positions were maintained in the consolidated draft decision and final decision.

[563] QCA 2010b
[564] QCA 2013a, *Capacity Expansion and Access Pricing for Rail and Ports,* discussion paper, April.
[565] QCA 2013a: v.
[566] 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: v).
[567] QCA 2015a, *Aurizon Network 2014 Draft Access Undertaking, vol. III—Pricing and Tariffs*, draft decision, January: 370.

Period considered	*Entity*	*View*
DBCT Differential Pricing DAAU — 2015[568]	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	The DBCT User Group broadly supported the incremental up/average down approach to differential pricing recommended in the QCA's final decision.

11.2 Differential pricing approach

11.2.1 DBCTM's 2015 DAU proposal: the separability approach

In the 2015 DAU proposal, DBCTM did not support the QCA's incremental up/average down approach to differential pricing.

DBCTM considered that differential pricing may be efficient where new infrastructure was clearly separable from existing Terminal facilities.[569] 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*
>
> *(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.*[570]

DBCTM submitted that its separability approach was required in order to ensure that pricing arrangements for an expansion reflected the integrated nature of the Terminal.[571]

DBCTM 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 the Terminal.[572]

11.2.2 Stakeholders' initial comments

The DBCT User Group submitted that if uniformly priced expansion costs will result in an increase in the TIC, then the Terminal expansion should be differentially priced. However, it acknowledged that special circumstances may exist that justify uniform pricing, and that

[568] QCA 2015e, *DBCT Management Differential Pricing Draft Amending Access Undertaking*, final decision, August: 14.
[569] DBCTM, sub. 2: 69.
[570] DBCTM, sub.31: 56.
[571] DBCTM, sub. 2: 68.
[572] DBCTM, sub 2: 69–70.

separability was just one factor to be considered in determining whether special circumstances exist.[573]

11.2.3 QCA draft decision

In our draft decision, we proposed that if a Terminal expansion increased the TIC for existing users, it would be differentially priced, unless DBCTM has demonstrated that all or part of the capacity expansion should be uniformly priced. If a Terminal expansion decreased the TIC, it would be uniformly priced. We proposed that each differentially priced Terminal component has a separate ARR and TIC calculated to account for the costs associated with the new capacity. We referred to this approach as the incremental up/average down approach.

We suggested the 2015 DAU be amended so that:

(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.

11.2.4 Stakeholders' comments on the draft decision

DBCTM

DBCTM supported the 'case-by-case' application of the QCA's approach to differential pricing, noting that it anticipated applying to the QCA for a departure from the default incremental up/average down approach in the majority of 'cost-sensitive' cases.

It also reiterated that it considered differential pricing was inconsistent with the established regulatory practice in the QCA's previous DAU decisions for DBCT, that uniform-cost pricing has been applied to all expansions since the 2006 AU and that no material changes in circumstances have emerged to justify the new approach.

[573] DBCT User Group, sub. 11: 25.

DBCTM considered that the factors to be considered under clause 11.13(c) (when assessing whether differentiation should apply) needed to be sufficiently broad to allow the QCA to consider DBCTM's arguments in seeking to depart from the incremental up/average down approach. Its support for the QCA's approach to differential pricing was subject to the following amendments:

- the adjective 'exceptional' be removed from the first and second sentences of clause 11.13(c) of the marked-up DAU that the QCA provided with its draft decision
- the inclusion of four additional factors to be considered in determining the appropriate pricing approach:
  - that users could switch to pre-expansion infrastructure, should capacity arise in the future, when access agreements for the 'cost-sensitive' infrastructure expire
  - the complexity of allocating future O&M (operations and maintenance) costs and NECAP between existing and expansion Terminal users at an integrated Terminal, and the need for a costing manual for the allocation
  - whether the services delivered are functionally equivalent to existing infrastructure, relevant in the context of the Port Services Agreement (PSA) requirement for DBCTM to levy charges at a comparable rate for common services
  - other factors not currently anticipated, consistent with the QCA's decision-making role for criteria in the QCA Act[574]
- modification of clause 11.13(c) to remove the apparent implication that a 'cost sensitive' expansion will either be wholly differentiated or wholly uniformly priced. The extent to which the expansion benefits existing users of the Terminal could justify a cost sharing arrangement between existing and expanding users
- using a new metric (the total access charges (TAC), referred to as an 'access tariff') instead of the TIC (the reference tariff) to apply the incremental up/average down approach (see Section 11.4 below).[575]

DBCTM stated that its proposed amendments are intended to ensure that the factors DBCTM might advance in making a case for uniform pricing can be considered by the QCA.

The DBCT User Group

The DBCT User Group continued to support the QCA's approach (default incremental up/average down) to differential pricing.[576] It restated its view that the Terminal had expanded to the point where it was on the increasing part of its long-run average cost curve.[577] As such, if costs of future expansions are uniformly priced, expansions would likely result in substantially higher charges for existing DBCT users. The DBCT User Group submitted that the expected higher charges for future expansions would be well past the point that parties could reasonably

[574] DBCTM, sub. 37: 57.
[575] DBCTM, sub. 37: 57; 44: 4.
[576] DBCT User Group, sub. 41: 41.
[577] DBCT User Group, sub. 41: 41.

have been expected to agree for existing users to bear, in the context of a hypothetical contract entered before sunk costs were incurred.[578]

In its supplementary submission, the DBCT User Group strongly opposed DBCTM's proposal to remove 'exceptional' from clause 11.13(c) of the QCA's drafting.[579] It referred to the QCA's capacity pricing discussion paper, where we noted that,

> *The most important factor on deciding on the pricing of access to a major new tranche of access capacity is likely to be the unit cost of the new tranche compared to the existing capacity*

and,

> *If average costs are rising substantially with a new tranche of capacity, it will in general be neither fair nor efficient for the higher costs of the new tranche to be added to existing costs and a socialised price then charged. In this case, socialisation of costs clearly implies a subsidy to expanding users where there is no apparent economic efficiency or fairness rationale for doing so.*[580]

The DBCT User Group concluded that these statements make clear that changes to pricing should determine the outcome of a Terminal capacity expansion, subject only to the proviso of the potential for exceptional circumstances.

The DBCT User Group considered that DBCTM's proposed changes relegate the impact of a change in price to be just one of a number of factors to be considered. The DBCT User Group submitted that this would create substantial uncertainty for access seekers regarding the likely treatment of an expansion, at a point when access seekers will have investment decisions to make, based on the anticipated pricing approach.[581] The DBCT User Group also submitted that DBCTM's proposal was inconsistent with the QCA's approach to differential pricing, based on what parties would reasonably be anticipated to have agreed when access contracts were initially negotiated.[582]

In its later supplementary submission, the DBCT User Group maintained that the list of criteria proposed by the QCA in the draft decision is appropriate and opposed the inclusion of the additional criteria suggested by DBCTM.[583]

The DBCT User Group submitted that the possibility that users could switch their usage to pre-expansion infrastructure (should excess capacity emerge there subsequently) is not a relevant consideration. It suggested that if it is likely that capacity becomes available to allow an expansion user to switch to a contract in the existing Terminal following the expiry of its initial contract, there should be questions raised about whether the investment should ever have been made.[584]

The DBCT User Group opposed the inclusion of a factor to assess the difficulty of allocating future O&M costs and NECAP on the basis that DBCTM had substantially overstated the

[578] DBCT User Group, sub. 41: 41.
[579] DBCT User Group, sub. 46: 5.
[580] DBCT User Group, sub: 46: 5–6.
[581] DBCT User Group, sub. 46: 4.
[582] DBCT User Group, sub. 46: 6.
[583] DBCT User Group, sub. 46: 2.
[584] DBCT User Group, sub: 46: 2–3.

complexity involved in the allocation and that the allocation of other costs would already be captured as part of the existing QCA drafting.[585]

The DBCT User Group also opposed the third factor proposed by DBCTM—whether the services that the expansion infrastructure provides are functionally equivalent to the services that the existing infrastructure provides.

The DBCT User Group did not consider this factor to have any relevance at all. It noted that the services provided by an expansion would be expected to be functionally equivalent to the coal handling services of the existing Terminal, designed to be utilised by the widest range of users possible. The DBCT User Group highlighted that the extent to which the expansion provided a functionally different service would already be captured by the factor proposed by the QCA in relation to the extent that an expansion was integrated into the existing Terminal.[586]

Finally, the DBCT User Group considered that the creation of a factor to explicitly state that the QCA can consider any other factors relevant was unnecessary. It noted that in the marked-up DAU provided with the draft decision, the QCA had the discretion to consider other factors that the QCA considered relevant. The DBCT User Group considered that including the fourth factor proposed by DBCTM, 'arguably diminishes the importance likely to be given to the mandatory factors that the QCA has already proposed…'.[587] The DBCT User Group stated it was opposed to the inclusion of this factor, if the QCA was also considering removing the reference to 'exceptional circumstances' (see above). It said 'the combination of these changes would give rise to material uncertainty in relation to how the QCA would determine which other factors were relevant and what weight they should be given'.[588]

11.2.5 QCA analysis

As noted above, we have not reproduced or cited matters included in the draft decision that were not substantially addressed in submissions. However, we maintain and affirm the analysis of these matters contained in the draft decision, for the purposes of this final decision. We have provided our analysis of DBCTM's and the DBCT User Group's most recent proposals and submissions below.

Use of 'exceptional' in clause 11.13(c)

DBCTM stated that the circumstances under which differential pricing would be applied are not exceptional, 'in any sense other than that they are deemed sufficient to justify a departure from the QCA's default "incremental-up" approach'.[589]

In the draft decision, we proposed that under the incremental up/average down approach, *'capacity expansion projects will be differentially priced, unless DBCTM makes a case for uniform pricing…'*[590] This was reflected in clause 11.13(c):

> *A Cost Sensitive Expansion may be treated as forming part of the Existing Terminal (and therefore, not treated as a Differentiated Expansion Component) where exceptional*

[585] DBCT User Group, sub. 46: 3.
[586] DBCT User Group, sub. 46: 3–4.
[587] DBCT User Group, sub. 46: 4.
[588] DBCT User Group, sub. 46: 4.
[589] DBCTM, sub. 37: 57.
[590] QCA 2016c: 235.

circumstances exist that justify Socialisation. In determining whether there are exceptional circumstances, consideration shall be given to …[591]

The exceptionality of circumstances would be that, based on a case put forward by DBCTM, and taking into consideration the factors listed above, the QCA determines that it is appropriate for all or part of a Terminal capacity expansion to be uniformly priced, in spite of the incremental up/average down approach.

However, we agree that the use of 'exceptional' is not providing additional clarity in this context. Any Terminal expansion that increases the TIC but is uniformly priced is an exception to the incremental up/average down pricing approach.

We anticipate that in most cases the default pricing approach would apply. DBCTM would need to have demonstrated that, with reference to the factors for consideration in Summary Box 11.30, a Terminal capacity expansion warranted a deviation from the default approach, or in other words, that the capacity expansion project is an exception from the default approach.

Our view is that removing the term 'exceptional' does not change the intent or efficacy of the incremental up/average down pricing approach. We support removing it.[592]

The DBCT User Group submitted that the deletion of 'exceptional' may risk being seen to relegate price impacts to being just one of a number of factors.[593] We do not agree, as the price impact remains the first order, determinative factor for consideration. DBCTM will have to build a case to demonstrate why the price impact should not be the decisive decision-making factor, in every instance where it considers an exception from the incremental up/average down approach is warranted. Any Terminal capacity expansion that was uniformly priced under these circumstances, would be an exception to the default pricing approach.

Additional factors for consideration

DBCTM has proposed four new factors for the QCA to consider before determining whether a Terminal expansion that increases the TIC for existing users should be uniformly priced.

Firstly, DBCTM suggested that access holders of differentially priced capacity may 'switch' to uniformly-priced base capacity at the end of their initial contract period, if the latter has become available. The DBCT User Group considered that, if it were likely that an expansion user would be able to switch to contracting surplus capacity in the existing Terminal following the expiry of that user's initial contracts, there should be questions raised about whether the investment should ever have been made.[594]

We also note that in order to switch from differentially priced Terminal capacity to existing, uniformly priced Terminal capacity, access holders would need to be first in the capacity queue when their differentially priced access contract expires, and would therefore have joined the queue some time earlier, of which DBCTM would be aware.

It seems possible that some access seekers may not renew their differentially priced capacity at the end of their contracts. If DBCTM does not consider it likely that there is a sustained requirement for a Terminal capacity expansion, that is a matter which it would be appropriate

[591] QCA 2016c, Appendix A: cl.11.13.
[592] See Appendix A, cl. 11.13 (c).
[593] DBCT User Group, sub. 46: 6.
[594] DBCT User Group, sub: 46: 2–3.

to take into account when deciding whether or not to pursue an expansion (irrespective of whether the capacity is uniformly or differentially priced). DBCTM is not required to expand the Terminal if it can demonstrate the expansion would be uneconomic or unreasonable, having regard to: actual or anticipated demand; the extent to which the expansion would produce excess capacity; and the cost of the Terminal expansion.[595]

We consider the issue identified by DBCTM is therefore a risk that should be considered in determining whether the Terminal is expanded, but not necessarily in justifying how costs are shared. As such, we do not find there is a persuasive case to include this factor on the list of matters to be considered explicitly by the QCA in making a price ruling.

The second additional criterion proposed by DBCTM, the complexity of assigning future O&M costs between existing and expansion Terminal components, has been addressed independently in both the final decision on DBCTM's 2015 Differential Pricing DAAU, and the draft decision on the 2015 DAU.[596]

If DBCTM viewed a specific case as particularly compelling, it could raise concerns regarding the complexity of assigning future O&M costs when seeking a price ruling under section 138(2)(h) of the QCA Act, which requires us to have regard to, *'any other issues the Authority considers relevant*.' We have also recommended that a version of DBCTM's fourth proposed factor for consideration (any other issue the QCA considers relevant) is included in the DAU (see discussion below). We do not consider it necessary to require the assignation of O&M costs or NECAP as an independent factor for consideration, although it could be a relevant consideration in some cases.

DBCTM also proposed that the extent to which the services delivered by the Terminal expansion are functionally equivalent to those delivered by existing infrastructure should be listed as a separate factor for consideration. DBCTM's proposed criterion—functional equivalency—is covered to a certain extent by the separability criterion already listed, and could be addressed, if relevant, under the additional criterion we have accepted below. Further, in our capacity pricing discussion paper, the QCA found that:

> *With long-term contracts and a substantial increase in average cost, and with new capacity being functionally equivalent to established capacity:*
>
> - *a uniform average cost-based ('cost socialisation') is unsuitable since it means established users subsidise new users;*
> - *cost socialisation is likely inconsistent with a relevant reference transaction and thus likely considered unfair; and*
> - *a separate (higher) access price should apply as the default position for each substantial capacity expansion.*
>
> *If the new capacity is clearly not functionally equivalent: separate access prices will sometimes be fair and efficient.*[597]

In our final decision on DBCTM's 2015 Differential Pricing DAAU, we stated that:

> *'…new expansion costs can be clearly identified, and their incremental costs then attributed to the users who have caused the new expansion, regardless of which specific infrastructure (old or*

[595] Appendix A: cl. 12.7.
[596] QCA 2015e, section 3.3.2; QCA 2016c, section 11.3.
[597] QCA 2013a, *Capacity Expansion and Access Pricing for Rail and Ports*, discussion paper, April: 18.

new) is then ultimately used to meet their demand. This attribution is consistent with economic efficiency principles. We consider it unreasonable for the economic viability of already operating investments to be negatively impacted by a material expansion triggered by another user.'[598]

In our capacity pricing paper, we found that functional equivalency had little bearing on capacity pricing, where long-term contracts were in place. Practically, we noted that the cost of a Terminal expansion could be recovered from the customers that had contracted the new capacity: it is clear that those customers have caused the expansion, irrespective of which part of the Terminal is used to meet their contracted tonnage.[599]

We employed the principles of economic efficiency, fairness and good regulatory governance in reaching this conclusion. These are outlined in more detail in the capacity pricing paper, and are summarised briefly below:

- If an entity's use of a service causes costs to increase at the margin, the entity needs to face a price that reflects the marginal contribution of its use to costs.[600]
- A subsidy-free (and therefore fair) price requires that access buyers provide revenue no greater than the stand-alone cost of providing them with access, and revenue no less than the incremental cost of providing the access.[601]
- Stakeholders should be able to judge whether the regulatory decisions affecting them are sound, and whether they have been treated fairly.[602]

On this basis, we do not consider that functional equivalency, in and of itself, would generally be likely to justify uniform pricing of an expansion where differential pricing would otherwise be warranted. We do note that DBCTM has submitted that under the PSA it is required to levy charges at a common rate for comparable services[603]; however, we address DBCTM's submission on the PSA in Section 11.3 below.

The final proposed criterion, 'other factors not currently anticipated', is addressed by section 138(2)(h) of the QCA Act. However, including this as a fifth criterion, as proposed by DBCTM, will make clear that DBCTM has the ability to build a case using whatever information is appropriate and relevant to explain why a variation to the incremental up/average down approach may be appropriate, in a particular case. It does not mean that the QCA will necessarily approve DBCTM's proposed approach, but clarifies DBCTM's ability to draw out information relevant to its case.

We do not accept the DBCT User Group's claims that the inclusion of an additional factor to make explicit that other issues may also be considered and the removal of references to 'exceptional circumstances' will together give rise to material uncertainty in relation to how the QCA would determine and weight other factors.[604]

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[598] 2015e, *DBCT Management Differential Pricing Draft Amending Access Undertaking*, final decision, August: 16.
[599] QCA 2013a: 8.
[600] QCA 2013a: 3.
[601] QCA 2013a: 4.
[602] QCA 2013a: 4.
[603] DBCTM, sub. 37: 24.
[604] DBCT User Group, sub. 46: 4.

Further, we consider the inclusion of a fifth factor, similar to that proposed by DBCTM, will make explicit that DBCTM is able to submit a case for uniform pricing based on the information it considers relevant and that the QCA will be able to assess a broad range of matters in making its pricing ruling. It will not diminish the emphasis given to factors (i) to (iv)[605], nor will it obligate the QCA to give other factors the same weight as DBCTM attributes them to have.

11.2.6 QCA final decision

In accordance with the QCA Act, we have considered DBCTM's 2015 DAU and reviewed our draft decision in light of comments and information provided by DBCTM and other stakeholders, in accordance with the QCA Act.

Based on the considerations set out in this Section and having regard to the relevant factors in section 138(2) of the QCA Act, our final decision is that the incremental up/average down approach is applied to determine how Terminal capacity expansions will be priced, including an additional factor for consideration to highlight that other relevant information can also be considered. We require that the 2015 DAU be amended to reflect this change, as per the Summary Box below and the marked-up DAU contained in Appendix A.

[605]Appendix A, section 11.13(c) Expansion Pricing Principles.

Summary 11.30—Incremental up/average down principle

The QCA's decision in relation to expansion pricing is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU as follows:

(1) 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).

(2) 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:

- **(a) 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**
- **(b) the extent to which the expansion benefits non-expanding users (such as through higher efficiency, robustness or flexibility)**
- **(c) 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**
- **(d) any differences in the risks of providing access to non-expanding users in respect of additional capacity created by the expansion**
- **(e) any other issue the QCA considers relevant.**

11.3 Port Services Agreement (PSA)

The PSA is an agreement between DBCTM (the lessee of DBCT) and DBCT Holdings, which was entered into at the time of privatisation. The PSA places certain obligations on DBCTM in providing services at DBCT. While negotiated over a similar timeframe to that of the lease, the PSA is a stand-alone agreement.

11.3.1 Public interest

DBCTM's 2015 DAU proposal:

DBCTM submitted that uniform pricing was in the public interest. As the Terminal is owned by the State (through DBCT Holdings), and DBCTM manages the Terminal on DBCT Holdings' behalf, DBCTM considered the interests of the two entities should be expected to align.

On that basis, DBCTM interpreted the public interest to relate to the economically efficient expansion of the CQCR and in maximising the value of the State's coal reserves. DBCTM submitted that the PSA's requirement for DBCTM to charge a common rate for comparable services reflected the State's view that uniform pricing was in the public interest.[606]

[606] DBCTM, sub. 37: 24.

DBCTM did not consider that minimising total costs was integral to developing the coal industry, and submitted that pricing on an incremental up/average down basis for such efficiency objectives would compromise expanding users' ability to compete with non-expanding users and minimise their infrastructure costs in an otherwise challenging market environment.[607]

DBCTM also stated that there was some uncertainty as to how the public interest will be assessed as the QCA had applied inconsistent interpretations of 'the public interest'[608], and failed to cover all dimensions of the public interest. It did not consider the QCA was well placed to determine the public interest.[609]

Stakeholders' initial comments

The DBCT User Group submitted that the public interest was consistent with the need for an efficient and competitive coal industry, and the need for costs to be minimised.[610] The DBCT User Group also noted 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.[611]

QCA draft decision

In the QCA's draft decision, we considered that differential pricing, where it is efficient, promotes economically efficient investment and use of the Terminal, and certainty for new and expanding users. We did not consider that a default uniform pricing approach would afford sufficient consideration to the public interest, the long-term interests of users and the promotion of efficient investment in the Terminal.

We proposed that a differential pricing approach would better achieve the sustainable and efficient development of the Queensland coal industry, except where a case can be made for uniform pricing to be applied under the criteria listed in Draft Decision 11.31, or where uniform pricing would lead to lower tariffs for existing users, in accordance with the incremental up/average down approach.[612]

Stakeholders' comments on the draft decision

DBCTM

DBCTM contended that the PSA should be understood primarily in the context of the public interest, not just as a legitimate business interest of DBCTM. DBCTM outlined that public ownership of major infrastructure facilities reflected the Queensland Government's view that major infrastructure should be operated in the public interest. The rationale for privatising facilities had derived from operational efficiency considerations, not due to a retreat from the view that major infrastructure should be run in the public interest.

[607] DBCTM, sub. 2: 67.
[608] DBCTM, sub. 2: 67.
[609] DBCTM, sub. 2: 70.
[610] DBCT User Group, sub. 11: 27.
[611] DBCT User Group, sub. 11: 27.
[612] QCA 2016c: 217–219.

However, privatisation created a principal-agent problem. The State needed to ensure that the new private owners (its agents) prosecute the principal's (the State's) objectives. DBCTM considered the main role of the PSA was to address this problem.[613] DBCTM stated that:

> *The PSA imposes conditions on DBCTM to ensure that its conduct is compatible with the public interest. The PSA does not allow DBCTM to circumvent the requirements of the QCA, but it does provide important guidance to the QCA about the view that the government took about public-interest issues when it decided to lease the terminal to private enterprises.*[614]

DBCTM submitted that its obligations to invest differ significantly to those of other regulated entities, in particular Aurizon Network. DBCTM considered itself unable to:

- discriminate in access pricing for comparable services (between different classes of access holders)
- remove investment in Terminal expansions and major extensions from the QCA's regulatory oversight
- easily secure more favourable conditions from customers to compensate itself for investment in risky expansions.[615]

The DBCT User Group

The DBCT User Group supported the QCA's position that any assessment of the public interest will necessarily be shaped by the content of the decision. The DBCT User Group agreed with the QCA's various expressions of matters that would be in the public interest, including an efficient and competitive coal industry, and the efficient and sustainable development of the Queensland coal industry.[616]

QCA analysis

The PSA is an agreement between DBCTM and DBCT Holdings, and as such, we consider that DBCTM's compliance with the PSA is a matter which can be weighed as a legitimate business interest of DBCTM.

The weight to be given to the PSA, as both a legitimate business interest, and as a reflection of the public interest, under section 138(2) of the QCA Act, is a matter for the QCA to determine, on a case-by-case basis.

As discussed in the draft decision, the QCA is concerned that the point on the Terminal's cost curve at which future expansions will occur, could mean that uniform pricing would create 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 or the Terminal.

We also do not consider it possible that the PSA, as a 15-year-old confidential contract between DBCTM and DBCT Holdings, exhaustively determines every aspect of the public interest to which the QCA is required to have regard. The PSA may provide insight into aspects of the public interest, reflecting the views of DBCT Holdings when the agreement was made, which we will

[613] DBCTM, sub. 37: 8.
[614] DBCTM, sub. 37: 8.
[615] DBCTM, sub. 37: 24, 37: 8.
[616] DBCT User Group, sub. 41: 14.

consider and weigh alongside the other matters for consideration under section 138(2) of the QCA Act.

If the Government intended the PSA to be an enduring statement of the public interest or to otherwise have the effect of constraining our consideration of the factors in section 138(2), the Government could have sought to give effect to the arrangements in the PSA under legislation. The Government has not done so in this case.

QCA final decision

We have considered DBCTM's 2015 DAU and reviewed our draft decision in light of comments and information provided by DBCTM and other stakeholders, in accordance with the QCA Act.

Section 138(2) requires us to consider a range of factors prior to approving a draft access undertaking. Public interest is one of these factors, as are the legitimate business interests of the regulated entity. While it may shed some light, we do not accept the submission of DBCTM that the PSA should be treated as determinative of the public interest in the current context. Indeed there are other aspects of the public interest outlined in Section 2.6 of this final decision that are more relevant and significant in the context of DBCTM's 2015 DAU.

Based on the considerations set out in this Section and having regard to the relevant factors in section 138(2) of the QCA Act, our final decision is that, as a contractual agreement between DBCTM and DBCT Holdings, the PSA primarily relates to DBCTM's legitimate business interests and we have considered it primarily in this context.

11.3.2 Conditions of the PSA

DBCTM's 2015 DAU proposal

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 2015 Differential Pricing DAAU.

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.[617]

With this in mind, DBCTM noted that it has already proposed amendments to the PSA as per the separability approach outlined in the DAU.[618]

Stakeholders' initial comments

The DBCT User Group did not think the PSA should be given significant weight in the QCA's consideration of differential pricing.

The DBCT User Group agreed with the QCA's statement in the final decision on the Differential Pricing DAAU:

> *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.*[619]

[617] DBCTM, sub. 2: 63.
[618] DBCTM, sub. 2: 65.
[619] DBCT User Group, sub. 11: 26.

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.

QCA draft decision

While we had regard to DBCTM's obligations under the PSA as a legitimate business interest under section 138(2)(c) of the QCA Act, we did not find DBCTM's contractual obligations to be determinative in respect of our decision-making under the QCA Act.

That said, we noted that interpretation of the PSA, and DBCTM's obligations under it, are matters for DBCTM.

Stakeholders' comments on the draft decision

DBCTM referred to advice from DBCT Holdings, which DBCTM interpreted to state that the adoption of differential pricing would be inconsistent with DBCTM's obligations under the PSA.

DBCTM also submitted legal advice, which stated that section 138 of the QCA Act did not give the QCA power to impose conditions in the access undertaking that are inconsistent with the PSA:

> *[I]t cannot be the case that the Parliament intended section 138 to allow the QCA to impose a condition which is inconsistent with an agreement entered into at the time the asset was acquired from the State and which DBCTM has no right to amend. Only the most extreme of scenarios could justify the QCA deciding to amend an undertaking in such a way as to put the infrastructure owner in breach of pre-existing bona fide contractual provisions imposed by the state.*[620]

On that basis, DBCTM submitted that it expects to apply to the QCA for a departure from the default incremental up/average down pricing approach for the majority of cost-sensitive expansions.[621]

The DBCT User Group did not provide further comment on the PSA.

QCA analysis

We do not consider the further arguments made by DBCTM take its position in respect of the PSA much further. For the reasons set out above, we do not accept that the PSA (or any other contract, whether or not with the government) should be treated by the QCA as determinative of any matters we are required to consider under section 138(2). This would undermine the statutory integrity of our role.

We also do not consider it clear that the PSA would be contravened in circumstances where DBCTM is responding to a decision of the QCA, that requires DBCTM to take a different approach. Indeed, far from limiting or constraining the QCA, the government policy that appears intended in the PSA recognises the continuing importance of the QCA's role as economic regulator for access at DBCT.

[620] DBCTM, sub. 37: 8.
[621] DBCTM, sub. 37: 57.

QCA final decision

We have considered DBCTM's 2015 DAU and reviewed our draft decision in light of comments and information provided by DBCTM and other stakeholders in accordance with the QCA Act.

Based on the considerations set out in this section and having regard to the relevant factors in section 138(2) of the QCA Act, our decision is that, while the PSA may have reflected aspects of the public interest at the time it was negotiated, it is not (and was not intended to be) a definitive statement of the broader public interest for the life of the Terminal. We also do not accept the submission of DBCTM that the PSA should otherwise be understood to constrain our acceptance of differential pricing, in circumstances where we consider it is appropriate to do so, taking into account the factors in section 138(2).

11.4 Total Access Charges (TAC) vs Terminal Infrastructure Charge (TIC)

This topic was not raised for consideration in either DBCTM's initial submission, or in QCA's draft decision.

Stakeholders' comments on the draft decision

DBCTM

DBCTM proposed that rather than the TIC (which includes DBCTM's capital costs, corporate overheads, regulatory levy and site remediation costs) the TAC should be used to assess whether the cost of an expansion will be uniformly or differentially priced. DBCTM defined the TAC to include all relevant costs of providing the declared service, and to capture changes in operational costs which may occur as a result of an expansion. DBCTM considered that the TAC is the appropriate metric to use in deciding whether to apply differential pricing. It indicated that using the TAC may mean that an expansion is uniformly priced when it may have been differentially priced if using the TIC.[622]

The DBCT User Group

In its supplementary submission, the DBCT User Group remained strongly in favour of the QCA's incremental up/average down approach being applied to the TIC, as proposed in the draft decision.[623]

The DBCT User Group submitted that the TIC is a more certain metric than TAC (i.e. there is a higher degree of certainty regarding how a differentially priced expansion will impact on TIC than O&M (and therefore TAC)). Stakeholders need to understand pricing impacts with as much certainty as possible, and there is a clearer degree of certainty around how a differentiated expansion will impact on TIC than on TAC. The DBCT User Group attributed this certainty to the one-off nature of Terminal expansion expenditure (and a one-off impact on the TIC), in contrast to O&M costs, which are budgeted forecasts over a long period of time.

The DBCT User Group considered that the O&M costs attributable to new infrastructure forming part of a Terminal expansion will naturally trend upwards over the life of the infrastructure. Basing the decision on the initial impact the expansion has on TAC may result in the uniform pricing of an expansion that actually increases the TAC in the medium to long term.

[622] DBCTM, sub 37: 58.
[623] DBCT User Group, sub 46: 4.

The DBCT User Group also noted that assessing the impact on TAC will place great importance on the cost allocation methodology, and the DBCT User Group is concerned that this could lead to DBCTM being economically incentivised to 'game' the system by seeking inappropriate allocations of O&M costs in order to increase the likelihood of a Terminal expansion being uniformly priced.

Finally, the DBCT User Group highlighted that a Terminal expansion that is going to lead to a slightly higher TIC (e.g. due to an operating cost benefit) but a significant reduction in TAC is a factor that can already be considered under clause 11.13(c)(3) of the QCA's marked-up DAU.[624]

QCA analysis

We acknowledge that the use of both the TAC and TIC may provide a measure of the efficient costs of an expansion for the purpose of determining whether price differentiation is appropriate. We also accept that the TAC is more likely to reflect differences associated with the efficient costs of operating the Terminal than the TIC.

However, we agree with the DBCT User Group's observation that if a Terminal expansion was to increase TIC, but decrease TAC, this is a matter that could already be considered under the criteria in Summary Box 11.30. It is not necessary to change to a metric that would bring with it a range of other uncertainties and variable inputs.

The use of TAC would introduce a higher degree of emphasis on cost allocation issues related to O&M associated with an expansion. We also recognise that O&M costs (and therefore the TAC) are more likely to vary over the life of an expansion, which could make a determination based only on TAC subject to greater forecasting risk and potential error.

The QCA therefore considers that the better balance is achieved by using TIC as the initial basis for determining whether differential pricing should be adopted, but with scope for DBCTM or other stakeholders to point to operating or other cost factors in any particular case as a relevant factor for the QCA to take into account.

QCA final decision

We have considered DBCTM's 2015 DAU and reviewed our draft decision in light of comments and information provided by DBCTM and other stakeholders in accordance with the QCA Act.

Based on the considerations set out in this section and having regard to the relevant factors in section 138(2) of the QCA Act, our final decision is that the TIC should be used in applying the incremental up/average down approach, but with other cost factors able to be taken into account as relevant in a particular case.

[624] DBCT User Group, sub 46: 4–5.

Summary 11.31—TAC vs TIC

The QCA considers that the appropriate metric to initially determine which pricing approach will apply to an expansion is the Terminal Infrastructure Charge (TIC).

11.5 Implementation of differential pricing—amendments required

DBCTM and the DBCT User Group submitted very different proposals for the implementation of differential pricing arrangements in clause 11 of the 2015 DAU. Both parties also proposed very different approaches on a number of consequential amendments required to implement differential pricing arrangements in the negotiation framework and capital processes sections of the 2015 DAU.

In the draft decision, we identified the key differences in each of their (marked-up) draft access undertakings, provided our consideration of the issues raised by DBCTM and the DBCT User Group, and noted the proposed amendments that we would require to ensure the differential pricing arrangements in the 2015 DAU are appropriate to approve.

Our proposed approach to differential pricing was detailed in Chapter 11 of the draft decision. Our negotiation framework and capital processes positions in Chapter 10 of the draft decision also provide more detail on the staged expansion process required to underpin the negotiation of a Terminal expansion. Taken together, these chapters in the draft decision detail the amendments that we require to ensure DBCTM is efficiently operating, using and investing in the Terminal to provide coal handling services consistent with its general obligations under clause 12.3 of the 2015 DAU.

The consequential amendments to be considered in this chapter, as specifically applying to the implementation of differential pricing arrangements, are the:

- allocation of O&M costs, NECAP and over-budget project costs
- timing of differential pricing decision-making processes
- treatment of capacity created in a differentiated Terminal expansion
- procedural amendments.

11.5.1 Allocation of O&M, NECAP and over-budget project costs

DBCTM's 2015 DAU proposal

In our final decision on the 2015 Differential Pricing DAAU, we noted that the DBCT User Group supported our proposed allocation principles for O&M costs and NECAP. The DBCT User Group also agreed with our view that it was better to prepare the cost allocation principles with a specific differentially priced expansion in mind, rather than in the abstract. DBCTM did not raise concerns about either issue.

In its 2015 DAU submission, DBCTM did not address the allocation of O&M and NECAP expenditure between differentially priced and uniformly priced Terminal capacity.

However, in clause 11.9 of the 2015 DAU, DBCTM proposed that the Operator advise it on the allocation of O&M costs between the existing infrastructure and differentially priced Terminal components, on the basis that the costs have been incurred to provide services to each respectively. DBCTM will review the proposed amount and allocation, and if satisfied, will recover its O&M expenditure on this basis.

Stakeholders' initial comments

The DBCT User Group was concerned about DBCTM's proposed role in relation to the allocation of O&M costs between the existing infrastructure and expansion components, if the latter 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.[625]

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.[626]

The DBCT User Group considered that the allocation principles for O&M costs and NECAP proposed by the QCA are appropriate, and that the 2015 DAU should be amended to reflect that position.[627] We 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 uniformly 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.*[628]

The DBCT User Group anticipated that a costing manual would be required, as the allocation principles may need to be more detailed in relation to what constitutes a reasonable basis for allocation.

The DBCT User Group suggested that the Operator propose the initial allocation as part of submitting the annual budget to DBCTM, as it would be beneficial to have the Operator's involvement in preparing the initial costing manual, so that the manual properly deals with the

[625] DBCT User Group, sub. 11: 27–28.
[626] DBCT User Group, sub. 11: 28.
[627] DBCT User Group, sub. 11: 28.
[628] QCA 2015e, *DBCT Management Differential Pricing Draft Amending Access Undertaking,* final decision, August: 35.

actual O&M costs and NECAP that are likely to occur. DBCTM would then submit its proposed allocation of costs to the QCA on an annual basis.

QCA draft decision

In the draft decision on the 2015 DAU, we proposed that in the event that new capacity at the Terminal is to be differentially priced, DBCTM should, in consultation with the Operator, prepare a cost allocation manual in-line with the principles described above and submit it to the QCA for approval.

We agreed with the DBCT User Group's proposal for an annual review of cost allocations, and included this in the mark-up of the DAU we released with our draft decision. We also noted that if stakeholders disputed the detail of an annual budget allocation, they would have the option of initiating a dispute under the access undertaking.

Stakeholders' comments on the draft decision

DBCTM

In clause 11.9 of Schedule J of the marked-up DAU provided with DBCTM's submission on the draft decision, if there were different Terminal components, the Operator would advise the quantum and proposed allocation of Terminal operating costs between them, which would be reviewed by DBCTM. DBCTM would then submit the allocation to the QCA, indicating any variation DBCTM considered necessary.[629]

In clause 11.11 of Schedule J of the marked-up DAU, DBCTM outlined:

- the allocation of O&M costs and NECAP in accordance with a cost allocation manual
- the preparation of a cost allocation manual
- the cost allocation principles to be applied.[630]

In clause 12.10 of Schedule J, DBCTM proposed that NECAP added to the RAB of differentially priced Terminal components should only provide benefit to those access holders. Otherwise it should be allocated to the RAB of the existing Terminal.[631]

The DBCT User Group

The DBCT User Group supported the QCA's proposed allocation principles for O&M costs and NECAP.[632]

QCA analysis

Given there were no new issues raised regarding the initial allocation of O&M costs and NECAP between Terminal components, we have adopted the position in our draft decision and we adopt the same reasons. We consider that O&M expenditure should be allocated according to the principles identified in the draft decision, which include consideration of the benefit delivered to access holders.

[629] DBCTM, sub. 38: 172, cl. 11.9 of DBCTM's proposed Schedule J.
[630] DBCTM, sub. 38: 173, cl.11.11 of DBCTM's proposed Schedule J.
[631] DBCTM, sub. 38: 178, cl. 12.10(e) of DBCTM's proposed Schedule J.
[632] DBCT User Group, sub. 41: 42.

QCA final decision

We have considered DBCTM's 2015 DAU and reviewed our draft decision in light of comments and information provided by DBCTM and other stakeholders in accordance with the QCA Act.

We have maintained the approach in the draft decision to allocate O&M costs and NECAP between Terminal components. In the event that new capacity at the Terminal is to be differentially priced, DBCTM is to prepare a cost allocation manual, in consultation with the Operator, and submit it to the QCA for approval.[633]

Summary 11.32—Allocation of costs

The QCA's decision in relation to the allocation of costs between Terminal components is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU as set out in Appendix A, as summarised below:

(1) If an expansion has been uniformly priced, the other, non-capital expansion Terminal costs should also be uniformly priced.

(2) 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:

- **(a) 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').**
- **(b) 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).**
- **(c) 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.**

(3) 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.

11.5.2 Timing of differential pricing decision-making

DBCTM's 2015 DAU proposal

In the 2015 DAU, DBCTM proposed that, upon receipt of an indicative access proposal, DBCTM will provide a non-binding view of whether a Terminal expansion should be differentially priced if it went ahead, and again when seeking for access applicants to fund FEL 1 and FEL 2 feasibility studies.

[633] Appendix A, cl. 11.11.

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.*

Before undertaking the capacity expansion, DBCTM would submit a Terminal capacity expansion application to the QCA. Unless new information came out of the subsequent FEL 3 feasibility study, DBCTM's proposed pricing approach would have to be consistent with the earlier non-binding determination.[634]

Stakeholders' initial comments

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.

The DBCT User Group proposed that DBCTM conduct an initial assessment of the appropriate pricing approach at the FEL 1 feasibility study stage, and 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.

However, the DBCT User Group highlighted that this did not address the issue of a significant change in capital costs. It proposed 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 RAB.[635]

The DBCT User Group considered it critically important that the assessment of whether an expansion should be differentially priced was made independently by the QCA, not by DBCTM.[636]

QCA draft decision

In our draft decision on the 2015 DAU, we considered that once a FEL 2 feasibility study is completed, in accordance with section 150D of the QCA Act, DBCTM will request a price ruling from the QCA on its proposed pricing approach for the Terminal expansion.

Upon receipt of a request for a price ruling from DBCTM, the QCA will initiate an investigation. The QCA will decide on the application in accordance with section 150F of the QCA Act, in the form of a binding ruling, and determine how the capacity expansion, or part thereof, should be priced when the relevant draft amending access undertaking is subsequently submitted by DBCTM in respect of that expansion. This would provide certainty about the likely pricing outcomes.

If DBCTM considers that the incremental up/average down approach should not apply, DBCTM will need to present a case supporting that position, having regard to the criteria listed in Draft Decision 11.31.

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[634] 2015 DAU, cl. 12.5(a)(2).
[635] DBCT User Group, sub. 11: 32–33.
[636] DBCT User Group, sub. 11: 25.

In our final decision on the Differential Pricing DAAU, we explained that under section 150K of the QCA Act, an initial ruling made under section 150F could only be changed if relevant assumptions had changed or if there had been a material change in relevant circumstances.[637]

Following the completion of the project, the QCA will determine the final tariffs to apply, taking into consideration the price ruling, and the assumptions and circumstances underpinning it, among other things.

Prudent and reasonable project costs will be allocated on the basis of the final price ruling. If the project budget is disputed by stakeholders, the QCA can review the project, appointing independent advisors where necessary.

Stakeholders' comments on the draft decision

In its submission on the draft decision, DBCTM did not address our proposed requirement for it to apply within 20 business days of completing a FEL 2 study for a price ruling from the QCA. Rather, it decided that submitting a price ruling application before submitting a Terminal Capacity Expansion application would be inappropriate.[638]

In the marked-up DAU provided with its submission on the draft decision, DBCTM included a requirement for itself to:

> *[a]cting reasonably, form a view as to 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 a Differentiated Expansion Component...*[639]

The clause also requires DBCTM to notify access seekers of its proposal within 20 business days of the conclusion of the FEL 2 feasibility study.

The DBCT User Group accepted the QCA's proposal for the timing for a price ruling[640], and supported the price ruling occurring after completion of the FEL 2 feasibility study.[641]

However, the DBCT User Group considered that a price ruling applied for 'in accordance with' section 150D of the QCA Act, and determined 'in accordance with' section 150F of the QCA Act, would not be effective if those sections of the QCA Act are interpreted as being only operable in relation to applications for rulings of the type described in section 150B of the QCA Act.

It proposed that the wording be changed to read:

- '*apply to the QCA as if applying for a ruling in accordance with section 150D of the QCA Act'* (in clause 5.12(a)(2))
- *'determine the application as if making a determination in accordance with section 150F of the QCA Act (in clause 5.12(c))*'.[642]

The DBCT User Group considered that this would remove any possible interpretation that a pricing decision need not be sought, on the basis that those sections of the QCA Act were only operable for rulings of the type described.

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[637] QCA 2015e: 31.
[638] DBCTM, sub. 37: 58.
[639] DBCTM, sub. 38: 33, cl. 5.10(l).
[640] DBCT User Group, sub. 41: 44.
[641] DBCT User Group, sub. 41: 47.
[642] DBCT User Group, sub. 41: 44–45.

The DBCT User Group also raised concerns about how the QCA would execute decisions about the treatment of material changes in project costs after a pricing ruling. It submitted:

> *If the ruling is binding as to whether the expansion costs are socialised or differentiated, it is not necessarily clear how the QCA considers it then has discretion to act inconsistently with that ruling.*[643]

The DBCT User Group proposed that if the QCA maintains changes to the DAU drafting released with the draft decision, that it must state any assumptions on which future price rulings are made under section 150K(2) of the QCA Act. This would require inconsistency with those assumptions to be reported to the QCA, to provide users with appropriate protections against imprudently incurred costs.

QCA analysis

The QCA remains satisfied that the most appropriate timing for a price ruling to be made is after the completion of the FEL 2 feasibility study. By this time, DBCTM should have a clear picture of the proposed expansion, cost estimates (with certainty of ±20%) and committed access seekers. Stakeholders (including DBCTM) have repeatedly stressed that providing certainty for all stakeholders—and clearly specifying the circumstances and assumptions underpinning that certainty—should occur as early as possible.

With regard to section 150 of the QCA Act, following further consultation, the DBCT User Group has indicated that its concerns could be adequately addressed with the inclusion of a cross-reference being added in the price ruling clause to link it explicitly to the DAAU clause required in clause 12.5 (and Schedule C).[644]

With regard to the allocation of cost overruns of a Terminal expansion, it is important to consider the overall negotiation and regulatory framework underpinning a Terminal expansion project.

Following the completion of a FEL 2 feasibility study, DBCTM will apply for a price ruling by the QCA, in accordance with section 150F of the QCA Act. As noted above, by this point, DBCTM's project budget would be expected to have a margin of certainty of approximately ±20 per cent (or other margin of certainty agreed to by funding access seekers) and both DBCTM and stakeholders will therefore have a fairly clear picture of which access seekers are intending to take up the new capacity. Clause 5.12(b) of the DAU and section 150F(6) of the QCA Act both require that the circumstances relating to, and the assumptions underlying, the price ruling are made explicit, which include the costs and expected revenue.

In accordance with section 150K of the QCA Act, if those relevant assumptions or circumstances change, the price ruling would cease to bind the decision-making of the QCA. If the cost of a Terminal expansion is a significant consideration in a price ruling, the onus will be on DBCTM to keep project costs within the contingency margin in the price ruling. Before the project commences, DBCTM will have completed the FEL 3 feasibility study (including a project budget with ±10% accuracy), undertaken project planning in accordance with the Tender and Contract Management Processes outlined in clause 12.5(i) and submitted other costs to the QCA for consideration. These processes should provide DBCTM with an indication of how much the circumstances of the project are likely to deviate from those outlined in the price ruling.

[643] DBCT User Group, sub. 41: 45.
[644] DBCT User Group, sub. 41: 44–45.

If DBCTM considers there has been a change in circumstances associated with the project that means that the assumptions underpinning the ruling are no longer applicable, that the price ruling should no longer apply, and that another replacement ruling should be made, this can be addressed at the same time as part of the Terminal expansion application, lodged under clause 12.1(a) of the DAU.

Of the stakeholders involved, DBCTM has the most vested in ensuring that price rulings remain binding, and are not revisited due to project cost overruns occurring. Should a price ruling cease to apply due to a change in the underlying assumptions, DBCTM would need to re-apply for a completely new price ruling, with the new project information. In this case, having already invested in the expansion, the risk of a change to the applicable pricing approach would most likely rest with DBCTM.

QCA final decision

Based on the considerations set out in this section and having regard to the relevant factors in section 138(2) of the QCA Act, our decision is that DBCTM will apply for a price ruling after completion of the FEL 2 feasibility study in accordance with section 150D of the QCA Act, and the QCA will make a price ruling in accordance with section 150F of the QCA Act and clause 5.12(b) of the DAU.

If circumstances subsequently change, which DBCTM considers invalidates the earlier ruling, DBCTM may apply for a new ruling at the same time as it submits its Terminal capacity expansion application to the QCA.

On completion of the expansion, DBCTM will then submit a DAAU which must apply the price ruling and, subject to the circumstances and assumptions underpinning the price ruling remaining valid, the approved pricing approach will then be applied by the QCA in relation to the applicable DAAU, as required by sections 143(3) and 138(3).[645]

Summary 11.33—Timing of price ruling

The QCA's decision in relation to the timing of a price ruling is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU so that if a Terminal expansion is to progress, the DAU must require DBCTM to apply for a price ruling on completion of a FEL 2 feasibility study, in accordance with section 150F of the QCA Act.

11.5.3 Treatment of capacity created in a differentiated Terminal expansion

In response to stakeholders' submissions on the draft decision, we have re-considered our proposed approach to the treatment of capacity in the event that a Terminal expansion is negotiated in the next regulatory period. Our draft decision proposed that DBCTM:

- apply the following capacity waterfall to the allocation of access rights created by a Terminal expansion:

[645] See Appendix A, cl. 5.12.

  - if the expansion is uniformly priced—first allocate the new access rights[646] to eliminate any sustained shortfall in contracted access rights, before allocating the access rights to conditional access holders (allocated in proportion to the contracted conditional access rights)
  - if the expansion is differentiated—first allocate the new access rights[647] to accommodate the contracted conditional access rights, before allocating any remaining access rights to eliminate any sustained shortfall in contracted access rights
- apply commercial discretion to re-order the queue established when negotiating with an access seeker (cl. 5.4(d)) who is not first in the queue, but is willing to enter into an access agreement for available system capacity—and the available system capacity comprises both uniformly priced and differentiated access rights.

We consider these two capacity issues separately in this chapter. We note that in the next regulatory period, there is a prospect that DBCTM and/or access seekers may commence negotiations to enter into a conditional access/funding agreement for expansion capacity. In this regulatory scenario, DBCTM, access seekers and users require certainty and clarity on the expansion project, capacity risks and contractual liabilities in order to progress with negotiations on a staged expansion process.

There is lower probability that the second access scenario (i.e. queuing decisions where both uniformly and differentially priced capacity exists) will emerge in the next regulatory period because it relies on the negotiation, construction and commissioning of a differentiated expansion, and the creation of available system capacity which has not been contracted. In this regulatory scenario, access seekers and users require certainty and clarity on the order of priority that DBCTM may apply to the queue, where it has received a signed access agreement which can be accommodated by either component of capacity. While we have assessed the likelihood of this scenario occurring in the next regulatory period as low, we consider the perceived regulatory risks raised by stakeholders regarding the future regulatory treatment of different components of available system capacity should be addressed in this final decision.

DBCTM's 2015 DAU proposal

DBCTM sought to amend the 2010 AU to introduce a capacity waterfall approach 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[648], and not available to meet the annual contracted tonnages under existing access agreements.

The 2015 DAU is silent on the process which DBCTM would follow if it was required to conduct negotiations for access to available Terminal capacity, where the negotiation relates to queuing decisions as between uniformly priced and differentially priced available system capacity.

[646] DBCTM will identify the quantum of access rights to be allocated following the commissioning of a socialised Terminal expansion when it has re-determined the name-plate capacities of the socialised Terminal, inclusive of the expansion component (cl. 12.1 of the 2015 DAU).

[647] DBCTM will identify the quantum of access rights to be allocated following the commissioning of a differentiated Terminal expansion when it has commissioned the expansion project and re-determined the name-plate capacities of the socialised base Terminal and the differentiated Terminal component, in accordance with cl. 12.1 of the 2015 DAU.

Stakeholders' initial comments

The DBCT User Group did not address access to differentiated capacity in its submission on the 2015 DAU.

With regard to the access seeking queue, it sought to establish an order of priority in clause 5.4 of the 2015 DAU that would require DBCTM to apply a capacity waterfall to the treatment and allocation of different components of available capacity. Specifically, the DBCT User Group submitted drafting that would require DBCTM to first execute access agreements for uniformly priced available Terminal capacity before executing access agreements for differentiated available Terminal capacity.

QCA draft decision

In the draft decision on DBCTM's 2015 DAU, we proposed that the price ruling provisions in clause 5.12 of the QCA drafting would 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 impacts on the existing users of the Terminal or the existing operations of the Terminal.[649]

We considered this would provide existing users with the ability to identify if they would be adversely impacted by a differentiated Terminal expansion. Our proposal would also ensure the QCA has the information necessary to consider the capacity concerns of existing users under clauses 5.12 and 12.5 of the 2015 DAU.

Our draft decision also proposed to allow DBCTM to exercise its commercial discretion when considering access applications and/or signed access agreements for available Terminal capacity (comprising both uniformly priced and differentiated capacity components) provided commercial discretion is exercised on a non-discriminatory basis.

Stakeholders' comments on the draft decision

DBCTM

Neither DBCTM nor the DBCT User Group discussed the capacity waterfall allocation of differentiated capacity (as opposed to the design for the access queue below), but in DBCTM's marked-up version of the 2015 DAU, it drafted a new sub-clause 5.4(j)(5) to be added if a Terminal component was differentially priced:

> *(Allocation of Capacity that is Differentially Priced) Expansion Component Capacity will be utilised to meet Access Holders in respect of that Expansion Component. Consequently Access Holders who are not Differentially Priced Access Holders in respect of that Expansion Component will have no entitlement to have that Expansion Component utilised to meet Annual Contract Tonnages under their Access Agreements.*[650]

Stakeholders' views on allowing DBCTM to exercise commercial discretion in negotiations for available Terminal capacity were divided.

DBCTM supported the position proposed in the QCA's draft decision.

[650] DBCTM, sub. 38: 171, cl.5.4(j)(5) of DBCTM's proposed Schedule J.

The DBCT User Group

The DBCT User Group raised significant concerns with the draft decision and listed examples of possible adverse consequences and inefficiencies that could occur if the QCA maintained the position proposed in the draft decision (see Table 39 below).

Table 39 Summary of the DBCT User Group's concerns with DBCTM's commercial discretion regarding allocation of available capacity—where both uniformly and differentially priced capacity is available

Existing users will be adversely affected financially as uniformly priced capacity in existing contracts is a cost borne by those users and not DBCTM.
DBCTM will be incentivised to withhold access to uniformly priced capacity because there is no revenue impact to re-contracting that capacity.
DBCTM will be incentivised to prioritise access to differentiated capacity because it is most exposed financially to the expansion component (which comprises a smaller number of access agreements, customer default risks, different terms and more expensive pricing arrangements).
DBCTM will be incentivised to transfer its Terminal expansion contract risks to existing users and diminish the value of the access queue provisions.

The DBCT User Group's preferred approach is to require DBCTM to first allocate uniformly priced capacity to access seekers, in the priority order established by the queue. This means that only when the allocation of available uniformly priced capacity is exhausted, can DBCTM allocate available differentiated capacity to the remaining parties in the queue, once all uniformly priced capacity has been allocated.

The DBCT User Group also submitted alternative clause 5 drafting should the QCA remain minded to approve DBCTM's exercise of commercial discretion. In this situation, the DBCT User Group could accept the application of DBCTM's commercial discretion, so long as it is constrained by DBCTM's obligation to execute signed access agreements submitted under clause 5.4(d), and where:

- DBCTM applies a defined capacity waterfall—access seekers could jump the queue if they submitted a clause 5.4 notice that they were prepared to enter into an access agreement for the differentiated available capacity. In this circumstance, DBCTM would be required to notify all access seekers above the notifying access seeker in the queue, and give them a first option to contract the differentiated available capacity. In the absence of any other competing applications for the differentiated available capacity, DBCTM could execute an access agreement with the notifying access seeker prior to finalising a clause 5.4 process regarding the uniformly priced available capacity.
- DBCTM establishes two queues—one queue for uniformly priced available capacity and another queue for differentiated available capacity.

QCA analysis

As stakeholders did not comment on our draft decision on the allocation of access rights upon the completion of a Terminal expansion component, we have retained our draft decision position as follows:

- If the expansion is uniformly priced—first allocate the new access rights[651] to eliminate any sustained shortfall in contracted access rights, before allocating the access rights to conditional access holders (allocated in proportion to the contracted conditional access rights).
- If the expansion is differentiated—first allocate the new access rights[652] to accommodate the contracted conditional access rights, before allocating any remaining access rights to eliminate any sustained shortfall in contracted access rights.

Once a differentiated expansion has been completed, DBCTM must notify all existing access seekers and access holders, and invite them to apply for any capacity in the differentiated component that may become available in the future. Where access applications are received that exceed the available capacity in the expansion, DBCTM must then form a separate queue for managing those applications (Differentiated Queue). We consider that it is appropriate for DBCTM to create and maintain a second queue for applications related to differentially priced capacity, which will be dealt with separately to the existing queue. This is likely to be more administratively efficient and provides greater transparency around the non-discriminatory management of each queue.

In response to stakeholders' submissions, we have re-considered our draft decision regarding DBCTM's ability to exercise commercial discretion when negotiating with access seekers under the following circumstances:

- two queues have been formed for access to available system capacity—relating to existing uniformly priced capacity and differentially priced capacity
- system capacity becomes available during the regulatory period which comprises both uniformly priced and differentially priced components of capacity—so that some capacity is available to access seekers across both queues
- DBCTM wishes to re-order one or other of the queues where the same access seeker is prepared to take capacity across both uniformly and differentially priced components, and can thereby have priority.

In this case, our final decision is to allow DBCTM to reorder the queue in these circumstances, provided that it does so on an equivalent and non-discriminatory basis (where there are multiple access seekers willing to take both tranches of capacity). DBCTM must explain its commercial justification for reordering the queue, in this case, if requested to do so by a relevant stakeholder.

QCA final decision

Our final decision is to refuse to approve the negotiation process for available Terminal capacity proposed in the 2015 DAU, and to require amendments as detailed in Appendices A and B to

[651] DBCTM will identify the quantum of access rights to be allocated following the commissioning of a uniformly priced Terminal expansion when it has re-determined the name-plate capacities of the base Terminal, inclusive of the expansion component (cl. 12.1 of the 2015 DAU).

[652] DBCTM will identify the quantum of access rights to be allocated following the commissioning of a differentiated Terminal expansion when it has commissioned the expansion project and re-determined the name-plate capacities of the uniformly priced base Terminal and the differentiated Terminal component, in accordance with cl. 12.1 of the 2015 DAU.

this final decision.[653] We consider this decision constitutes an appropriate consideration and balances all the factors contained in section 138(2) of the QCA Act.

Summary 11.34—Capacity waterfall

The QCA's decision in relation to the capacity waterfall issues is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU as provided for in Appendix A to provide an ability for DBCTM to:

(1) allocate new capacity according to the principles outlined above

(2) form more than one access queue when a differentiated Terminal expansion component has been completed, and to exercise commercial discretion in the allocation of capacity where more than one component of capacity is available to contract during the regulatory period.

11.5.4 Procedural amendments in the 2015 DAU

DBCTM's 2015 DAU proposal

In addition to sections of the 2015 DAU which reflected the positions described above, DBCTM's 2015 DAU sought to amend the 2010 AU to facilitate consideration of differential pricing. The proposed changes were outlined on pages 248 and 249 of the draft decision. There were also differences in how DBCTM and the DBCT User Group defined a number of terms in schedule H of the 2015 DAU.

Stakeholders' initial comments

The DBCT User Group rejected most of DBCTM's proposed changes. It also proposed a number of other changes. These were summarised on page 249 of the draft decision.

QCA draft decision

In the draft decision, we recommended the 2015 DAU be amended in the following ways:

- amend clause 5.10 to require DBCTM to:
  - undertake and fund a clause 12.1 process to determine Terminal capacity and system capacity when undertaking the relevant feasibility studies
  - consult with existing access holders as well as funding access seekers when conducting capacity assessments to identify the feasibility of possible Terminal capacity expansions
  - 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
- amend clause 12.5(l) to provide all access holders with the right to vote on a Terminal capacity expansion application
- amend the definitions of a FEL 1, FEL 2, and FEL 3 feasibility study 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.

[653] Appendix A, cl. 5.4(j) and (k) and Appendix B, cls. 10 and 19.

We suggested that the amendments provided in our marked-up DAU were largely straightforward, and we requested DBCTM and stakeholders to identify any remaining concerns in their responses to our draft decision.

Stakeholders' comments on the draft decision

DBCTM

In its submission on the draft decision, DBCTM proposed to implement some of the changes recommended in our draft decision, but did not include our proposed changes to the definitions of the FEL 1, FEL 2 and FEL 3 feasibility studies. DBCTM also submitted three additional amendments to the DAU drafting, namely that the QCA should:

- remove the adjective 'exceptional' from principle (c) of the incremental up/average down approach described in the draft decision (see Section 11.2)
- clarify that in principle (c) of the incremental up/average down approach described in the draft decision, that a cost-sensitive expansion need not necessarily be wholly uniformly or differentially priced—it could be partially differentially priced
- adopt the term 'access charge' rather than 'reference tariff' in the drafting (see Section 11.4).

DBCTM also revised the structure of the DAU, and proposed a new Schedule J. Schedule J contains drafting that only applies in the event that a Terminal expansion component is differentially priced. If a future expansion is determined by the QCA to be differentially priced, the access undertaking will be amended in accordance with Schedule J.[654]

In some clauses[655], DBCTM deleted material relating to differential pricing from the drafting we provided with our draft decision, but did not include corresponding clauses in Schedule J of its proposed amended drafting.

The DBCT User Group

The DBCT User Group raised concerns with the wording in clause 5.4(i)(4). Instead of referring to capacity being 'contracted', the wording refers to capacity being 'utilised', which could be interpreted as preventing operational utilisation of the relevant physical capacity by other users.

The DBCT User Group proposed that the restriction should be on contracting capacity, and in relation to day-to-day operations, that the priority should be to satisfy the demand of the access holders who have contracted the relevant capacity. It provided alternative drafting, changing 'utilised' to 'contracted'.[656]

In its response to the further staff questions, the DBCT User Group opposed Schedule J being included, at least in the manner proposed by DBCTM.[657] The DBCT User Group noted that the proposed Schedule J did not contain all of the amendments that would be required to

[654] DBCTM, sub. 37: 58.
[655] References in the DAU drafting which accompanied our draft decision: clause 1.7 (Implementation of Differential Pricing in Existing Agreements); clause 12.5(a) (Terminal Capacity Expansion application to be lodged with QCA); clause 12.5(c) (QCA to confirm indication of reference tariff following an expansion); clause 12.5(h)(2) (DBCT Management to provide information for 60/60 requirement process).
[656] DBCT User Group, sub. 41: 45.
[657] DBCT User Group, sub. 46: 5.

implement differential pricing. It also submitted that even if Schedule J contained the appropriate wording, it could see no reason to change the structure at this late stage.

The DBCT User Group proposed that, given the work already undertaken to reflect differential pricing in the body of the 2015 DAU, changes to the drafting should be made there. It considered that to do otherwise (i.e. to introduce Schedule J), would risk unintended consequences arising from the schedule not properly reflecting consequential changes to the implementation of differential pricing.[658]

QCA analysis

The QCA has reviewed the new marked-up version of the DAU which accompanied DBCTM's submission on our draft decision, and considered stakeholders' comments. While DBCTM has transferred most of the changes required to implement differential pricing into the proposed Schedule J, we consider that such a significant structural change to the initial DAU introduces the risk of unintended flow-on effects, the omission of clauses or provisions within clauses and the misapplication of the DAU.

We consider that, while there are a number of major structural changes that could improve the overall DAU, it is not appropriate that those changes, such as the excision of differential pricing to a separate schedule, be executed between our draft and final decisions. Moreover, doing so at this point in the process may give rise to unintended implications, where provisions were modified in this process. DBCTM remains free to consult with stakeholders, and pursue changes intended to simplify the operation of the AU as part of the development of its next access undertaking.

As discussed above, we propose that the:

- adjective 'exceptional' be removed from the incremental up/average down approach (Section 11.2)[659]
- reference tariff (i.e. the TIC) be maintained as the metric to assess whether or not a Terminal expansion should be uniformly priced, and therefore the term 'reference tariff' be retained.

Additional proposed changes that we consider should be adopted include: clarifying in principle (c) of the incremental up/average down approach, that a Terminal expansion can be wholly or partially differentially priced[660]; and the adoption of the amended definitions for FEL 1, FEL 2 and FEL 3 feasibility studies from our draft decision.[661]

The intent of the draft decision was that a Terminal expansion component could be wholly or partially differentially priced—so the proposed clarification of this point is already consistent with this final decision, and our conclusion about the feasibility study definitions has not changed from the draft decision. The new definitions provide a degree of clarity that is missing from the existing terms.

The DBCT User Group considered that, in the draft decision, 'utilised' was used in contexts where 'contracted' would be a clearer reflection of intent. However, we do not consider that the DAU gives utilise the narrow interpretation suggested by the DBCT User Group, or that its

[658] DBCT User Group, sub. 46: 5.
[659] See Appendix A, cl. 11.13(c).
[660] See Appendix A, cl. 11.13(c).
[661] See Appendix A, Schedule G, Definitions and Interpretation.

use in clause 5.4 gives rise to any inconsistency. Utilise is used consistently in the clause 5.4 drafting in a context which allows for both the physical utilisation of assets and the contractual entitlement to tonnage. Moreover, the factors for consideration in making a price ruling, the clauses outlining access application and queueing, and the discussion in the final decision above make clear that a contractual entitlement to new capacity does not entitle a user to preferential access to new infrastructure.

While using contracted in some (but not all) instances in the DAU may be more accurate, we consider that the change, at this stage, would be more likely to introduce error and confusion. If this remains a significant concern for the DBCT User Group, it may pursue the clarification as part of the drafting of the next access undertaking.

QCA final decision

For the most part we have maintained the differential pricing related material included in the mark-up of the 2015 DAU that accompanied our draft decision. Our full required amendments can be found in the relevant sections of Appendix A.[662]

Summary 11.35—Procedural amendments

The QCA's decision in relation to the differential pricing procedural amendments is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend its 2015 DAU as set out in Appendix A to reflect the changes described above by:

(1) including all clauses and provisions to enable differential pricing in the main body of the DAU (not in a new Schedule J)

(2) including the incremental up/average down approach to differential pricing as described above, omitting the term 'exceptional'

(3) maintaining the TIC as the metric used to assess Terminal expansion price ruling applications, and its related terminology 'reference tariff'

(4) clarifying that a Terminal expansion component may be wholly or partially differentially priced

(5) adopting the definitions for FEL 1, FEL 2 and FEL 3 feasibility studies from our draft decision.

[662] See Appendix A, cl. 11.13(c) and Schedule G, Definitions and Interpretation.

12 OTHER MATTERS

This chapter discusses a number of issues not covered elsewhere in this final decision, including reporting requirements and definitions.

12.1 Overview of other matters

Table 40 provides an overview of matters considered in this chapter. Matters that require a more detailed explanation are discussed below. Where stakeholders have not objected to the position in the draft decision, the QCA approves the proposal and adopts the reasoning set out in the draft decision without restating it in full again here.

Table 40 An overview of other matters

DBCTM 2015 DAU proposal	*QCA draft decision*	*Stakeholders' comments on the draft decision*	*QCA final decision*
Reporting			
Proposed minor changes to reporting requirements—largely to incorporate differential pricing and ring-fencing.	The QCA refused to approve the 2015 DAU proposal. Reporting and auditing requirements to be consistent with the QCA's: • draft decision on DBCTM's November 2015 ring-fencing DAAU • final decision on differential pricing DAAU.	DBCTM were silent on a majority of the draft decision. DBCTM proposed further amendments to: • relocate differential pricing-related reporting clauses into Schedule J • acknowledge that DBCTM should not be obliged to publicly report confidential information.	Refer to section 12.2.
Definitions			
Proposed to define 'Protected Information' to reflect DBCTM's ring-fencing proposal.	The QCA approved the 2015 DAU proposal.	DBCTM deleted the definition of Protected Information to reflect its amended approach to ring-fencing.	The QCA's final decision is to refuse to approve DBCTM's original proposal and to approve DBCTM's modified proposal.
Notional Contracted Tonnage and the Review Event process			
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 QCA approved the 2015 DAU proposal, based on socialising the risk and cost from the date of termination of the relevant access agreement.	The DBCT User Group opposed the QCA's draft decision. Glencore did not oppose the draft decision. DBCTM has sought a further amendment to socialise the lost revenue from a user default before the User Agreement is terminated.	Refer to section 12.3

12.2 Reporting

Reporting requirements aim to promote transparency and provide meaningful information for stakeholders on the operation of the Terminal and DBCTM's compliance with the access undertaking.

12.2.1 DBCTM's 2015 DAU proposal

DBCTM's proposed reporting requirements are discussed in greater detail in Section 12.1 of our draft decision. However, in summary, the 2015 DAU proposed:

- an annual report containing DBCTM's regulatory accounts
- an annual public report with compliance-related indicators
- quarterly public reports with service quality indicators.

In comparison to the 2010 AU, DBCTM also proposed amendments to the reporting requirements to incorporate its approach to differential pricing and ring-fencing.

12.2.2 Stakeholders' initial comments

The DBCT User Group said the reporting requirements proposed in the (November 2015) ring-fencing DAAU should be included in the 2015 DAU.[663] The DBCT User Group also proposed changes to reflect its alternative approach to differential pricing and to clarify the 'Publicly Report' definition.[664]

Vale did not comment on the 2015 DAU's reporting requirements.

12.2.3 QCA draft decision

Our draft decision was to refuse to approve DBCTM's proposal. We considered it appropriate to amend the 2015 DAU to reflect the reporting requirements included in the QCA's recent decisions on ring-fencing and differential pricing.

Our full reasoning and analysis is contained in Section 12.1.3 of the draft decision. We have adopted that reasoning and analysis for the purposes of this final decision, subject to the comments below.

Reporting related to differential pricing

In summary, we noted the 2015 DAU's reporting requirements reflect DBCTM's approach to differential pricing based on 'separability'. DBCTM's approach was inconsistent with our final decision on the differential pricing DAAU and our draft decision on DBCTM's approach to differential pricing in the 2015 DAU. Accordingly, we proposed a number of amendments to the 2015 DAU to align the reporting requirements with our approach to differential pricing.

Reporting related to ring-fencing

Our draft decision sought feedback on whether it was necessary to include the reporting requirements, which had been included in the November 2015 ring-fencing DAAU (withdrawn in March 2016), in the 2015 DAU.

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[663] DBCT User Group, sub. 11: 36.
[664] DBCT User Group, sub. 11: 40.

DBCTM's November 2015 ring-fencing DAAU proposed to include ring-fencing arrangements in the 2010 AU. In particular, the DAAU proposed a number of additional reporting requirements largely relating to vessel queuing, performance quality indicators and QCA review powers.

In its submission on the November 2015 ring-fencing DAAU, DBCTM said it intended to incorporate the DAAU amendments into the 2015 DAU. Given DBCTM's comments, and our analysis in the draft decision, we considered it appropriate for the 2015 DAU to include the reporting requirements contained in our draft decision on the November 2015 ring-fencing DAAU.

12.2.4 Stakeholders' comments on the draft decision

DBCTM accepted the QCA's draft decision to include the reporting requirements approved in the QCA's draft decision on the November 2015 ring-fencing DAAU. However, DBCTM proposed further amendments to:

- move its differential pricing-related reporting clause to Schedule J of the DAU, with minor amendments
- report on whether any expansion components exist
- clarify that DBCTM is not obliged to publicly report on matters which are subject to a confidentiality obligation. DBCTM said it is 'unreasonable to require DBCTM to disclose confidential information'.[665]

Aurizon Operations said the requirement for DBCTM to prepare separate, disaggregated reports on rail operator volumes is an unnecessary regulatory burden.[666]

12.2.5 QCA analysis and final decision

DBCTM has proposed minor amendments to the reporting requirements—largely as a result of transferring differential pricing–related clauses to Schedule J of the 2015 DAU. While we do not consider it appropriate to approve DBCTM's proposed Schedule J (see Chapter 11), the QCA has accepted a majority of the proposed reporting requirements.

DBCTM has also proposed an amended clause 10.2(j), to clarify that if the QCA requests DBCTM to report another performance measure, DBCTM is not required to publicly report confidential information.

Our final decision is to reject DBCTM's proposal. We consider the proposal does not provide adequate transparency over the contents of the confidentiality claim and is therefore not in the interests of access holders or the public interest (ss. 138(2)(d) and (e) of the QCA Act).

We accept, in general, it is unreasonable for DBCTM to be required to publicly report confidential information. The QCA has therefore required an amendment to clause 10.2(j) to provide that any confidentiality claim must be approved by the QCA, which will apply the same standard as if it were a claim made in respect of information disclosed to the QCA under section 239 of the QCA Act.[667]

[665] DBCTM, sub. 37: 60.
[666] Aurizon Operations, sub. 34: 3.
[667] See Appendix A, cl. 10.2(j).

We consider this approach is consistent with the approach taken to confidentiality in other circumstances involving publication directly by the QCA, and provides an appropriate balance between questions of confidentiality and the public interest in transparency.

We agree with Aurizon Operations that the requirement to prepare separate, disaggregated reports on rail operator volumes is an unnecessary regulatory burden—given that the non-progression of the original Brookfield bid for Asciano means neither DBCTM nor related parties have, either directly or indirectly, an interest in a SCB, other than the Trading SCB. This is consistent with our approach to ring-fencing matters, as described in Chapter 9.

Summary 12.36—Reporting requirements

The QCA's decision in relation to reporting requirements is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend the reporting requirements in the 2015 DAU as set out in Appendix A.

12.3 Notional contracted tonnage definition

12.3.1 DBCTM's 2015 DAU proposal

In the 2015 DAU, DBCTM proposed to amend the definition of 'Notional Contracted Tonnage' (NCT)[668] 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.

In effect, the 2015 DAU proposal socialises the loss of revenue from a user default across the remaining access holders—provided that capacity is not taken up by another access seeker. Under the 2006 and 2010 AUs, DBCTM carries a share of this cost for the remainder of the regulatory period.

12.3.2 Stakeholders' initial comments

In summary, the DBCT User Group said:

- DBCTM has not justified the proposal and it should be reversed.
- The proposal seeks to immunise DBCTM from the revenue consequences of an early termination of an access agreement.
- The proposal will reduce DBCTM's incentive to recontract access or obtain appropriate protections from an access seeker when signing an access agreement.
- DBCTM's equity beta should be reduced if the proposal is accepted.[669]

12.3.3 QCA draft decision

Our draft decision was to approve DBCTM's proposed definition of NCT (see Section 12.2.3 of our draft decision for our full reasoning and analysis).

[668] NCT means, in respect of a Financial Year, DBCTM's Aggregate Annual Contract Tonnage. NCT is used in Schedule C of the 2015 DAU to determine DBCTM's revenue cap.
[669] DBCT User Group, sub. 11: 39.

In summary, our analysis concluded that:

- Under the 2010 AU, DBCTM bears the risk for user default or insolvency until the next regulatory reset. Under the 2015 DAU, should a user default, DBCTM's proposed definition of NCT would maintain the revenue cap at the same amount.
- On balance, it is appropriate for user default risk to be allocated to access holders. We considered doing so is consistent with the revenue cap pricing model and the QCA's regulatory pricing principles—a revenue cap should generally operate to protect the regulated firm from demand volatility.[670]
- In the absence of DBCTM's proposed change, DBCTM may not have an opportunity to recover its efficient costs of providing the declared service where an access agreement is terminated early.
- DBCTM is already under a regulatory obligation, under the 2015 DAU, to offer any Terminal capacity which becomes available to access seekers that are in the queue.

12.3.4 Stakeholders' comments on the draft decision

DBCTM

DBCTM supported our draft decision to approve the 2015 DAU proposal. However, it proposed additional amendments to include a revenue cap adjustment process to socialise a defaulting user's unpaid access charges from prior to the termination date of the User Agreement.

DBCTM said under the QCA's draft decision it could not recover the access charges owed from prior to the termination date of an access agreement. DBCTM said this period would be at least 104 days—'but would likely be longer if the access holder disputes the notices to remedy or suspend.'[671]

DBCTM noted it cannot seek additional security when the ownership of an existing contractual counterparty changes. Furthermore, DBCTM can only improve its credit protection when it consents to a new contract or a change in counterparty.

Therefore, DBCTM proposed to amend the definition of 'Review Event' to recover the revenue lost prior to the termination of a defaulting user's agreement. DBCTM said it would seek QCA approval for its net-loss calculation and the calculation would account for security deposits, bank guarantees and other related measures.

DBCT User Group

The DBCT User Group said the QCA's draft decision is:

> *not preferable, at least unless it is offset by a recognition of the resulting change in risk profile (in the asset beta) and an acknowledgement by DBCTM that that will result in a change in the security that DBCTM should reasonably be allowed to request under the User Agreements.*[672]

The DBCT User Group said the existing 2010 AU provisions incentivise DBCTM to recontract available capacity more quickly and efficiently. The DBCT User Group accepted there is a regulatory obligation to offer capacity to the queue—but it considered a regulatory obligation

[670] QCA 2013b, *Statement of Regulatory Pricing Principles*, August: 16.
[671] DBCTM, sub. 37: 60.
[672] DBCT User Group, sub. 41: 46.

to offer access and a cost incentive to find a party to take access rights will necessarily drive different commercial behaviour.

The DBCT User Group said that, should the QCA maintain its draft decision:

- the extent of security which DBCTM should reasonably be able to require should be lessened
- the QCA should rectify the potential for double-recovery that has been created through amending Schedule C of the 2015 DAU. That is, the DAU should ensure the revenue lost from an early termination is not socialised during any period for which DBCTM is able to recover the loss through its security arrangements.[673]

Glencore

Glencore, in principle, did not consider expiring contracts should be treated differently from contracts that are terminated due to a user default.

However, Glencore said the ability for DBCTM to socialise a default among remaining users substantially reduces any justification for DBCTM to require a security beyond covering charges between user default and the termination of the agreement.

Glencore did not accept that socialisation should be applied prior to the termination of the User Agreement. Were the QCA to allow DBCTM to do so, Glencore said it is difficult to see why DBCTM would terminate a User Agreement since it would not be exposed to the costs of leaving it in place.

Glencore suggested any change to the risk allocation should be carefully considered to determine whether it should be reflected in a change to the regulatory WACC parameters.[674]

12.3.5 QCA analysis and final decision

DBCTM's additional proposal and stakeholder comments distinguish between revenue lost after a User Agreement has been terminated and revenue lost before a User Agreement is terminated.

Socialising revenue after the termination date

In regard to revenue lost after the termination of a User Agreement, we consider it appropriate to maintain the definition of NCT established in our draft decision.[675]

We agree with the DBCT User Group's submission that under the 2010 AU DBCTM may have greater incentive to contract its available capacity. However, we consider the key question is whether it is appropriate for DBCTM to bear the demand risk of early termination. Consistent with the reasoning in our draft decision, we consider a revenue cap should protect DBCTM from demand volatility associated with early termination of User Agreements.

After having regard to the relevant factors in section 138(2) of the QCA Act and stakeholders' submissions, we consider the reasoning and analysis in Section 12.2.3 of the draft decision is appropriate.

[673] DBCT User Group, sub. 41: 46–47.
[674] Glencore, sub. 35: 2–3.
[675] See Appendix A, Schedule G, Definitions and Interpretation.

Socialising revenue prior to the termination date

DBCTM has, since the draft decision, proposed to recover the access charges an access holder would have paid prior to termination—had that access holder not defaulted or become insolvent. We do not consider it appropriate for DBCTM to recover lost pre-termination date access charges. Therefore, our final decision is to reject DBCTM's additional proposal.

As a general principle, we consider risks should be distributed across those parties best able to mitigate them. This is consistent with our Statement of Regulatory Pricing Principles which said 'an efficient outcome would usually involve some degree of risk-sharing between parties' and 'the allocation of risk should reflect stakeholders' comparative advantage in risk-bearing based on their preferences for risk'.[676]

For the period prior to the termination date, we consider DBCTM has a greater ability to manage any revenue risk associated with user default, including by seeking security from access holders and access seekers and through the manner and timeliness by which it addresses any default. Furthermore, we note the standard User Agreement already provides DBCTM with the ability to request security, and it is in its legitimate business interests to do so.

We agree with Glencore that DBCTM's proposal may reduce the incentive for DBCTM to efficiently manage the risk of user default prior to termination—as the revenue impact of a default is socialised among remaining access holders. This outcome would be inconsistent with the object clause and interests of access seekers and holders (ss. 138(2)(a), (e) and (h)).

Stakeholders said the amount of security required should be reduced, were we to maintain our draft decision.[677] While access holders and seekers negotiate the amount of security with DBCTM—it would be appropriate for DBCTM to seek an amount to cover the minimum period between a user default and the termination date. Should a dispute arise regarding the amount of security required, parties may access the dispute resolution provisions in their User Agreements.

Potential for over-recovery

Aside from allocating the risk of user default, both DBCTM and the DBCT User Group said the review event calculation as a result of user default should account for security deposits or other measures that offset unpaid access charges.

We agree that DBCTM should not recover lost revenue more than once—that is, through an access holder's security payment as well as through a review event. To do so would be inconsistent with the interests of access holders and access seekers, and the pricing principles in the QCA Act (ss. 138(2)(e), (g) and (h)). Therefore, we have amended the 2015 DAU to provide that a review event calculation as a result of user default should account for security deposits and other related measures in order to avoid double-recovery.[678]

Impact on the asset and equity beta

Finally, we note Glencore and the DBCT User Group said the amended definition of NCT in our draft decision represents a change in the risk profile of DBCTM—therefore, the QCA should reduce DBCTM's equity beta.

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[676] QCA, 2013b: 16 and 17.
[677] DBCT User Group, sub. 41: 46; Glencore, sub. 35: 3.
[678] See Appendix A, Schedule C, Part A, cl. 2.

We have taken into account our approval of the NCT definition proposal when estimating an appropriate asset and equity beta for DBCTM. Section 4.8 of this final decision discusses the impact on DBCTM's asset and equity betas.

12.3.6 Conclusion

We have considered DBCTM's 2015 DAU proposal and reviewed our draft decision in light of comments and information provided. Based on our analysis above, and having regard to the relevant factors in section 138(2) of the QCA Act, our decision is that we approve DBCTM's proposed definition of NCT included in the 2015 DAU (consistent with our draft decision). However, we require additional amendments to clarify that DBCTM may only recover outstanding access charges once.

Summary 12.37—Review event calculations

The QCA's decision in relation to review event calculations is to refuse to approve DBCTM's 2015 DAU.

The QCA requires DBCTM to amend the 2015 DAU (Schedule C) to account for security and other related measures held by DBCTM in review event calculations as set out in Appendix A.

GLOSSARY

A	
AAPT	Adani Abbot Point Terminal
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 Coal, Stanmore Coal, Peabody Energy, Rio Tinto and Vale
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
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
NCT	Notional Contracted Tonnage
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
TAC	Total access charges
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	The template User Agreement included in Appendix B of the 2015 DAU and referred to as the SAA or SUA.
W	
WACC	Weighted average cost of capital
WAML	Weighted average mine life
WICET	Wiggins Island Coal Export Terminal
WIRP	Wiggins Island Rail Project

ATTACHMENT 1: LIST OF STAKEHOLDERS' SUBMISSIONS

Table 41 Submissions received by the QCA

Stakeholder	Submission item	Date	Number
Submissions on DBCTM's 2015 DAU			
DBCT Management	Cover letter	October 2015	1
DBCT Management	Explanatory submission	October 2015	2
DBCT Management	Attachment A – Wood Mackenzie – Shipper Mine Life Analysis	October 2015	3
DBCT Management	Attachment B – Frontier Economics – The term of the risk-free rate	October 2015	4
DBCT Management	Attachment C – Frontier Economics – Required return on equity for DBCT	October 2015	5
DBCT Management	Attachment D – Frontier Economics – Estimating gamma	October 2015	6
DBCT Management	Attachment E – Meyrick, Stephen J – Dalrymple Bay Coal Terminal: Corporate Costs	October 2015	7
DBCT Management	Attachment F – Hatch –Rehabilitation DBCT Report Update – Rehabilitation Valuation 2015	October 2015	8
DBCT Management	Attachment G – Finity – Review of Dalrymple Bay Coal Terminal Remediation Charge	October 2015	9
DBCT Management	DAU Mark Up	October 2015	31
DBCT Management	User Agreement Mark Up	October 2015	32
Vale		November 2015	10
DBCT User Group [1]		November 2015	11
DBCT User Group	Schedule 1 – Allens advice	November 2015	12
DBCT User Group	Schedule 3 – PWC report: Estimating a cost of capital for DBCTM	November 2015	13
DBCT User Group	Schedule 5 – DBCT User Group submission on ring-fencing	November 2015	14
DBCT User Group	Schedule 6 – Markup of 2015 DAU	November 2015	15
DBCT User Group	Schedule 7 – Markup of Standard Access Agreement	November 2015	16
Submissions on the 2015 Differential Pricing DAAU			
DBCT Management	Amendments to the existing access undertaking	February 2015	17
DBCT User Group	Submission on the DAAU	March 2015	18
Vale		March 2015	19
DBCT Management	Supplementary submission	April 2015	20
DBCT Management	Submission on the draft decision	June 2015	21
DBCT User Group	Submission on the draft decision	June 2015	22
Submissions on the October and November 2015 Ring-fencing DAAUs			
DBCT Management	DBCT October 2015 Ring-fencing DAAU	October 2015	23

Stakeholder	Submission item	Date	Number
Aurizon Operations Ltd	DBCT October 2015 Ring-fencing DAAU	November 2015	24
DBCT User Group	DBCT October 2015 Ring-fencing DAAU	November 2015	25
Vale	DBCT October 2015 Ring-fencing DAAU	November 2015	26
DBCT Management	DBCT November 2015 Ring-fencing DAAU, response to stakeholders	November 2015	27
Aurizon Operations Ltd	DBCT November 2015 Ring-fencing DAAU	December 2015	28
Supplementary submissions			
DBCT User Group		January 2016	29
DBCT Management		March 2016	30
Submissions on the QCA draft decision			
Aurizon Network		July 2016	33
Aurizon Operations Ltd		July 2016	34
Glencore		July 2016	35
DBCT Management	Cover letter	July 2016	36
DBCT Management		July 2016	37
DBCT Management	DAU compare to QCA draft decision	July 2016	38
DBCT Management	Master Plan	July 2016	39
DBCT Management	SAA compare to QCA draft decision	July 2016	40
DBCT User Group		July 2016	41
DBCT User Group	Schedule 2 (PwC)	July 2016	42[2]
Submission on the Incenta report on debt risk premium			
DBCT User Group	Debt risk premium	July 2016	43
Further submissions on QCA staff questions			
DBCTM Management	Further questions	August 2016	44
DBCTM Management	Other matters	August 2016	45
DBCT User Group	Further questions	August 2016	46
DBCT User Group	DBCTM's other matters	September 2016	47

1 *Consists of Anglo American, BMC, Glencore, Isaac Plains Coal Management, Peabody Energy, Rio Tinto Coal Australia and Vale Australia.*

2 *Submission 42 is included in the same document as submission 41 on the QCA website.*

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 final decision.

Appendix A to this final 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 final decision.

Appendix B to this final decision incorporates the attached mark-up to the 2015 DAU's User Agreement.

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