Dalrymple Bay Coal Terminal User Group

Submission in response to Queensland Competition Authority Draft Decision

26 April 2019

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1 Introduction

This submission is made on behalf of the Dalrymple Bay Coal Terminal User Group (the ***DBCT User Group***), including for these purposes both users with existing access agreements and a number of future access seekers who have not currently contracted capacity.

The DBCT User Group thanks the Queensland Competition Authority (***QCA***) for its thorough analysis in its review of the declaration of the coal handling services at Dalrymple Bay Coal Terminal (***DBCT***) under Part 5 of the *Queensland Competition Authority Act 1997* (Qld) (the ***QCA Act***).

The DBCT User Group also welcomes the opportunity to provide further submissions to the QCA in respect of the submission made by DBCT Management Pty Ltd (***DBCTM***) of 11 March 2019 (the ***Latest DBCTM Submission***), the arguments made by DBCTM and its advisers during the QCA stakeholder forum of 20 March 2019 (the ***Stakeholder Forum***), and the further questions released by the QCA on 5 April 2019 (the ***QCA Questions***).

2 Executive Summary

(a) DBCT User Group supports the QCA Draft Decision

The DBCT User Group continues to strongly support the QCA's conclusions in its draft decision of 18 December 2018 (the ***QCA Draft Decision***) that each of the access criteria are satisfied, and resulting QCA recommendation that the coal handling services provided by DBCT (the ***DBCT service***) be declared.

The QCA Draft Decision and its conclusions are well based and sound.

Those conclusions have been reached based on:

(i) an appropriate and proper interpretation of the access criteria (that reflects the legislative intent and regulatory precedent regarding those criteria); and

(ii) an appropriate application of those interpretations to the facts in connection with the DBCT service, supported by clear economic reasoning and practical market based evidence.

In particular, key components of the QCA's findings have been supported by numerous expert economists (Castalia and PWC), lawyers (Minter Ellison and Allens) and industry consultants (MMI Advisory, Balance Advisory and Palaris), as well as direct evidence from the users of the DBCT service (who are also participants in the impacted dependent markets).

(b) The counterfactual to be assessed is the removal of declaration

As discussed in previous submissions and the Stakeholder Forum, this review requires a different consideration to that typical of an application for declaration.

The existing position is that of declaration. The benefits of declaration are absolutely evident in the long term success of the entirely supply chain, continued strength of investment and competitive dependent markets that relate to DBCT. DBCTM alleges those benefits may have magically have arisen equally without declaration – but the experience in other Queensland coal chains clearly demonstrates that is not true.

The counterfactual to be considered here is the likely outcomes of declaration ceasing.

For this review, the key questions are in some ways reversed – rather than asking what are the likely outcomes with declaration (which are known), the key questions become:

(i) what will be lost without declaration?

(ii) what if any effect will the contrived, uncertain and ineffective alternative arrangement DBCTM presents have without declaration?

(iii) what will be the impacts on competition and investment incentives in dependent markets, taking into account the evident differences in transparency, certainty, legal effectiveness and reasonableness of the alternative arrangements that will exist with and without declaration?

Given the long-standing nature of the declaration, there are structural elements of the dependent markets that have developed (like the evergreen access agreements) that for as long as declaration continues in fact are a critical part of ensuring competition in, and promoting investment in, dependent markets. With declaration, they are a benefit available to all. Yet the removal of declaration now, inescapably disenfranchises future investors (who declaration provided assurances of equal treatment to) and inevitably gives rise to competition problems and public detriments as a result.

Ultimately, as the detailed analysis in this submission will discuss, it is not actually possible for DBCTM to unilaterally create through its own conduct equivalent outcomes to those that arise from declaration. That is the case, because the benefits of declaration inherently rely on a mix of the QCA itself (its roles, functions, experience and statutory powers), the QCA Act and existing bipartisan contractual arrangements created on the basis of that regulatory framework.

(c) Summary of why the access criteria are satisfied

It is clear based on all of the evidence before the QCA that:

Criterion (b) is satisfied because:	Given cost differences (of greater than a SSNIP) and numerous non-cost barriers to switching, the coal handling services provided by other non-Hay Point terminals are not substitutes for the DBCT service. The costs of RGT, WICET, APCT and their related coal supply chains means that services provided by those terminals are not economical substitutes for the DBCT service. Services provided by HPCT are also clearly not economic substitutes for the DBCT service as BMA fully utilises the terminal for coal produced by BMA and BMC, and has no incentives to make it available to third parties and it provides no competitive constraint on DBCTM. Accordingly, the market in which the DBCT service is provided is the market for provision of the DBCT coal handling service (or Hay Point common user coal handling service) to Goonyella coal producers. Consequently demand for other coal handling services is not part of the foreseeable demand in the market. Credible estimates of foreseeable demand in the market (appropriately defined) peak for the proposed declaration period at 93.1 mtpa or less. That foreseeable demand: • can be met by the DBCT's existing capacity (based on recent independent modelling of terminal capacity); and • in any case, can clearly be accommodated within reasonably possible expansions of DBCT (through the Zone 4 and 8X expansions). DBCTM's latest allegations of the access queue being an accurate estimate of foreseeable demand are clearly not credible. That is

	evident by analysing how the queue operates (and the incentives the creates for potential users), considering historical evidence of whether the queue has converted into aggregate demand and by considering the individual applications in the queue. Economic modelling clearly demonstrates that the credible estimates of foreseeable demand are clearly met at least cost by DBCT rather than two or more facilities.
Criterion (a) is satisfied because:	DBCTM has clear market power given the lack of substitutes for the DBCT services. It has clear incentives to engage in monopoly pricing against future users to maximise its profits (which it can do without risking any of the volume contracted to the existing users). That monopoly pricing will result in differential access pricing between existing users (who, with only one exception, retain price review protections under their existing access agreements with evergreen renewal rights) and future users (who are exposed to the monopoly pricing that will occur without declaration). That differential pricing creates a barrier to entry that will deter efficient new entry to the market for acquisition of exploration and development coal tenements in the Hay Point catchment, as potential future users will value such coal tenements (and achieve returns that are) materially lower than for existing users. Accordingly, it is clear that declaration will promote a material improvement in the environment and opportunities for competition in that market (or more relevantly to this context, ceasing declaration will have an material adverse impact on the environment and opportunities for competition in that market). The Deed Poll and Access Framework will provide no material constraints on DBCTM's behaviour that changes that position given: • the Deed Poll itself is legally ineffective; • the Deed Poll is legally unenforceable by users and access seekers in material respects, including in relation to the asserted $3/tonne cap on pricing increases; • the application of the Deed is highly uncertain; • the Access Framework is very easy for DBCTM to amend, such that its current terms cannot be relied on as a likely future constraint; • the Deed Poll and Access Framework are highly reliant on protracted and costly litigation and arbitration (i.e. a series of bilateral disputes with individual users), raising questions about the likelihood of compliance; and • their artificial and contrived nature making them inappropriate to consider as a matter of appropriate statutory interpretation of criterion (a) in any case.

	Valuation modelling demonstrates that even if it was assumed that despite all of those defects the Deed Poll and Access Framework would be effective in limiting prices rises to $3/tonne above the QCA-like level that existing users will receive, that increase in pricing will be more than enough to materially impact on values and returns that future users can gain from Hay Point catchment coal tenements. That difference in returns will clearly have a material adverse impact on future user's ability to compete for the acquisition of those coal tenements relative to existing users (effectively creating a material barrier to efficient new entry).
Criterion (c) is satisfied because:	DBCT is an extremely significant facility, having regard to: • its size as one of the world's largest coal terminals at 85 mtpa capacity with clear potential to expand further, and • its significance to the Queensland economy, given it is a critical element in the Goonyella coal supply chain which is a major source of Queensland's exports, employment, coal royalties and economic growth. DBCTM has not contended that criterion (c) is not satisfied.
Criterion (d) is satisfied because:	Declaration has and will continue to promote investment in DBCT itself, through mechanisms including socialisation, certainty of pricing that provides a guaranteed reasonable return of and on capital and protections that ensure expansions are studied, feasible and fully contracted. The promotion of investment in Hay Point catchment coal tenements that would arise from declaration will also promote the public interest by producing a series of significant public benefits including: • increased coal royalties (both through additional coal production and through lesser deductions for terminal charges); • increased regional development; • increased employment; and • related and consequential economic contributions. The cost and administrative burden would also increase without declaration given the heavy reliance on costly arbitration and litigation (and it is notable that the users pay the costs incurred by DBCTM through the QCA levy and corporate overhead allowance incorporated in reference tariffs in any case). But just as importantly the removal of declaration risks the very factors of certainty, transparency and reasonableness that have underpinned the long term success that declaration has made to the Goonyella supply chain and the dependent markets that relate to it.

There is more than enough evidence before the QCA for it to be satisfied that each of the access criteria are met.

3 Contents of this submission

Given the extent of submissions which have already been made in this process, and the time available, the DBCT User Group has focused this submission principally on responding to the Latest DBCTM Submission, comments of DBCTM personnel and their advisers at the Stakeholder Forum and the QCA Questions.

It therefore focuses principally on criterion (a) and (b), but should of course be read together with all previous submissions of the DBCT User Group.

This submission is supported by and draws on:

(a) an economic report from Castalia critiquing the DBCTM / Houston Kemp analysis in respect of criterion (b) (the ***Castalia Criterion (b) Report***), enclosed as Schedule 1 of this submission;

(b) an economic report provided by PricewaterhouseCoopers (***PwC***) in relation to criterion (a) and (b), enclosed as Schedule 2 in this submission (the ***PwC Report***);

(c) the Wood Mackenzie methodology and assumptions providing further background on the basis for Wood Mackenzie's demand forecasts provided in the most recent DBCT User Group submission, enclosed as Schedule 3 of this submission;

(d) an project by project analysis in respect of each project in the access queue to which DBCTM attributes foreseeable demand, enclosed as Schedule 4 of this submission (the ***Access Queue Analysis***);

(e) [redacted]

(f) an economic report from Castalia critiquing the DBCTM / Houston Kemp analysis in respect of criterion (a), enclosed as Schedule 6 of this submission (the ***Castalia Criterion (a) Report***);

(g) [redacted] and

(h) [redacted]

4 Concerns about procedural fairness

The DBCT User Group's advisers have raised significant concerns with the QCA board and secretariat about the limited time they have been given to respond to the Latest DBCTM Submission.

That is particularly important because DBCTM has sought to strategically game the declaration review process by:

(a) the Latest DBCTM Submission being its longest submission to date at 1248 pages, knowing only an extremely short period would be provided for cross-submissions (and that the DBCT User Group would also have to prepare for the Stakeholder Forum during that time);

(b) presenting new arguments in the Latest DBCTM Submission (rather than purely responding to the QCA draft decision of 11 March (the ***QCA Draft Decision***) as envisaged by the QCA process);

(c) executing the Deed Poll in a different form to that which was considered in the QCA Draft Decision, such that the DBCT User Group has not been given an opportunity to respond to the QCA's thinking on the revised Deed Poll; and

(d) refusing to disclose materials that it heavily relied on its arguments to the QCA, with the last of that only disclosed, against DBCTM's objections, following a requirement by the QCA to do so on 8 April 2019.

The DBCT User Group also faces the particular disadvantage of involving, by its nature, a group of stakeholders such that coordinating input and developing submissions is more difficult than it is for the infrastructure provider.

The remarkable and inappropriate approach adopted by DBCTM to the QCA process, reflected in its very substantial and late changes of position, demonstrates a recognition of the inadequacy of their position and the weakness of their case, given the clear evidence of effective promotion of competition in the dependent markets through regulation of the DBCT service over the last two decades.

The DBCT User Group requested further time to resolve its procedural fairness concerns, but the DBCT User Group considers that the minimal time extension granted by the QCA has not been sufficient to address those concerns.

5 Criterion (b) Overview

The key issues in contention in respect of criterion (b) are:

Issue	Summary	Consistent with QCA Draft Decision
What is the appropriate market definition in which demand is to be measured?	The market for supply of DBCT's coal handling services in the Goonyella system (to similar effect to the DBCT User Group proposed definition as the Hay Point catchment common user coal handling services market). It is clear that services provided by other coal terminals are not close substitutes and therefore not in the same market as the DBCT service because: • Hay Point Coal Terminal (***HPCT***): is not a substitute as the terminal is fully utilised by BMA to provide services in relation to its, and BMC's, coal and therefore access is not available to potential users of DBCT and HPCT provides no competitive constraint on DBCTM's conduct • RG Tanna (***RGT***), Wiggins Island Coal Export Terminal (***WICET***), and Abbot Point Coal Terminal (***APCT***): are not a substitute as the costs to a Goonyella user of accessing capacity at other terminals are well in excess of the costs of accessing DBCT (more than a SSNIP) and there are numerous material non-cost barriers to switching. Similarly it is clear that demand from non-Hay Point catchment (or non-Goonyella system) users are not in the same market given the costs of switching to using DBCT are well in excess of the costs of accessing their more proximate terminal. The evidence of marginal usage of multiple terminals by a small number of Goonyella users is, when the rationale or that usage is understood, not evidence of the different terminal services being substitutes – but rather distinct services in a different market being acquired because of their different characteristics.	Yes

What is the foreseeable demand in that market?	All credible estimates of peak foreseeable demand across the declaration period are 93.1 mtpa or less. All demand projections other than those presented by DBCTM produce this result. The DBCTM demand projections are inappropriate as they: • rely on demand that is actually demand for services that are not in the market (i.e. demand for non-substitutable services at other coal terminals); and/or • rely on the access queue which is clearly not a credible way of estimating foreseeable demand. That the access queue is not a credible way of estimating foreseeable demand is clear from: • an analysis of how the queue operates (and the rational behaviour that incentivises from potential future users); • a historical analysis of the extent to which the access queue has previously converted into additional aggregate demand; and • an analysis of the individual access applications currently in the queue.	Yes
What is the capacity of DBCT to which DBCT can be reasonably expanded?	[redacted] reasonably possible sets a low threshold and does not incorporating a 'timing element'. It is clear (including from DBCTM's own Master Plans) that the Zone 4, 8X and 9X expansions represent reasonably possible expansions which are able to be considered by the QCA in assessing criterion (b). Between them they provide up to at least 136 mtpa of capacity.	Yes
Can DBCT meet the foreseeable demand at least cost	Economic modelling has consistently indicated that all credible estimates of foreseeable demand are met at least cost by DBCT. DBCTM's modelling which alleges contrary results are based on either: • including demand for services that are not in the market; and/or	Yes

	• including costs incurred at other terminals that are costs incurred in providing services that are not substitutes in the market (such that they are not relevant to the criterion (b) least cost analysis).	

6 Criterion (b) – Market Definition- QCA and DBCTM Approaches

6.1 QCA's Drafting Findings and DBCTM's assertions

The QCA Draft Decision summarises the QCA's findings on the market definition for the purposes of criterion (b) as follows:[1]

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

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

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

DBCTM's proposed market definition, which is based on assertions that other terminals provide close substitutes was expressly rejected with the QCA noting:[2]

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

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

The DBCT User Group strongly supports those conclusions and considers they are the only findings reasonably open on the evidence before the QCA.

6.2 The Key Flaws in DBCTM's assertions

In the Latest DBCTM Submission, DBCTM asserts that the QCA's approach to market definition conflates the 'demand for' and 'use of' a service by 'assuming' that demand in the market cannot include volumes served by other terminals.

However, a review of the QCA Draft Decision confirms the QCA does not make any such assumption.

Rather, DBCTM engages in a fallacy of its own. Ironically, it does exactly what it accuses the QCA of – it simply assumes what it sets out to show.

[1] QCA Draft Decision Part C, [2.4.4]
[2] QCA Draft Decision Part C, [2.4.4]

DBCTM rejects the QCA's completely orthodox and appropriate substitution based market definition analysis on the basis of the QCA's ultimate finding that there is only one supplier in the market. However, that is exactly the finding one would expect when an analysis of close substitutes is conducted in relation to a market in which a natural monopoly service is being provided. Where there is a single natural monopoly supplier of a service for which there is no close substitutes, it is of course true that demand in the market is actually equivalent to demand for the service.

The major flaw in DBCTM's market definition critique is that their submissions simply continue to leap from evidence that a customer acquires the services provided by different coal terminals to the conclusion that those two services must be close substitutes and in the same market despite a wealth of evidence that the acquisition of those two services is not arising from economic substitution which is relevant to appropriate market definition.

DBCTM also alleges that the QCA considers whether capacity at other terminals is a substitute for existing capacity at DBCT, rather than considering whether they are substitutes for expansion capacity at DBCT. Yet again, it is absolutely clear that the QCA Draft Decision calculated the cost differences taking into account the costs of Goonyella system and DBCT expansions. The cost modelling presented by PwC in this Report reflects those expansion costs to demonstrate the soundness of the QCA's conclusions.

Each of those issues has been addressed in significant detail in numerous past submissions of the DBCT User Group, and DBCTM's most recent submissions add nothing of any substance to their previous assertions. However, for completeness, and because DBCTM continues to raise the same arguments using different language, those issues are addressed once again below.

6.3 Castalia analysis – Houston Kemp's misapplication of the 'Reverse Cellophane Fallacy'

The DBCT User Group has requested analysis from Castalia, an expert and independent economist which has had significant experience in market definition, both generally and in the context of application of the declaration criteria under the national access regime.

A copy of their report in relation to aspects of DBCTM / Houston Kemp's criterion (b) analysis is set out in Schedule 1 of this submission (the ***Castalia Criterion (b) Report***).

The "reverse cellophane fallacy" is the concern that if a SSNIP test (analysing the supply and demand response to a small but significant non-transitory increase in price) is applied to an uneconomically low price set other than by the normal competitive process it could produce an inappropriately narrow market definition.

The theory of the cellophane fallacy and reverse cellophane fallacy is not contentious.

However, Houston Kemp's analysis (that DBCTM relies on heavily) effectively assumes that because current prices are regulated it must automatically follow that the reverse cellophane fallacy will apply.

In fact as the Castalia Criterion (b) Report rightly points out:

The key question is whether the regulated price to which the SSNIP test is applied is likely to approximate the price that would prevail in a hypothetically workably competitive market.

It is worth setting out much of the analysis in the Castalia Criterion (b) Report as to how it seeks to answer that question (and how Houston Kemp's simplistic answer to that question relies on a series of misplaced assumptions and flawed leaps in logic):

> *In our view, HoustonKemp misapply the theory behind the "reverse cellophane fallacy" by establishing a circular argument: the market price in a hypothetically workably competitive market*

must be the highest price of all the terminals to which coal may be occasionally shipped from a geographic envelope; ergo applying SSNIP test to that market price would always mean that all the terminals which were considered to be part of the same geographic envelope must be in the same market. In other words, you decide the geographic envelope and then undertake the SSNIP test in a way which must inevitably confirm that the market size equals to the geographic envelope.

The HoustonKemp approach is neither logically robust nor particularly informative. In effect, it collapses the market definition exercise to a single question: do mines that are broadly within the same geographic locality send coal to different terminals, even if only occasionally. If the answer to that question is yes, then all the terminals are deemed to be in the same market. The problem is that the initial definition of the geographic locality which largely pre-determines the answer is inevitably arbitrary.

HoustonKemp make a strong and sensible point that substitutability should be assessed on a mine-by-mine basis. However, their actual approach is almost the reverse of what they preach. As they say (at page 17):

"Our approach to defining the market identifies its boundaries by reference to the area over which DBCT service is currently being or will be supplied."

We see a number of errors sitting behind this statement:

- *First, the mere fact coal may occasionally be shipped from a mine to a terminal, or to different terminals, does not by itself provide evidence that those terminals are in the same market. There could be a number of reasons why occasional shipments occur, including needing to solve short-term logistics bottlenecks. There may also be particular features of historical contracts that determine logistics in ways which are no longer relevant to the existing market dynamics. This logic could be illustrated by an example. We may observe that a person is occasionally picked up by a limousine to travel from their house to the city. We would be wrong to infer from that observation that limousine services and public transport services are in the same market*
- *Second, in trying to avoid the "reverse cellophane fallacy", HoustonKemp commit the original cellophane fallacy. They assume that DBCT will price to the maximum level it can without triggering substitution, and hence that its services can be supplied to a much wider market than would be the case in a workably competitive market.*

As the Castalia Criterion (b) Report goes on to note, it is valid to ask whether the SSNIP test is being applied at an appropriate price. However, the manner in which Houston Kemp does that is flawed as described by Castalia:

HoustonKemp propose a thought experiment. They ask us to imagine that AAPT is located next to DBCT but its costs (and hence prices) are higher. Clearly, in that market DBCT would price to the level of its competitor. Applying this logic to firms that are located some way apart, HoustonKemp assert that the market price would be set by the highest cost alternative among the suppliers in the same market (which is already defined as the geographic envelope from which service is provided or is possible). In other words, instead of characterising the highest price that DBCT can set just before inducing inefficient substitution to other remote terminals as a monopoly price, HoustonKemp define it as the outcome of a workably competitive market.

Apart from being self-serving, this definition is logically wrong. In a workably competitive market, prices would indeed be set by the costs of the marginal (highest cost) producer or by the costs of the best new entrant, whichever is the lowest. In this case, it is the costs of a hypothetical entrant that should determine the market price.

The existence of physical constraints on the construction of alternative terminals at Hay Point is both a starting reason for suspecting that DBCT is a natural monopoly and a key consideration in formulating an appropriate thought experiment to determine the price that would emerge in a workably competitive market.

In this case, the question is not what would happen if AAPT or any other North Queensland terminal with their current costs and charges were located at Hay Point. We could equally ask what would happen if the Port of Newcastle was located at Hay Point. Rather, the relevant question is what would be the cost of a hypothetical best new entrant at Hay Point? The existence of physical constraints means that new entry is likely a theoretical concept rather than an actual opportunity. However, such hypothetical entry is the true determinant of pricing in such a hypothetically workably competitive market.

There is no reason to assume that in a workably competitive market, DBCT's prices would increase from the regulated price. This is because the current regulated DBCT TIC is set to replicate the outcome of a hypothetical workably competitive market. The building blocks pricing model using DORC valuation and WACC derived from the application of CAPM explicitly calculates the costs of an efficient new entrant with assets capable of providing the same service as DBCT.

In other words, the current regulated price is precisely the price that would prevail in a market where the threat of new entry imposes restraint on the pricing of market participants. This is precisely what economists mean when they refer to a workably competitive market.

The objective of regulation is, after all, to replicate the price that would prevail in a workably competitive market. One of the features of such a market is the threat of new entry. Regulators address this through setting prices at the level of an efficient new entrant.

HoustonKemp consider a thought experiment of AAPT being located at Hay Point and charging prices that are more than five to ten percent greater than DBCT. HoustonKemp describe this thought experiment as representing a workably competitive market and conclude that in such a market prices would either be sustained price arbitrage or prices would converge to the highest cost alternative. That is, DBCT would either retain its current prices or price up to the AAPT level.

Nether conclusion is consistent with the theory of a workably competitive market. If sustained price arbitrage exists between apparent substitutable products or services, then then they are in separate markets. If prices are sustained above new entrant levels, then the market cannot be said to be workably competitive. In a workably competitive market, prices tend to converge to the level of an efficient new entrant.

In other words, the QCA approved Terminal Infrastructure Charges (***TIC***) are not being set at uneconomically low prices – rather they are set at the level which would be anticipated in a hypothetically workably competitive market, being a level the reflects efficient costs.

Indeed, the Cellophane Fallacy (and its reverse) are relevant only in those markets where the economic question is whether market power has already been exercised (or suppressed) – so that the regulator cannot safely form a view about market definition from a traditional SSNIP analysis.

In this case, if it is accepted that workably competitive markets price at or near efficient cost, then two decades of careful regulation can be expected to have ensured that prices remain consistent with a workable competitive market unless clear evidence of regulatory failure exists. Houston Kemp's argument presupposes such regulatory failure – without any evidence to support that serious claim. It therefore cannot be accepted by the QCA as anything more than unfounded economic speculation and the orthodox SSNIP undertaken by the QCA based on the approved TIC remains perfectly appropriate.

Accordingly, the DBCT User Group continue to support the view that the QCA approved TIC is the appropriate starting point for undertaking a substitution analysis to define the market for the purposes of criterion (b) (adjusted to take account of any changes which would arise from any expansions at DBCT needed to meet foreseeable demand).

7 Criterion (b) – Market Definition - Application of the Substitution Analysis

7.1 Applying the SSNIP Test

As discussed at length in the QCA decision, both the QCA estimates and the PwC estimates (based on actual cost data from existing DBCT Users) demonstrate that the costs to Goonyella users of accessing other terminals is well in excess of a SSNIP.

Table 1: Supply chain costs - PwC

Cost component	DBCT	Abbot Point	RG Tanna	WICT
Rail cost estimates	$9.56	$16.05	$17.43	$17.43
Port cost estimates	$5.05	$6.77	$4.00	$22.00
Supply chain estimate	$14.61	$22.82	$21.43	$39.43
PwC difference to DBCT	-	**$8.21 (+56%)**	**$6.82 (+47%)**	**$24.82 (+170%)**

Source: PwC modelling

While the QCA's cost estimates provided different cost figures, the relative difference between RGT (as the cheapest alternative) and DBCT was of a similar order of magnitude.

That conclusion held even though the QCA's methodology of estimating costs for accessing alternative terminals is acknowledged by the QCA to be substantially understating the costs of accessing other terminals:[3]

The estimated below- and above-rail costs associated with accessing alternative terminals do not include the cost that Goonyella system users would incur on the Goonyella system before their coal is haulage through another system to access alternative terminals. To that extent, the cost difference reported … is extremely conservative. Even on an extremely conservative basis, the average supply chain cost for a mine in the Goonyella system to access DBCT is substantially cheaper than for accessing other terminals.

The finding is also consistent with the experience of the DBCT User Group. In fact, the experience of DBCT Users is that they encounter materially higher costs for any marginal use of other terminals than the QCA estimates.

Similarly the cost of non-Goonyella users accessing DBCT has been demonstrated to be more than a SSNIP.

Even leaving aside the non-price barriers to entry, it is therefore clear that coal handling services at other terminals are not a close substitute for the DBCT service.

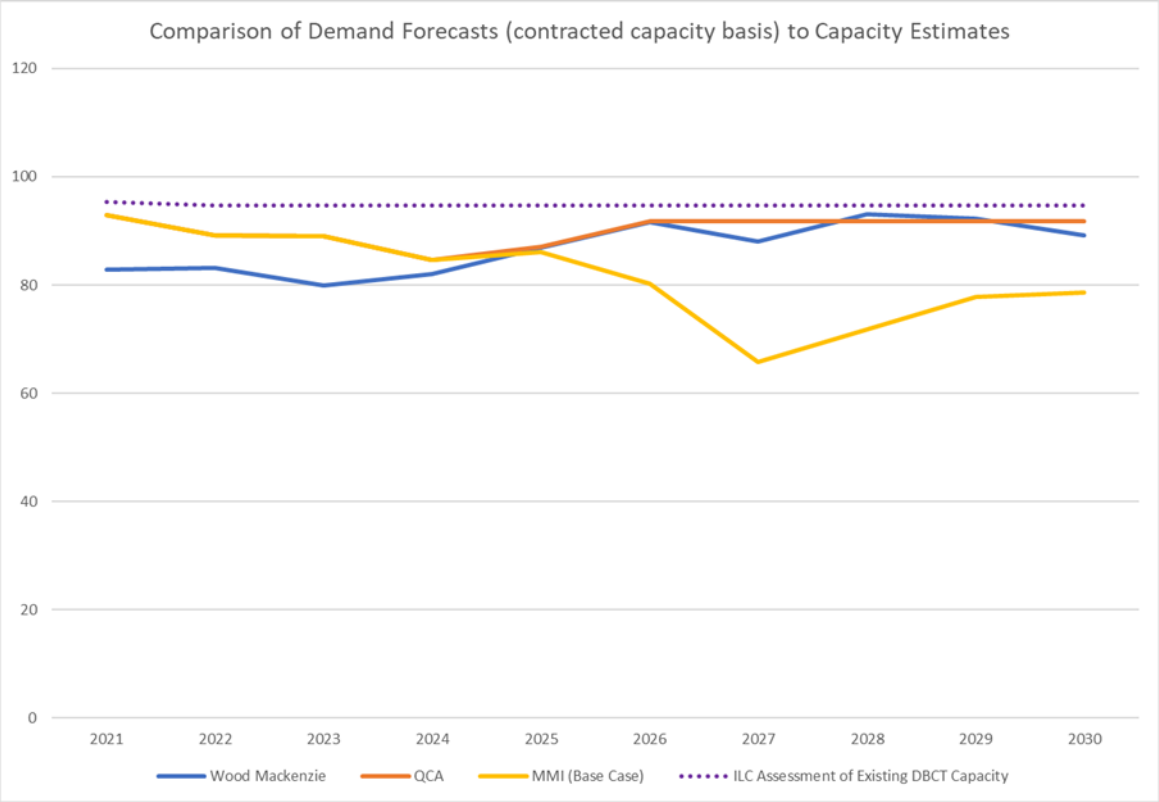
7.2 DBCTM comments regarding substitution by reference to expansion capacity

Houston Kemp and DBCTM allege that the comparison should be between existing capacity at other terminals and expanded capacity at DBCTM.

[3] QCA Draft Decision, Part C, Appendix A

First, the DBCT User Group disagrees that the terminal capacity needs to be expanded to meet foreseeable demand.

As discussed in detail in section 9.1 of this submission, a recent independent assessment of terminal capacity has concluded that is has more than enough capacity to meet all credible foreseeable demand estimates as shown below.



Consequently, it is completely appropriate to use the cost of existing capacity at DBCT as the basis for comparison.

Second, as discussed in detail in section 7.4, it is a fallacy to suggest (as Houston Kemp and DBCTM do) that the appropriate comparison is between expanded capacity at DBCT and existing capacity at the other terminals (with the exception of WICET which is clearly underutilised). RGT is very clearly fully contracted. Capacity is not being made available at APCT due to Adani's foreseen need for that capacity for the Carmichael project. Consequently, if the Houston Kemp approach was adopted, the appropriate comparison is of expansion capacity at each of DBCT, APCT and RGT and existing capacity at WICET (noting that the DBCT User Group considers that neither of APCT or RGT will actually expand such that they consider APCT and RGT are not actually choices available even as expansion capacity).

Third, in conducting the comparison, what is required is a consideration of the costs that the purchaser with the substitution decision would face, i.e. how would a future user choose between expanded capacity at DBCT and capacity at a different coal terminal. It obviously follows by substitution being based on how a purchaser would make purchasing decisions, this cannot be assessed on an average cost basis (as applied to calculating how to meet foreseeable demand at least cost from society's perspective), as a rational purchaser of coal handling services will make the decision based on the costs it individually faces. To give the obvious example if an individual purchaser is required to make a decision between using WICET (at a cost of nearly $40 per tonne) it will clearly not choose to acquire that capacity when the supply chain cost for accessing expansion capacity to DBCT is substantially less. The fact that it might be incrementally less cost

to society or that average cost per tonne might be argued to be less as WICET is not required to develop an expansion to accommodate the additional capacity is not relevant to the substitution analysis.

As the PwC Report explains it:

The price signal that is relevant here is the actual prices received by market participants … the focus of market definition should be on the incentives which actually influence the behaviour of participants in that market.

Fourth, it appears even on Houston Kemp's assessment, they end up deciding (page 12 of the Houston Kemp criterion (b) report) that RGT existing capacity (leaving aside that it doesn't exist as discussed in section 7.4 of this submission) is 13% more expensive that a differentially priced expansion. That both assumes the expansion would be differentially price (contrary to all previous indications from DBCTM) and is clearly outside the range that is commonly understood to amount to a SSNIP in any case.

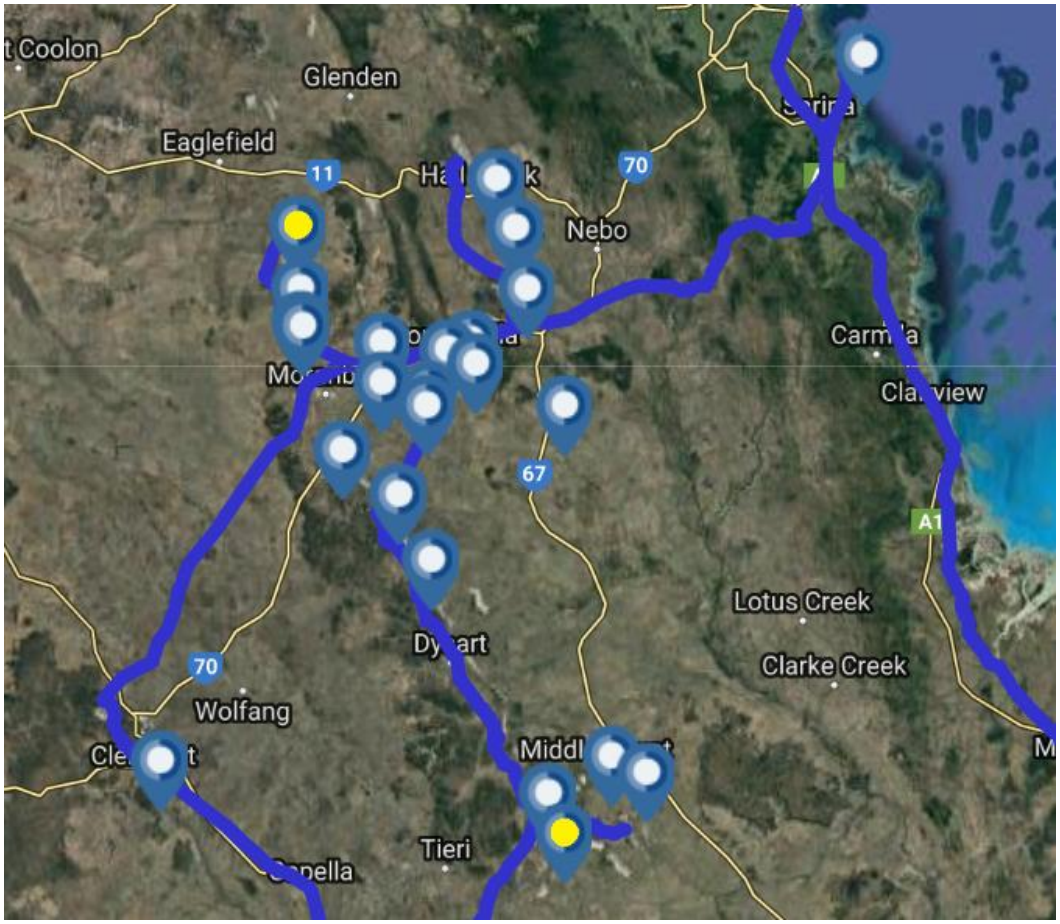
Accordingly, the DBCT User Group considers it is clear that whichever way it is analysis, a proper economic analysis will confirm the additional cost of using other coal terminals for Goonyella coal producers is more than a SSNIP by a very significant margin.

7.3 Mine by mine analysis

DBCTM and Houston Kemp state that the SSNIP test needs to be applied on a mine by mine basis, such that the QCA's average cost analysis discussed above is not appropriate.

There are four key responses to that.

Firstly the mines which are most proximate to another coal terminal for which it should be most economic to use another coal terminal, find it materially more expensive (with more than a SSNIP difference) to undertake such usage. The most proximate existing DBCT User to APCT is Peabody Energy's North Goonyella mine and the most proximate existing DBCT User to RGT/WICET is Anglo American's Capcoal mine – highlighted in yellow in the diagram below, with DBCT in the top right corner).



Source: Map of existing DBCT Users from DBCTM website (with highlighting added to identify mines most proximate to non-Hay Point coal terminal).

In that regard, the DBCT User Group understands that:

(a) Anglo American has confirmed in its own submission to the QCA that for Capcoal (as the closest mine to the Gladstone coal terminals that uses DBCT) that the costs for production of that mine to be exported via RG Tanna (as the least cost of the two Gladstone terminals) are materially greater than a SSNIP difference to the cost of exporting via DBCT; and

(b) Peabody Energy has confirmed in its own submission to the QCA that for North Goonyella (as the closest mine to APCT) that the costs for production of that mine to be exported via ACPT are materially greater than a SSNIP difference to the cost of exporting via DBCT.

The cost differentials for less proximate mines will necessarily be even greater, involving higher below rail and above rail charges.

In other words, no other evidence is required to demonstrate beyond any doubt that, on a mine by mine basis, the QCA's substitution analysis remains completely appropriate.

Further, where DBCTM seeks to make reference to specific mines like Kestrel – it chooses to ignore the clear evidence presented by the DBCT User Group that the capacity was acquired as part of Rio Tinto's portfolio management (originally for Hail Creek), and the new owners of Kestrel are seeking to (or have) divested that capacity to others – clearly indicating that they do not see it as an economic substitute to their more proximate port at RGT. Rather than demonstrating the coarseness of the QCA's analysis it demonstrates the 'cherry-picking' nature of the evidence that DBCTM and Houston Kemp seek to present.

Secondly, it is unsurprising that is the case, given the stark differences in cost that the QCA's and PwC cost analysis revealed – as the differences are so material, that no mine would be expected to be of such a different cost profile that it would be a substitute under a SSNIP analysis.

Thirdly, as noted in *Singapore Airlines Ltd v Taprobane Tours WA Pty Ltd*:[4]

We try to include in the relevant market only those suppliers – of the same or related product in the same or related geographic area – whose existence significantly restrains [the defendant's] power.

In other words, even if it was assumed for now that DBCTM could actually show that there was even a single mine for which an alternative coal terminal was substitutable on a SSNIP test (which they have not and, based on the costs Goonyella producers actually encounter, will not be able to) that sort of marginal substitution for a single customer (which does not impose a 'significant restraint' on DBCTM) does not change the appropriate market definition to include the services of that second coal terminal.

Fourthly, as discussed at length in previous DBCT User Group submissions, and as recognised in the QCA Draft Decision,[5] any asserted marginal substitution on the geographic fringe of the market (which DBCTM has in fact provided no SSNIP based economic evidence to support in any case) is likely to be an example of the type of marginal substitution that makes precise definitions of the geographic dimension of the market difficult, rather than something that alters the appropriate market definition.

7.4 Non-price barriers to substitution

As discussed in greater detail in the previous DBCT User Group submissions and the QCA Draft Decision[6] there are also a series of strong non-price barriers to substitution, including:

Barrier to switching	**Summary of the existence of the barrier**
Below and above rail network differences	As the QCA Draft Decision recognises, *'the ability of the Newlands line to only accommodate diesel trains may impact on the incentive and ability of Goonyella system users to switch from DBCT to AAPT*,[7] The QCA has received direct submissions on that being a real issue from the DBCT User Group and Peabody Energy (the latter of which is particularly relevant given the North Goonyella mine being the DBCT User which is most proximate to APCT). The diesel only requirements will clearly limit haulage providers' ability to support a switching of terminals, and to the extent that limit can be overcome by additional investment and costs by the haulage provider, as the Peabody submission notes, the additional costs of switching would be passed on to producers (converting the non-cost barrier into an additional cost difference not taken into account in the current cost modelling). In addition, as the DBCT User Group and BHP submissions noted, the smaller payloads of the non-Goonyella systems results in a need for higher numbers of trains and therefore both higher switching costs and more problems in obtaining the required cross-system capacity (given the constraints on each network described below). As it is not expressly recognised in the QCA Draft Decision, the DBCT User Group notes for

[4] [1991] FCA 621
[5] QCA Draft Decision, Part C, page 12.
[6] QCA Draft Decision, Part C, pages 16-30.
[7] QCA Draft Decision, Part C, page 16.

	completeness that this provides a barrier to switching to the Blackwater system for exports via Gladstone terminals as well (not just the Newlands system) – given the Blackwater reference train nominal payload of 8,369 tonnes compared to 10,236 tonnes for the Goonyella reference train.
Insufficient terminal and rail capacity	The DBCT User Group considers that the QCA is correct in concluding that:[8] *while there is spare capacity of 11 mtpa at WICET, there is no spare capacity at either AAPT or RG Tanna* … *The ability of users in the Goonyella coal chain to switch … will also be constrained to the extent that there is limited capacity on this network to accommodate cross-system traffics … uncertainties about the timing and pricing of any upgrades, and the need for alignment across below-rail, above-rail and coal terminal capacity are likely to impact on the extent to which Goonyella system users consider alternative terminals as substitutes.* *The lack of alternative coal handling and rail capacity are a commercial reality for entities that may otherwise consider a switch away from DBCT. The QCA's view is that this reality is likely to be relevant to defining the relevant market.* **APCT** In relation to APCT, as noted in the DBCT User Group submissions and the QCA Draft Decision,[9] any remaining capacity is not likely to be made available given its owner Adani is incentivised to preserve that capacity for the Carmichael project. Adani has indicated it has made a final investment decision on the project and is committed to proceeding with it. In that context, the DBCT User Group also note that every indication is that Adani is continuing to progress that project. Publicly report progress has included contracting Downer Mining for the construction and operation of the mine and contracting acquisition of more than $150 million of railway track and concrete sleepers, and on 9 April 2019 receiving the required Commonwealth approval in respect of groundwater such that there are few remaining approvals required before it can be developed. The Latest DBCTM Submission asserts that it should not be assumed that the surplus capacity that exists will be utilised to satisfy the unmet demand during the period in which the Carmichael project is being developed and is in ramp-up phase. However, that analysis fails to take account of: • how coal producers (particularly future producers who are looking to develop a mining project) make coal terminal decisions. Capacity is contracted on a long term basis, and producers will not commit to APCT where there is no ability to continue to access the terminal for

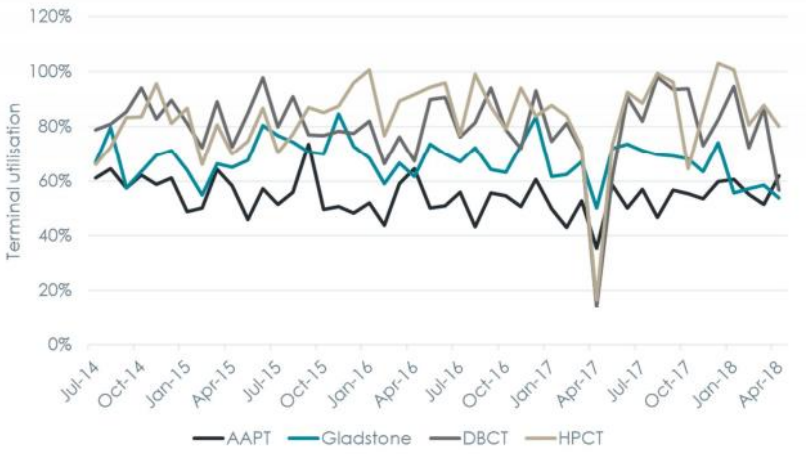
[8] QCA Draft Decision, Part C, pages 17-18.
[9] QCA Draft Decision, Part C, page 17.

	the longer term (particularly given that doing so has the likely result of triggering further rail and mine infrastructure costs that will need to be underwritten by the producer over a longer term); and • the fact that market definition analysis is being done in the context of whether APCT is a substitute for the declaration period of 10 years starting in late 2020[10] when, even on DBCTM's impractical view, capacity at APCT would theoretically be available for only a small part of that period. In addition, as noted in the last DBCT User Group submission, Adani's vertical integration (together with there being no regulatory oversight of its operations) is clearly less desirable due to concerns that Adani will have the ability and incentives to operationally preference volumes from the Carmichael project. That is another reason to consider it not a substitute for DBCT capacity. **RGT** In relation to RGT, DBCTM presents throughput data from RGT and concludes that because those throughput figures divided by DBCTM's asserted ratio of throughput to contracted capacity ratio of 0.9 are less than the nameplate capacity of 75 mpta that the QCA has assumed, that must mean there is excess capacity available. However, the DBCT User's understanding (based particularly on the knowledge of those users which have other mining projects which use RGT) is that: • RGT is fully contracted (as the QCA has actually been advised by Balance Advisory[11], being a firm who should know given they assist resources companies in obtaining and contract rail and port capacity); • RGT has less capacity than the nameplate that the QCA is assuming; and • DBCTM/Houston Kemp's suggested throughput to contracted capacity ratio of 0.9 is clearly inappropriate for RG Tanna based on historical levels of utilisation, underlying contract structure and its dedicated stockpile mode of operation. In particular, in addition to the DBCT User Group continuing to have the view that RGT is fully contracted based on individual user's discussions with Gladstone Ports Corporation and information provided to Users by Gladstone Ports Corporation, the DBCT User Group notes that: • recent reports suggest the nameplate capacity of RGT is actually only 72 mtpa;[12]

[10] QCA Draft Decision, Part C, page 18.
[11] Balance Advisory, *DBCT Management Declaration Review, Report for the QCA*, 31 August 2018, page 8.
[12] PwC and Ranbury, *Technology and Supply Chains for Critical Industries – Resources Sector (Working Paper 1 of 3)*, October 2017 (Available here: https://infrastructure.gov.au/transport/freight/freight-supply-chain-priorities/research-papers/files/Working_Paper_Resources_Sector.pdf)

- RGT is a dedicated stockpile terminal, [redacted]
- the contractual structure of RG Tanna contracts is materially different to DBCT User Agreements. In particular [redacted]
- [redacted]
- the historical data DBCTM referred to in order to derive its proposed throughput to contracted capacity ratio of 0.9 showed historically lower levels of utilisation for RGT (across a period when the DBCT User Group understood RGT to be fully contracted), which is not surprising given the issues described above - such that the ratio of 0.9 is not appropriate for RGT;

Figure 2.6: Utilisation of coal terminal capacity over time



- the historical data DBCTM referred to provided (in their view) a long term average throughput to contracted capacity ratio of 0.9 – but showed markedly different results in individual years at DBCT (so any such ratio cannot validly be used to back-calculate capacity using a few years of throughput capacity in the way DBCTM now attempts to) – and certainly can't sensibly be used to reach a conclusion contrary to the actual market experience of there not being capacity available; and
- in any case, even if the 0.9 ratio was applied to a theoretical 72 mtpa that suggests there should be a long term average of 64.8 mtpa of throughput at Gladstone which is not out of proportion to the

	throughput figures recorded over the last 5 financial years from 2013/14 to 2017/18 (which vary from 57.4 mtpa to 65 mtpa).[13] The DBCT User Group agrees with the QCA's assessment that there is no certainty of these terminals being expanded and individual users confirm that they are not aware of expansion processes being underway at either terminal. In particular, the very development of WICET by members of the coal industry was prompted by a State government refusal to expand RGT, and it seems unlikely that RGT would expand given the continuing under-utilisation of WICET. The likely future state of markets should not be assessed based on DBCTM's mere self-serving speculation about whether a terminal might have capacity now or in the future – when all evidence points to the fact they do not, and will continue not to. **Rail** The Goonyella system and Newlands system are known to be capacity constrained. Users also understand [redacted] Blackwater system [redacted] suggesting that it will also be capacity constrained if it is not already. Those capacity constraints will only grow through the disruption which would be caused by cross-system traffics, which are a necessary result of a Goonyella user switching to using a non-Hay Point coal terminal. The Aurizon Network Development Plan also does not anticipate developments on any system to accommodate further cross-system traffic. Given the extremely significant costs involved in the previous major rail expansions (WIRP and GAPE), the lack of sufficient surplus capacity to support material switching of demand to a cross-system terminal is a significant barrier to any alleged switching decision that DBCTM simply asks the QCA to ignore. In that regard, the DBCT User Group notes the lack of regulatory avenues to require Aurizon Network to expand to meet capacity, which have effectively permitted monopoly pricing (beyond regulated tariffs) for all major step changes in network capacity in recent years, and considers that would provide a substantial cost barrier to use of another terminal in the future.
Metallurgical coal co-shipping	As the QCA Draft Decision notes:[14] *the QCA is satisfied that co-shipment opportunities at DBCT are a material reason why DBCT users prefer the coal handling service at DBCT to that provided at other terminals which are located further away, all other factors remaining unchanged … To the extent that users value the co-shipment opportunities at DBCT such that they would not switch*

[13] Department of Transport and Main Roads, Trade Statistics for Queensland Ports – Throughput statics for 5 years ended 30 June 2017 (Available here: https://www.tmr.qld.gov.au/-/media/busind/Transport-sectors/Ports/Trade-statistics/Trade-Statistics-Report-2017.pdf?la=en) and Gladstone Ports Corporations Limited Annual Report 2017-18 (Available here: https://www.gpcl.com.au/SiteAssets/Annual%20Reports/GPC_Annual_Report_2017-18.pdf)

[14] QCA Draft Decision, Part C, page 19.

	away from DBCT in response to a SSNIP, the QCA's view is that this is a relevant matter in defining the market This has been supported by specific evidence from both the DBCT User Group and individual users. For example, the Glencore Coal submission noted that:[15] *One significant advantage of using DBCT is the opportunity for co-shipping arrangements from the terminal. The proximity of the terminal to metallurgical coal sources, and the preferences of steel mill customers, enable co-shipping arrangements at the terminal which are not available elsewhere.* *Co-shipping from DCBT allows these customers to obtain a specific mix of metallurgical coal from different producers from the one terminal onto the one ship and as a result can provide producers with access to sales to customers which otherwise may not be available. As a result, services which are available via other coal export terminals are not substitutable with those provided by DBCT.* By way of another example, [redacted] shipped coal in [redacted] vessels last year, of which only [redacted] were sole-shipped. Co-shipping is clearly fundamental to their business. This does not have the effect that is suggested in the Latest DBCTM Submission of widening the geographic scope of demand, due to: • the predominance of metallurgical coal in the Hay Point catchment relative to other parts of the Bowen Basin (as discussed in detail in the Palaris Report enclosed in the DBCT User Group's previous submission); and • the fact that while co-shipping would in theory be attractive for producers exporting through other terminals, it is not attractive enough to overcome the increased cost to non-Goonyella users or seeking to access DBCT.
Blending	The QCA Draft Decision recognised that *'the blending capabilities at DBCT may be different to those provided at other terminals, such that it may impact on the decision of Goonyella system users to prefer DBCT to other terminals, all other things remaining unchanged*',[16] but indicated that it had not received detailed submissions that demonstrate the blending capability at DBCT were superior to those at other terminals. Subsequently to the QCA Draft Decision however the QCA received further detailed submissions from the DBCT User Group relevant to this issue (pages 24-26). In particular, the DBCT User Group noted: • The greater range of metallurgical coal products available for blending at DBCT (which cannot be replicated by other terminals irrespective of plant, equipment and stockpile space); • Differences in the facilities at DBCT relative to other coal terminals – which mean that DBCT can create a homogenous coal blend to

[15] Glencore Coal Submission, 13 March 2019
[16] QCA Draft Decision, Part C, page 20.

	meet customer specifications where the other terminals that DBCTM asserts are substitutes cannot; and • The high proportion of vessels shipping blended parcels from DBCT (ranging from 23.9-28.66% over the last 3 full financial years) Similarly, the latest Peabody Energy submission noted that: *As noted in the Draft Recommendation, DBCT is able to offer blending options at the terminal. DBCT offers homogenous blending on a consistent basis that caters to a wide variety of end customer requirements, and allows users to increase the value and saleability of their product range.* *The DBCT blending options are a distinct market offering. Comparable blending options are not available at other terminals such as RGTanna, WICET or APCT.* *….* *Peabody is able to achieve a variety of blending options that while in accordance with the Terminal Regulations, would not be possible at other ports such as RGTanna, WICET or APCT due to the nature of their handling operations.* Again, this does not have the effect that is suggested in the Latest DBCTM Submission of widening the geographic scope of demand, due to: • the predominance of metallurgical coal in the Hay Point catchment relative to other parts of the Bowen Basin (as discussed in detail in the Palaris Report enclosed in the DBCT User Group's previous submission); and • the fact that while blending would in theory be attractive for producers exporting through other terminals, it is not attractive enough to overcome the increased cost to non-Goonyella users or seeking to access DBCT.
Long term take or pay contracts	As discussed in the DBCT User Group's previous submission (page 26-27), the DBCT User Group considers the QCA's assumption that coal handling, above-rail and below-rail contracts have 'broadly similar dates' such that they are not a barrier to switching decisions in the long term does not reflect reality: *Multiple DBCT User Group members have confirmed they do not currently have aligned contract expiry dates for the reasons noted above – with contracts often years apart in expiry dates.* *At the point of a switching decision in respect of coal handling services, if a user has existing rail capacity on a take or pay basis, even for a year, that will make switching economically prohibitive (even ignoring all of the other cost factors noted above which make switching uneconomic even if it is assumed there is no take or pay tail of this nature).*

Mine infrastructure investments	As the QCA Draft Decision notes:[17] *if the costs of switching terminals was so high because of the necessary infrastructure upgrades to accommodate the movement of coal to an alternative terminal, it may be that switching would not be a viable option for a miner. Such a finding of fact would be directly relevant to whether a miner has a readily available choice of coal terminals, and hence directly relevant to any market assessment.* *…* *The QCA considers there may be additional mine investment cost to switch to another terminal and the costs could be material, given the need to align the mine/rail infrastructure in an appropriate manner to allow coal to be transported to an alternative terminal.* *… where DBCT users have invested in mine infrastructure to facilitate deliver of coal in the direction of DBCT (as opposed to AAPT), there may be additional costs for them in switching to another terminal.* Clear examples have been given in the previous DBCT User Group submission of mines that require investment in turning angles for long term rail transport, including both the most proximate of the Goonyella mines to ACPT (North Goonyella) and all mines east of the Coppabella junction For most mines this type of information has not been costed or analysed in any detail because of the other cost and non-cost barriers. DBCTM's comments on this issue are once against engaging in the error that the Castalia Criterion (b) Report and previous DBCT User Group submissions have identified – namely simply assuming that any usage of another terminal must automatically indicate that places that mine and that terminal as participants in the same market. They also overlook that marginal use of other coal terminals may be able to be made through 'push-pull' haulage operations with a lower scheduling priority and higher operating cost, which would not be viable for long term switching of the entirety of a mine's production.

These non-cost barriers are not simply assertions – but matters that individual users have directly confirmed.

As a result, even if somehow the cost differential between DBCT and other coal terminals was less than a SSNIP (which evidence indicates it is not), the coal handing services provided by other terminals are still not close substitutes as they are fundamentally different services.

7.5 Usage of other terminals is not evidence of substitution

(a) Legal precedent

DBCTM continues to assert that, despite the clear evidence of material cost differences and non-cost barriers to switching, the usage of other terminals by Goonyella system mines must be regarded as evidence of substitution (and therefore evidence of demand in the market).

However, they continue to fail to provide any answers to the question of why this should not be regarded as what it actually is, namely examples of a customer acquiring different services.

[17] QCA Draft Decision, Part C, page 21-22.

Before considering each of the relevant customers and the circumstances of their usage it is instructive to consider the clear legal precedent in relation to this issue:

In *Arnotts v Trade Practices Commission*[18] the Full Federal Court stated:

The question of substitutability is not to be disposed of merely by showing that, upon some occasions, some people consume one product rather than another *or that some products within a claimed market do not directly compete with some other products in that market; or do compete with some products outside that claimed market.'*

…

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

This point emerges clearly from United Brands. The applicant in that case was a major distributor of bananas. But it argued that it was not in a dominant position since the relevant market was not the banana market but the fresh fruit market. … Yet the European Court of Justice held that it was appropriate to speak of a banana market. This conclusion was partly based on the fact that bananas were available throughout the whole year, and therefore substitutability had to be considered on a year- round basis. But ***it was also based upon the fact that the banana is a distinct product with a distinct demand***

…

Most importantly, although some consumers may be fickle, there must be many for whom no other product provides an acceptable substitute; who routinely consume biscuits, throughout the year and with little regard for price variations or alternatives*. We cannot accept the suggestion that the relevant product market is wider than that for biscuits.*

The DBCTM submission (including Houston Kemp's analysis) simply fails to meaningfully address this critical point.

Consequently it is clear that DBCTM and Houston Kemp's analysis is fundamentally flawed, by starting with the acquisition habits of individual acquirers (the coal producers) rather than conducting a substitution analysis to determine if the two services acquired are in fact different and distinct services with a distinct demand.

The QCA Draft Decision reflects the legally correct and appropriate approach to determining substitution and market definition.

[18] [1990] FCA 473 at [62] – [66]

(b) The DBCT service is a distinct service

It is clear that the DBCT service is a distinct service with a distinct demand.

It has different and distinct characteristics which other coal terminal services do not have, including:

(i) unique co-shipping opportunities, given the much greater volume and range of metallurgical coals being shipped from the terminal;

(ii) unique blending opportunities, given the combination of unique facilities at DBCT enabling homogenous blending and the much greater volume and range of metallurgical coals being shipped from the terminal;

(iii) being located on the Goonyella system at the Port of Hay Point, which results in a series of different characteristics to other coal terminals like:

(A) train configurations (i.e. the higher payload of the standard train service);

(B) Goonyella system reference tariffs;

(C) ability to use either diesel or electric locomotives;

(D) exposure to outages on the Goonyella system, the Port of Hay Point or DBCT (as opposed to exposure to other rail systems, ports or coal terminals); and

(iv) being a cargo assembly port (contrasted to the dedicated stockpile ports of APCT and RGT);

(v) for some users having portfolio effects (due to the ability to use the service for other projects); and

(vi) for some users not having portfolio effects which might exist at other terminals.

As discussed above the cost differences alone mean that Goonyella users will not switch to a different terminal if DBCTM was to 'charge more or give less' and non-Goonyella users will not switch to seeking to access DBCT if their more proximate terminal was to do so.

Consequently, it is clear that the limited usage of different coal terminals that has occurred is not evidence of substitution.

(c) Addressing the individual examples provided by DBCTM

It follows from the above, that it is not actually necessary to consider each example of usage DBCTM has provided.

However, for the sake of completeness the DBCT User Group has set out below its understanding of the reasons for each of the following Goonyella operations having utilised capacity at other terminals:

Project	DBCT User Group Understanding
Lake Vermont (Jellinbah)	Jellinbah has confirmed to the DBCT User Group's legal adviser that it would have preferred to contract capacity at DBCT but was forced to contract APCT capacity due to being unable to obtain DBCT capacity in the time required for development of the mining project. Acquiring a different service at a particular point in time in the past where the service desired was not available is not an example of another terminal being a substitute during the declaration period (which is what is relevant to the QCA's assessment).

Middlemount (Middlemount Coal)	As described in Peabody's submission[19] (Peabody being the 50% owner of Middlemount Coal), at the time the Middlemount mine was being developed DBCTM would not commit to an expansion and only ACPT could make a firm offer of supply. Again, acquiring a different service at a particular point in the time in the past where the service desired was available is not an example of another terminal being a substitute during the declaration period (which is what is relevant to the QCA's assessment).

[redacted]

[19] Peabody submission, 16 July 2018.
[20] BHP submission, 16 July 2018.
[21] Anglo American submission, 16 July 2018.

[redacted]

None of those examples represent a decision by a user to change to a non-DBCT terminal in response to DBCTM 'giving less or charging more' (to use the accepted approach to considering substitution from the decision in *Re Queensland Co-operative Milling Association Ltd*[22]).

7.6 Relevance of the access queue and notifying access seeker process to criterion (b) market definition

It is also relevant to note that the very existence of an access queue, and the behaviour of access seekers in the notifying access seeker process (and subsequently), strongly suggest that the services provided by other coal terminals are not close substitutes.

If other coal terminals were close substitutes (as DBCTM alleges), surely access seekers would not stay in the access queue for surplus capacity when the likelihood of obtaining that surplus capacity has largely disappeared. Rather they would acquire capacity which DBCTM alleges exists at the other terminals. Yet that does not reflect the realities of what occurs.

Rather it is evident that access applications made a significant period ago [redacted] remain in the queue.

It is also notable that in response to the notifying access seeker process, the response of access seekers is not to seek capacity at other terminals but to dispute their removal from the queue and to put in new access applications.

DBCTM cannot provide any rational explanation of how that behaviour is consistent with other terminals being close substitutes.

In addition, the DBCT User Group are not aware of an access seeker who 'missed out' on DBCT capacity in that process instead now proceeding to contract capacity at other terminals.

All of that provides further support for the clear economic analysis above that there are no other substitutes for the DBCT service, and the DBCT service is a distinct service in a market.

8 Criterion (b) – Foreseeable Demand

8.1 Meaning of Foreseeable demand

(a) Foreseeable demand requires an objective assessment of likely demand

It is important in assessing criterion (b) to be clear on what constitutes 'foreseeable demand'.

The QCA Draft Decision notes that:[23]

> *Ultimately, what is 'foreseeable' is a matter of judgment for the QCA having regard to the information before it and its confidence in the forecasts that are produced*

That suggests it is an objective test, and the DBCT User Group strongly agrees with that interpretation. Indeed, this must be so in order for the declaration criteria to operate as intended (i.e. avoiding an ability for the facility owner to arbitrarily or subjectively deny access through incorrect or theoretical demand assessments that do not reflect practical and commercial realities).

[22] (1976) 25 FLR 169 at 190
[23] QCA Draft Decision at [2.3.6]

That is consistent with the legislative intent as noted in the explanatory memorandum to the bill that introduced the revised criterion (b) which equates foreseeable demand to 'expected' demand:[24]

> *Total foreseeable market demand is considered over the declaration period the decision-maker is considering for declaration of the service. In assessing whether a facility could meet total foreseeable market demand at least cost, this calls for a consideration of whether* ***what could be expected to be maximum demand*** *could be supported by the facility.*

The NCC's Guide to Declaration is also consistent with that interpretation, but goes on to provide some additional guidance on the level of certainty that the demand will eventuate that is required for it to be foreseeable demand:[25]

> *Following the most recent amendments to Part IIIA of the CCA, the Council interprets this criterion to be concerned with the waste of Australian society's resources associated with duplication of facilities that exhibit natural monopoly characteristics, ie where a single facility could meet* ***all likely demand*** *for a service at lesser cost than two or more facilities*

In other words foreseeable demand is to be interpreted as 'expected' or 'likely' demand.

The DBCT User Group strongly agrees with that interpretation.

It is critically important to get this legal interpretation right – as 'foreseeable demand' is not intended to be an artificial measure of theoretically possible maximum demand (which is how DBCTM appears to interpret it).

An interpretation that does not view foreseeable demand through the lens of likely or expected demand would be inconsistent with the 'natural monopoly' focus of the new criterion (b). That follows because by overstating demand compared to the actual likely outcome, the monopoly power of the infrastructure provider is likely to be understated (particularly if that theoretical demand would suggest supply or competition from other service providers that is, in fact, actually unlikely to exist).

Whereas, it is obvious from the Productivity Commission's explanation of its recommendations on criterion (b) (which has been adopted in the revised wording) that what criterion (b) is now focused on is ensuring that a natural monopoly is captured by criterion (b):[26]

> *The Commission's considers that criterion (b) should direct decision makers to test whether a facility can meet total foreseeable market demand for the infrastructure service — including the demand for any substitute services provided by facilities serving that market — at least cost. To do so, the costs from a facility meeting total foreseeable market demand should be compared with the costs from that demand being met by two or more facilities.*
>
> *Including the demand for substitute services in criterion (b) would better target the Regime at the economic problem. In infrastructure markets, an enduring lack of effective competition will usually occur where the incumbent facility can meet total market demand for the infrastructure service at least cost. If a facility can meet total market demand at least cost it would likely hold a strong position in the market for the infrastructure service, given it could draw on its lower costs to deter competitors that threaten its market position. Allan Fels noted that an incumbent natural monopoly could deter entry if it could*

[24] Explanatory memorandum to the *Competition and Consumer Amendment (Competition Policy Review) Bill* at [12.24]
[25] NCC, Guide to Declaration, page 36
[26] Productivity Commission, page 161

credibly threaten a 'price war' (sub. 40, p. 53). Accounting for total foreseeable market demand would direct criterion (b) toward identifying the most likely source of an enduring lack of effective competition in infrastructure service markets.

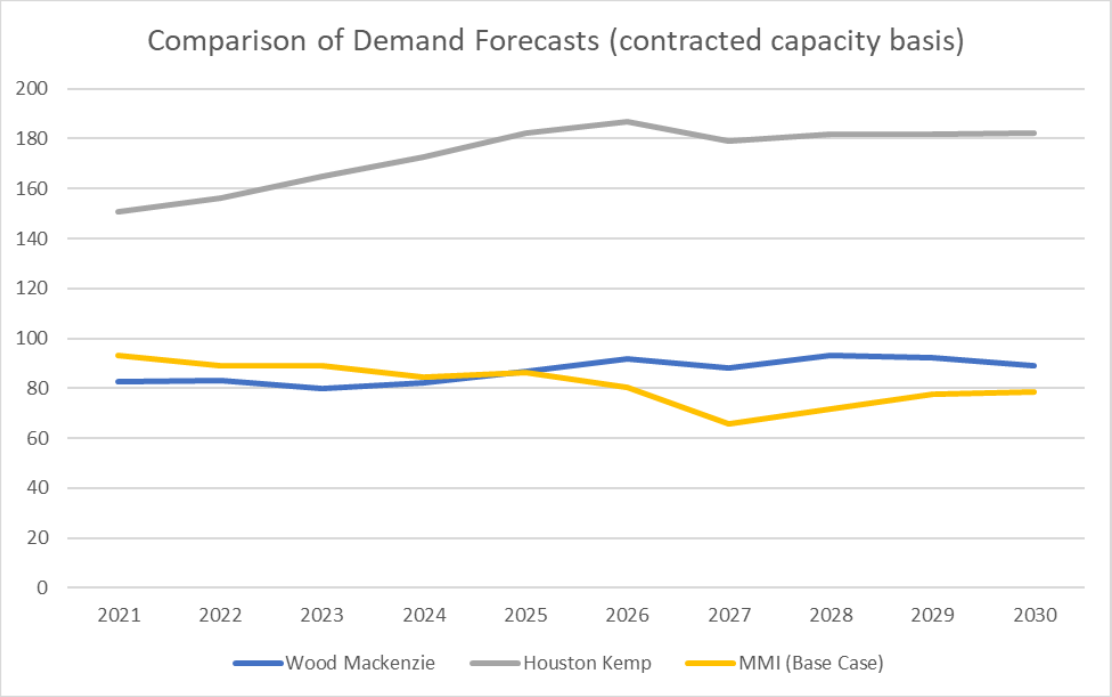
Accordingly, it is clear that in estimating foreseeable demand for the purposes of criterion (b), the QCA's task is to determine an objective estimate of likely demand in the market.

It follows from the appropriate interpretation of foreseeable demand that there is no place for adopting 'high case' estimates (other than where that is not as the QCA's estimate of foreseeable demand, but just to demonstrate beyond any doubt that even at a higher estimate criterion (b) is still satisfied).

(b) Relevance of independent consultant reports

The DBCT User Group considers that it follows from the objective nature of estimating 'foreseeable demand' that independent expert forecasts would be expected to be given some weight in the assessment.

However, the DBCT User Group notes that there are striking differences between the Houston Kemp / AME demand forecasts and those provided by other independent experts in this process (Wood Mackenzie and MMI) as shown below:



The key thing to understand is therefore what each consultant was asked to forecast.

The Houston Kemp demand forecast is based on:

(i) an inappropriate market definition (as discussed at length above and in previous submissions), such that it is effectively including demand for the non-substitutable services provided by other coal terminals; and

(ii) as the QCA Draft Decision clearly recognises:[27]

(A) artificial assumptions about there not being any rail capacity constraints, such that it is effectively including theoretical demand that will not eventuate (noting that Aurizon Network has recently issued to Goonyella

[27] QCA Draft Decision, Part C, page 42.

rail users a demand assessment process following the receipt of an access application which would require rail expansions and the ILC capacity assessment discussed later in these submissions suggest there are system constraints); and

(B) overly optimistic assumptions about the development of future coal projects,

all of which lead to an overstatement of foreseeable demand and, in combination, which drastically overstate foreseeable demand.

By contrast it is clear, when the appropriate market definition is adopted, and realistic views are taken on the likely investment outcomes and timing of future projects and corresponding rail capacity, there are very limited differences between the estimates provided by Wood Mackenzie and those produced by MMI (in the latter case through corrections to the Houston Kemp position).

The DBCT User Group considers that presents compelling evidence that foreseeable demand is more closely reflected by the estimates produced by Wood Mackenzie and MMI.

(c) Why the Wood Mackenzie estimate is credible and the relevance of individual stakeholder views

The DBCT User Group considers that reference can be had to statements of existing user's, but in considering such statements the QCA needs to be conscious of:

(i) individual project proponents typically being more optimistic about their individual projects proceeding (and the timing of development and level of production such projects could result in); and

(ii) the context in which those statements were made, so (as discussed in detail below) submitting an access application seeking capacity for a particular date is not good evidence of that being the objectively likely date of that demand arising.

In relation to the analysis by Wood Mackenzie, the DBCT User Group have included as Schedule 3 to this submission, Wood Mackenzie's research methodology and assumptions.

It is clear from that methodology that Wood Mackenzie take into account information from individual mining companies (from interviews, site visits and public reports and filings), as well as other public information on individual projects.

However, as is clear from the section under 'Data Validation' they apply a level of scrutiny to the claims of project proponents – because what Wood Mackenzie is doing is seeking to accurately measure total demand, and they are conscious that the market reality is that some sources of demand are mutually exclusive and actually displaces other demand.

Properly estimating total foreseeable demand requires the QCA to exercise similar levels of scrutiny.

In relation to that level of scrutiny Wood Mackenzie's methodology notes:

> *In addition to the checking and validating process for each individual asset,* ***Wood Mackenzie's analysts perform holistic checks on the sector, country or region to ensure consistency and feasibility. For example, a number of mines in an area may be competing for development or production expansion, but concurrent development of all of them as predicted by their respective owners may be unfeasible. This might be due to the lack of available market demand, or the constraining limits of export infrastructure capacity. In such instances, Wood Mackenzie's regional experts will make their own assessment as to the likely***

schedule of developments and adjust the various project parameters in our analyses accordingly.

It should be evident from that passage alone that there are key flaws in any approach which involves estimating total demand by simply aggregating individual project proponents' view of their likely demand. However, that is the very thing that DBCTM / Houston Kemp / AME have continued to suggest throughout the declaration review process that the QCA must do.

That clearly indicates an important part of why the Houston Kemp / AME estimates are so overstated, and the greater lengths Wood Mackenzie goes to in order to produce more credible demand forecasts.

(d) Conclusions on profile of demand across the declaration period

To the extent that the QCA considers that the timing of peak foreseeable demand is relevant, the DBCT User Group strongly believe that the Wood Mackenzie data provides a far more realistic profile than that assumed in the QCA estimate (and the MMI estimates on which it was based).

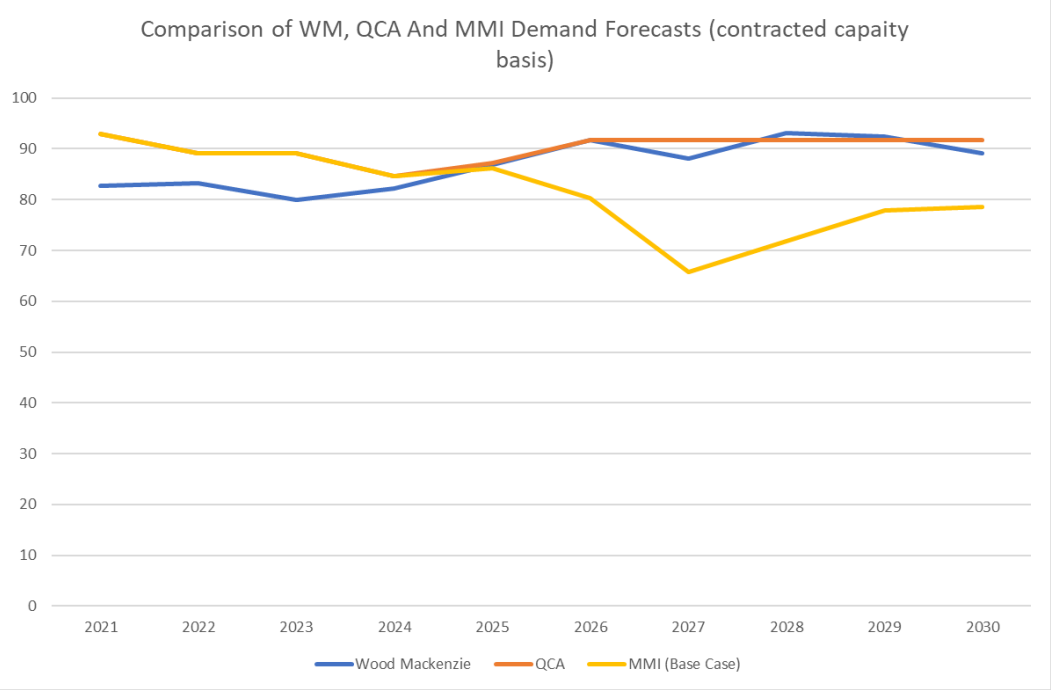


Table 3: Estimates of capacity entitlement - QCA and Wood Mackenzie (mt)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
QCA	93.0	89.1	89.1	84.7	87.1	91.7	91.7	91.7	91.7	91.7
Wood Mackenzie	82.8	83.2	79.9	82.1	86.9	91.7	88.0	93.1	92.3	89.1

Source: QCA capacity entitlement estimates per Draft Recommendation, Page 45, Table 8; Wood Mackenzie March 2019 (adjusted to capacity entitlement equivalent using 0.9:1 ratio assumption)

Peak demand occurring in 2028 is far more credible than peak demand occurring 2021.

In particular, DBCTM is strenuously asserting that it is not possible to develop an expansion by 2021 even starting now.

However, no users are rushing to commence an expansion (when it would be expected that would be occurring if that was real demand, particular given the provision in the access undertaking regarding development expansions where demand justifies doing so). Where DBCTM has publicly indicated there is no existing capacity available, and indicated that there are limited anticipated expiries of existing user access agreements over the declaration period, if 2021 peak demand was likely there should be a rush to contract capacity.

In addition, the Wood Mackenzie forecast also reflects the more gradual growth profile that DBCTM's commentary in the 2018 Master Plan is more consistent with.

8.2 Why the Access Queue is not a credible forecast of additional demand

(a) Understanding how the Access Queue operates

DBCTM's latest position in relation to criterion (b) appears to now turn, almost entirely, on its view that the access queue is a reliable indicator of likely foreseeable demand for the DBCT service. This is evidently misguided, inconsistent with the best independent evidence of foreseeable demand and would be an unsafe finding.

Foreseeable demand cannot be estimated by the a simplistic and unrealistic aggregation of contracted capacity and the current access queue.

There are several reasons why this is the case – based on how the how the access queue actually operates under Section 5 of DBCTM's existing access undertaking.

First, an access application is a completely free option. There is no cost to submit, or renew, an access application.

In addition, executing an access application does not make any commitment to enter into an access agreement even if capacity becomes available. It is possible for the access seeker to simply not progress its access application following receipt of an indicative access proposal from DBCTM,[28] or to not commit to an access agreement when provided with an expansion notice.[29]

Instead, an access application provides (without cost) priority in obtaining access relative to other access applicants which are later in the queue.[30]

It is therefore unsurprising (particularly given there are no substitutes for the DBCT service) that potential users of the terminal lodge access applications to keep open the potential to seek access should it become available. It is perhaps even more unsurprising that where DBCTM has clearly indicated its intentions to charge monopoly prices in a future without declaration, that access seekers have sought to maintain priority by disputing attempted removals from the queue in the hope of obtaining declared produced terms.

In addition, given the ability to postpone the date on which access is obtained through updating the access application, but no ability to bring it forward while maintaining the same level of priority, access seekers are strongly incentivised to initially seek access at the earliest possible time that they might potentially need access.

That incentive is strengthened even further by the thresholds for an access application being accepted and renewed, which include demonstrating to DBCTM that the access applicant is *'reasonably likely to commence delivery of coal to the Terminal on the date specified in item 5 of the Access Application [or Renewal Application] (which must be no more than 5 years from the date of the Access Application [or Renewal Application])*'.[31]

[28] Clause 5.6(a) Access Undertaking
[29] Clause 5.4(j)(5) Access Undertaking.
[30] Clause 5.4(b), 5.4(d)(2), 5.4(j)(8), Access Undertaking.
[31] Clause 5.3(d)(2)(A), 5.3A(d)(2)(A) Access Undertaking.

In other words in order to be able to participate in the queue, each current access seeker must be seeking access starting no late than 2024.

One can see that where a project's production has any possibility of starting by 2024 (even if that is only the case based on the most aggressive and optimistic assumptions), there are strong incentives to apply for access starting in 2024 to try to obtain the priority that chronological queuing position provides and maximise a project's chances of obtaining that capacity when the project is ultimately developed (and renewing the application for progressively later dates each year while seeking to maintain the position in the queue). The projects in the access queue that Wood Mackenzie predicts will start production in the late 2020's or 2030's (or not at all in some cases) is evidence of the optimisation assumptions underlying some of the access applications.

DBCTM's own 2016 Master Plan summarised the position succinctly:[32]

> *Given the lack of obligation or incentive to turn an access application into an access agreement, the access queue is not a good indicator of the timing of coal mine development …. In reality, the access requests continually shift to later dates and are at the mercy of the coal markets of the day.*

That comment was made in the context of weaker coal markets, but the below evidence of how the queue has operated over many years, indicates that it has clearly held true over a significant period in both stronger and weaker coal market conditions.

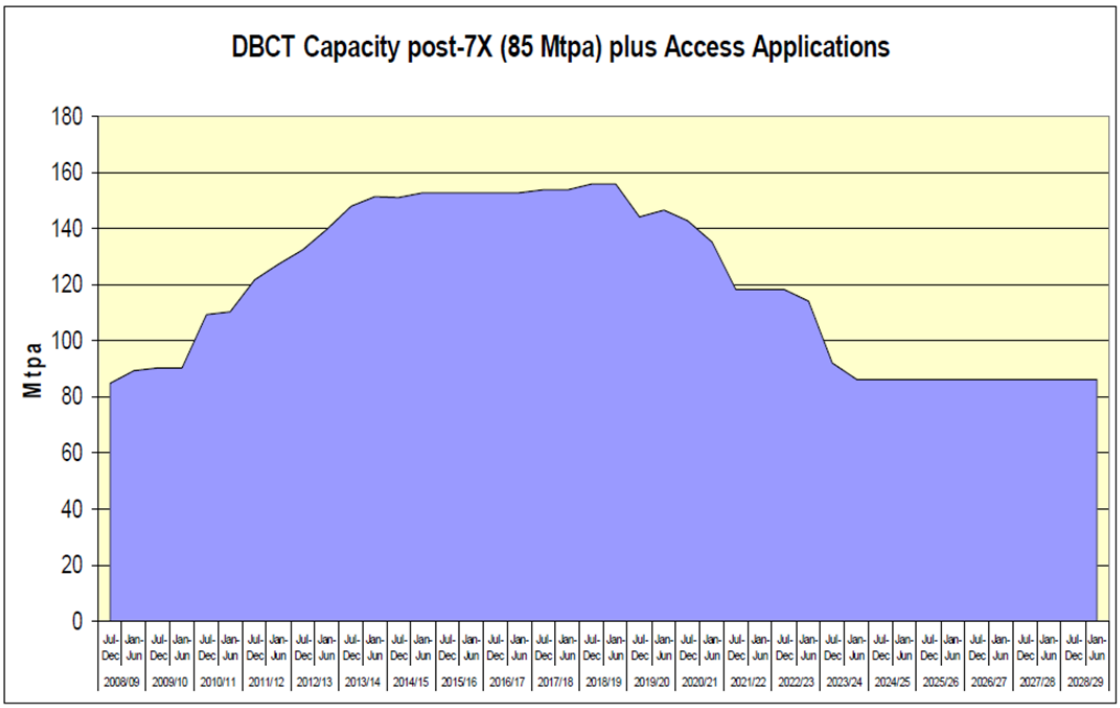
(b) Past evidence that the queue does not convert to additional aggregate demand

The above analysis is not just a matter of theory as there has now been a significant period of time since DBCT was expanded to 85 mtpa capacity. Across that time it has been possible to see whether a substantial access queue above the 85 mpta nameplate capacity has actually converted into additional aggregate demand.

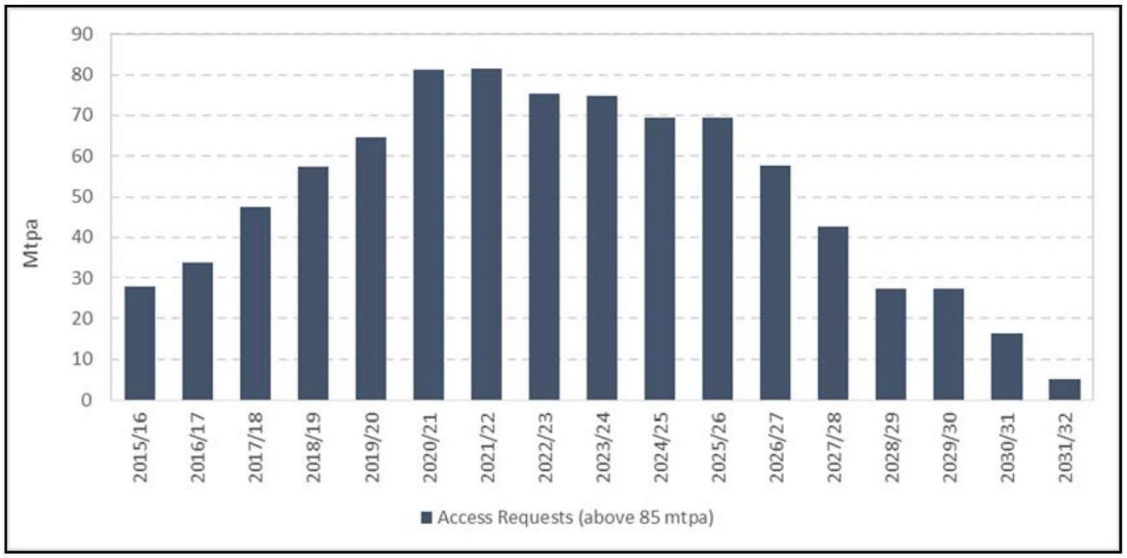
So for example, the below diagram from DBCTM's 2009 Master Plan demonstrates the queue as it then was with a peak demand of nearly 160 mtpa in about 2018/19. That demand of course never converted into real additional demand for contracted capacity.

Since then no access seeker has committed to further expansion capacity, such that the terminal has continued without an expansion. It is one thing to put in a costless access application, but when faced with committing to a long term take or pay arrangement, users have opted not to. That alone is compelling evidence that the access queue is not credible evidence of additional demand.

[32] 2016 Master Plan, page 44

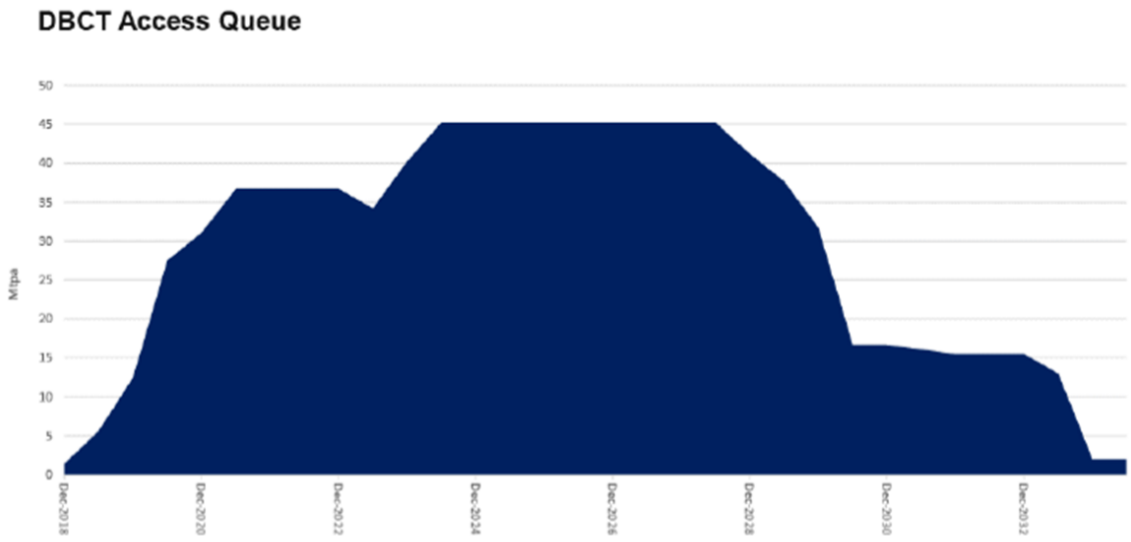


The diagram below, from 7 years later in the 2016 Master Plan, shows the revised queue (plus contracted capacity) peaking at just above 160 mtpa in 2020/21 and 2021/22.



Again those access applications never converted into real additional demand for contracted capacity beyond 85 mtpa.

Finally, the diagram below comes from DBCTM's 2018 Capacity and Throughput Forum and shows the revised queue (plus contracted capacity) now peaking at approximately 130 mtpa in 2024.



As the PwC Report correctly notes:

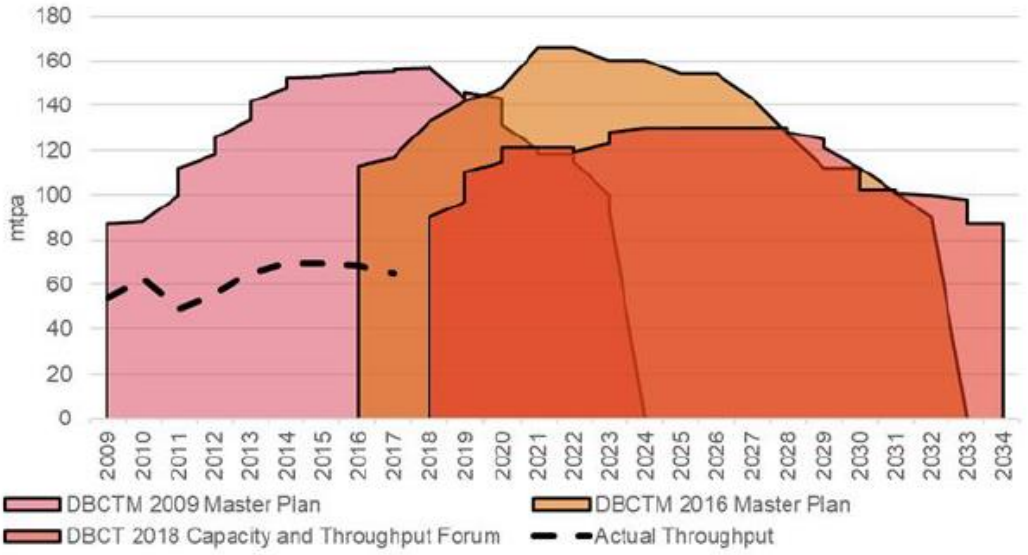
What this suggests is that, ***historically, the access queue has not provided a reliable or accurate indication of actual throughput realised at the terminal (or indeed capacity contracted).*** *The 2009, 2016 and 2018 queues depict a profile of 'demand' increasing significantly over the medium term, with a rapid ramp-up over the immediate 4-5 year period.*

In both 2009 and 2016, this demand aspiration represented by the access queue has failed to materialise*, suggesting the queue is not a reliable indicator of future demand. Our understanding is that there is no cost for users to secure a place in the queue, nor are there any penalties for unrealised queue tonnages. Given this,* ***it is reasonable to expect that the access queue will be overstated relative to future demand****.*

In fact it is obvious from the above that what has practically been occurring is exactly what one would have anticipated based on the provisions of the access undertaking. That is, the additional access applied for constantly pushes out – as access seekers try to keep alive the prospects of obtaining access in the future, given the lack of costs for doing so, while not committing to additional access.

That is starkly demonstrated when the access queues are overlaid on each other relative to actual throughput (as shown in the diagram from the PwC Report extracted below):

Figure 2: Historic DBCT access queues v actual throughput[24]



Sources: See Footnote 25.

By contrast, if it truly represented aggregate additional demand, then access seekers would have committed to capacity and substantial expansions would have already been undertaken.

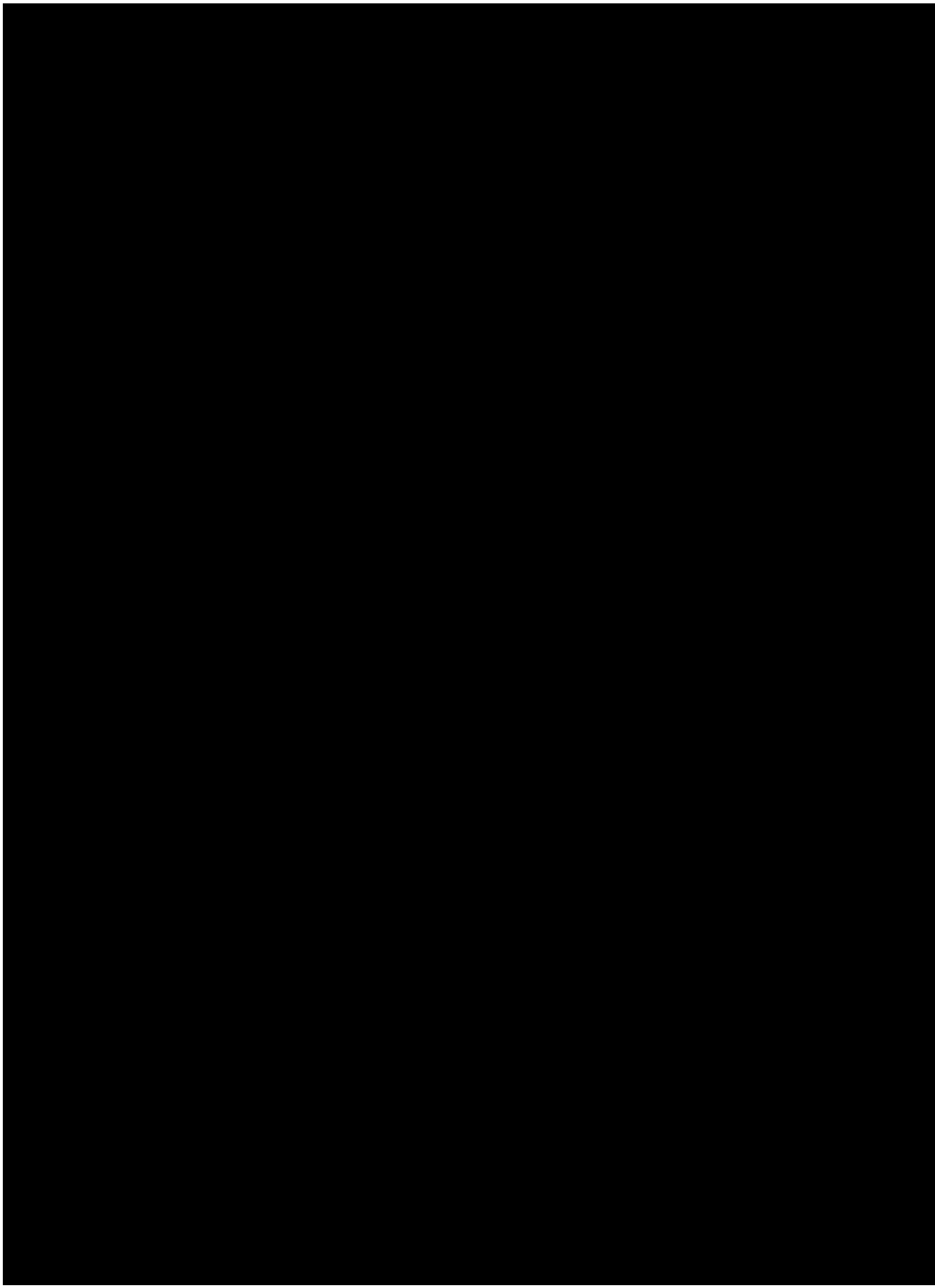
(c) Analysis of the individual access applications in the queue which are said to make up demand

In addition, an analysis of the individual access applications demonstrates how divorced from reality DBCTM's assertions that the access applications represent foreseeable demand actually are.

The table in Schedule 4 provides project by project details as to why such access applications should not simply be treated as additional aggregate demand.

However, even the key examples given in the summary table below indicate why the access queue is clearly not a credible projection of demand:

Access Applicant / Project	Summary of commentary
[redacted]	[redacted]



That analysis alone suggest that nearly half of the access queue should definitely not be considered foreseeable demand.

Of the remainder it is more difficult for the User Group to assess on a project by project basis (particularly where some of the access applications are simply described by reference to the name of a producer and 'various' projects in the materials provided by DBCTM).

However, it follows from the analysis about how the queue operates earlier in these submissions, that it is not foreseeable (in the sense of likely or expected) that each of those access applications converts into demand. It is far more likely that a significant proportion of these projects will never contract additional aggregate demand either due to not proceeding or acquiring capacity through the secondary capacity market (in the latter case even though they would then have contracted capacity, they would have effectively replaced an existing user rather than added additional aggregate foreseeable demand).

Given the aspersions that DBCTM has made against individual users, and the fact that foreseeable demand calls for an objective estimate of likely demand, it is noted for completeness that the above commentary (and that in Schedule 4) has been provided by the DBCT User Groups' advisers, not based on the views of the individual users concerned.

8.3 Conclusions on foreseeable demand

(a) Conclusions on peak foreseeable demand

Based on the analysis above the DBCT User Group continues to consider the most appropriate estimate of foreseeable demand is the Wood Mackenzie demand estimates or the MMI base case demand estimates which show the following peak demands:

	Peak Foreseeable Demand (Throughput Estimate)	**Peak Foreseeable Demand (Contracted Capacity)**
Wood Mackenzie	83.8	93.1
MMI Base Case	83.69	92.99

As discussed above, to the extent that the QCA considers that the timing of that peak demand is relevant, the DBCT User Group strongly believe that the Wood Mackenzie data provides a far more realistic profile, with peak demand occurring in the later parts of the declaration period (approximately 20208).

(b) Throughput is the appropriate measure of foreseeable demand

For completeness the DBCT User Group continues to consider that throughput is the right measure of foreseeable demand, not contracted capacity for the reasons set out in previous submissions.

However, the point is not laboured here given it has been addressed at length in the DBCT User Group's previous submission and economic modelling confirms that criterion (b) is clearly met on either approach.

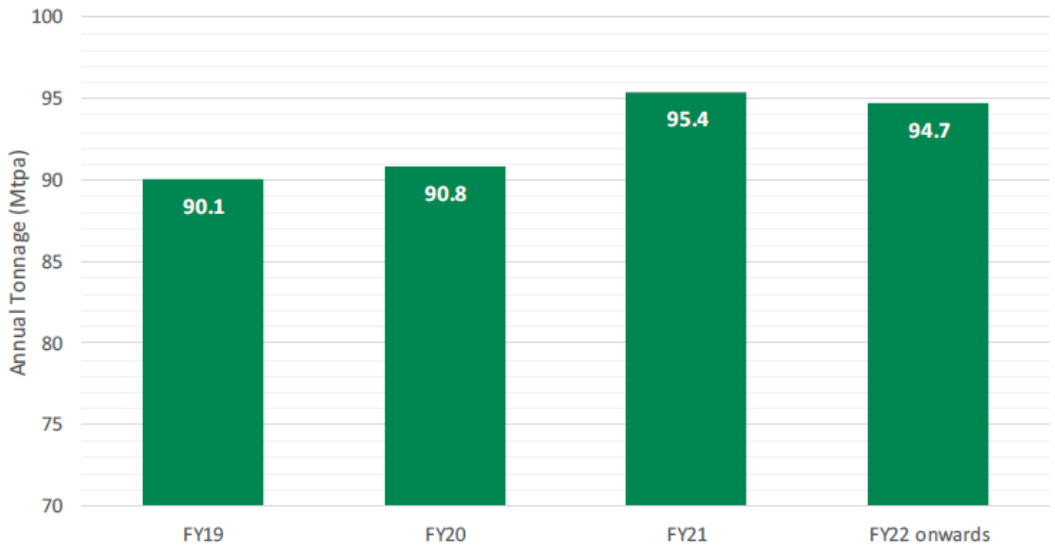
9 Criterion (b) – DBCT's Ability to Meet Foreseeable Demand

9.1 Existing capacity of DBCT

DBCT has a nameplate capacity of 85 mtpa. That is the basis upon which most of the analysis in respect of criterion (b) in this declaration review process has taken place.

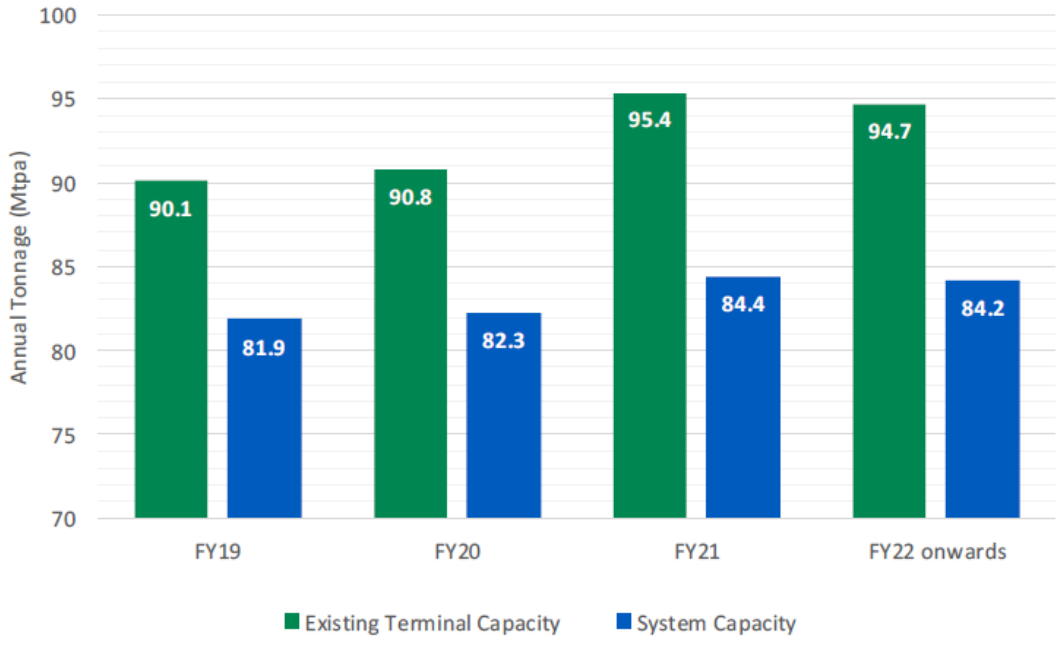
However, as noted in the last DBCT User Group submission, the Integrated Logistics Company Pty Ltd DBCT Capacity Estimates report dated 19 October 2018 (the ***ILCO Capacity Report***) provides clear evidence of the facility actually having significantly greater capacity:

Figure 4 DBCT Existing Terminal Capacity Estimates[1]



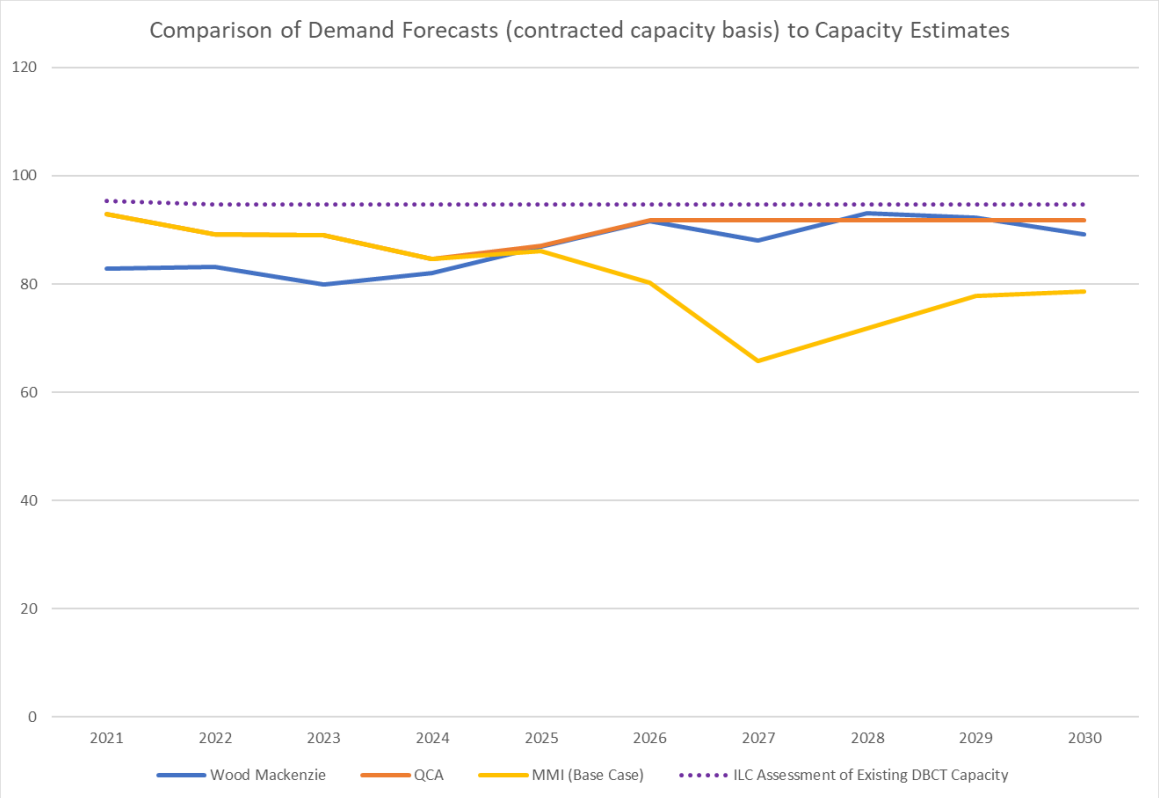
It is acknowledged by the DBCT User Group that the ILCO Capacity Report also contained lower estimates of 'System Capacity' – with ILCO's comparison of 'Terminal Capacity' and 'System Capacity' shown below:

Figure 1 Capacity Estimates over assessment period



It is therefore important to understand exactly what 'Terminal Capacity' and 'System Capacity' represent in order to determine which is relevant to assessing whether the *'facility could meet foreseeable demand*' for the purposes of criterion (b).

That is particularly the case as, where 'Terminal Capacity' is assessed as the right reference point, it is clear that the existing terminal (without any expansions) actually already has sufficient capacity to meet the credible demand forecasts.



The relevant terms (which the ILCO Capacity Report modelled) are defined under the DBCT Access Undertaking as follows:

(a) *Terminal Capacity* means the maximum reasonably achievable capacity of the Terminal (measured in tonnes per Financial Year) as estimated pursuant to Section 12.1; and

(b) *System Capacity* means at a relevant time, the maximum reasonably achievable estimated capacity of the System (measured in tonnes per financial year) as determined pursuant to Section 12.1 in respect of that time. Where System Capacity is required to be estimated in respect of a future time (for example, for the purposes of Section 5.4) DBCT Management will estimate it taking all relevant factors into account (including System Capacity expected to arise out of a System Capacity Expansion which has been or can reasonably be expected to be committed to at the time of the estimation).

(c) *System* means, the following components of infrastructure relating to the transport of coal from mines whose coal is Handled by the Terminal:

(i) rail loading facility of mines whose coal is Handled by the Terminal;

(ii) railway infrastructure in the Dalrymple Bay Coal Chain;

(iii) railway locomotives and rolling stock used in the Dalrymple Bay Coal Chain;

(iv) Terminal unloading, stacking, loading and other Handling facilities,

and all interfaces between such components.

DBCTM's CEO asserted at the QCA stakeholder forum that 'Terminal Capacity' required an assumption that trains arrived perfectly back to back with 'everything going perfectly', such that it did not represent achievable capacity.

However, that is a misleading misrepresentation of how the Access Undertaking defines Terminal Capacity.

Rather, Section 12.1 of the Access Undertaking sets out clearly what is to be taken into account in assessing 'Terminal Capacity' and 'System Capacity', including for Terminal Capacity operating assumptions in respect of :

(i) DBCT Management's obligations and Access Holders' entitlements under Access Agreements (including taking into account historical and reasonably estimated rates of utilisation of the Terminal's capacity, but also having regard to reasonably foreseeable future changes in capacity utilisation rates);

(ii) DBCT Management's requirement to comply with Good Operating and Maintenance Practice;

(iii) the Terminal Regulations;

(iv) an objective of maximum reasonably achievable capacity for the Terminal without unduly increasing vessel waiting times as a result of the operation of the Terminal;

(v) rail and vessel interfaces with the Terminal;

(vi) the estimated additional capacity which it is anticipated will become available in a relevant Financial Year as a result of any proposed Terminal Capacity Expansion; and

(vii) any other matter DBCT Management reasonably considers appropriate.

In addition, Terminal Capacity is to be estimated making a projected allowance for interruptions or loss of capacity from maintenance, repairs, inclement weather, breakdowns, derailments, cancellations, loading and unloading issues (including sticky coal), vessel-types (based on a historical analysis).[33]

All of that indicates that Terminal Capacity reflects reasonable allowances for non-utilisation, 'normal' vessel waiting times, rail and vessel interfaces and allowances for numerous types of expected interruptions or outages.

Consequently, far from being artificial, Terminal Capacity is a true independent assessment of the *facility's* actual capacity. The differences between that and System Capacity are effectively capacity losses caused by other components of the System, many of which it could be expected would be removed over time.

Criterion (b) requires an assessment of whether ***'the facility for the service*** could meet the total foreseeable demand in the market at least cost'.

To be clear, criterion (b) does not require an assessment of whether the supply chain for the service (or System Capacity) could meet total foreseeable demand. Assessing criterion (b) in that way is completely inconsistent with the very purpose of the access regime as that results in other temporary supply chain constraints understating the market power that the natural monopoly service provider holds. That becomes very clear when you consider circumstances where there is a continual lag between terminal capacity and system capacity – e.g. where rail capacity has not

[33] Section 12.1(b)(1) access undertaking.

caught up to the facility's capacity. The deterrent effect on development of a new coal terminal in that scenario is clear – as it will always be cheaper to resolve the system capacity constraint.

There is no suggestions in any of the previous considerations of criterion (b) (including subsequent to the declaration changing) that it is legitimate to consider constraints imposed by other elements of the supply chain in this way. That is unsurprising, because these constraints are not ignored by DBCT – rather overcoming them is properly part of the assessment of the least cost method of meeting foreseeable demand.

Consequently, the DBCT User Group considers it is absolutely clear that the QCA should consider that it is DBCT's 'Terminal Capacity' that is relevant.

9.2 Capacity of DBCT as 'reasonably possible' to expand

In addition, as previously referred to, section 76(3) of the QCA Act provides that:

> *For subsection (2)(b), if the facility for the service is currently at capacity, and it is reasonably possible to expand that capacity, the authority and the Minister may have regard to the facility as if it had that expanded capacity.*

If the QCA takes the view that 'System Capacity' is the appropriate measure, then it is clear that the facility is currently at capacity, such that the only questions the QCA is required to answer for the purposes of section 76(3) QCA Act are whether it is reasonably possible to expand DBCT's capacity and, if so, to what extent.

The answer to that question is clearly yes.

Based on previous planning that 'reasonably possible' expanded capacity would include each of the Zone 4, 8X and 9X expansions.

(a) Meaning of 'reasonably possible' to expand

As noted in the most recent DBCT User Group submission:

… the DBCT User Group:

(i) agrees with the QCA's formulation of the threshold as 'reasonably possible' as contrasted with being 'merely theoretical or fanciful', and that it requires judgment by the QCA informed by the facts of each case;

(ii) considers that the QRC's submissions (as quoted in the QCA Draft Decision) that 'reasonably possible' sets a lower threshold than 'reasonably likely' or 'reasonably practical' are clearly correct and reflect the differences in the ordinary meaning of those words (whereas DBCTM's submissions seek to impose a higher threshold that has absolutely no basis in the wording of the QCA Act); and

(iii) therefore considers that the QCA is not required to conduct a detailed analysis of the exact prospects or likelihood of a particular expansion proceeding – just whether the barriers and impediments to an expansion are such that they would make an expansion impossible, theoretical or fanciful.

[redacted] based on the ordinary meaning of the wording used in section 76(3) QCA Act:

section 76(3) QCA Act merely asks is there potential, as a matter of sensible and objective judgement, for an expansion to be developed

As discussed below, when that interpretation is applied to the expansion options described in the 2018 Master Plan it is clear that each of them are 'reasonably possible'.

Consequently, it is appropriate for the QCA to consider DBCT including those expansions to the extent necessary to meet foreseeable demand.

(b) 'Reasonably possible' expansions of DBCT

The 2018 Master Plan for DBCTM considers expansion options to take DBCT's nameplate capacity up to 136 Mtpa, through 3 expansion projects, commonly referred to as Zone 4, 8X and 9X.

Those same expansion projects have each featured in previously approved Master Plans.

Stage		Description	Capacity (Mtpa)
Zone 4		Completion of Row 8, additional elevated stacker bund and additional Stacker (Bund 7/ST5), replacement of existing Reclaimer RL2 with new Reclaimer RL4 with extended reach into Row 8.	89
8X	Phase 1	Stockyard Augmentation Project (including vertical concrete walls on existing bunds 1 and 3), Stacker ST2 upgrade, Stacker ST1 upgrade and an upgrade of Conveyors R1 & R2	94
	Phase 2	Rail Receival Pit 4, Inloading Buffer Storage, Upgrade to Inloading 2 and Outloading 2	102
9X (Implemented over 3 phases)		Additional Stockyard at Louisa Ck, Upgrades to Inloading 1, additional Outloading System 4 and up to 2 berths to the north, including significant land reclamation to accommodate dredge spoil	Up to 136

Table 4: Proposed expansion pathway

The DBCT User Group also understand that there is analysis being conducted into adding further capacity through the addition of a new stacker reclaimer, which may provide cheaper incremental capacity gains.

As is evident from the details contained in the 2018 Master Plan significant thought and work has already gone into identifying the detailed components of the expansion options.

In particularly, as discussed in the 2018 Master Plan:

(i) the capacity outcomes for 8X and 9X have been independently modelled by Aurecon Hatch;

(ii) FEL1 concept studies have been completed for both 8X and 9X expansions;

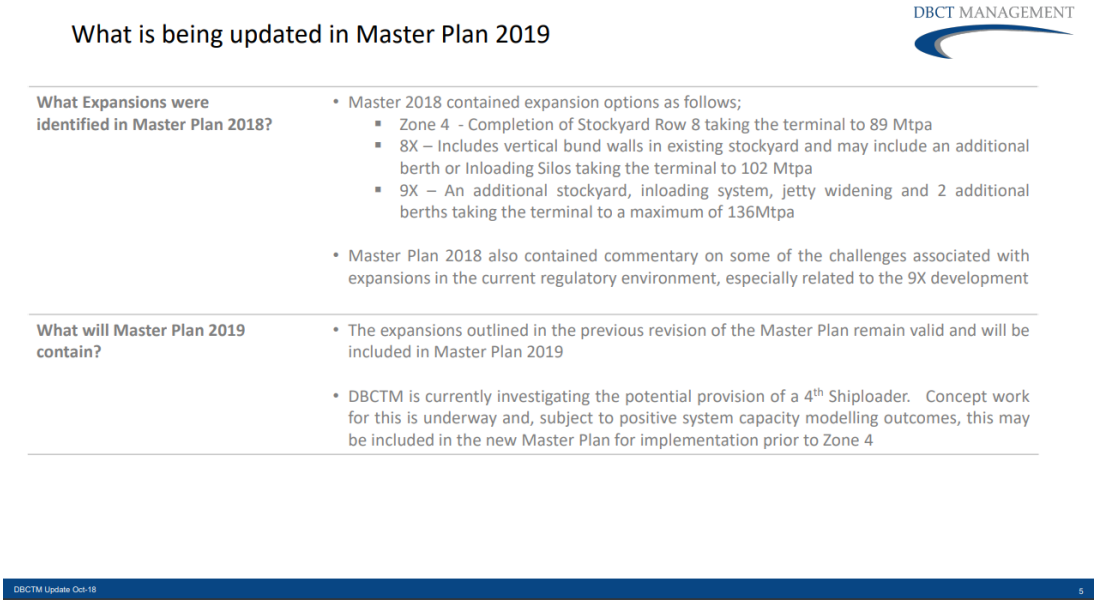
(iii) Zone 4 is a very simple incremental expansion that involves expansion of the existing stockyard row 8 to enable both rows 7 and 8 to operate together as a 4th operating zone, which would be utilised for storage of remnants and selected high-throughput coal types in dedicated stockpiles;

(iv) 8X is a relatively simple expansion that consists of a series of minor upgrades to the existing machines, systems and infrastructure, and the effective replacement of one of the existing inloading systems with a higher capacity system;

(v) While there are a few options for how 9X could be developed – there are each options which have been found to be viable.

Further, on 8 November 2018, DBCTM released a Master Plan 2019 Update to North Queensland Bulk Ports which contained the following:[34]

[34] DBCT Management, 2019 Master Plan Update, 8 November 2018 (https://nqbp.com.au/__data/assets/pdf_file/0012/31143/DBCTM-CRG-HP-Master-Plan-Update-November-2018.pdf)



Importantly, as show above the 2019 Master Plan Update further provides that:

> *The expansions outlined in the previous revision of the Master Plan remain valid and will be included in Master Plan 2019*

The DBCT Users appreciate that there is time and approvals involved in the development of these expansions – but as noted below [redacted] 'reasonably possible' is not a high threshold requiring certainty or a detailed assessment of the exact timing

There are clearly identified expansion options (both in the 2018 and previous 2016 Master Plans), which are clearly reasonably possible for an engineering and approvals perspective.

Accordingly, the DBCT User Group strongly considers that it is reasonably possible to expand the capacity of DBCT to at least 136 Mtpa (with 9X).

For completeness, the DBCT User Group notes that the capacity outcome of 136 Mtpa assumes capacity is starting at approximately 85 mtpa (whereas the ILCO Report suggests that Terminal Capacity is materially higher, such that future expansions would deliver even higher capacity than that discussed by the Master Plan).

(c) 'Reasonably possible' does not include a 'timing element'

DBCTM is now alleging that section 76(3) QCA Act should be interpreted so that the QCA is required to determine whether it is 'reasonably possible' to expand the facility to meet the foreseeable demand at each year during the declaration period.

DBCTM appear to raise that interpretation as, somewhat anomalously, the QCA's estimate of foreseeable demand peaks in 2021. As discussed in section 8.1(d) of this submission, the DBCT User Group questions the likelihood of that part of the QCA's foreseeable demand estimate if expansions cannot be developed in that timing (as DBCTM asserts) and despite that there is no evidence of users taking any steps to develop such an expansion currently. That is contrary to what would be anticipated if there was genuine demand staring in 2021 given what DBCTM asserts about the timing for development of an expansion of DBCT. This also provides further clear evidence that the queue is a commercial option for producers, and while individual access applications may be genuine or realistic, they cannot all be aggregated together to create a genuine or realistic reflection of the future timing of new or expanded production and foreseeable demand for the DBCT service.

However, leaving aside the demand forecast, the DBCT User Group strongly disagrees with DBCTM's interpretation of section 76(3) QCA Act.

In that regard, the DBCT User Group refer the QCA to [redacted] that section 76(3) QCA Act does not incorporate a 'timing element' as suggested by DBCTM.

Rather [redacted] section 76(3) simply asks whether it is 'reasonably possible' for the facility to expand and does not require the QCA or Minister to reach detailed conclusions in relation to the timing during the declaration period in which that occurs.

[redacted]

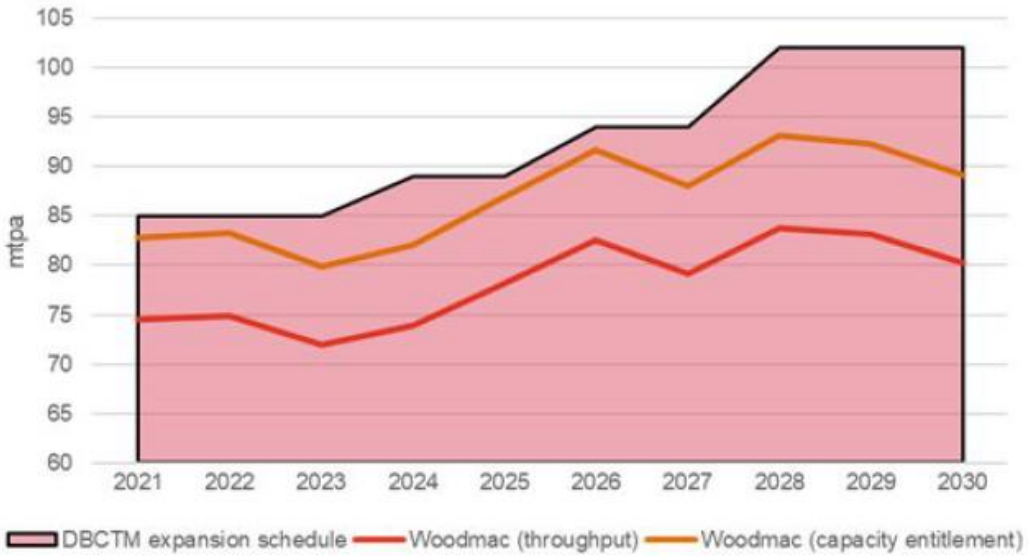
Consequently, DBCTM's assertions in relation to the interpretation of section 76(3) QCA Act should be rejected, and the QCA should simply analyse the extent of 'reasonably possible' expansions of DBCT.

(c) Even if a timing element is incorrectly assumed foreseeable demand could still be met

Even adopting DBCTM's incorrect interpretation of 'reasonably possible' and assuming without scrutiny DBCTM's potential expansion schedule from the Latest DBCTM Submission, the DBCT User Group considers it is clear that utilising a credible demand forecast, DBCT can meet foreseeable demand.

As shown in the PwC Report, accepting the accuracy of the expansion scheduled outlined by DBCTM, the Wood Mackenzie demand forecast can be met by the development of such expansions:

Figure 3: Wood Mackenzie forecast versus DBCTM expansion schedule



Source: Wood Mackenzie March 2019; DBCTM

(d) Conclusions

It follows from the above analysis that, as shown clearly in the diagrams below, it is definitely either possible for foreseeable demand to be met by the existing DBCT capacity or reasonably possible for DBCT to be expanded to meet the credible and evidenced based estimates of foreseeable demand.

The alternative approach proposed by DBCTM relies on the QCA accepting that the access queue operates as an appropriate and robust measure of foreseeable demand, for the purpose of criterion (b).

This claim has been shown to be inconsistent with:

(i) the best expert and evidence-based forecasts made available to the QCA regarding likely production and throughput from Wood Mackenzie and MMI;

(ii) the evidence provided by the User Group as to the way in which producers view and use the queue – as a risk free and costless option, and not a firm commercial commitment to expansion or future use;

(iii) historical experience with the queue (which has never historically reflected actual future use);

(iv) an objective analysis of the access applications and projects in the queue; and

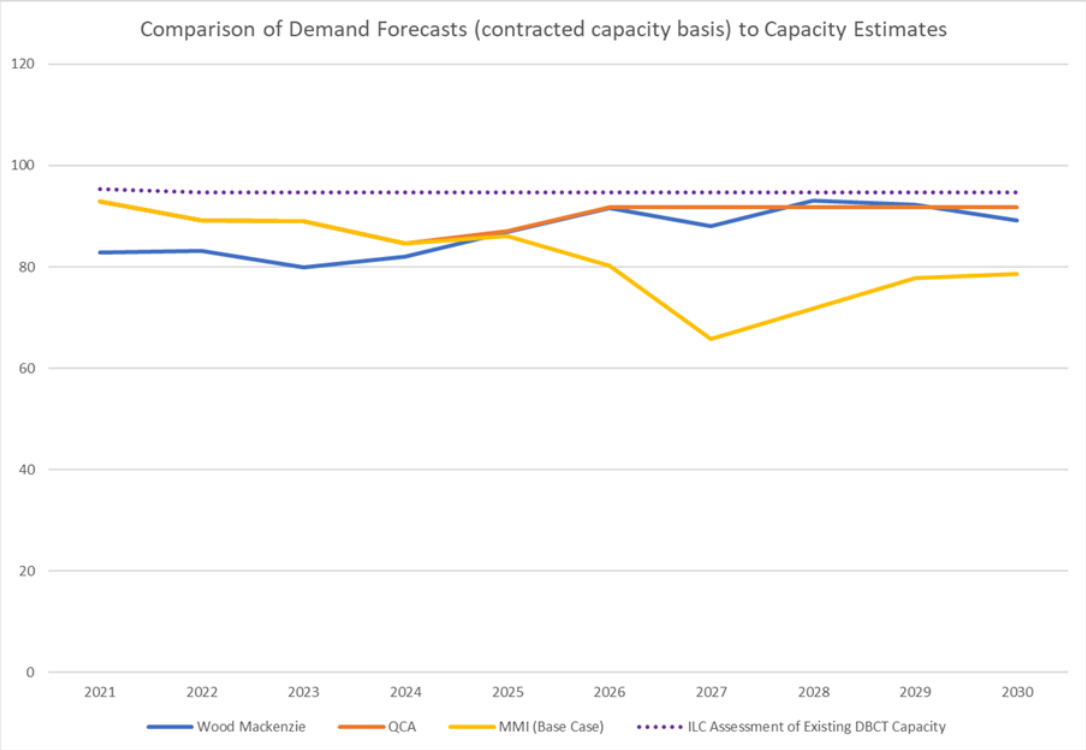
(v) the position that would exist today if the queue was an accurate predictor of demand – given that it peaks in 2021 but has not triggered any calls from industry for an expansion to meet that level of demand.

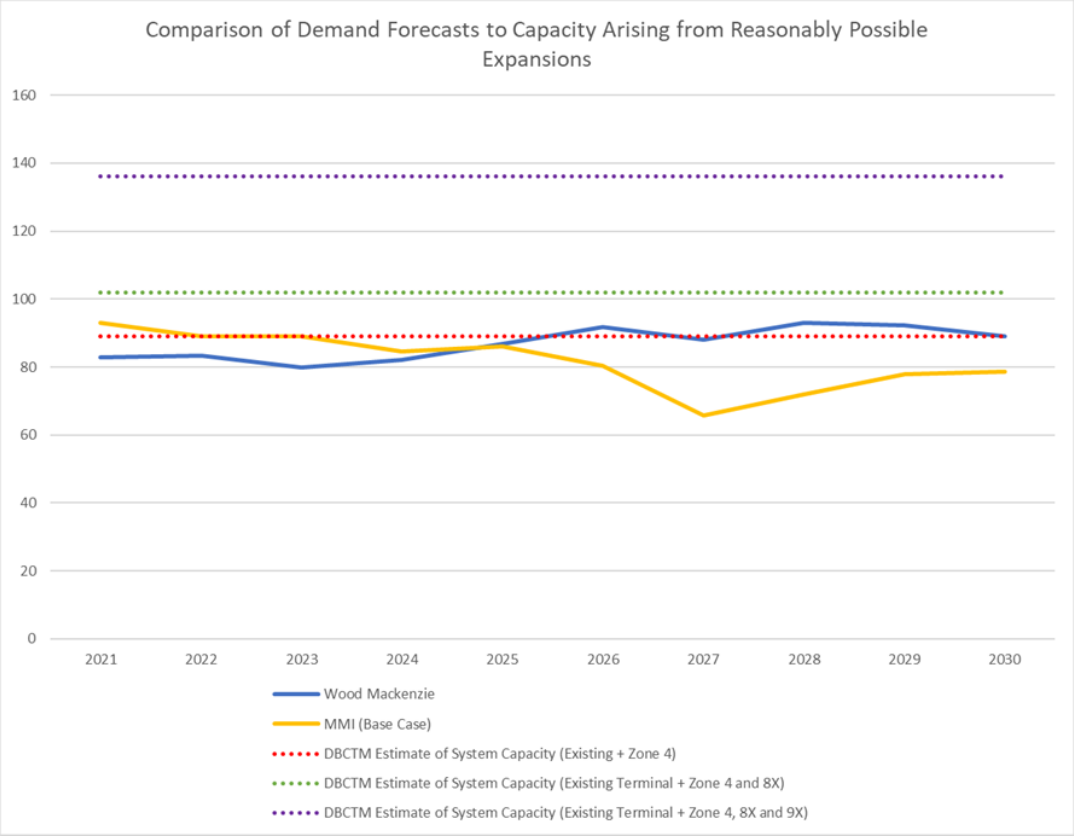
It would be wholly unsafe for the QCA to accept the submission of DBCTM that it should rely blindly on the queue as the best evidence of future intended demand, in the face of this substantial contrary evidence.

The diagrams below are based on contracted capacity (for consistency with the approach taken in the QCA Draft Decision).

The first shows the results of the ILCO Capacity Report clearly indicating the existing terminal has greater capacity than required to meet peak foreseeable demand on any credible projection.

The second shows the capacity which can be developed at DBCT through 'reasonably possible' expansions assuming that current terminal capacity reflects only the nameplate capacity.





Even on the second of those positions (which is the less favourable to the DBCT User Group) it is clear that foreseeable demand can be met by DBCT incorporating reasonably possible expansions.

If the QCA accepted the demand was properly measured by throughput (as the DBCT User Group consider should apply), the same result would obviously apply, but with even more 'headroom', and no or only Zone 4 needed.

Each of Wood Mackenzie and MMI have provided estimates of peak foreseeable demand that can easily be met by DBCT as expanded through the Zone 4 and 8X expansion options (so that ultimately the QCA does not even have to be satisfied of the 9X expansion being reasonably possible).

10 Criterion (b) – Meeting Foreseeable Demand at Least Cost

10.1 DBCTM's flawed argument about total costs

DBCTM asserts that the QCA needs to take into account sunk costs which are being incurred at other coal terminals, and that by not doing so it has departed from a total cost analysis.

However, as the DBCT User Group pointed out at the QCA stakeholder forum, that would only be the case if DBCTM's market definition was adopted – such that other coal terminals were substitutes and therefore demand in the relevant market was actually being met at other coal terminals (such that the costs at other terminals were relevant).

It is, however, clear from the market definition and substitution analysis above that:

(i) the market in which foreseeable demand is to be assessed is the market for provision of the DBCT service (or Hay Point common user coal handling service); and

(ii) any Goonyella coal mine's usage of other terminals is not economic substitution but rather the acquisition of a different service (for which there is a distinct demand).

It therefore clearly follows that any costs relating to usage of other coal terminals by Goonyella users is not a cost incurred in meeting foreseeable demand in the relevant market.

10.2 DBCTM's flawed least cost calculation

The explanatory memorandum to the bill that introduced the revised criterion (b) to the national access regime makes clear the legislative intent in relation to how the test of meeting demand at least cost was to be applied in circumstances like this where there are no substitutable services:[35]

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

- if there is a substitute service provided by another facility there are, broadly, two potential alternative scenarios: the two substitute facilities share total foreseeable market demand; or a third facility is built to provide part of total foreseeable market demand; or

- if there is not a substitute service provided by another facility there may only be one potential alternative scenario, that is the duplication (or partial duplication) of the facility*.*

[35] Explanatory memorandum for *Competition and Consumer Amendment (Competition Policy Review) Bill 2017* at [12.29]

Further support for that being the right approach exists in the Productivity Commission report which recommended the new criterion (b), stating that the final step in determining whether a facility could meet total foreseeable demand at least cost was as follows:[36]

3. Assess whether the facility could meet total foreseeable market demand for the infrastructure service over the declaration period at least cost.

- *In particular, compare the costs from the facility meeting total foreseeable market demand to the costs that would be incurred in the least costly alternative scenario.* ***The alternative scenario considered will depend on whether there is a substitute service provided by another facility.***
    - ***If there is not a substitute service provided by another facility there is only one potential alternative scenario: a duplicate (or partial duplicate) facility is built****.*

In other words, the 'two or more facilities' alternative to which criterion (b) is addressed is actually not the cost of the existing coal terminals meeting some of the demand (as DBCTM asserts, and as the QCA and DBCT User Group have sought to model to date).

Rather, it requires a comparison of the costs of meeting the foreseeable demand at DBCT (expanded as required) relative to DBCT and a new Hay Point coal terminal (which would share many of the characteristics of the DBCT service). That was in fact something the DBCT User Group sought to model in its very first submission in this process for that very reason.

10.3 Modelling of least cost utilising the appropriate comparison

Adopting the correct legal interpretation of criterion (b) outlined above, modelling of the least cost comparison requires identification of the appropriate 'duplicate (or partial duplicate) facility'.

For practical purposes, the Dudgeon Point development that was proposed in the past is used by the DBCT User Group for this assessment as the most likely method for development for any such duplicate facility. There is known to be sufficient land available for such a development and there is a reasonable level of understanding of the costs, design and capacity of such a terminal from work by previous project proponents for such a development.

As shown below, PwC modelling applying the QCA's average cost methodology clearly indicates that the alternative duplicate facility (i.e. a Dudgeon Point development) does not meet any credible demand forecast at lower cost than DBCT (as reasonably possible to expand).

[36] Productivity Commission Final Report, page 162.

Figure 5: Average cost per tonne of options to service total foreseeable demand, scaled to capacity requirement

Source: PwC modelling

At an estimate development cost of over $4 billion that is not particularly surprising.

When scaled to the actual credible foreseeable demand that is in excess of the existing DBCT capacity (taking the very favourable assumption to DBCTM of assuming an 85 mpta existing DBCT capacity), that results in an average supply chain cost of $34.54 mtpa

Table 6: PwC - supply chain costs ($ per tonne)

Cost component	DBCT	Zone 4 + 8X	Dudgeon Point (Stage One)
Total rail cost	$9.56	$9.56	$9.56
Total port cost	$5.05	$6.82	$34.54
Total cost	$14.61	$16.39	$44.10
Difference to Zone 4 + 8X	**-**	**-**	**$27.71**

Source: PwC modelling, scaled to capacity required

Accordingly, it is very clear that on an appropriate application of the least cost comparison required under criterion (b), criterion (b) is satisfied.

10.4 Modelling of least cost analysis utilising DBCTM's inappropriate comparison to facilities outside the defined market

(a) Utilising appropriate PwC cost estimates (based on actual user data)

As discussed in detail in section 10.2 of this submission, the clear legislative intention and correct legal interpretation of criterion (b) is that where there is no substitutes for the service, the 'least cost' comparison is one between meeting demand from the existing facility and the existing facility plus a partial duplicate facility.

That it, it is entirely inappropriate and an error of law to include existing coal terminals which are clearly not substitutes in the criterion (b) least cost analysis.

However, to remove any residual doubt as to whether criterion (b) is satisfied, the DBCT User Group has also had PwC confirm that the least cost analysis holds true even when other existing coal terminals are included as shown below:

Figure 1: Average cost per tonne of options to service total foreseeable demand, scaled to capacity requirement

Source: PwC modelling

As that modelling demonstrates, the least cost option remains DBCT as reasonably possible to expand utilising PwC's cost estimates which are based on actual data from a range of Goonyella users (such that they are in fact significantly more reliable than the high level estimation of costs the QCA has had to engage in).

(b) Utilising corrected QCA estimates

GHD and Houston Kemp refer to a potential error in some of the QCA's average cost calculations.

Based on PwC's evaluation if that calculation is corrected in the way GHD and Houston Kemp suggest, but the QCA's other methodologies and estimates remained the same, it is theoretically possible to calculate that it is $0.15/tonne cheaper to utilise DBCT (for 85 mtpa) and RGT (for 8 mpta) than DBCT for the entirety of the 93 mtpa for foreseeable demand.

However, the DBCT User Group continue to consider it is perfectly clear that criterion (b) is satisfied.

That is the case because, to get to the $0.15 difference, one needs to accept each of the following 6 flawed assumptions:

(i) applying an incorrect legal interpretation of how to calculate 'least cost' (by taking into account existing non-substitute terminals) – contrary to the clear legislative intent discussed in section 10.2 of this submission – if this is rectified RGT (and APCT and WICET) are simply not relevant to the conclusion;

(ii) assuming that DBCT can only accommodate 85 mtpa – contrary to independent modelling of terminal capacity discussed in section 9.1 of this submission – if this is rectified it is clearly cheaper at DBCT alone as there is no DBCT expansion costs involved;

(iii) utilising the QCA average cost estimates (which the QCA acknowledged in the QCA Draft Decision reflect material understatements of rail costs due to their methodology for estimating cross-system traffics excluding rail costs that would be incurred in the Goonyella system) – if this is rectified the difference will swing to substantially in favour of using DBCT alone. For example, as noted in Appendix A2 of the PwC Report, the actual above rail haulage costs for Goonyella users on the Goonyella system are 'up to $8/tonne' around double the estimates used by the QCA and which it then uses to derive proxy estimates for the Blackwater system;

(iv) assuming that despite the fact that RGT is fully contracted (as discussed in section 7.4 of this submission) it is appropriate to simply assume an addition 8 mtpa of contracted capacity can somehow be met with no additional capital costs – while we cannot know with certainty the RGT expansion costs, that would clearly return it to being cheaper to use DBCT alone;

(v) assuming that despite the fact that the Goonyella and Blackwater rail systems are capacity constrained (as discussed in section 7.4 of this submission) it is appropriate to simply assume an addition 8 mtpa of cross-system below rail contracted capacity can somehow be met with no additional rail capital investments – while we cannot know with certainty the rail expansion costs, that would clearly return it to being cheaper to use DBCT alone; and

(vi) ignoring that new users of RGT would be non-foundation users, which the DBCT User Group understand are charged materially higher terminal charges that foundation users, such that the QCA's estimates of RGT costs need to be altered as well – while the DBCT Users do not know with certainty what non-foundation users are charged they understand it is a material difference and that would clearly return it to being cheaper to use DBCT alone.

According, any single one of those issues if taken into account properly will make clear that, properly assessed, foreseeable demand is met by DBCT at least cost (even correcting for the calculation error identified).

11 Criterion (b) – Conclusions

It is clear from the above analysis that the QCA's market definition is appropriate and based on the credible estimates of foreseeable demand in that market, economic modelling confirms they can be met at least cost by DBCT (including through reasonably possible expansions if necessary).

Accordingly, criterion (b) is clearly satisfied in respect of the DBCT service.

12 Criterion (a) – Overview

The table below summaries what the DBCT User Group consider the key issues in contention in respect of criterion (a) are:

Issue	Summary	Consistent with QCA Draft Decision
What is the QCA required to be satisfied about for declaration to 'promote a material increase in competition'?	The QCA needs to be satisfied that the conditions or environment for improving competition are enhanced, such that there is a non-trivial likelihood of increased competition.	Yes
How does that change in the context of reviewing an existing declaration?	The QCA needs to be satisfied that removing declaration would be likely to have a non-trivial adverse impact upon the conditions or environment for competition.	Not specifically addressed in this manner
What is the appropriate definitions of the key dependent markets in which declaration will impact on competition?	The key dependent markets identified are the markets for the supply and acquisition of: • coal exploration and development tenements; • coal production tenements; in the Hay Point catchment. Infrastructure costs, coal quality differences and regulatory/approvals risk profile mean that coal tenements of the same types in other coal regions are not substitutable.	Yes
Does DBCTM have market power?	Yes, it is a natural monopoly service provider where the QCA has correctly found there to be no substitute services.	Yes
In the absence of declaration, does DBCTM have any incentives or constraints that prevent it from exercising that market power?	No DBCTM has no such incentives or constraints. DBCT has an incentive to maximise profit by monopoly pricing. In doing so it faces no constraints. See the specific comments about the Deed Poll and Access Framework set out below.	Yes
Does the Deed Poll and Access Framework impose a material constraint on DBCTM's ability to exercise market power which is relevant to assessing the likely future state of	The Deed Poll and Access Framework do not impose any such constraint as: • the Deed Poll is not legally effective; • it is not possible for access seekers to legally enforce the key pricing	Yes*

dependent markets without declaration?	'restrictions' in the Deed Poll and access framework • the Deed Poll and Access Framework are highly uncertain in their application; • The Access Framework provides no certainty to access seekers or access holders as it can be very easily amended, and the provisions of the • it is a contrived and artificial attempt to contract out of the national access regime that is inconsistent with an appropriate interpretation of criterion (a). The alleged cap on price increases of $3/tonne is not a sufficient constraint to prevent a material adverse impact on the competitive environment in the Hay Point catchment exploration and development coal tenements market in any case.	
Does declaration provide a constraint on DBCTM that would prevent it from exercising market power	Yes, declaration has resulted in the QCA requiring DBCTM to have an approved access undertaking, and enlivened a series of QCA Act provisions which apply to declared services. That access undertaking sets the TIC and standard access terms and provides for the QCA to be able to resolve access disputes.	Yes
Is there a promotion of competition in at least one of the coal tenements dependent markets?	Yes – the asymmetric pricing outcomes for existing and future users in the absence of declaration creates a barrier to entry that will deter entry for efficient future users – particularly in the market for coal exploration and development tenements – which will not exist with declaration. Even if it is assumed that the '$3/tonne price cap' (above the efficient regulated level) that DBCTM asserts the Deed Poll provides would be complied with, PwC's valuation modelling and Castalia's economic analysis demonstrates that will significantly impact on future users' ability to compete for coal tenements in the Hay Point catchment. That is to say, the level of monopoly pricing which DBCTM proposes will have an adverse impact on the competitive environment in that coal tenements market,	Yes*

	compared to the state of competition with declaration.	

* The DBCT User Group acknowledges that the Deed Poll and Access Framework executed by the QCA are different to those considered by the QCA in the Draft Decision, although it considers the vast majority of the QCA Draft Decision reasoning remains applicable.

13 Criterion (a) – Promote a material increase in competition

Criterion (a) requires that the QCA be satisfied that:

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

In applying this new criterion, it is important to be clear about exactly what the QCA is required to be satisfied of.

13.1 Material means not trivial

The DBCT User Group has always acknowledged that criterion (a) requires the promotion of a 'material' increase in competition. However, material in this context has a well understood legal meaning of merely 'not trivial' or 'not marginal'.

That was made very clear in the explanatory materials published in connection with the legislative amendments that inserted the reference to 'material' in criterion (a).

In particular, the exploratory notes to the *Motor Accident Insurance and Other Legislation Amendment Bill 2010* (Qld) described the purpose of the amendment as:

> *"… to clarify that access (or increased access) to the service should be expected to promote a material increase in competition in order for this criterion to be satisfied.* ***This will prevent the declaration of services where only a trivial increase in competition is expected to result****."*

Consistently with that, the explanatory memorandum to the *Trade Practices Amendment (National Access Regime) Bill 2006* (Cth) referred to the Federal government's intentions in including the reference to material as follows.

> ***In responding to the Productivity Commission's report, the Government indicated that*** *while the current declaration criteria (such as 'the national significance' test) preclude declaration where the relevant infrastructure and subsequent public benefits are not significant,* ***this does not sufficiently address the situation where, irrespective of the significance of the infrastructure, declaration would only result in marginal increases in competition. The change will ensure access declarations are only sought where increases in competition are not trivial***

That background of the amendments reflecting the Federal government's intent is important, as the Federal government expressly rejected the Productivity Commission's recommendation of requiring a higher 'substantial increase' threshold.[37]

The intended meaning of material as merely not trivial or marginal has then been recognised and adopted in all subsequent consideration, including:

[37] Hon P Costello MP (Treasurer), *Government response to Productivity Commission Report on the Review of the National Access Regime*

(a) the Australian Competition Tribunal's conclusion in *Application by Services Sydney Pty Limited* that *'there are little, if any, practical differences between the descriptions 'not trivial', 'real' and 'material' in this context*;[38] and

(b) the recognition in the Final Harper Review Report that declaration 'promote a material increase in competition' sets a *'low threshold'*.[39]

Consequently, it is clear that DBCTM's continued assertions of criterion (a) involving a 'significance' threshold would be entirely inappropriate for the QCA to adopt.

13.2 Promotion of competition

The promotion of a material increase in competition was correctly concluded by the QCA to involve *'an improvement in the opportunities and environment for competition such that competitive outcomes are materially more likely to occur'*.[40]

That interpretation is also absolutely consistent with the interpretation of the NCC, both in its Preliminary Statement of Reasons in the Newcastle shipping channel service revocation application,[41] and the NCC's Guide to Declaration.[42]

The QCA Draft Decision also correctly engages with the fact that a promotion of competition involves an improvement in the opportunities and environment for competition – not an immediate impact on the number of buyers or suppliers or level of competitive rivalry in a market.

The DBCT User Group strongly agrees with analysis like the following in the QCA Draft Decision:[43]

> *In undertaking the analysis the QCA has considered aspects such as the likely entry condition in a dependent market in a future without and without declaration – for example, whether the service provider's conduct in the market for the service would discourage entry or restrict participation in a dependent market.* ***What matters in terms of a material impact on competition is not necessarily the number of potential entrants that would be discouraged, but the possibility that more efficient firms would be discouraged from entering a dependent market in a future without declaration compared to a future with declaration****.*

DBCTM seeks to misinterpret this passage to allege that the QCA is incorrectly leaping from a mere possibility of a barrier to entry to a de facto presumption that there has been a material promotion of competition.

However, it is clear when the QCA Draft Decision reasoning is read in full that the QCA correctly considers criterion (a) requires:

(a) an improvement in the opportunities and environment for competition (i.e. a barrier to entry that would exist without declaration being removed); and

(b) that improvement being 'such that competitive outcomes are materially more likely to occur'.

The focus on barriers to entry is consistent with commentary in the Productivity Commission report in its inquiry into the National Access Regime where it stated:[44]

[38] [2005] ACompT 7 at [134]
[39] Competition Policy Review, Final Report, March 2015, page 433.
[40] QCA Draft Decision, [2.4.6] and Part C [3.4].
[41] NCC, Preliminary Statement of Reasons at [6.5.1]
[42] NCC, Guide to Declaration at 32.
[43] QCA Draft Decision, Part C [3.4]
[44] Page 168

> *The promotion of competition can be measured by a number of legal indicators set out in CCA precedent. In the Queensland Co-op Milling case, the Trade Practices Tribunal linked the scope for competition to the following elements of market structure … The height of barriers to entry, that is the ease with which new firms enter and secure a viable market*

It is also entirely consistent with the Australian Competition Tribunal's consideration of the promotion of competition requirements.

Thus in *Re Sydney International Airport*, the Tribunal stated:[45]

> *The Tribunal does not consider that the notion of 'promoting' competition in s.44H(4)(a) requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased. Rather, the Tribunal considers that the notion of "promoting" competition in s.44H(4)(a) involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration.*
>
> and:
>
> ***The purpose of an access declaration is to unlock a bottleneck so that competition can be promoted in a market other than the market for the service. … that is to say it is concerned with the removal of barriers to entry which inhibit the opportunity for competition in the relevant downstream market. It is in this sense that the Tribunal considers that … if the conditions or environment for improving competition are enhanced, then there is a likelihood of increased competition that is not trivial****.*

This approach was also confirmed in *Re Duke Eastern Gas Pipeline Pty Ltd*. After citing the relevant passage from *Re Sydney International Airport*, the Tribunal said:[46]

> *The Tribunal [in Re Sydney International Airport] concluded that the TPA analogue of criterion (a) is concerned with the removal of barriers to entry which inhibit the opportunity for competition in the relevant downstream market. It is in this sense that the notion of promotion of competition involves a consideration that if the conditions or environment for improving competition are enhanced, then there is a likelihood of increased competition that is not trivial. We agree.*

In *Application by Services Sydney Pty Limited*[47]

> *The Tribunal has expressed a view in the past that the promotion of competition test does not require it to be satisfied that there would necessary or immediately be a measurable increase in competition. Rather, consistent with the purpose of Part IIIA being to unlock bottlenecks in the supply chain, declaration is concerned with improving the conditions for competition, by removing or reducing a significant barrier to entry. Other barriers to entry may remain and actual entry may still be difficult and take some time to occur, but* ***as long as the Tribunal can be satisfied that declaration would remove a significant barrier to entry into at least one dependent market and that the probability of entry is thereby increased, competition will be promoted****.*

Similarly, the Tribunal recognised *In Application by Services Sydney Pty Limited 'The promotion of competition is a relative, rather than an absolute, concept*'.[48]

[45] At 40,775
[46] [2001] A Comp T 2 at [75].
[47] [2005] A Comp T 7 at [131].
[48] [2005] A CompT 7 a [135]

In other words, what the QCA needs to be satisfied of is that without declaration there would be a new barrier to entry which reduces the likelihood or probability of new efficient entry in a non-trivial way.

The QCA does not need to be satisfied of a particular efficient new entrant to a dependent market which would cease to enter without declaration or a particular volume of new entrants, transactions or resulting demand which would be deterred. Rather the focus is on the opportunities and environment for competition.

Consequently, DBCTM's submissions, make errors of law in the interpretation of criteria (a) by suggesting that the QCA needs to quantify or demonstrate a material volume of competition that would be impacted in order to be satisfied criterion (a) is met.

13.3 How does criterion (a) operate in the context of the review of an existing declaration?

The precedent regarding the meaning of promotion of competition discussed above arose from decisions regarding applications for declaration.

In this declaration review, the context is obviously different. There has been a very long term declaration in place.

The counterfactual to be considered here is therefore the likely outcomes of declaration ceasing.

In effect the QCA needs to be satisfied that removing declaration would be likely to have a non-trivial adverse impact upon the conditions or environment for competition (relative to the situation that would exist with declaration).

In other words, the key questions are in some ways reversed. Rather than asking what are the likely outcomes with declaration, the key questions become:

(i) what will be lost without declaration?

(ii) what if any effect will the contrived, uncertain and ineffective alternative arrangements DBCTM presents have without declaration?

(iii) what will be the impacts on investment incentives, taking into account the evidence differences in transparency, certainty, legal effectiveness and reasonableness of those outcomes?

Given the long-standing nature of the declaration, structures in dependent markets have developed in a way that reflects and assume declaration.

For example, the evergreen access agreements that, for as long as declaration continues in fact, provide a critical part of ensuring effective competition in, and promoting investment in, dependent markets – as they are a benefit available to all. Yet the removal of declaration now, inescapably disenfranchises future investors (who declaration provided assurances of equal treatment to) and inevitably gives rise to competition problems and public detriments as a result.

What becomes evident from an analysis of the impacts on dependent markets of removing declaration, is that it is not actually possible to create by DBCTM's own unilateral conduct equivalent outcomes to those that arise from declaration. That is the case, because the promotion of competition and public benefits arising from declaration, inherent rely on a mix of the QCA itself (its roles, experience, approach, functions and powers), the statutory powers rights and protections which exist under the QCA Act, and existing bipartisan contractual arrangements created in the context of that regulatory framework.

14 Criterion (a) – Market definition – Coal Tenements Markets

14.1 Product dimension

(a) Coal tenements markets distinct from coal markets

As discussed in the QCA Draft Decision, and accepted as common ground in all stakeholder submissions (including by DBCTM), there are markets for coal tenements distinct from the markets for supply of thermal or metallurgical coal.

Previous DBCT User Group submissions have outlined the basis for that, but it is evident that there is a different range of buyers and sellers in coal tenements markets as distinct from coal supply markets (with, for example, the government as a seller of coal tenements, and global coal buyers that do not invest in tenements as obvious examples), and a coal tenement is clearly not substitutable for coal.

A separate coal tenement market is also consistent with precedent from each of the Australian Competition Tribunal and the NCC.[49]

(b) Exploration and development coal tenements market

The DBCT User Group also consider that there are separate markets for coal exploration and development tenements and coal production tenements for the purposes of assessing the continued declaration of the DBCT service.

That conclusion is consistent with the QCA Draft Decision,[50] and has been supported by the QCA's consultant Balance Advisory which indicated that:[51]

Tenements in the exploration or development stage will have both a different value and different market to those in the production phase.

The same conclusion was reached in the Palaris Report, which provided further detail supporting that analysis:[52]

For the purposes of assessing competitive effects within coal tenements markets, it is important to differentiate between different types of tenements, which relate to two clear markets identified in the Balance Advisory report and the QCA draft decision. That is, ***coal tenements are divided into the markets for a) exploration or pre-development projects and b) operating assets****.*

This is a clear distinction that separates exploration and development projects with a lower level of certainty and higher risk profile, to that of operating mines where most risks are known, and production volumes and operating costs can be estimated with a much higher level of certainty*.*

This separation is important because in most cases, companies looking to acquire coal tenements will be aiming to acquire exploration or development assets or operating mines, but are highly unlikely to switch between the two in response to a changes in the price to acquire one such type of tenement. The reasons for this are numerous and include availability of capital and acquisition costs, location and synergy value for existing tenements, and risk appetite*.*

The reasoning of Palaris reflects the practical experience of members of the DBCT User Group and Palaris' experience as an adviser to resources companies in considering potential coal tenement acquisitions.

[49] But of course, market definition is necessarily a fact specific exercise, such the exact bounds of a market definition in one case cannot be applied directly to other cases.
[50] QCA Draft Decision, Part C, page 57-58
[51] Balance Advisory, *DBCTM Declaration Review Independent Opinion for Queensland Competition Authority*, 31 August 2018, page 6
[52] Palaris, page 31-32.

In particular, for those DBCT User Group members which have participated in recent divestments (and acquisitions) of exploration and development coal tenements, the processes attracted a different field of bidders, which included companies that would not be potential acquirers of production coal tenements (including more 'junior' resources companies and more speculative investors).

In addition, a number of members of the DBCT User Group have a single operating project, and are themselves more likely to be buyers of exploration and development coal tenements which have a synergy value for their existing project (such as an adjacent coal tenements extending its mine life or increasing production or the ability to use evergreen DBCT capacity) rather than alternative production coal tenements.

Even for those DBCT User Group members who are buyers of both types of tenements, they do not regard exploration and development coal tenements as substitutes for production coal tenements, as they serve different purposes. Rather they are viewed as compliments, as it is necessary for a major mining company to have a portfolio of projects at different stages of development.

Finally, based on the comments from Greg Houston of Houston Kemp at the Stakeholder Forum, DBCTM also appears to agree that there are separate markets for coal exploration and development tenements and coal production tenements.

14.2 Geographic dimension – the Hay Point catchment

(a) QCA analysis and DBCTM assertions

As noted in the QCA Draft Decision:[53]

Given significant difference in infrastructure costs between the Goonyella coal supply chain and other coal supply chains across below-rail, above-rail and port charges (in the order of 47 to 130 per cent), the valuation of coal tenements in the Goonyella system would likely be different from other regions. Therefore, coal tenements in the Hay Point catchment region are unlikely to be a close substitute for tenements in other parts of central Queensland. This leads the QCA to agree with the DBCT User Group's view that the geographic dimension would likely be the Hay Point catchment region. Balance agreed with this view.

The DBCT User Group continues to agree with that economic analysis as supporting there being a Hay Point catchment coal tenements market.

By contrast, DBCTM asserts that there is a Queensland coal tenements market (without any particular basis for that geographic market definition), and the QCA falls into error by considering substitution by reference to difference in value or prices rather than difference in returns.

However, what DBCTM have misunderstood is that the QCA (and the DBCT User Group) are simply noting that where a coal tenement was otherwise equal (in terms of factors like coal reserves, coal quality, operating costs and the like) the infrastructure cost differences would mean that the difference in value (and therefore returns) between such coal tenements would be more than a SSNIP such that a purchaser would not switch between coal tenements in different regions. Of course, where other characteristics of coal tenements are different, then return may be the only way of comparing them, but the point remains valid.

Higher infrastructure charges in other supply chains will result in materially lesser returns for coal tenements in other regions – such that they would continue not to be substitutes for coal tenements in the Hay Point catchment.

(b) Evidence which has been provided to the QCA

[53] QCA Draft Decision, Part C, pages 57-58.

In addition to the numerous DBCT User Group submissions on this point, the QCA has before it three expert reports which confirm the existence of a Hay Point catchment coal tenements market.

It is worth setting out in full the detailed analysis undertaking by those experts.

Initial Castalia Report – an economic analysis

The DBCT User Group's initial submission contained a report from Castalia which analysed the geographic dimension of the coal tenements market as follows:[54]

We define the coal tenements market as the market for supply and acquisition of rights to explore for or develop resources of coking coal, thermal coal or both in the "Hay Point catchment".

The "Hay Point catchment" is the area – generally in proximity to the Goonyella rail corridor – where efficient prices for coal loading result in the lowest logistics coal chain costs being via export utilising a coal terminal in the Port of Hay Point. That is Hay Point is the least cost option rather than Abbot Point or Gladstone. …

To consider whether such a geographic market exists, it is important to consider how prices for tenements are formed. In particular, we need to ask whether prices for tenements are formed independently in different ports' (and more broadly, different supply chains') catchment areas.

The reason we ask this question is because of the frequently made argument that the market for mining tenements, such as coal tenements, has a wide geographic dimension. The essence of the argument is that the coal market is global, with an international price for the product. Hence, investors have a wide choice of where to locate their mining operation: they could be in Queensland or on Borneo and still supply the same market.

However, all tenements (if they are ultimately to be developed into mining operations) must be associated with particular supply chains. In acquiring a tenement, for example through a Government tender processes, buyers have control of the amount they bid. In developing their bids, they take into account the likely range of revenues and costs such as*:*

- The long run average coal price for the period of production

- The capital and operating costs of developing the mine and operating the mine. This of course is heavily influenced by the quality of the resource

- The cost of the logistics chain from mine to port and ship loading*.*

While there are significant uncertainties and probabilities associated with these ranges, ***prices for tenements with the same production cost (quality of resource) characteristics will systematically vary between different supply chain catchment areas****.*

To apply the conventional SSNIP logic, a decline in the cost of a logistics chain with lead to a raise in the price of the tenements within its catchment areas, but this will not cause substitution: that is, investors will not flee to other catchment areas so that the increase in the price of tenements cannot be sustained.

The Hay Point Catchment

To establish the boundaries of the Hay Point catchment we have modelled the total cost of the mine to ship logistics chain for mines in the Bowen using the current prices of the various components of the chain.

[54] Initial Castalia Report, pages 6-8

In other words, the Castalia Report undertook a detailed economic analysis and determined that supply chain cost differences were sufficiently material that they were impacting on value and return of coal tenements in such a way as to provide distinct geographic markets.

Castalia Criterion (a) Report

The most recent Castalia Criterion (a) Report, enclosed as Schedule 6 to this submission confirm that it continues to hold that view, particularly stating:

HoustonKemp then claims this proposition means that tenements in the Hay Point catchment are substitutable for tenements elsewhere in Queensland. Here we disagree. Of course, investors may look for tenement opportunities globally, be it elsewhere in Queensland, in Australia or in other countries. What reason do HoustonKemp have for suggestion that tenements elsewhere in Queensland are in the same market while those in Indonesia are not?

It is obviously implausible to suggest that coal tenements in Indonesia are in the same market because they operate within different logistics chains. However, while it may seem less counterintuitive to lump all Queensland tenements together compared to those in Queensland and Indonesia, the error is exactly the same.

The geographic extent of the relevant [coal] tenement market is the extent of the potential distortion that can be caused by different participants in a logistics chain having access to different prices.

QCA's independent consultant - Balance Advisory Report

The QCA's independent consultant, Balance Advisory provided a report to the QCA which confirmed the accuracy of Castalia's reasoning as follows:[55]

> *With regard to the significant infrastructure cost difference between the Goonyella System and other systems, we agree with both DUG and QCA staff's analysis that the geographic dimension of the market is the "catchment area" of Hay Point.*

The Balance Report is importance evidence of market behaviour, particularly given that Balance's experience and views are based on having been an adviser to numerous resources companies in the assessment of coal tenement acquisitions in the past.

Palaris Report – Practical Assessment of the Different Characteristics of Hay Point catchment coal tenements

Following the QCA Draft Decision, the DBCT User Group also submitted further evidence of the Hay Point catchment geographic dimension of the market, with the Palaris Report stating:[56]

> *The analysis found that clearly defined Hay Point catchment coal tenements markets exist – as distinct from the markets for coal tenements in other geographic regions.*
>
> ***The coal tenements within the Hay Point catchment are able to be defined by a unique combination of factors that include:***
>
> - ***Lower infrastructure costs, with a well-established rail network and close proximity to export terminals***
> - ***Stable geological setting and favourable geotechnical conditions***
> - ***Distribution of world class coal bearing formations***
> - ***Outstanding coal quality attributes with high proportion of premium metallurgical coal***

[55] Balance Advisory Report, page 4
[56] Palaris Report, page 5

- ***Mines that are generally in the lower end of the cost curve***
- ***Favourable project development and approval conditions***

…

The defining factors result in markets which:

i. are clearly defined from other coal markets;

ii. contain tenements which are not substitutable for tenements in other coal producing areas.

Similarly later in the Palaris Report it is stated that:[57]

The coal tenements in the Hay Point catchment are unique and are evidently not substitutable for coal tenements in other coal basins or regions.

In addition to the key geological, coal quality and operating cost factors, geographic location is also a key factor in determining value and whether coal tenements may be considered substitutable.

The key reasons that coal tenements in the Hay Point catchment are not substitutable for tenements in other basins or coal producing areas are as follows:

- *Exceptional geological conditions providing low strip ratio open cut mines and tectonically stable conditions for high productivity longwall mines*
- *The unique distribution of coal formation that have the ideal combination of rank, grade and composition to produce premium grade metallurgical products*
- *Typically clean 'low ash' coal seams that can be processed at high yields*
- *Strong global marketing and brand reputation*
- *Established path to market: rail networks and close proximity to port relative to other coal basins, with lower supply chain costs and capital intensity for new mines*
- *Generally lower regulatory and/or approvals risk*

In other words, beyond the economics of supply chain costs, there are significant other characteristics which mean that Hay Point catchment coal tenements have distinct characteristics which produce a distinct demand for them (as opposed to coal tenements in other regions).

In particular it is also worth noting specific factors that Palaris identifies that are very different to other parts of Queensland.

For example Palaris notes:[58]

Regulatory Approvals Risks

While it is recognised that approvals process can be lengthy in Queensland, tenements in the Hay Point catchment benefits from high levels of investment certainty relative to other coal producing areas and basins.

Projects in the Hay Point catchment are largely metallurgical coal focused and for the most part, do not attract the negative social view that is problematic to large scale thermal coal developments, such as those encountered in the Galilee Basin.

In contrast, the Hay Point catchment generally has had a favourable precedent for project approvals, and enjoys significant support from local communities.

[57] Palaris Report, page 29
[58] Palaris Report, page 21-24

Revenue Factors

…

The Hay Point catchment hosts some of the most well established and regarded metallurgical brands traded on the global market. …

The Hay Point catchment produces some of the higher quality premium hard coking coal traded on the global market, with high coke strength after reaction (CSR) values. In other areas, only the Illawarra brand (South 32's Illawarra mines) have high CSR values.

…

Coal deposits from within the Hay Point catchment have a unique combination of factors (including rank, macerals and ash chemistry) to produce high quality metallurgical coals. … the Moranbah Coal Measures / German Creek Formation have high rank and also high proportions of vitrinite, which are two of the main contributing factors to generation of high CSR coals.

The Rangal Coal Measures and Illawarra Coal Measures (Southern Coalfield) have high rank in some areas but generally not high vitrinite content. In the south Bowen Basin, the rank of the German Creek Formation is lower, and generally produces lower value high volatile coking coals.

In the Hunter Valley and Gunnedah Basin, the rank is insufficient to generate hard coking coals, and lower value SSCC products can be produced from only vitrinite rich seams.

…

The Hay Point catchment also produces a large volume of low volatile and ultra-low volatile PCI products .. The Hay Point catchment produces a large share of high quality PCI products …

DBCTM's suggestion is effectively because all coal tenements broadly service the same purpose they must be substitutes, which is effectively the same as arguing that all cars (from low price entry point vehicles to luxury cars) are in the same market. However, there are very clearly differences in the features and attributes – both in terms of actual quality of resources, blending and co-shipping opportunities and prospects of successful development – that differentiate Hay Point catchment coal tenements.

Consequently, the QCA has before it a wealth of information confirming that Hay Point catchment coal tenements are not close substitutes to coal tenements in other regions, such that the appropriate geographic dimension of the market is the Hay Point catchment.

The DBCT User Group continue to confirm that reflects their view as potential buyers of coal tenements.

It is particularly notable that both Palaris and Balance Advisory, as the types of organisations that advise resources companies on coal tenement acquisitions and resources companies themselves, strongly hold that view. The evidence before the QCA is not a merely theoretical high level analysis of the type DBCTM and Houston Kemp have provided, but evidence of how the market actually operates in reality from market participants themselves.

(c) The artificiality of the DBCTM view

The lack of reality in DBCTM's position becomes clear when one considers that they are effectively arguing for each of the following to be in the same market:

Coal region	Characteristics
Galilee Basin coal tenement	No current infrastructure connections. Development requires significant greenfield rail infrastructure investments running

	into the billions of dollars, and creates very significant funding challenges. Significant approvals challenges as demonstrated by Adani's Carmichael project, with opposition heightened due to perception it may 'open a new basin' for development, creating a very different profile in terms of regulatory risk and potential timing for development. Solely thermal coal projects – different anticipated revenue profile and exposure to climate / energy policies
West Moreton region coal tenement	Existing infrastructure – but high operating and capital cost due to not originally being developed for coal services and traversing the metropolitan rail lines (with also gives rise to other issues like noise constraints, preserved paths and scheduling priority for other traffics), and not having the economies of scale that exists in the Goonyella coal supply chain. Material approvals challenges as demonstrated by New Hope's New Acland project, with opposition heightened due to perceived closeness to agricultural or residential areas, creating a very different profile in terms of regulatory risk and potential timing for development. Solely thermal coal projects, creating a different anticipated revenue profile and exposure to climate / energy policies
Hay Point catchment coal tenement	Existing low cost infrastructure connections. Lowest approvals challenges. Evidence of projects being developed and obtaining approvals quickly – Ironbark and Olive Downs as recent examples. Principally metallurgical coal projects, with potential for additional revenue or marketing opportunities through blending/co-shipping opportunities.

The DBCT User Group note that, in the context of the QR declaration review, the South West Producers (Yancoal and New Hope) agree with the QCA's assessment that West Moreton coal tenements are in a different geographic market.

Many of the DBCT User Group are potential buyers of coal tenements in the Hay Point catchment, but few (if any) are potential buyers of coal tenements in the Galilee Basin or West Moreton region.

DBCTM have provided no evidence for why such coal tenements with entirely different characteristics and value should be considered substitutes, other than the most high level argument that they are an input into producing coal which should therefore be substitutable for other inputs that provide the same function.

As discussed above, that argument simply does not engage with the distinct characteristics that result in different costs of production / delivery of coal for any ultimate development, different regulatory and approvals risk profile, and different revenue profile arising from coal quality differences and co-shipping/blending opportunities.

As the Palaris Report and Castalia Report demonstrates, the same analysis stands for other areas of the Bowen Basin.

(d) The NERA analysis in the NCC process is inappropriate

The DBCT User Group acknowledges the report NERA has provided to the NCC recently which concludes that the coal tenements market is *'at least as wide as Australia, and potentially as broad as the Asia Pacific'*[59] (the ***NERA Report***).

However, the DBCT User Group strongly disagrees with that conclusion and considers that it would not be appropriate for the QCA to conclude (either on the basis of the NERA Report or more generally) that a wider geographic market for coal tenement exists than previously determined in the QCA Draft Decision. Of course, market definition is necessarily a fact-specific and purposive exercise, such that there is limited benefit in considering material prepare for the purposes of a different assessment – but it is addressed below in any case in anticipation it will be raised by DBCTM.

In particular, the DBCT User Group considers that the limited analysis in the NERA Report which leads to their conclusions about broader geographical markets is clearly flawed and based on both insufficient evidence and starkly contrasting evidence to that which the QCA has before it.

The NERA Report is only 9 pages long and does not pay sufficient regard to the numerous factors that result in a break in substitution potential along geographic coal tenement regions, at least in respect of the Hay Point catchment coal tenements. NERA also has no particular qualifications or experience in advising on coal tenement acquisitions or divestments with which to make this assertion. The NERA Report does not even attempt to demonstrate how its conclusion might be true as a matter of theoretical economic modelling or is evidenced by the behaviour of market participants.

The DBCT User Group particularly notes that the NERA Report:

(i) clearly indicates that the evidence before NERA about the operation of the coal tenements market in New South Wales is substantially different to that presented to the QCA – in particular:

(A) NERA notes that *'although tenements can be traded, trading is rare'* (which contrasts with both the Palaris Report indication of a liquid market for Hay Point catchment coal tenements and the list of transactions shown in the DBCT User Group submissions below); and

(B) the New South Wales government does not generally employ a competitive bidding process for exploration licences (so there is no competition for such releases of the type there is in Queensland);

(ii) appears to determine that because there is a global or Asia-Pacific coal market such that firms wishing to supply the market can do so from similar coal fields across that region, it must follow that coal tenements across that region must be substitutes. However, that leap in logic involves not engaging properly with the fact that the coal market and coal tenements markets are distinct with different buyers and sellers and different boundaries of substitution. It should be kept in mind this is effectively a completely unsubstantiated suggestion that an inland Russian coal tenement which if developed can make sales to Korea or Japan is substitutable for a Bowen Basin coal tenement. No one who has had any experience in the coal industry considers that to be true;

[59] NERA Economic Consulting, *Declaration of the shipping channel service at the Port of Newcastle*, 8 April 2019

(iii) does not engage with the prevalence of metallurgical coal in the Hay Point catchment relative to other regions in the Bowen Basin, presumably as the revocation application was principally concerned with Hunter Valley operations which are predominantly thermal coal with more common characteristics to other thermal coal producing reasons). However, as the Palaris Report discussed, the metallurgical coal quality differences in the Hay Point catchment are an important part of the reason for the coal tenements market definition that is appropriate in this declaration review; and

(iv) engages in a series of reasoning that is directly inconsistent with the approach to defining the geographic scope of the tenements market applied by the Australian Competition Tribunal *In the Matter of Fortescue Metals Group Limited*:[60]

In relation to the last point, the DBCT User Group particularly note the following passage from that judgment:[61]

Most of the experts accept that the market for tenements is at least Pilbara-wide. Dr Fitzgerald supported a global market and pointed to the prevalence of international investors in joint venture arrangements. By the same token, many investors in tenements only participate in Australia. Further, as Mr Houston pointed out, ***differences in the scale and quality of resources, and different regulatory requirements and business environments, mean that businesses most likely characterise their operations on a region-by-region basis****, rather than a global basis. We believe that the market is most likely Pilbara wide, and not global for the reasons given by Mr Houston.*

(e) Other factors which make Hay Point catchment coal tenements distinct

In addition, the DBCT User Group continues to consider there are other factors (beyond those mentioned in the Castalia and Palaris Report) which make coal tenements in the Hay Point catchment distinct and non-substitutable for coal tenements in other regions including:

(i) the co-shipping and blending opportunities are relevant because they provide coal producers with opportunities to increase the value of production of different blends of metallurgical coal from tenements from within the Hay Point catchment (relative to if the same resources existed in another coal region);

(ii) the Goonyella region is the most likely region to see new entry into the rail haulage market (which would benefit such coal tenements) given its central location in the Bowen Basin and high volumes of haulage business to compete for;

(iii) for all existing users of DBCT, a Hay Point catchment coal tenement presents a potential to more efficiently and economically utilise future access rights under the evergreen user agreement; and

(iv) for BHP, a Hay Point catchment coal tenement presents a potential to more efficiently and economically utilise future capacity at HPCT and its BMA Rail business.

(f) DBCTM allegations of 'narrow market' are completely irrelevant to criterion (a)

DBCTM appears to make comments in the Latest DBCTM Submission, that suggest that the coal tenements markets as appropriately defined by the QCA are somehow not legitimate because they are 'narrow'.

[60] [2010] A CompT 2
[61] In the Matter of Fortescue Metals Group Limited [2010] A CompT 2 at [1119]

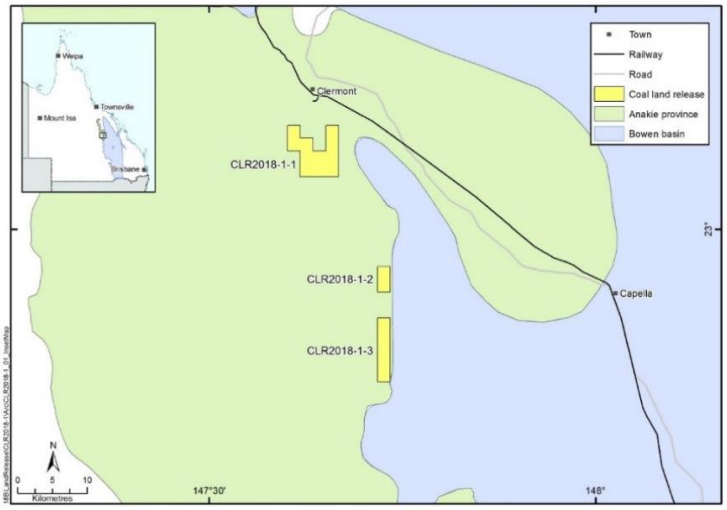
First, the DBCT User Group strongly rejects that the market definitions which the QCA has found to exist are 'narrow'. Many markets are regional by nature, as there are often geographic breaks in substitution potential in Australian markets arising from freight costs and other factors.

In addition the Palaris Report noted the liquid nature of the coal tenements markets in the Hay Point catchment,[62] with numerous transactions relative to the activity in respect of coal tenements in other coal regions.

For example, the number of transactions from 2018 and 2019, with examples noted below, suggest this is not a 'narrow' market:

Date	Exploration Project	Transaction and parties
February 2018	Hillalong East	Bowen Coking Coal acquisition from Rio Tinto and Cape Coal
March 2018	Winchester South	Whitehaven Coal acquisition from Rio Tinto
March 2018	Valeria	Glencore acquisition from Rio Tinto
March 2018	Exploration rights 60 km SE of Middlemount	Metroof Minerals named as preferred developer for coal exploration tenure release from Queensland government
March 2018	Exploration rights 25km SE of Middlemount	Sojitz Coal named as preferred developer for coal exploration tenure release from Queensland government
May 2018	Gregory-Crinum (care and maintenance, requiring further development to access remaining coal)	Sojitz Coal acquisition from BHP Mitsubishi Alliance
May 2018	Eagle Downs	South32 acquisition of 50% of project from China BaoWu Steel Group
June 2018	Wotonga South	Stanmore Coal acquisition from Peabody Energy
February 2019	Denham	Pioneer Coal subsidiary Denham Coal named as preferred developer for coal exploration tenure release from Queensland government
February 2019	Exploration rights west of Mackay	Hancock Prospecting subsidiary Queensland Coal Investments Pty Ltd named as preferred developer for coal exploration tenure release from Queensland government
Current	Queensland government coal exploration tenements	The Queensland government is currently tendering 3 coal exploration blocks (CLR2018 1-1, CLR2018 1-2 and CLR2018 1-3) with coking coal resources south of Clermont (which is on the Goonyella rail system), with preferred tenderers to be

[62] Palaris Report, page [*]

		announced in May-June 2019 The location of that exploration acreage is shown below: Location of CLR2018-1-1, CLR2018-1-2 and CLR2018-1-3 areas (Bowen Basin) 

However, even more critically, the 'narrowness', width or scale of a dependent market, is legally of absolutely no relevance to whether criterion (a) is satisfied.

In particular, the DBCT User Group notes that the Productivity Commission Report which recommended the changes to the current criterion (a) specifically considered submissions that there should be some restrictions on the types of markets which could satisfy criterion (a) and expressly rejected such a change to criterion (a).

In particular, in response to the submission that the dependent market (for the purposes of criterion (a)) should be 'nationally significant', the Productivity Commission noted:[63]

Inserting a requirement that criterion (a) may only be satisfied where the market in which competition will be materially promoted is of national significance would complicate assessment of declaration applications against the criterion because there is no objective threshold as to what defines a nationally significant market. Moreover, even significant competition benefits in a small market could still produce overall gains for the community — the key consideration for the public interest test, criterion (f).

In other words, criterion (a) simply asks is there a promotion of competition in *any* dependent market. For the reasons set out below, and in the DBCT User Group's previous submissions, the DBCT User Group consider it is clear there is a promotion of competition in at least the exploration and development coal tenements market.

15 Criterion (a) – Why the Access Framework and Deed Poll do not provide constraints

15.1 The unstated assumptions underlying DBCTM's argument

DBCTM's arguments in relation to criterion (a) are principally reliant on their assertions that the Deed Poll and Access Framework impose constraints on DBCTM in the absence of declaration, such that the difference with and without declaration is insufficient for the QCA to be able to be satisfied that declaration would promote a material increase in competition.

[63] Productivity Commission, Final Report, page 170

The QCA has clearly appreciated that given the focus of the QCA's Staff Questions of 5 April 2019 (the ***QCA Questions***).

The first of the QCA Questions (and the bulk of the Latest DBCTM Submission) relates to the inclusion of a theoretical '$3/tonne cap' on price rises above the level that would have been determined by the QCA had the DBCT service continued to be declared.

However, before one even gets to considering whether the asymmetric treatment between existing users and future users that the terms of the Deed Poll and Access Framework would create if they were given effect to, it is important to note that the first assertion – that the Deed Poll and Access Framework provides a constraint on DBCTM's behaviour in the likely future without declaration – relies on a series of critical assumption holding true.

Namely, DBCTM effectively assumes that:

(a) it is appropriate for the QCA to consider the Deed Poll and Access Framework as part of the counterfactual (the likely state of markets without declaration);

(b) the Deed Poll provides protections for buyers of coal tenements in the Hay Point catchment;

(c) the Deed Poll and Access Framework impose legally binding obligations on DBCT Management in favour of the covenantees;

(d) the Deed Poll is legally enforceable by access holders and access seekers such that it will actually provide a constraint on DBCTM's behaviour – and in particular, that specific performance will be able to be granted to enforce that pricing cap; and

(e) the amendment regime is sufficiently robust and certain that existing terms of the Access Framework provide constraints which are relevant to the likely future state of dependent markets.

For the reasons set out below, the DBCT User Group considers it is clear that many, if not all, of those assumptions do not hold true, such that the Deed Poll and Access Framework do not provide a constraint on DBCTM's ability to exercise its market power in the absence of declaration.

15.2 The requirements for certification are irrelevant

DBCTM has made submissions, and sought to stress on numerous occasions in the Stakeholder Forum that the Access Framework should somehow be accepted because it would (they argued) meet the principles in the Competition Principles Agreement between the States and the Commonwealth in relation to certification of an access regime as an 'effective access regime'.

Leaving aside whether the DBCT User Group would even agree with the assessment that the Access Framework would meet such principles, that submission is completely misconceived.

It is absolutely clear that the role of the QCA in a declaration review under section 87C QCA Act is to determine whether it is satisfied of the access criteria (in which case it must recommend declaration) or it is not satisfied (in which case it must recommend against declaration).

The access criteria set out in section 76 QCA Act clearly sets out the criteria which the QCA must apply.

There is no reference to the Competition Principles Agreement, and no basis for somehow implying that there was intended to be one. Certification is the basis upon an alternative regulatory arrangement applying to a service can result in that service being outside the scope of the national access regime. It has no application to non-regulatory regimes of the type DBCTM has sought to construct.

The User Group therefore submits that the Competition Principles Agreement are plainly an irrelevant consideration for the purpose of the QCA's statutory role in the declaration reviews (of determining whether each of the criterion in s 76 are satisfied).

16 Criterion (a) – Legally inappropriate to consider the Deed Poll and Access Framework

16.1 Contrived and artificial attempt to avoid declaration

Irrespective of the terms of the Deed Poll and Access Framework, the DBCT User strongly consider they should be rejected as a clearly contrived and artificial attempt to defeat criterion (a) in any case.

This is not the position that has often existed in previous considerations of the declaration or access criteria where an infrastructure service provider has already been providing a service on a set of terms without declaration, such that those terms can provide useful evidence of the likely terms which might apply in the absence of declaration.

Rather the Deed Poll and Access Framework have only been brought about because of, and to try to avoid, declaration.

As the Castalia Criterion (a) Report accurately puts it:

> *The key claim by DBCTM and their advisors to justify discontinuing declaration is that the DBCTM "access framework" would produce outcomes "substantially" or "materially" identical to that which would occur under declaration.*
>
> ***Implicit in their logic is that DBCT meets the criteria for declaration but DBCTM wishes to avoid the well-established legislative and regulatory approach to access to infrastructure with an untried and untested substitute that they assert produces similar outcomes**. DBCTM do not justify their approach on public policy grounds or claim any benefits. **Their sole rationale is that it avoids declaration**.*

Its artificiality is evident in numerous other ways. The attempt to unilaterally impose it as an outcome without QCA, government or user approval and the potential for enforcement and obtaining remedies being so weak as to make it meaningless as discussed below.

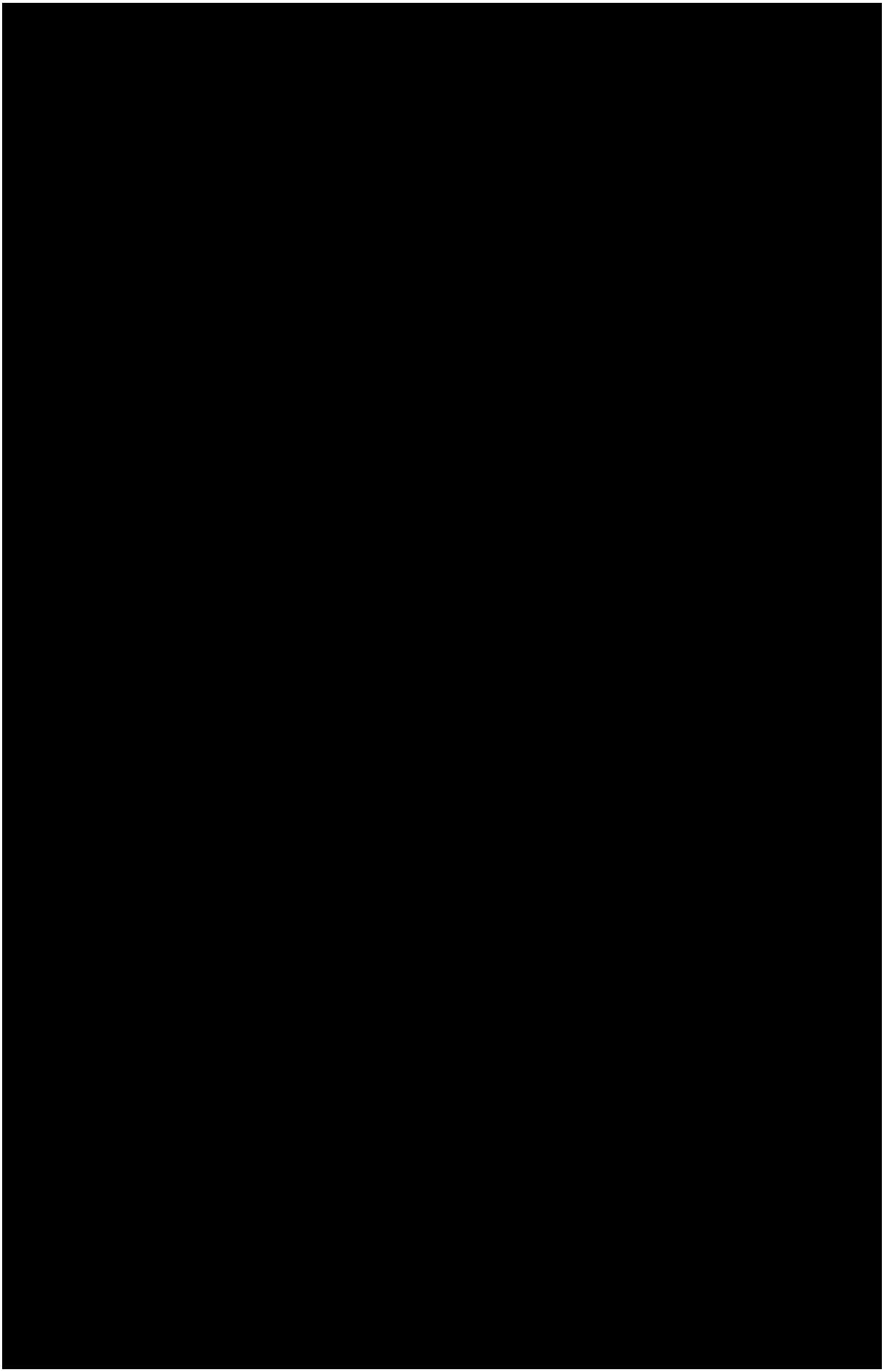
As a matter of public policy that should not be allowed to affect the QCA's consideration of criterion (a).

If the QCA considers that it is bound to have regard to the Deed Poll and Access Framework, it should give little weight to them, given the uncertainty of their application and evident uncertainty about whether their terms would even remain in the same form as (the latest set of amendments) presented to the QCA.

16.2 Inappropriate to consider under the correct interpretation of criterion (a)

In addition, [redacted] as a matter of appropriate statutory interpretation, the Deed Poll and Access Framework should not be taken into account as part of assessing the like state of markets in the absence of declaration (for the purposes of criterion (a)).

[redacted]



Accordingly, [redacted] the DBCT User Group strongly consider that the legislature clearly did not envisage that the application of criterion (a) could require taking into account a declared service providers artificial attempt to unilaterally impose inappropriate contractual terms on stakeholders which are intentionally designed to be worse than the reasonable terms and conditions that would apply on declaration, but are attempted to be not so much worse that there is a promotion of a material increase in competition in a dependent market.

However, to enable the QCA to conclusively determine that criterion (a) is met even if the Deed Poll and Access Framework are taken into account, the DBCT User Group have gone on to consider the terms of those arrangements.

17 Criterion (a) Access Framework would not provide a material constraint

17.1 The Deed Poll does not provide protections for all buyers of coal tenements

The Deed Poll does not operate in favour of all relevant third parties. To receive the benefit a potential user has to be a 'Confirmed Access Seeker', an 'Access Applicant' or an 'Access Holder'.[64]

However, purchasers of coal tenements would not immediately apply for access. Accordingly, unless they were already an existing user or an existing access applicant, the Deed Poll would not operate in their favour. In other words, they have no rights in relation to issues like amendments that are in breach of the Deed Poll at any time prior to the point at which they apply for access (including at the time they will be considering acquisition of a coal tenement). Such a coal tenement investor has no certainty those terms will remain in place. Accordingly, it is hard to see how they could make material investment decisions on the basis of the protections DBCTM alleges arise from the Deed Poll and Access Framework.

[64] Deed Poll, clause 2.1

17.2 The Deed Poll is not legally effective in creating rights in favour of the alleged beneficiaries

(a) The Deed Poll requires acceptance to be legally effective

The Deed Poll purports to give legal rights to named beneficiaries (defined as the covenantees).[65]

Whether the Deed Poll is actually legally effective in giving those rights is absolute critical to the validity of DBCTM's assertion that the Deed Poll and Access Framework impose a constraint that prevents DBCTM from exercising its market power in the absence of declaration.

However, [redacted] the Deed Poll does not currently create any legal obligations on DBCTM in respect of the alleged covenantees.

[redacted]

[65] Deed Poll, clause 2.1.

Accordingly, it is clear [redacted], to be effective DBCTM's Deed Poll would require acceptance or reliance.

(b) There has been no such acceptance or reliance

There has clearly been no reliance (noting even on its terms the Deed Poll is conditional on declaration ceasing).

Similarly, there has clearly been no acceptance. As is evident from the DBCT User Group's submissions to date, none of the DBCT User Group are willing to accept the Deed Poll.

The key reason for that rejection is that the benefits it theoretically offers are only offered conditional on such offer being effective in removing the much greater benefits delivered by declaration.

[redacted]

The DBCT User Group therefore have unanimously rejected that offer.

In any case, its terms are so outrageous in terms of DBCTM's flexibility for amendments and complete impracticability of enforcement and extreme lack of certainty that the DBCT Users consider they would be rejecting it even if declaration did not exist as an alternative.

The DBCT User Group have consciously not engaged with DBCTM in relation to their proposed Deed Poll so that there can be no suggestion that they have in any way engaged in conduct that would constitute an acceptance of the Deed Poll.

Consequently, the Deed Poll is actually completely legally ineffective, and in fact provides no legal constraint on DBCTM.

[redacted]

The access seekers in the User Group confirm that they will take steps to disclaim the Deed Poll if any covenantee accepts the Deed Poll in any way, such that the QCA (and ultimately the Minister) can be in no doubt that the Deed Poll is legally ineffective in relation to those access seekers.

This is a complete answer to DBCTM's arguments in relation to the Deed Poll and Access Framework, and no amount of amending the Deed Poll or further dubious arguments from DBCT about how similar it is to the regulatory arrangements that will arise through declaration will resolve this legal problem.

17.3 Uncertainties of obtaining remedies

The Deed Poll purports to be able to be legal enforced by the covenantees.

Whether it is in fact enforceable is absolutely critical. If it cannot be legally enforced then it will clearly not impose a constraint on DBCTM.

As a matter of law, an effective deed poll can be enforced by a person sufficiently identified in it as a beneficiary, even though that person is not a party to the deed.[66]

However, a deed poll's unilateral nature means that any intended beneficiary of it is necessarily a volunteer (in the sense that they did not provide legal consideration for the 'benefits' given under the deed).

In addition, the only remedies which DBCTM offers under the Deed Poll are equitable remedies. In particular, under the terms of the Deed Poll:

(a) clause 9.2.1 states that "damages are not a remedy for any breach of this Deed Poll";

(b) clause 9.2.2 states that "the only remedy available for any breach of this Deed Poll (other than a breach of clause 7 and / or clause 8 of this Deed Poll) is specific performance";

(c) clause 9.2.4 states that "the only remedy available for any breach of clause 7 and / or clause 8 of this Deed Poll is declaratory relief"; and

(d) as a result of those clauses, the only available remedies, namely, specific performance and declaratory relief, are equitable remedies that are not available to volunteers.

That has a number of important consequences, namely that:

(a) equitable remedies are discretionary – the court is not required to grant them even if a breach is established;

(b) that discretion remains notwithstanding that the Deed Poll expressly contemplates equitable remedies (and only equitable remedies), because the parties cannot dictate to a court how its discretion ought to be exercised;[67] and

(c) in determining whether to grant such remedies, the court will consider the equitable maxim "equity does not assist a volunteer",[68], which weighs against granting equitable remedies such as specific performance, injunctions and/or declarations, to access holders or access seekers who are for these purposes volunteers.

Consequently, even if the Deed Poll was legally effective (contrary to the DBCT User Group's view [redacted]), there is significant uncertainty about whether it would actually be able to enforce the only remedies the Deed Poll makes available to the covenantees.

In some ways it doesn't even matter whether the QCA can conclusively determine how the court would exercise its discretion. The problem is the complete lack of certainty about compliance and enforcement will have to be taken into account by future users in determining whether to invest in coal tenements in the Hay Point catchment in the absence of declaration.

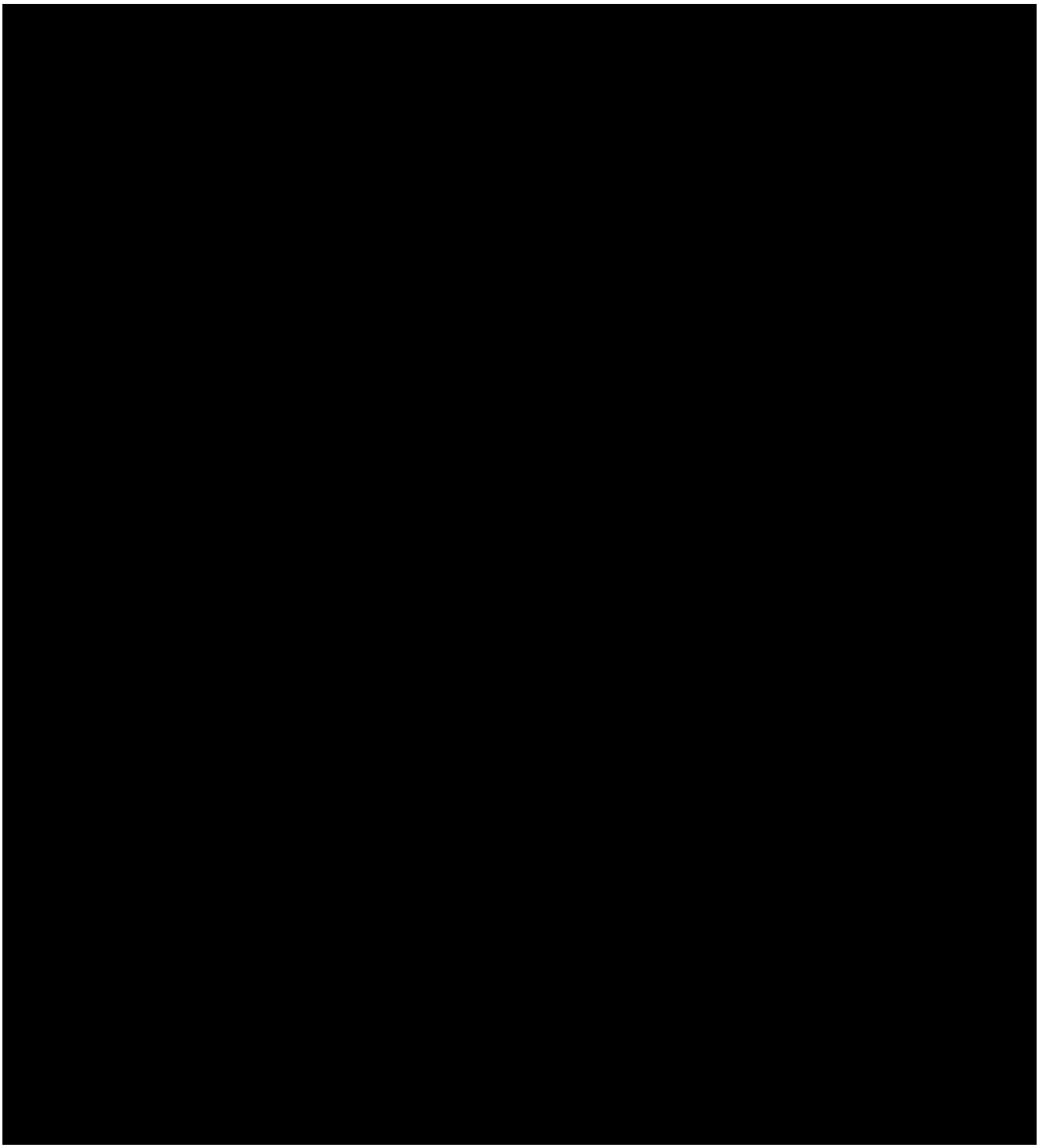
17.4 Specific performance of the pricing cap

The most critical component of DBCTM's Deed Poll and Access Framework is the asserted constraints in relation to pricing – most obviously the price 'cap' of $3 more than the hypothetical price that would apply under a QCA administered regime.

However, [redacted] those pricing obligations are legally not capable of specific performance (which under clause 9.2.2 is the only remedy available for a breach of those restrictions).

[redacted]

[66] *Moss v Legal and General Life Assurance Society of Australia* (1875) 1 VLR (L) 315 at 318.
[67] Nicholas Seddon, *Seddon on Deeds* (The Federation Press, 1st ed, 2015) 15, 222 citing Heydon JD, Leeming MJ and Turner PG, *Meagher, Gummow and Lehane's Equity Doctrines and Remedies* (5th edn 2015), LexisNexis Butterworths, para 20-005.
[68] *Jefferys v Jefferys* (1841) Cr & Ph 138; [1835-42] All ER Rep 81; (1841) 41 ER 443.



it will not be possible to prove with the precision required for a specific performance order what the alleged price cap would be (and therefore prevent a price being in excess of the cap), given it is measured by reference to the *'TIC that would apply under a QCA administered pricing regime'*.

While it is true that there is a range of QCA precedent from previous decisions, it is evident that it is not possible to provide a point estimate as to what a future QCA estimate might be.

That is particularly the case because:

(i) the building blocks methodology of deriving tariffs involves determining a number of parameters which are estimated by the QCA, where it is acknowledged by economic experts and regulatory practice that there is a range of possible approaches and estimates;

(ii) as demonstrated by the WACC up-lift provided to Aurizon Network in the final UT5 decision, the QCA also continues to have a residual discretion to determine an appropriate tariff even if it that tariff is not the tariff that would have applied based solely on a 'pure' building blocks tariff methodology (and there is no scientific way of applying the same judgment the QCA would as to whether such an adjustment is appropriate, and if so the extent of such an adjustment that is appropriate);

(iii) the QCA's methodology is not frozen in time, such that it cannot be assumed that past decisions are a perfect guide to future decisions. The QCA considers afresh the appropriate result in consideration of each draft access undertaking; and

(iv) parts of the TIC are specific to matters relating to DBCT itself, like capital expenditure amounts, where the QCA would need to assess ongoing matters like prudency and efficiency, rather than an approach to regulatory pricing. This will not be possible without the QCA (and will become more practically impossible as circumstances change, such as through future expansions of DBCT).

Given that obvious uncertainty, courts will not be willing 'fill the gaps' and, [redacted] will simply decline to order specific performance.

Consequently, the price cap on which DBCTM's arguments are so reliant is legally not enforceable and does not impose an actual legal constraint on DBCTM.

17.5 Other practical difficulties with enforcement

In addition to the legal issues with enforcement, there are numerous additional practical difficulties in enforcing the Access Framework relative to enforcement of the access undertaking that would exist with declaration.

In particular:

(a) the absence of an independent regulator with information gathering powers (such as those under section 150AA QCA Act) makes it materially harder to detect non-compliances with the Access Framework;

(b) the absence of an independent regulator who has enforcement rights (as the QCA has under section 158A QCA Act), such that the only potential for recourse is through individual users taking their own expensive enforcement action via the court, makes seeking compliance with the undertaking significantly more difficult (and therefore significantly less likely);

(c) the remedies for breach of the Access Framework are significantly more constrained (and therefore provide a much lower incentive for compliance) than those available for breach of an access undertaking with declaration (see clause 9 of the Deed Poll relative to section 158A QCA Act). In particular, for breach of an access undertaking a court can make orders directing compliance, directing payment of compensation and any other order the court considers appropriate (so that access seekers and holders can recover compensation for loss – not just specific performance); and

(d) even if enforcement action was successfully able to be taken (which the DBCT User Group highly doubts given the legal issues discussed above), there is nothing stopping DBCTM engaging in the same behaviour again, other than further burdensome litigation by the affected user.

Those practical difficulties mean that (even leaving aside the legal difficulties), enforcement is nearly impossible.

Without any real prospect of enforcement, and no real remedies being available for contravention even if such enforcement proceedings were brought, DBCTM's incentives for complying with the Access Framework are very limited.

Accordingly, the only reasonable conclusion is that it does not provide a constraint on their exercise of market power in the absence of declaration, or any constraint is exceedingly weak and will have limited or no impact on DBCTM's behaviour.

17.6 The Deed Poll is not irrevocable

The Deed Poll purports to be "irrevocable" (see clause 3.1). That alleged irrevocable nature goes to the very heart of DBCTM's arguments – as if the Deed Poll can be revoked then it clearly cannot provide any constraint on DBCTM.

However, a detailed review of the Deed Poll indicates that, as a matter of law, it is not in fact irrevocable and DBCTM would have legal rights to revoke it.

The only occasions that the word "irrevocable" is used is in the heading of the Deed Poll ("Irrevocable Deed Poll") and in the heading to clause 3 ("Deed Poll is irrevocable"). However, clause 1.3.1 of the Deed Poll expressly provides that "headings are inserted for convenience only and do not affect the interpretation of this Deed Poll".

Clause 3.1 then provides the promise against revocation that DBCTM relies on, stating "DBCT Management covenants in favour of the Covenantees that it will not revoke or amend this Deed Poll until the expiry of the Term". However clause 3.1 is subject to clause 2.1, which expressly states "DBCT Management makes the covenants to the Covenantees and the Third Parties in this Deed Poll subject to the conditions set out at clauses 8, 9, 10 and 11 of this Deed Poll".

Clause 9 then expressly contemplates breaches of the Deed Poll by DBCTM and limits the available remedies, meaning the suggestion that the Deed Poll is "irrevocable" is actually illusory. If the Deed Poll was truly irrevocable then the Deed Poll would clearly obviously not recognise the potential for a breach of that covenant and the remedies that would flow from such conduct by DBCTM.

In addition to not being irrevocable as a matter of law – it is clear that the limits on the recourse that would be available to a beneficiary of the deed poll would be ineffective to prevent the Deed Poll being revoked.

For example, clause 11.2 states: "[a]ny legal proceeding commenced by a Covenantee against DBCT Management for an alleged breach of clause 3 … must be filed and served on DBCT Management within 120 days after the date that the alleged breach of this Deed Poll is said to have occurred.". Importantly, the 120 days does not commence from when the beneficiary becomes aware of the breach, but the date of the alleged breach. Effectively there is nothing to stop DBCTM from secretly revoking the Deed Poll the moment it comes into effect.

All of that needs to be considered in the context that DBCTM would have strong incentives to revoke it. Those incentives are particular strong (if DBCTM genuinely believes its own submissions about the outcomes of the Deed Poll) given that, for a future user, there would be a substantial time period required to re-seek declaration, by which point the opportunity for coal project development may have passed. In addition, if in principle the QCA was willing to accept an access framework, any re-declaration attempt could then be thwarted by DBCTM just before a Ministerial decision on declaration by putting in place an access framework despite the fact irreversible damage would be caused and long term contractual arrangements would likely be locked in in the meantime).

Consequently, it is clear that the likely future without declaration does not involve the Access Framework remaining in place.

17.7 The Access Framework can easily be amended

(a) Ease of DBCTM making amendments

DBCTM's arguments are based on the Deed Poll and Access Framework imposing constraints on DBCTM's conduct in the absence of declaration, *based on their current terms*.

However, as discussed in previous submissions of the DBCT User Group, the Deed Poll actually provides DBCTM with extensive rights to amend the Access Framework – such that many of the alleged constraints can be easily removed.

As the QCA Draft Decision noted:[69]

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

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

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

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

Clause 3.1 of the Deed Poll notionally prohibits amendments. However, that is subject to amendments being permitted if they follow the process set out in the Deed Poll (and the Deed Poll expressly contemplating the potential for that prohibition to be breached in any case).

The lack of protection against amendments becomes clear once you consider that:

(i) amendments can only be triggered by DBCTM – such that any amendment will be in DBCTM's favour (as DBCTM will have no incentive to make amendments that favour other stakeholders no matter how appropriate);

(ii) while DBCT Management have revised the Deed Poll to provide for a consultation process, those consultation obligations have not actually constrained DBCT Management's discretion in any way, and the Deed Poll makes it expressly

[69] QCA Draft Decision, Part C, page 68

clear in clause 8.4.4 that DBCTM Management *'will not be bound to implement any Comments*' received;

(iii) the threshold for an amendment being permitted under clause 8.2 is merely that it 'promote' the Framework Objective and is 'appropriate having regard to each of the mandatory considerations' – which is both:

(A) a low threshold in respect of the Framework Objective given the range of possible outcomes that might be considered to promote the very high level Framework Objective; and

(B) extremely difficult to have a court positively determine has been breached – given the vague nature of particularly the appropriateness test;

(iv) the only recourse for an entity opposing the amendments if their comments are not accepted is to commence costly legal proceedings (as otherwise the amendments simply become effective despite their opposition under clause 8.5);

(v) an entity commencing legal proceedings to oppose amendments must do so within 120 days of the date that DBCT Management gives notice it is proceeding with the amendments otherwise *'the party will lose any right to challenge the validity'* of the proposed amendments (clause 8.4.6.4);

(vi) the only remedy that can be obtained when opposing amendments is declaratory relief (clause 9.2.3 and 9.2.4), which, as discussed below is a discretionary remedy and there is substantial doubt as to whether it would be granted.

The practical problems go beyond those legal challenges.

In particular, even if it was assumed that [redacted] in fact, an access seeker or user could somehow convince a court of the contravention of clause 8, and obtain declaratory relief and that DBCTM voluntarily chose to comply despite there being no consequences for not doing so, there would be nothing preventing DBCTM from proposing the same amendments again (or with very minor amendments). A user's only recourse would be once again launch costly legal proceedings to prevent such amendments.

DBCTM Management can effectively continue with such a strategy until it succeeds.

Of course, that combination of all of those matters means that challenges to DBCTM amendments are completely futile and not even remotely close to a credible threat.

The real point though, is that no access seekers or users will be willing to make investments in dependent markets on the basis of the existing terms of the Deed Poll and Access Framework given that they can never have any certainty those terms will remain in place.

(b) Unfounded allegation of error of law

The DBCT User Group note the comments made by DBCTM's legal adviser during the QR declaration review stakeholder forum that the QCA's reasoning extracted above somehow amounted to an error of law by concluding that because the QCA process would land on an optimal or appropriate solution and the Deed Poll amendment regime would land on a range of outcomes it followed criterion (a) was satisfied.

The QCA has clearly not engaged in an error of law in that reasoning.

Rather, the QCA has appropriately concluded that there is a much wider range of amendments that would be permitted by the amendment regime proposed, and less likelihood of an appropriate result, which results in real uncertainty as to the likely terms of the Access Framework in the future and the extent of protections the Access Framework might provide.

Those matters do not satisfy criterion (a) on their own, but they go a long way to demonstrating that the Access Framework will not provide a constraint on DBCTM's behaviour across the declaration period, given the clear likelihood of numerous amendments being made in DBCTM's favour across that time.

18 Criterion (a) – Assessing the impact on competition of asymmetric treatment

18.1 Even if the Access Framework did provide a constraint – criterion (a) is still satisfied

The DBCT User Group consider it is clear from the issues noted in sections 15, 16 and 17 above, that the Deed Poll and Access Framework will not provide any constraints on DBCTM's exercise of its market power.

However, even if the numerous errors of law that would be required to come to the conclusion that such a constraint existed were made, the DBCT User Group consider that criterion (a) would still not be satisfied *even assuming compliance with the current terms of the Deed Poll and Access Framework* (and assuming they are not revoked or amended).

As the Castalia Criterion (a) Report states:

> *the proposed Access Framework will not produce materially similar access outcomes to that of declaration for four [sic] key reasons:*
>
> - *There would likely be a substantial difference between arbitration outcomes and a QCA determination. Those differences relate to individual access seekers having separate and individual negotiations and enforcement of compliance under the Framework as opposed to a common QCA determined approach*
> - *DBCTM's revealed behaviour shows its view of prices on the basis of a QCA type regime are materially different to those determined by QCA, and*
> - *Contrary to DBCTM's assertions a difference of $3.00/tonne in the Terminal Infrastructure Charge (TIC) will have a material impact on competition in the tenement market.*

Before considering each of those issues further, it is critical to understanding that this is not a case of uniform monopoly pricing, but asymmetric monopoly pricing to only certain market participants – and that is where the principal competition issues lie.

18.2 Asymmetric Treatment – distinctions between the DBCT service and the Newcastle shipping channel service

Much of the arguments raised by DBCTM have a striking similarity to those raised by Port of Newcastle Operations Pty Ltd (***PNO***) in its application seeking revocation of the Newcastle shipping channel service.

However, those services and the likely outcomes in the absence of declaration are fundamentally different.

Accordingly, the QCA should exercise great caution in seeking to apply the draft findings of the NCC to the declaration review in respect of the DBCT service.

In particular, a number of key differences are set out below:

DBCT service without declaration	Newcastle shipping channel service without declaration	Consequences
DBCTM will charge asymmetric prices for the DBCT service, with future users paying materially more than existing users	PNO will charge a uniform price for the channel services	In respect of the Newcastle shipping channel service, the question was simply is the likely change in the uniform tariff sufficient to change investment decisions in a dependent market. Whereas, for the DBCT service, the asymmetric treatment creates a barrier to entry in dependent markets – such that it raises a different question about whether declaration preventing that barrier arising promotes a material increase in competition. The asymmetric impact of the monopoly pricing also materially impacts on DBCTM's incentives. In particular, by engaging in monopoly pricing against future users, DBCTM is not risking a decrease in the existing user volume. Whereas PNO's uniform pricing means that the volume risk profile associated with price increases is different. Rather DBCTM is incentivised to make the maximum profit it can out of future users while still ensuring that they sign additional contracted capacity – such that they are highly incentivised to engage in monopoly pricing. Accordingly, the reasoning in the NCC's Statement in respect of the Port of Newcastle shipping channel service revocation application and the recent NERA Report do not provide any assistance in determining DBCTM's incentives.
Pricing changes from a reference tariff to a private negotiate-arbitration regime	Pricing changes from an ACCC negotiate-arbitrate regime	Given the QCA's powers under the QCA Act to require provision of an access undertaking in respect of declared services, the future with declaration in respect of the DBCT Service involves a very high level of certainty in respect of the uniform, efficient and reasonable pricing levels that will apply. Users do not require certainty of a fixed price, when they have regulatory certainty

		about the process and methodology that will be applied such that they can make informed judgements about likely outcomes. The certainty that is lost in respect of the DBCT Service (and therefore the difference with and without declaration) is greater than in respect of the Port of Newcastle channel service where the ACCC only has the powers to arbitrate bi-lateral access disputes, and tariffs are reset annually.
Existing capacity contracted – and QCA has found that DBCTM has incentives to engage in monopoly pricing (and would maximise profits by doing so)	Substantial surplus capacity – NCC has found that PNO has incentives to increase volume (rather than materially increasing price), and would maximise profits by doing so	Again as a result, DBCTM does not have the same incentives to increase volume as PNO has been found to have. Rather, it is clear (as the QCA has concluded) that DBCTM maximises profits by increasing prices to future users.
Terminal charges are significant	Current channel charges are not as significant	As the terminal charges are significant, they impact on investment decisions (in a manner the NCC appears to consider that the channel charges would not). This is clearly supported by PwC's economic modelling discuss further below.
Terminal charges are all paid by users of the service – such that there is a clearer direct impact on investment incentives in dependent markets	Some channel charges are typically paid by coal customers – and PNO has argued that means raises of those components will not impact on investment incentives in dependent markets	The impact on investment incentives in the Hay Point catchment coal tenements market is clearer given the direct impact on coal producers of all price increases.
The main evidence DBCTM has provided about its likely conduct without declaration is a contrived Access Framework	Evidence about future without declaration available from: • PNO conduct in period prior to declaration • PNO conduct in respect of users which had not commenced an ACCC arbitrated access dispute	In projecting the likely future state of dependent markets with and without declaration, the QCA needs to scrutinise the legal and practical effectiveness of the Access Framework and whether it would actually impose a constraint. For the reasons discussed above and below in respect of the criterion (a) analysis, the DBCT User Group consider it is clear that the Deed Poll and Access Framework provide no such constraint.

High potential for asymmetric non-price terms as DBCTM can easily amend the Access Framework	PNO will offer uniform terms of access	The QCA does not have to be satisfied that declaration promotes competition merely by preventing monopoly pricing. Rather, declaration promotes competition by ensuring that the existing uniform non-pricing arrangements are also preserved, rather than giving rise to asymmetric terms that are more likely to result without declaration.

18.3 Lack of Certainty – Private Arbitration is not equivalent to the QCA regulatory framework

Even if it was assumed that the Access Framework was theoretically effective (despite all of the evidence to the contrary noted above), there are material differences in the level of certainty provided by the Access Framework and its reliance on private arbitration to resolve access disputes relative to access seekers having a right to refer disputes to the QCA for arbitration where the regulatory framework provides a much more certain backstop.

As stated in the Castalia Criterion (a) Report:[70]

> *The Australian regulatory approach to infrastructure is a well established and mature process that provides access seekers with a legally enforceable right of access on terms and conditions that have been assessed as reasonable by an independent, experienced and well-resources regulator.*
>
> *…*
>
> *In our view, **there is a material difference between declaration and the Framework in terms of complexity and enforceability, particularly for new entrants**.*
>
> *We understand that, in theory, access rights under a declaration may be resolved through individual arbitrations. However, where there is a general access undertaking, all access seekers have a legally enforceable right of access on reasonable terms and conditions. Importantly there is no further negotiation process for a new entrant and compliance is enforced by the QCA, not the access seeker.*
>
> *Under the Framework, each new entrant must individually negotiate a price between the TIC floor and ceiling with DBCTM. DBCTM has no incentive to offer anything but the profit maximising price—the cap. This means that each new entrant will be forced into arbitration and receive a price between the floor and the ceiling … incumbents will have the certainty of an arbitrated price that will be the new entrants' floor price on a group basis with a single arbitrator stepping into the role of a quasi-regulator.*
>
> *Further, since new entrants have no statutory protection, they must individually ensure DBCTM compliance with the Framework through the legal system. While arbitration is almost always a consensual dispute resolution process, in the case of the Framework it is clearly non-consensual. New access seekers would be required to agree and be bound by arbitration as a condition of access.*
>
> ***In summary, under the Framework, new entrants face a materially higher degree of uncertainty, especially when access is complex, for example requiring expanded capacity at DBCT**.*

[70] Castalia Criterion (a) Report

The DBCT User Group have material concerns about whether a private arbitrator could ever put itself in a position to address the matters that might arise in an access dispute in the manner in which the QCA could.

In particular, that follows from:

(a) the extensive knowledge the QCA has about the terminal from previous access undertaking and tariff setting processes, whereas a private arbitrator is likely to be involved in a one-off dispute with no prior experience of that type;

(b) the extensive knowledge the QCA has in relation to setting access terms through regulation of other monopoly infrastructure, including the Aurizon Network and Queensland Rail rail networks and setting or investigating pricing in relation to various monopoly water infrastructure service providers such as Gladstone Area Water Board and SunWater;

(c) the extensive experience the QCA has internally through its expert staff, and unparalleled access to external economic, engineering and other expertise which may be relevant to resolving such an access dispute;

(d) the statutory powers that the QCA has in arbitrating access disputes under Part 7 of the QCA Act, including information production powers (see section 205 QCA Act) and he power to compel witnesses (see section 200 QCA Act) – with penalties for non-compliance; and

(e) the fact that the QCA would be making an decision under an enactment, such that it would be subject to judicial review scrutiny if there are flaws in its decision making.

As the Castalia Criterion (a) Report rightly puts it:

> *DBCTM will undoubtedly contend that this price differential will be resolved by the arbitrator acting as a quasi-regulator. This is unlikely given the contrast between the resources and expertise of the QCA when compared to a commercial arbitrator and their differing objectives.*
>
> *On the matter of resources, the QCA is a well-established regulator having been set up in 1997. It has a staff of 48 and an annual budget of $15 million. While it has many functions, it can bring substantial resources, expertise and experience to apply to DBCT TIC determinations.*
>
> *By contrast an arbitrator as appointed under clause 16.4(c) of the Framework Deed must be "a single suitably qualified and experienced arbitrator".*

That complete lack of certainty makes arbitrating a more costly and risky affair for an access seeker and will provide a chilling effect on the investment incentives that a potential purchaser of coal tenements in the Hay Point catchment will have.

18.4 The Cap will not be confined to $3/tonne in any case

For completeness the DBCT User Group note that DBCTM has appeared to suggest that it is possible that because the Access Framework establishes a negotiate-arbitrate they might charge below the $3 price cap.

However, the DBCT User Group considers that all evidence suggests the contrary.

The QCA has also concluded that DBCTM has incentives to maximise profits, and it is evident that an increase of $3/tonne will be below the profit maximising price.

In particular, it is evident from the QCA's cost analysis in the QCA Draft Decision, that the original ceiling price DBCTM was proposing would have allowed increases of more like $15 per tonne.

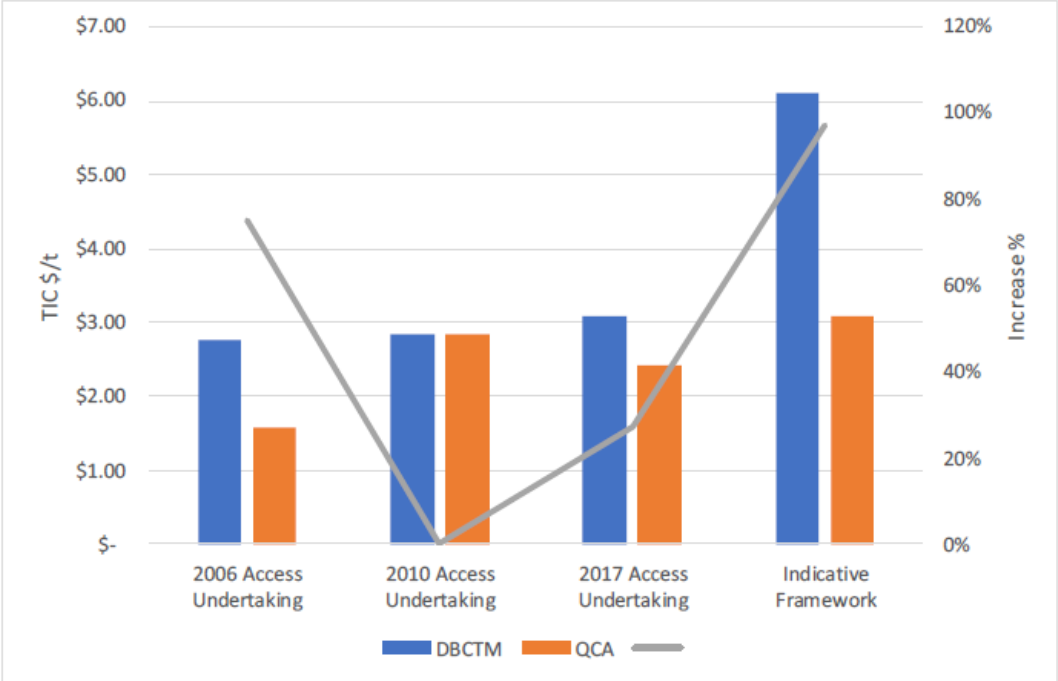
Consequently it is hard to see how the likely increase could be any less for future users than the full $3.

However, the likely price rise is in fact greater than that (even assuming the pricing constraints are effective). Because of the impossibility of actually defining the floor, based on a hypothetical QCA administered pricing regime, it is evident that the $3/tonne cap will not be a clear bright line evident to all parties. Given, DBCTM's incentives there is in fact a high likelihood of access pricing being set in a way that (even if DBCTM alleges is within the cap) is beyond the asserted cap.

In that regard, it will be plainly evident to the QCA from past submissions in relation to the DBCT access undertaking that DBCTM has inflated views about the WACC that it should be receiving relative to those the QCA considers appropriate.

For example the Castalia Criterion (a) Report shows the following diagram showing the differences between the TIC that DBCTM has effectively requested and the TIC that the QCA has provided (with the indicative framework numbers showing the notional floor and ceiling if it was assumed the existing TIC was applied).

Figure 2.1: DBCTM Proposed and QCA Determined TIC



What that graph demonstrates is that other than for the special circumstances applying to the 2010 access undertaking (where the users reached agreement with DBCTM), in each other year, DBCTM has had a materially higher view of what the regulated price should be. Logically that gap would grow even further where DBCT knew it would not be subjected to regulatory scrutiny in respect of its claims (and taking into account the legal limitations discussed above about users effectively being able to enforce the theoretical pricing constraints).

As a result, the DBCT User Group consider it is clear the price gap between existing and future users will materially exceed the theoretical $3 difference that has been modelled.

As the Castalia Criterion (a) Report states:

> The DBCTM submission asserts that under the Framework the Floor TIC would be the same as under a QCA administered pricing regime. However, this ignores the fact that the QCA price

determination is not a mechanistic process with a single result but a process that produces a "reasonable range" of prices, with the regulator being required to select a point within the range that appropriately balances the interests of the service provider and the access seekers.

…

Under the Framework, DBCTM's incentive, as a rational profit maximising entity, is to proposed a TIC Floor Price at the upper limit of the reasonable range, forcing users to arbitration unless the costs and delays resulting from arbitration are such that users would accept DBCTM's ambit claim.

…

As explained above, we do not agree with the statement that the price difference would be confined to $3/tonne, since it would be very difficult for an arbitrator to second guess what the QCA would have decided. In the absence of QCA experience and information gathering powers, a commercial arbitrator is more likely to set the Floor Price at a level closer to DBCT's starting claim.

18.5 Material impact of the asserted $3 price cap – Castalia analysis and the impact on the coal tenements (not coal) market

Even if it is assumed (despite all evidence to the contrary that) the Deed Poll is legally effective, the price cap and arbitration rights will be able to be enforced, that a private arbitrator will be able to properly determine the price that wold apply under a hypothetical QCA administered pricing regime and therefore the price cap, and that a potential investor in coal tenements could have certainty over all of those issues, the DBCT User Group still consider it is evident that criterion (a) will be satisfied.

(a) Castalia analysis

As the Castalia Criterion (a) Report goes on to note, the impact needs to be measured in the coal tenements market (not the coal market as Houston Kemp seems to do).

When that analysis is properly conduct, the material impact on competition in the Hay Point catchment exploration and development coal tenements market is clear.

However, even if we were to accept that the Floor Price would be equal to a hypothetical QCA determination, the observation about the effect of a $3/tonne differential does not relate to the relevant market. ***The market is for the acquisition of tenements, not the development of tenements.*** *This is an important difference which we explain below.*

HoustonKemp list factors such as the assessment of the coal resource, likely extraction costs, supply chain costs and international coal prices that prospective buyers of tenements would take into account. It is true that there is wide variability in all of these factors and in comparison, a $3/tonne change in DBCT may not be significant in the total overall costs.

However, in a competitive market for the acquisition of tenements, it is likely that prospective buyers, all being experienced miners and all having access to the same information, would be likely to have similar views on these factors. There are credible independent forecasts of both coal prices and mining costs and all prospective buyers would have access to the same geotechnical data supplied by the Government.

In Table 3.1 of their report, for example, HoustonKemp show the operating costs of 17 mines with a range from $73.13/t to $131.35 as estimated by specialist mining consultants.

We would expect, in a competitive market, to see a high degree of convergence on these factors, between prospective acquirers of tenements—except for one factor—DBCT coal

handling charges. For DBCT charges new entrants would factor in at least $3/t premium over the price paid by incumbents.

An analysis of recent transactions for yet to be development coal mining tenements, shown in Table 2.1, suggests that a reasonable range of prices might be in the order of $0.50 to $1.00/tonne of reserves.

…

The price paid for a tenement is the residual after discounting forecast future costs and revenues. The value of a tonne of reserves is the pure value of access to the resources, after return on the capital required to develop, construct and operate the mine. ***All other things being equal, experienced new entrants and incumbents with similar expectations of development and operating costs could be expected to place a similar value on access to the reserves****.*

However, DBCT's ability to charge differential prices to incumbents and new entrants under the Framework Deed would mean that all things are not equal. If we assume that a reserve is extracted over a twenty year mine life, payment of an additional $3/tonne (at a discount rate of 5 per cent) amounts to $1.87/tonne in present value terms – that is, every tonne of reserves owned by a new entrant is worth $1.87 less today than a tonne of reserves owned by an incumbent.

One can argue about the proportion of the reserve that would be extracted … Similarly, once can argued about the extraction profile and the discount rates, and hence about the preserve value of the $3/tonne differential. However, ***the orders of magnitude are clear and unambiguous: an incumbent and a new entrant evaluating the value of a tenement would face very different implied economic prices. This difference will be caused by the Framework Deed and will distort competition for the acquisition of tenements****.*

(b) Why the $3 is critical despite other uncertainties

As the Castalia analysis reflects, while the $3/tonne differential may not appear to be significant when compared to the cost of a tonne of coal, that comparison is misleading.

The price for coal tenements – which is the relevant price in the market under consideration – is the residual value of access to the resource after recovery of operating costs and return on capital employment in the development of the coal tenement. It is that price that will be materially distorted between incumbents and new entrants

The DBCT User Group appreciate that DBCTM has tried to assert that the $3 cannot be relevant given the proportion it would form of the coal price and how it compares to other uncertainties that coal producers would face.

However, those submissions fail to take into account that:

(i) what is relevant is the difference that the $3 additional charge makes to the profit margin of these projects (not the proportion that it forms of the costs of production or the coal sales price);

(ii) as revealed by PwC's independent modelling discussed below, a $3 increase in costs makes a significant different to the value and return which can be achieved by potential future investors in Hay Point catchment coal tenements;

(iii) the other sources of volatility and uncertainty:

(A) are symmetrical in the sense that they have the potential to bring upside and downside – such that over the long term life of a mining project it would be anticipated that these factors would 'even one' - whereas the additional pricing charged to future uses is always downside,

(B) can be predicted to some degree by experience miners given the global and liquid markets for coal and depth of independent analysis of future coal prices and the supply and demand fundamentals that underpin such estimates (hence Castalia's comments about convergence in views in valuation of those issues in coal tenements); and

(C) can be mitigated against, through:

(1) prior to development, the project proponent taking actions like delaying development until more prospective economic conditions or changing mine planning;

(2) following development, engaging in strategies such as hedging of foreign exchange and coal prices;

whereas there is no way for future users to protect themselves against the additional DBCT charges – given DBCTM's incentives they are effectively a certainty.

18.6 Valuation Modelling – Quantifying the Materiality of the Impact

PwC has conducted independent valuation modelling to demonstrate the material difference that a $3 price difference between existing users and future users would make to the value they would place on a Hay Point catchment coal tenement.

That results of that modelling are included in Appendix B of PwC Report, which is enclosed as Schedule 2 to this submission.

To ensure that modelling provides clear evidence to the QCA of the material impact on investment decisions the differences in infrastructure costs will truly cause, that modelling has been conducted:

(i) for five existing coal exploration and development coal projects in the Hay Point catchment, being [redacted];

(ii) the revenue and cost profiles are taken from Wood Mackenzie's financial models in respect of those projects;

(iii) so there can be no suggestion from DBCTM that the figures have been impacted by any bias or adjustment from the DBCT User Group, the project proponents views have not been sought on any of their projects to which the valuation modelling relates; and

(iv) a discount rate of 13.5% is used to calculate net present values, with such a discount being assessed by PwC as an industry standard and appropriate discount rate for valuation of projects at this phase of development for the reasons set out in the PwC Report.

The modelling shows the following valuations based on Wood Mackenzie's existing cost data (i.e. effectively assuming declaration continues):

[redacted]

Critically, the modelling then demonstrates that a $3/tonne increase in the TIC represents at least a 5-10% reduction in operating margin (with a much higher impact on Project 2 which, as a thermal coal mine project, Wood Mackenzie projects a lower operating margin for prior to the impact of the TIC adjustment):

[redacted]

In other words, it directly impacts on returns and value.

When the impact of that difference in margin is estimated by way of the change in project valuation for future users who would be changed the higher monopoly price in the absence of declaration it produces the following impact (with Project 1 not shown as that project simply becomes more negative).

That is a very clear demonstration of the DBCT User Group's point that a $3/tonne price difference is highly material and will have a real impact on the level of value that a future user purchaser will see in a coal tenement relative to an existing user.

That difference will clearly have a direct impact on the purchase prices existing users and future users will be willing to pay or conditions they are willing to bid in a tender process, which will directly impact on their prospects of acquiring such coal tenements.

Accordingly, the DBCT User Group strongly agrees with the QCA Draft Decision that without declaration this asymmetric treatment and monopoly pricing to future uses creates a clear and material barrier to entry which materially impacts on the likelihood of future users entering the market for exploration and development coal tenements in the Hay Point catchment.

Consequently it is clear that criterion (a) is satisfied.

18.7 Existing users will actively compete in the coal tenements market

Given the clear evidence presented of the barrier to entry created without declaration, DBCTM seeks to argue in the Latest DBCTM Submission that the barrier to entry and asymmetric treatment that the lack of declaration gives rise to does not promote a material increase in competition in the Hay Point catchment coal tenements market due to the asserted limited participation of existing DBCT users in the coal tenements market.

Firstly, as discussed in section 13 of these submissions above, that misses the point that a promotion of competition involves a consideration of the environment and opportunities for competition – not the sort of quantification of volumes of competition that DBCTM's submissions have in mind.

However, perhaps even more importantly, DBCTM has completely misunderstood how investment in coal tenements markets operates and how the volumes of capacity that are likely to become available to an existing user during the declaration period convert to the extent to which existing users will compete in the coal tenements markets.

Exploration and development coal tenements cannot be instantly brought into production following their acquisition. Rather, there is time involved in the physical construction and development of a mine and obtaining regulatory approvals. Consequently, existing users will make investments in coal tenements well prior to their existing mining projects ceasing to have a need for their existing contracted capacity.

In addition, exploration and development coal tenements, by their very nature, involve a higher degree of risk and speculation. The Balance Advisory report provided to the QCA details this higher level of risk involved in coal tenements at this stage.

The consequence of that is that an existing users will not restrict themselves to buying a single coal tenement that if developed will 'fill the gap' between their projected production and existing contracted capacity. Rather, they will seek to acquire a number of exploration and development coal tenements, with the projects ultimately developed from that portfolio being determined based on factors including exploration outcomes, feasibilities studies and mine planning and evaluation activities conducted post-acquisition.

Consequently, it is clear that DBCTM's attempts to draw conclusions about existing users' likely participation in the coal tenements market based purely on estimates of surplus contracted capacity that will arise during the declaration period will significantly understate existing users' likely future participation in the coal tenements market.

18.8 Future users will be able to gain access to DBCT

DBCTM also then seeks to argue in its latest submission that the barrier to entry and asymmetric treatment that the lack of declaration gives rise to does not promote a material increase in competition in the coal tenements market due to the limited ability for future access seekers to gain access to the terminal in any case.

Again, as noted above (and in section 13 of these submissions), that misses the point that a promotion of competition involves a consideration of the environment and opportunities for competition – not the sort of quantification of volumes of competition that DBCTM's submissions have in mind.

However, the DBCT User Group also considers that DBCTM is clearly wrong about the prospects of future access seekers gaining access (noting the obvious tension of this submission of DBCTM's which suits DBCTM's purposes in criterion (a) with the demand projections DBCTM rely on to suit their purposes in criterion (b)).

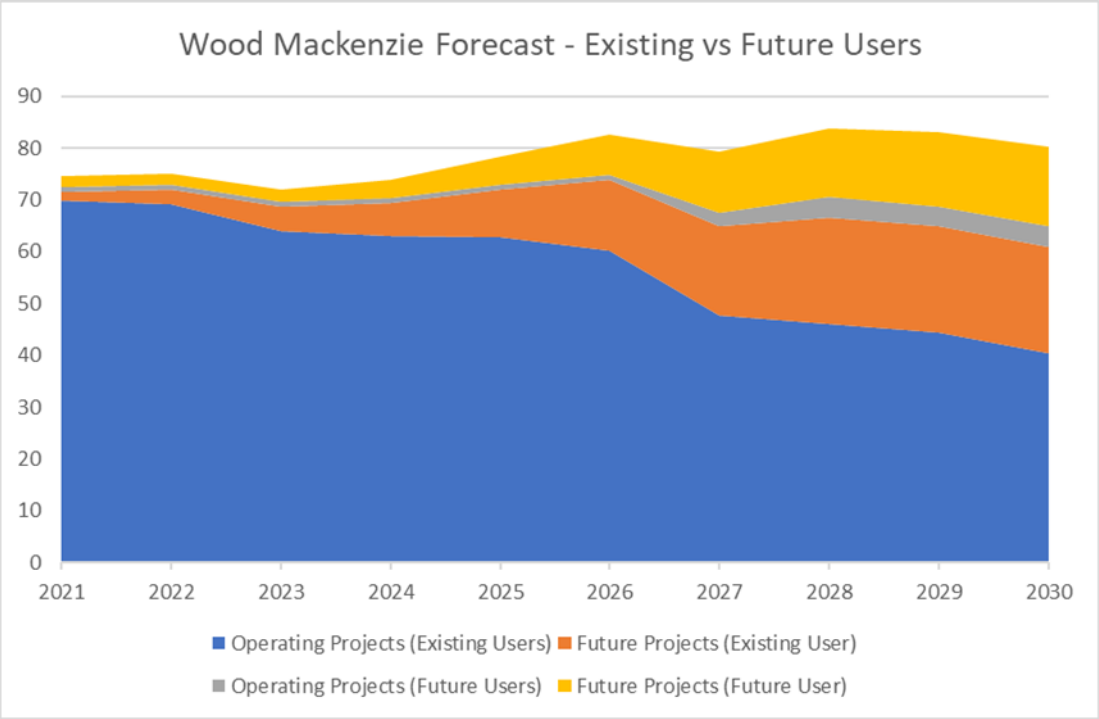
The below graph, is the Wood Mackenzie throughput estimate, divided into the components attributable to operating projects and future projects, and further divided into the volumes related to existing users and future users.

What that graph and analysis shows is that while existing access holders will be able to transition some of their existing access agreements to utilisation for new projects, a material part of the future demand relates to future users who are not currently access seekers – such that the likely future involves future user who are exposed to monopoly pricing gaining access,

In addition, the data below does not reflect an analysis of whether the future projects of existing users (the orange) could actually be met by utilising existing access agreements. So for example, the DBCT User Group has effectively included all future projects of existing users in that category – even though the timing of likely development for some such projects means that existing users

will actually need to contract additional capacity to support them. As the QCA Draft Decision notes – that effectively makes them future users for that deficit of capacity (as their existing user agreements do not provide them any options to increase capacity).

In addition, DBCTM's submissions indicate there is one existing user who in fact does not have evergreen renewal rights.



All of that suggests that future users in the sense of users contracting capacity which is exposed to DBCTM's monopoly pricing in the absence of declaration will have material access to DBCT in the future.

DBCTM's arguments also completely ignore the fact that:

(a) there are numerous expansions of DBCT that are possible as stated clearly in DBCTM's own 2018 Master Plan; and

(b) there are a number of future users in the queue, who DBCTM have been at pains to allege in their criterion (b) submissions represent foreseeable demand.

19 Criterion (a) – Conclusions

It is clear from the above analysis that declaration promotes a material increase in competition in the market for exploration and development coal tenements in the Hay Point catchment by preventing the asymmetric pricing between existing and future users that creates a clear and material barrier to efficient entry into that market by future users.

Accordingly, criterion (a) is clearly satisfied in respect of the DBCT service.

20 Criterion (c) – Facility is significant

The DBCT User Group considers it is clear that criterion (c) is satisfied for the reasons set out in the DBCT User Group's previous submissions and the QCA Draft Decision, and strongly supports the QCA's findings that criterion (c) is satisfied.

Given the extent to which that has been clearly demonstrated in previous submissions, the DBCT User Group repeats its most recent submissions in respect of criterion (c):

As the QCA recognised:[71]

DBCT is of state significance based on its physical size and capacity.

…

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

…

As Queensland's largest multi-user coal export terminal, DBCT is a critical component in the Goonyella coal chain, and an integral part of the economy in the greater Mackay region.

The coal industry is a major contributor to the Queensland economy. Given the substantial volumes and values of coal exports handled by DBCT annually, the QCA considers that DBCT is significant, having regard to its importance to the Queensland economy.

Those findings are unsurprising given how clear it is that the terminal is significant having regarding to:

(a) its size (in terms of physical size, capacity of 85 mtpa and throughput); and

(b) its impact on the State economy (in terms of contributions to Queensland exports, related coal royalties, employment, the economic growth it creates and its critical nature as part of the Goonyella coal supply chain).

How clear it is that criterion (c) is satisfied is perhaps best illustrated by the fact that DBCTM has not even sought to contest that position once during the declaration review process, despite the thousands of pages of submissions they have made in this process.

[71] Part C, [4.3.2] QCA Draft Decision.

21 Criterion (d) – Promotion of the Public Interest

21.1 Criterion (d) Overview

DBCTM's arguments in respect of criterion (d) are principally derived from and reliant on their arguments in respect of criterion (a) (and therefore suffer from the same flaws).

In particular, DBCTM argues that:

(a) declaration does not result in material benefits as any promotion of competition occurs in a 'narrow' and 'hypothetical' market;

(b) the Access Framework price cap results in there being no material difference in the environment for investment with or without declaration;

(c) DBCTM has incentives to maximise demand and promote investment; and

(d) declaration introduces 'the risk of regulatory error' which diminishes DBCTM's incentives to invest.

For the reasons set out below, the DBCT User Group consider it is clear that criterion (d) is satisfied.

21.2 Interpretation of criterion (d)

(a) There is no materiality threshold in criterion (d)

As discussed at length in previous DBCT User Group submissions, there is no materiality threshold in criterion (d).

In contrast to criterion (a), there is no reference to materiality in criterion (d).

It is obviously acknowledged that the criterion has changed, such that it now requires a promotion of the public benefit, but DBCTM's suggestions that this requires some magnitude of public benefit (whatever DBCTM's reference to 'meaningful' is supposed to mean), are inappropriately seeking to apply a higher threshold than actually exists under the new criterion (d).

Rather, it is clear that what criterion (d) requires to be satisfied is 'overall gains to the community', not gains of a particular quantum or magnitude.

DBCTM's arguments about the materiality of the public benefits the QCA has correctly found to have arisen are therefore only relevant to the extent the QCA concludes that they are in fact outweighed by the net costs imposed by declaration (if any) relative to the costs that arise without declaration.

(b) Criterion (d) takes into account the promotion of competition found to satisfy criterion (a)

The explanatory memorandum to the Commonwealth bill that introduced the revised criterion (d) explains that:[72]

criterion (d) does not call into question the results of subsections 44CA(1)(a), (b) and (c). It accepts the results derived from the application of those subsections, but it enquires whether, on balance, declaration of the service would promote the public interest.

The DBCT User Group acknowledges that a finding on criterion (a) to (c) does not automatically result in a finding that criterion (d) is also satisfied.

However, given that:

[72] Explanatory Memorandum, [12.40]

(i) a promotion of competition would clearly of itself be considered to be a positive outcome for the community; and

(ii) that promotion of competition is occurring by way of an improvement in the opportunities for investment and efficient new entry, which would also be considered to be a positive outcome for the community,

there would need to be compelling public interest grounds to reach the conclusion that criterion (d) was not also satisfied.

(c) The width of the public interest test, and how that operates in this declaration review

The High Court's judgment in *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal*[73] provides some important commentary on assessing the public interest.

First, it made clear the width of the factors that could be taken into account in assessing the public interest:

> *Criterion (f) was "that access (or increased access) to the service would not be contrary to the public interest". It is well established that, when used in a statute,* ***the expression "public interest" imports a discretionary value judgment to be made by reference to undefined factual matters****. As Dixon J pointed out in Water Conservation and Irrigation Commission (NSW) v Browning, when a discretionary power of this kind is given, the power is "neither arbitrary nor completely unlimited" but is "unconfined except in so far as the subject matter and the scope and purpose of the statutory enactments may enable the Court to pronounce given reasons to be definitely extraneous to any objects the legislature could have had in view".* ***It follows that the range of matters to which the NCC and, more particularly, the Minister may have regard when considering whether to be satisfied that access (or increased access) would not be contrary to the public interest is very wide indeed****. And conferring the power to decide on the Minister (as distinct from giving to the NCC a power to recommend) is consistent with* ***legislative recognition of the great breadth of matters that can be encompassed by an inquiry into what is or is not in the public interest*** *and with legislative recognition that the inquiries are best suited to resolution by the holder of a political office.*

Second, in talking about the circumstances in which the Tribunal might be willing to depart from a Ministerial decision on the public interest criteria, the High Court noted:

> *it is to be doubted that such a finding would be made, except in the clearest of cases, by reference to some overall balancing of costs and benefits*

What that means in the context of this declaration review, is that it is important not to take an unduly narrow view of the public interest issues to be considered.

Similar to the position discussed in relation to criterion (a), there is an existing declaration in place, so the question of whether declaration gives rise to overall community gains really becomes one of whether the loss of declaration results in overall community losses.

The DBCT User Group consider each of the following are more intangible public benefits arising from declaration (and which would be lost without declaration) which should be taken into account and weigh strong in favour of a finding that criterion (d) is satisfied:

(i) the long term success of DBCT and the Goonyella supply chain (particularly relative to the challenges and controversies that have confronted other privately owned Queensland coal terminals such as APCT and WICET);

[73] [2012] HCA 36

(ii) the stability of the DBCT regulatory regime – which has required relatively minimal change to remain appropriate and provided clear regulatory certainty for all stakeholders over that period; and

(iii) the best practice benchmark the QCA's approach in DBCT effectively provides for other coal terminal services, including that the APCT User Agreements are expressly reflective of outcomes under the QCA's decisions regarding DBCT and Gladstone Ports Corporation clearly have regard to it in determining appropriate settings.

Given all of the difficulties that have been experienced with significant prices rises following privatisation of natural monopoly infrastructure, it needs to be recognised that the declaration of the DBCT service has been a great long term success that has prevented all of the problems that have arisen in other more recent privatisations, while still gaining the efficiency benefits of the terminal being owned and operated in the private sector.

(d) Inappropriate to consider Deed Poll and Access Framework

For completeness, we note that [redacted] as a matter of appropriate legal statutory interpretation of criterion (d), the Deed Poll and Access Framework should not be taken into account in assessing criterion (d).

21.3 Promotion of competition and market definition

For the detailed reasons set out above in this submission (and in previous DBCT User Group submissions) in relation to criterion (a), the DBCT User Group strongly considers that declaration promotes a material increase in competition in the Hay Point catchment coal exploration and development tenements market.

Without restating the DBCT User Group's submissions in detail, it is clear that:

(i) DBCTM has market power – given its natural monopoly position;

(ii) DBCTM has incentivises to maximise profits by engaging in monopoly pricing; and

(iii) DBCTM faces no constraints in doing so – given the lack of substitutes for the DBCT service and the ineffectiveness (both legally and practically) of the Access Framework.

Consequently, the appropriate starting point for the criterion (d) assessment is that there is a promotion of competition in a dependent market.

21.4 Materiality of the public benefits arising from the promotion of competition

(a) DBCTM's arguments

As discussed above, there is no materiality threshold in criterion (d) and it would be an error of law to interpret it in a way that has that outcome.

Consequently, the materiality of benefits arising from declaration are only relevant to the extent the QCA is satisfied that they are outweighed by the costs or public detriments arising from declaration.

In its usual hyperbolic manner, DBCTM suggests that the promotion of competition in the exploration and development coal tenements market is 'insubstantial', 'trivial', 'extremely limited' and of 'no relevance'.

DBCTM claims this position is based on the following arguments:

(i) It is more likely that any hypothetical new entrant will not obtain access to DBCTM, with or without declaration, such that the economic benefits following from removing a barrier to entry to new access is non-existent;

(ii) The benefits of access are 'trivial' as it would only apply to a subset of DBCT users;

(iii) The Access Framework means that 'there is no material difference in the opportunities and environment for competition and investment' with or without declaration; and

(iv) Other constraints on DBCTM's market power alleged to arise from 'market and regulatory constraints'.

Of those, the third and fourth arguments are effectively another re-hash of DBCTM's criterion (a) position – which should be rejected for the reasons set out in the DBCT User Group's submissions on criterion (a), with the QCA's findings on criterion (a) then effectively answering those arguments in respect of criterion (d).

The other two issues are considered in more detail below.

(b) New entrants would be anticipated to obtain access (at least with declaration)

The view that new entrants will be unable to obtain access is at all odds with DBCTM's actions in:

(i) making submissions that the access queue represents significant additional demand above the terminal's existing capacity;

(ii) having had commercial discussions with access seekers regarding the potential for expansions of the terminal;

(iii) having a series of master plans which provides for multiple expansion options up to 136 mtpa of capacity; and

(iv) that future capacity not being contracted or even the subject of a current expansion process.

In addition it is clear on any reasonable analysis of the likely sources of demand that while existing users will be heavily incentivised to use capacity for their own existing and future projects, there is material demand projected from future users who have no existing access agreement.

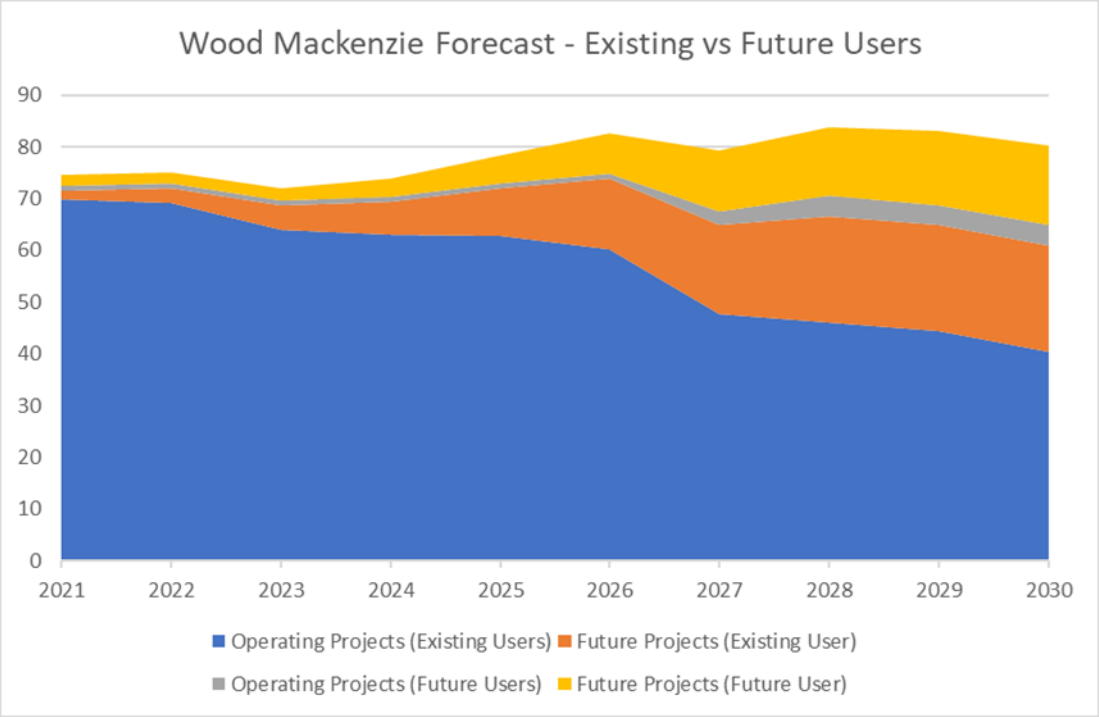
To assist in understanding the scale of that additional demand, the graph below breaks the Wood Mackenzie demand forecast (based on throughput volumes) into four components

(i) demand from existing users' operating projects (which are presumably the subject of existing access agreements);

(ii) demand from existing user's future projects (which existing users are incentivised to seek to utilise the capacity under existing access agreements for as the current operating projects' mine lives expire);

(iii) demand from future user's operating projects – for which no access agreement exists; and

(iv) demand from future users' future projects – for which no access agreement exists.



As is clearly evident, while existing users would be assumed to seek to convert the access rights contracted for operating projects (the blue) into providing capacity for the future projects in their portfolio (the orange), a material proportion of future demand is attributable to non-existing users.

In addition, the data below does not reflect an analysis of whether the future projects of existing users (the orange) could actually be met in that way. So for example, the DBCT User Group has effectively included all future projects of existing users in that category – even though the timing of likely development for some such projects means that existing users will actually need to contract additional capacity to support them. As the QCA Draft Decision notes – that effectively makes them future users for that deficit of capacity (as their existing user agreements do not provide them any options to increase capacity).

In addition, DBCTM's submissions indicate there is one existing user who in fact does not have evergreen renewal rights- such that they would also be a future user for these purposes.

In any case, based on the ILCO Capacity Report (discussed in section 9.1 of this submission) it seems that existing terminal capacity can meet additional demand, and it is clear (as discussed in section 9.2 of this submission) that material expansion capacity will be available. Accordingly, there is no legitimate basis for DBCTM's assertion that new entrants will not gain access with or without declaration.

(c) Benefits arising from the promotion of competition are not trivial or immaterial

DBCTM seeks to make much of when it estimates existing user's demand for coal tenement's arises.

However, there are fundamental flaws in its reasoning on this issue, which show a completely misunderstanding of the relationship between investment in coal tenements and contracting of capacity at DBCT.

In particular, in the analysis on pages 85 to 87 of the Latest DBCTM Submission, DBCTM simply assumes that the date on which demand for coal tenements arises is the date on which the contracted capacity is assumed to cease being used for an existing user's current operating project.

However, the reality is that investments in coal exploration and development tenements are made years in advance of contracting or utilising rail and port capacity. That follows because exploration and development coal tenements are speculative investments – they are typically acquired with a need to do further exploration and development work, further technical mine planning and design work, and obtain further approvals before coal production becomes legally and economically possible. That has a number of consequences that are completely contradictory to DBCTM's assertions about when demand for coal tenements will arise, and the volume of that demand. Most importantly:

(i) existing users would be incentivised to acquire multiple coal tenements to replace existing projects, as there is a risk that individual coal tenements are not developed or not developed in the time frame in which the capacity will become available – such that the demand from incumbents is significant greater than DBCTM assumes;

(ii) if capacity becomes available later in the declaration period, coal tenements will need to be acquired early in the declaration period to utilise that capacity (taking into account the timeline for mine planning, obtaining approvals and mine development).

Another measure of the transactions impacted not being trivial is understanding the number of transactions that occurs in the key dependent market currently (as evidence of the likely future with declaration). As show in the table in section 14.2(f), there are a significant number of transactions that occur each year in the Hay Point catchment exploration and development coal tenements market.

(d) The Access Framework is not effective

The myriad of problems with the Access Framework and why it provides no effective protections have been stated in detail in the DBCT User Group's submissions above (and in previous DBCT User Group submissions) regarding criterion (a).

Without restating the DBCT User Group's submissions in detail, it is clear that:

(i) there are legal issues which prevent the Deed Poll and Access Framework being effective or enforced by the very entities it is supposed to protect;

(ii) the amendment regime is of no practical utility given the ease with which DBCTM can make amendments and the legal and practical difficulties involving in opposing anti-competitive amendments;

[redacted]

(e) Other constraints

Again, the so called 'market' and 'regulatory' constraints that DBCTM alleges it faces have been clearly rejected in the QCA Draft Decision and in DBCT User Group submissions regarding criterion (a).

Without restating the DBCT User Group's submissions in detail, it is clear that:

(i) the DBCT service has no close substitutes such that it does not face any competitive or market constraints; and

(ii) there is no credible threat of declaration or regulation by other means in relation to the DBCT service if the Minister was to determine not to continue the existing declaration.

21.5 Investment effects

(a) QCA Draft Decision

The QCA Draft Decision noted:[74]

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

The QCA Draft Decision went on to specifically find that the promotion of efficient investment in coal mining development in the region would result in the promotion of investment in other facilities, namely the rail network and above rail haulage infrastructure.

Similarly, the QCA Draft Decision rightly identified that such investment effects would have resulting public benefits including economic benefits for the State and region from that exploration and development activity, higher coal export revenue and higher coal royalties.

DBCTM raises seven assertions against this appropriate reasoning, each of which are addressed in turn below.

(b) Declaration does have an effect on incentives for existing users

DBCTM's position is obviously incorrect as existing users do not limit their participation in the coal tenements market to acquisition of coal tenements that will merely replace their existing portfolio's utilisation of DBCT contracted capacity.

In addition, future projects will typically not have a production profile that is perfectly matched to the decline in production of an existing projects, such that even where a project is developed with the express purpose of utilising DBCT capacity originally contracted for another project, it is possible that existing users may need to acquire additional capacity – where they would be exposed to exactly the same issues as future users.

(c) Future users can gain access and existing users demand for coal tenements is much greater than assumed by DBCTM

As discussed in sections 21.4(b) and 21.4(c) of this submission, it is in fact clear that:

(i) future users are anticipated to be able to gain access; and

(ii) the barrier to entry caused by existing users competing for coal tenements, exists earlier and in greater volumes than DBCTM assumes as existing users appreciate not all coal tenements will be developed in the time frame required to utilise the existing capacity,

such that the detriment to competition is real.

The crowding out is not restricted to the tonnages DBCTM asserts – as existing users will invest in numerous coal tenements (to address the risk of non-development) and invest well in advance of when those coal tenements are required (given the timeline for mine planning, development and obtaining approvals).

(d) The investment incentives do flow from declaration

The DBCT User Group agree that the incentives to invest must be shown to have arisen from declaration.

[74] QCA Draft Decision, Part C, page 111

In relation to its own incentives, DBCTM continues to down-play significant benefits it very clearly gains from declaration, which incentivise investment including:

(i) socialisation of costs across users – such that it is effectively immune to volume risk;

(ii) pricing being set in a way that it can have long term certainty it will earn sufficient revenue to meet its efficient costs and a reasonable return of and on capital invested that is commensurate with the risks involved; and

(iii) protections in the regulatory process to ensure that expansions are studied, feasible and fully contracted.

The problems that arose in respect of the WICET development demonstrate clearly the magnitude of those benefits.

(e) Access charges are a determinative consideration in investment decisions

Contrary to DBCTM submissions, changes in access charges are a determinative consideration in relation to investment decisions in coal tenements, as they have a significant impact on the anticipated profit margins of development of coal tenements, and therefore the value investors attribute to them.

As shown in the PwC Report and related analysis in the DBCT User Group submissions above, even if the alleged $3 price cap was assumed to be effective (despite the numerous legal and practical points to the contrary), that would still have a material impact on profitability and value that an existing user would place on an exploration and development coal tenement relative to a future user.

The Newcastle shipping channel is not any kind of precedent which is analogous to this situation for the reasons described in detail in section 18.2 of this submission, including the significantly greater materiality of the charges involved, the asymmetric nature of the price increases, and the fact that all DBCT charges will be paid by users (whereas some of the channel charges were paid by coal customers).

(f) DBCTM is incentivised to maximise profit not demand

Again, DBCTM's arguments in respect of its asserted incentivises to maximise demand have been conclusively rejected in respect of criterion (a).

DBCTM's incentive is to maximise profit. It does not follow that it has incentives to maximise demand, in fact that would be atypical of a monopolist, which typically maximise its profit by increasing price to a monopoly level even if that results in suppressed or reduced demand.

That is particularly the case where DBCTM continues to have significant demand contracted under the evergreen user agreements, such that it has no real risk of volume dissipating by gaining the maximum possible price from future users.

(g) Weighing overall public benefits against alleged regulatory risk

Any 'regulatory risk' is not an asymmetric risk of pricing being inefficiently low as DBCTM tries to allege. Rather it would be expected that over the longer term, the QCA may set the TIC both higher and lower than might occur in a workably competitive market.

However, given the long term economic life of DBCT, these would not be anticipated to have long term distorting effects on investment incentives.

In any case, that 'distortion' is relative to a workably competitive market outcome which the QCA is trying its best to replicate where it does not in fact exist.

Such a workably competitive market will clearly not exist without declaration either.

For criterion (d) the relevant comparison is of the effects on investment with and without declaration, and it is clear that there would be substantially more distortion to investment incentives where an individual arbitrator was left (without the economic expertise and experience and other machinery of the QCA) to determine individual pricing disputes.

(h) The extent to which flow-on benefits arise from declaration

The QCA has recognised the flow-on benefits of reducing the barriers to entry into the coal tenements market for efficient future users that exist in relation to coal mining investment, coal haulage investment, coal rail access investment, other regional and State economic growth and increased royalties.

The fact that the QCA has not precisely quantified those benefits – does not mean that the QCA has engaged in an 'unlimited 'but-for' analysis' as DBCTM asserts. Rather, once it is clear there is benefits of this type, and there is no material costs arising from declaration it is clearly possible for the QCA to be satisfied of there being overall gains to the community, without such detailed quantification.

Only one additional project would need to proceed that would not be likely to have proceeded in the absence of the declaration for those benefits to be clearly material.

21.6 Administrative and compliance costs

(a) QCA Draft Decision

The QCA Draft Decision noted:[75]

The QCA considers that the administrative and compliance costs incurred by DBCT Management as a result of declaration are not sufficiently material to have an impact on the public interest.

…

DBCT Management recovers the QCA levy from users under a straight pass-through arrangement as part of its operating expenditure allowance … as the full amount of this levy is passed through to users, the incidence of this cost is borne by users, rather than DBCT Management. It is therefore not a cost that is incurred by the service provider.

…

Under DBCT Management's current access undertaking the QCA approves an efficient allowance for these costs as part of DBCT Management's operating expenditure allowance. As is the case with the QCA levy, these costs are ultimately borne by users, not DBCT Management.

…

The QCA considers it is relevant to have regard to the costs that DBCT Management may incur in the absence of declaration. It will still incur costs under its proposed access framework, ranging from ongoing administration and compliance costs to costs incurred in dealing with access disputes, including arbitration.

…

the QCA does not consider that the compliance costs incurred by DBCT Management as a result of regulation are excessive on their own as well as relative to the costs that it may incur in the absence of declaration.

The DBCT User Group firmly believe that the QCA's conclusions in that regard are entirely appropriate for the reasons set out below.

(b) Costs 'incurred' by DBCTM with declaration

[75] QCA Draft Decision, Part C, page 118-119

As the QCA has correctly identified DBCTM effectively does not incur any costs under the existing system.

In fact with declaration, users effectively pay for all the costs – through the QCA levy, the regulatory costs being part of the corporate overhead allowance taken into account in setting reference tariffs and users paying their own costs. On a with and without basis it is therefore absolutely clear that DBCTM's costs will actually increase.

Despite that, the DBCT User Group continue to support the regulatory system because they consider that the costs incurred in participating in the existing regulatory framework arising from declaration are far outweighed by the benefits that it provides in terms of setting prices and terms at a level that reflects as best as possible a workable competitive market, providing regulatory certainty and promoting competition and investment.

(c) Costs which will be incurred without declaration

As DBCTM has expressly identified in the Latest DBCTM Submission, criterion (d) involves applying a 'with and without' test to assessing whether there are overall gains from a public benefit perspective.

As was discussed at the Stakeholder Forum, if the Access Framework is supposed to replicate the outcomes of the existing regulatory framework, how can it be that DBCTM envisages it will provide substantial cost savings?

In fact, the Access Framework's reliance on private arbitration for resolving access disputes, and the only recourse in relation to the Deed Poll being litigation via the courts, strongly suggests that the costs arising in the likely future without declaration are substantial.

In addition, such disputes will effectively occur multiple times, as each individual user tries to negotiate access pricing, or oppose amendments that impact on them.

It is simply not credible given DBCTM's acknowledged market power and incentivises to maximise profits, to say (as DBCTM seeks to) that it is a negotiate-arbitrate regime, such that costs will be lower as more issues will be commercially negotiated. To the contrary, DBCTM's proposed Deed Poll and Access Framework is effectively:

(i) replacing a single efficient periodic regulatory setting of price in which all stakeholders can make submissions with numerous bilateral disputes and the access terms are set in a uniform and equitable way for all access seekers; with

(ii) a series of bilateral negotiations and bilateral disputes where the monopoly service provider is highly incentivised to maximise the price outcome.

Particularly, for more 'junior' access seekers, this gives rise to significant costs relative to sharing a small proportion of the DBCT User Group's joint approach to the regulatory process.

The DBCT User Group can also speak from experience about the significant costs this has resulted in in relation to Abbot Point, where each price review since that terminal's privatisation has resulted in costly arbitration, where resources users have effectively been required to engage multiple law firms, economists and barristers to protect their position – incurring costs that far outweigh those incurred in the existing regulatory process.

21.7 Criterion (d) Conclusions

It is clear from the analysis above that the promotion of investment in Hay Point catchment coal tenements that would arise from declaration (as assessed in respect of criterion (a)) will promote the public interest by producing a series of significant public benefits including:

(a) increased investment in other dependent markets (rail haulage and rail access);

(b) increased coal royalties (both through additional coal production and through lesser deductions for terminal charges);

(c) increased regional development;

(d) increased employment; and

(e) related and consequential economic contributions.

The cost and administrative burden would also increase without declaration given the heavy reliance on costly arbitration and litigation (and it is notable that the users pay the costs incurred by the QCA through the QCA levy in any case).

Accordingly it is clear that criterion (d) is satisfied.

22 Overall conclusions

The DBCT User Group has made extensive submissions to the QCA during the declaration review process that provide a wealth of evidence from which the QCA can clearly be satisfied that each of the access criterion are met in respect of the DBCT service.

In particular, it is clear based on all of the evidence before the QCA that:

Criterion (b) is satisfied because:	Given cost differences (of greater than a SSNIP) and numerous non-cost barriers to switching, the coal handling services provided by other non-Hay Point terminals are not substitutes for the DBCT service. The costs of RGT, WICET, APCT and their related coal supply chains means that services provided by those terminals are not economical substitutes for the DBCT service. Services provided by HPCT are also clearly not economic substitutes for the DBCT service as BMA fully utilises the terminal for coal produced by BMA and MBC, and has no incentives to make it available to third parties and it provides no competitive constraint on DBCTM. Accordingly, the market in which the DBCT service is provided is the market for provision of the DBCT coal handling service (or Hay Point common user coal handling service) to Goonyella coal producers. Consequently demand for other coal handling services is not part of the foreseeable demand in the market. Credible estimates of foreseeable demand in the market (appropriately defined) peak for the proposed declaration period at 93.1 mtpa or less. That foreseeable demand: • can be met by the DBCT's existing capacity (based on recent independent modelling of terminal capacity); and • in any case, can clearly be accommodated within reasonably possible expansions of DBCT (through the Zone 4 and 8X expansions). DBCTM's latest allegations of the access queue being an accurate estimate of foreseeable demand are clearly not credible. That is evident by analysing how the queue operates (and the incentives the creates for potential users), considering historical evidence of whether the queue has converted into aggregate demand and by considering the individual applications in the queue.

	Economic modelling clearly demonstrates that the credible estimates of foreseeable demand are clearly met at least cost by DBCT rather than two or more facilities.
Criterion (a) is satisfied because:	DBCTM has clear market power given the lack of substitutes for the DBCT services. It has clear incentives to engage in monopoly pricing against future users to maximise its profits (which it can do without risking any of the volume contracted to the existing users). That monopoly pricing will result in differential access pricing between existing users (who, with only one exception, retain price review protections under their existing access agreements with evergreen renewal rights) and future users (who are exposed to the monopoly pricing that will occur without declaration). That differential pricing creates a barrier to entry that will deter efficient new entry to the market for acquisition of exploration and development coal tenements in the Hay Point catchment, as potential future users will value such coal tenements (and achieve returns that are) materially lower than for existing users. Accordingly, it is clear that declaration will promote a material improvement in the environment and opportunities for competition in that market (or more relevantly to this context, ceasing declaration will have an material adverse impact on the environment and opportunities for competition in that market). The Deed Poll and Access Framework will provide no material constraints on DBCTM's behaviour that changes that position given: • the Deed Poll itself is legally ineffective; • the Deed Poll is legally unenforceable by users and access seekers in material respects, including in relation to the asserted $3/tonne cap on pricing increases; • the application of the Deed is highly uncertain; • the Access Framework is very easy for DBCTM to amend, such that its current terms cannot be relied on as a likely future constraint; • the Deed Poll and Access Framework are highly reliant on protracted and costly litigation and arbitration (i.e. a series of bilateral disputes with individual users), raising questions about the likelihood of compliance; and • their artificial and contrived nature making them inappropriate to consider as a matter of appropriate statutory interpretation of criterion (a) in any case. Valuation modelling demonstrates that even if it was assumed that despite all of those defects the Deed Poll and Access Framework would be effective in limiting prices rises to $3/tonne above the QCA-like level that existing users will receive, that increase in pricing will be

	more than enough to materially impact on values and returns that future users can gain from Hay Point catchment coal tenements. That difference in returns will clearly have a material adverse impact on future user's ability to compete for the acquisition of those coal tenements relative to existing users (effectively creating a material barrier to efficient new entry).
Criterion (c) is satisfied because:	DBCT is an extremely significant facility, having regard to: • its size as one of the world's largest coal terminals at 85 mtpa capacity with clear potential to expand further, and • its significance to the Queensland economy, given it is a critical element in the Goonyella coal supply chain which is a major source of Queensland's exports, employment, coal royalties and economic growth. DBCTM has not contended that criterion (c) is not satisfied.
Criterion (d) is satisfied because:	Declaration has and will continue to promote investment in DBCT itself, through mechanisms including socialisation, certainty of pricing that provides a guaranteed reasonable return of and on capital and protections that ensure expansions are studied, feasible and fully contracted. The promotion of investment in Hay Point catchment coal tenements that would arise from declaration will also promote the public interest by producing a series of significant public benefits including: • increased coal royalties (both through additional coal production and through lesser deductions for terminal charges); • increased regional development; • increased employment; and • related and consequential economic contributions. The cost and administrative burden would also increase without declaration given the heavy reliance on costly arbitration and litigation (and it is notable that the users pay the costs incurred by DBCTM through the QCA levy and corporate overhead allowance incorporated in reference tariffs in any case). But just as importantly the removal of declaration risks the very factors of certainty, transparency and reasonableness that have underpinned the long term success that declaration has made to the Goonyella supply chain and the dependent markets that relate to it.

Accordingly, the DBCT User Group strongly considers that it is appropriate for the QCA to recommend the continued declaration of the DBCT service.

Schedule 1 – Castalia Criterion (b) Report

DBCT Declaration Review Draft Decision:

Assessment of HoustonKemp Report of March 2019[1]

24 April 2019

1 Introduction

DBCTM and their advisors, HoustonKemp, assert that the coal handling service provided at DBCT does not satisfy criterion (b) and that the QCA have erred in their Draft Decision.

HoustonKemp suggest that the QCA has an incorrect approach to market definition because QCA applies the SSNIP test to the current DBCT TIC rather than the market clearing price. They cite this as an example of the "reverse cellophane fallacy", which is well covered in the literature and would lead to a definition of the market that is too narrow.

HoustonKemp contend that if the SSNIP test to determine the market boundaries and thus foreseeable demand was applied to their claimed higher market clearing price, it would show that other terminals—for example AAPT—would be substitutable and thus in the market.

2 The Reverse Cellophane Fallacy

The "cellophane fallacy" occurs when assessing a market by applying SSNIP to an already elevated monopoly price. Since a monopolist will rationally increase price to a point where other goods and services become almost substitutable, the test could find more substitutability (broader product markets) than is warranted. In other words, applying SSNIP to prices which already reflect market power could erroneously lead to inference of a lack of market power.

The "reverse cellophane fallacy" is the mirror image of such concerns. What if the market price was regulated to an artificially low level? If the price in the market was uneconomically low, and we applied SSNIP to such an uneconomically low price, the test could lead to an inappropriately narrow market definition and an erroneous inference of market power.

The "reverse cellophane fallacy" is a valid concern, and it reminds us to avoid presuming that an apparent absence of competitive pressure should be interpreted as evidence that the incumbent could exercise market power in the absence of regulation.

However, there should equally be no presumption that just because prices are already regulated, the "reverse cellophane fallacy" will always occur if the SSNIP test is applied to

[1] Assessment of the QCA's Draft Recommendation to Declare the DBCT Service – Criterion (b), Report to DLA Piper

the regulated price. The key question is whether the regulated price to which the SSNIP test is applied is likely to approximate the price that would prevail in a hypothetically workably competitive market.

3 HoustonKemp Analysis

In our view, HoustonKemp misapply the theory behind the "reverse cellophane fallacy" by establishing a circular argument: the market price in a hypothetical workably competitive market must be the highest price of all the terminal to which coal may be occasionally shipped from a geographic envelope; *ergo* applying SSNIP test to that market price would always mean that all the terminals which were considered to be part of the same geographic envelope must be in the same market. In other words, you decide the geographic envelope and then undertake the SSNIP test in a way which must inevitably confirm that the market size equals to the geographic envelope.

The HoustonKemp approach is neither logically robust nor particularly informative. In effect, it collapses the market definition exercise to a single question: do mines that are broadly within the same geographic locality send coal to different terminals, even if only occasionally? If the answer to that question is yes, then all the terminals are deemed to be in the same market. The problem is that the initial definition of the geographic locality which largely pre-determines the answer is inevitably arbitrary.

HoustonKemp make a strong and sensible point that substitutability should be assessed on a mine-by-mine basis. However, their actual approach is almost the reverse of what they preach. As they say (at page 17):

> *"Our approach to defining the market identifies its boundaries by reference to the area over which DBCT service is currently being or will be supplied."*

We see a number of errors in this statement:

- First, the mere fact that coal may occasionally be shipped from a mine to a terminal, or to different terminals, does not by itself provide evidence that those terminals are in the same market. There could be a number of reasons why occasional shipments occur, including needing to solve short-term logistics bottlenecks. There may also be features of historical contracts that determine logistics in ways which are no longer relevant to the existing market dynamics. This logic can be illustrated by the following example. We may observe that a person is occasionally picked up by a limousine to travel from their house to the city. We would be wrong to infer from that observation that limousine services and public transport services are in the same market
- Second, in trying to avoid the "reverse cellophane fallacy", HoustonKemp commit the original cellophane fallacy. They assume that DBCT will price to the maximum level it can without triggering substitution, and hence that its services can be supplied to a much wider market than would be the case in a workably competitive market.

3.1 Regulated and Market Prices

While the actual approach applied by HoustonKemp does not meet the methodological standard they propose, they do ask a valid question: is there a risk that we are applying the SSNIP test to a wrong price.

HoustonKemp propose a thought experiment. They ask us to imagine that AAPT is located next to DBCT but that its costs (and hence prices) are higher. Clearly, in that

market, DBCT would price to the level of its competitor. In applying this logic to firms that are located some way apart, HoustonKemp assert that the market price would be set by the highest cost alternative among the suppliers in the same market (which is already defined as the geographic envelope from which service is provided or is possible). In other words, instead of characterising the highest price that DBCT can set just before inducing inefficient substitution to other remote terminals as a monopoly price, HoustonKemp define it as the outcome of a workably competitive market.

Apart from being self-serving, this definition is logically wrong. In a workably competitive market, prices would be set by the costs of the marginal (highest cost) producer **or** by the costs of the best new entrant, whichever is the lowest. In this case, it is the costs of a hypothetical entrant that should determine the market price.

The existence of physical constraints on the construction of alternative terminals at Hay Point is both a starting reason for suspecting that DBCT is a natural monopoly and a key consideration in formulating an appropriate thought experiment to determine the price that would emerge in a workably competitive market.

In this case, the question is not what would happen if AAPT or any other North Queensland terminal with their current costs and charges were located at Hay Point. We could equally ask what would happen if the Port of Newcastle was located at Hay Point. Rather, the relevant question is what would be the cost of a hypothetical best new entrant at Hay Point? The existence of physical constraints means that new entry is likely a theoretical concept rather than an actual opportunity. However, such hypothetical entry is the true determinant of pricing in such a hypothetical workably competitive market.

There is no reason to assume that in a workably competitive market, DBCT's prices would increase from the regulated price. This is because the current regulated DBCT TIC is set to replicate the outcome of a hypothetical workably competitive market. The building blocks pricing model using DORC valuation and WACC derived from the application of CAPM explicitly calculates the costs of an efficient new entrant with assets capable of providing the same service as DBCT.

In other words, the current regulated price is the price that would prevail in a market where the threat of new entry imposes restraint on the pricing of market participants. This is precisely what economists mean when they refer to a workably competitive market.

The objective of regulation is, after all, to replicate the price that would prevail in a workably competitive market. One of the features of such a market is the threat of new entry. Regulators address this through setting prices at the level of an efficient new entrant.

HoustonKemp consider a thought experiment of AAPT being located at Hay Point and charging prices that are more than five to ten percent greater than DBCT. HoustonKemp describe this thought experiment as representing a workably competitive market and conclude that in such a market prices would either be sustained price arbitrage or prices would converge to the highest cost alternative. That is, DBCT would either retain its current prices or price up to the AAPT level.

Neither conclusions are consistent with the theory of a workably competitive market. If sustained price arbitrage exists between apparent substitutable products or services, then they are in separate markets. If prices are sustained above new entrant levels, then the market cannot be said to be workably competitive. In a workably competitive market, prices tend to converge to the level of an efficient new entrant.

Schedule 2 – PwC Report

DBCT User Group

2020 Access Declaration Review

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Disclaimer

We prepared this report solely for the DBCT User Group's use and benefit in accordance with and for the purpose set out in our engagement letter with the DBCT User Group dated 22 November 2018. In doing so, we acted exclusively for the DBCT User Group and considered no-one else's interest. We accept no responsibility, duty or liability:

- to anyone other than the DBCT User Group in connection with this report
- to the DBCT User Group for the consequences of using or relying on it for a purpose other than that referred to above.

We make no representation concerning the appropriateness of this report for anyone other than the DBCT User Group. If anyone other than the DBCT User Group chooses to use or rely on it they do so at their own risk.

The information, statements, statistics and commentary (together the 'Information') contained in this report have been prepared by PwC from publicly available material, discussions with industry experts, and from material provided by the DBCT User Group and its constituent User companies. PwC has relied upon the accuracy, currency and completeness of that Information. The Information contained in this report has not been subject to an audit. PwC may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement this report.

Our modelling is reliant on the assumptions and forecasts as described in this report. These assumptions and forecasts are uncertain and the results are intended to be indicative only, and future outcomes may be different.

While we consent to a copy of this report being provided to the QCA, we do not accept any responsibility or liability (whether in contract, tort (including negligence) or otherwise) to the QCA or any other person for the consequences of any reliance on this report.

This disclaimer applies:

- to the maximum extent permitted by law and, without limitation, to liability arising in negligence or under statute
- even if we consent to anyone other than the DBCT User Group receiving or using this report.

Liability limited by a scheme approved under Professional Standards legislation.

Executive summary

The DBCT User Group engaged PricewaterhouseCoopers Consulting (Australia) Pty Limited (PwC) to provide economic advice in relation to the Queensland Competition Authority's (QCA) draft recommendation[1] regarding the ongoing declaration of the Dalrymple Bay Coal Terminal (DBCT).

This report re-examines the QCA's approach to market definition and least cost analysis, as is relevant to access declaration criterion (b).

The context of market definition is to test whether the service meets the relevant access declaration criteria, with the implication being that the *Queensland Competition Authority Act (*QCA Act) provisions relating to third party access would continue to apply. The QCA's approach best meets this requirement, developing a market definition which is consistent with key regulatory precedent and reflects the absence of any meaningful competitive dynamic as between DBCT and other coal terminals.

Applying this market definition, the QCA has properly found that the relevant market excludes the coal terminals at Abbot Point and Gladstone, as well as the adjacent Hay Point Coal Terminal. These other terminals are not substitutes for the services provided by DBCT, in a way which is relevant to defining a market for the purposes of assessing whether access regulation ought to continue to apply.

Consistent with this market definition, the appropriate way for the QCA to assess whether the DBCT facility meets the required 'least cost' test, per the intention of the QCA Act and consistent with the determination of the Australian Competition Tribunal (the Tribunal) in the Pilbara matter[2], would involve comparing the cost of an expanded DBCT facility with a duplicated facility in the same market.

Using this approach, our modelling continues to demonstrate that an expanded DBCT facility is the least cost option for satisfying foreseeable demand.

As a proxy for duplicating the existing DBCT facility, we have modelled the cost of Dudgeon Point, a proposed greenfield project.[3] An expanded DBCT is around 16 per cent cheaper than Stage One of Dudgeon Point, on an average cost basis. On an incremental cost basis Dudgeon Point is more than double the cost of incrementally expanding DBCT.

Although the QCA found that the Gladstone Ports Corporation's RG Tanna facility was not in the same market as DBCT, the QCA did include analysis which considered whether accessing spare capacity at the existing RG Tanna facility could represent a lesser-cost option.

[1] QCA (2018), *Draft Recommendation - DBCT declaration review*, available at: http://www.qca.org.au/getattachment/f381d591-bfc6-4974-9d58-a5f47e32d0e3/Part-C-Draft-recommendation-%E2%80%93-the-DBCT-service.aspx

[2] Australian Competition Tribunal (2010), *In the matter of Fortescue Metals Group Limited [2010] ACompT 2,* available at: http://ncc.gov.au/images/uploads/DERaFoTD-001.pdf

[3] Queensland Department of State Development (2017), *Dudgeon Point Coal Terminals Project*, available at: https://www.statedevelopment.qld.gov.au/assessments-and-approvals/dudgeon-point-coal-terminals-project.html

[redacted] and significant doubt as to the technical feasibility of the Blackwater rail system being able to support additional tonnages from the Goonyella system; and certainly not at the lower-bound below-rail cost estimates used by the QCA in its draft recommendation.

Collectively, these factors suggest that there is significant doubt as to whether RG Tanna should be included in any comparative least cost analysis. If the QCA does elect to retain RG Tanna in that comparative analysis, it will need to revisit its cost estimates to ensure that these reflect the most recent and accurate basis for calculating both rail and port costs associated with this export pathway.

This report also includes new modelling of the impact of a higher Terminal Infrastructure Charge (TIC) on the valuation of certain coal tenements/projects in the Hay Point catchment area, as is relevant to access declaration criterion (a).

DBCTM has proposed an Access Framework that would apply where access declaration is revoked. A key feature of this Access Framework is that it explicitly permits DBCTM to charge new users a higher TIC than would apply to existing users under the terms of their evergreen User Agreements. The Access Framework provides that the TIC could be increased by as much as $3 per tonne.

We used production cost, volume and coal price data provided by Wood Mackenzie for a number of development projects in the Goonyella system to develop indicative valuations for these projects at a pre-development phase, as a proxy for the underlying tenement value. We then assessed the impact on those valuations of port charges being increased by $3 per tonne, consistent with DBCTM's proposed Access Framework.

This analysis shows that valuations for all prospects decline under a scenario of higher port charges, although the relative impact depends on each project's particular cost and other characteristics. For some prospects, the impact on tenement valuation of a higher port charge would be material.

Finally, our previous reports have considered the significance of the facility to the State, and benefits to the public interest as a result of ongoing declaration (access declaration criteria (c) and (d)), we do not revisit these matters in this report.

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1. Introduction

The DBCT User Group engaged PricewaterhouseCoopers Consulting (Australia) Pty Limited (PwC) prepare this further report in response to submissions on the Queensland Competition Authority's (QCA) draft recommendation concerning whether the access declaration criteria are satisfied for the Dalrymple Bay Coal Terminal (DBCT).[4]

The QCA's draft recommendation found that all four access declaration criteria were met. Our previous reports similarly found that DBCT satisfies the access declaration criteria outlined in the QCA Act.[5] In this report, we focus on access declaration criteria (a) and (b).

Although we and the QCA arrived at the same conclusion – that the access declaration criteria are satisfied – in our earlier reports we adopted differing methodologies, assumptions and forecasts. We also provided supporting analysis aligned with the QCA's proposed methodologies and forecasts, using the QCA's demand forecast (including the capacity entitlement uplift), approach to least cost analysis and expansion cost estimates.

As a supplementary report, we have not fully restated in this report the context to the QCA's declaration review. This supplementary report should be read in conjunction with our earlier reports provided to the QCA as part of the various User Group submissions.

This report is structured as follows:

- in Section 2, we revisit the approach to market definition adopted by the QCA and address some of the criticisms of that approach as submitted by DBCT Management (DBCTM) and its advisor HoustonKemp

- in Section 3, we present an updated least cost analysis, demonstrating that the DBCT facility remains the least cost means of satisfying foreseeable demand in the relevant market

- in Appendix A and Appendix B, we provide some additional detail on our least cost analysis and also provide high level valuation modelling regarding the impact of a higher Terminal Infrastructure Charge (TIC) as proposed in the access framework submitted by DBCTM.

[4] QCA (2018), *Draft Recommendation - DBCT declaration review*
[5] Queensland Competition Authority Act 1997, available at: https://www.legislation.qld.gov.au/view/pdf/inforce/2018-03-29/act-1997-025

2. Market definition

2.1 Market definition in the context of access declaration

The QCA defined the relevant market based on analysis of supply chain costs, capacity and other factors, which identified a catchment of current and potential future demand for the service provided by DBCT. The QCA's approach to market definition was not constrained by the capacity of the current DBCT facility, as evidenced by the fact that in some scenarios the foreseeable demand exceeded the capacity of the current facility, and required examination of terminal expansion or other options.

The QCA received submissions from DBCTM,[6] and supported by analysis by HoustonKemp,[7] which claim that the approach adopted by the QCA is flawed.

HoustonKemp and DBCTM reference a range of competition law and economic literature, regulatory precedent and other sources, and argue their approach to market definition is 'conventional' or 'standard' in its application.[8] In the broader market they propose, DBCTM and HoustonKemp suggest that there is 'close competition' between the services provided by DBCT and other coal terminals.[9]

Ultimately, what DBCTM and HoustonKemp produce is an academic exercise in seeking to opine on whether or not criterion (b) is satisfied. But what is absent is any consideration of whether the resultant market definition presents any useful guidance to the QCA in the context of assessing, at the most base level, the question at hand: whether DBCT ought to continue to be declared for third party access given the purpose that declaration seeks to promote.

2.1.1 Approach to market definition needs to align with purpose

The context of market definition is to test whether the service meets the relevant access declaration criteria, with the implication being that the QCA Act provisions relating to third party access would continue to apply. This primary purpose needs to be kept in view. The approach to market definition is not some abstract or academic exercise that can be viewed in isolation.

The QCA's approach satisfies this requirement, developing a market definition which is consistent with key regulatory precedent and reflects the absence of any meaningful competitive dynamic as between DBCT and other coal terminals.

[6] DBCT Management (2019), *DBCT Management response to QCA draft recommendation,* available at: http://www.qca.org.au/getattachment/b11ee566-c558-4eb6-b410-e36d2fbdefdf/DBCT-Management-Submission.aspx
[7] HoustonKemp (2019), *Assessment of the QCA's draft recommendation to declare the DBCT service - criterion (b),* available at: http://www.qca.org.au/getattachment/b11ee566-c558-4eb6-b410-e36d2fbdefdf/DBCT-Management-Submission.aspx
[8] HoustonKemp (2019), *Assessment of the QCA's draft recommendation to declare the DBCT service - criterion (b),* Page 3
[9] For example, Page i of HoustonKemp's submission on (b) states '*… evidence that there has been, and continues to be, close competition between the supply of the DBCT service from expanded capacity and other coal handling services for Goonyella system users.'*
Similarly, Page 12 of the submission states *'Conclusive evidence that AAPT and RGTCT are close substitutes to the DBCT service, and in the market in which the service is provided, is set out at section 2.3.'*

The QCA Act was established to provide a mechanism to address the adverse effects of market power in certain parts of the economy. As the Explanatory Note to the original QCA Bill 1997 observed:[10]

> *The threat of competitors providing substitutes constrains a seller's ability to charge excessive prices or otherwise restrict supply. However, in cases where these substitutes do not exist, a seller possesses significant market power. A seller may exercise its market power to increase its profit by restricting output because doing so enables the seller to increase its price.*
>
> *In cases of natural monopoly, one facility meets all of a market's demand more efficiently than a number of smaller and more specialised facilities. Accordingly, it is not socially desirable that the infrastructure comprising a natural monopoly be duplicated. At the same time, the absence of competition enables a natural monopoly infrastructure owner to extract excessive profits through exercising market power.*

And specifically in the context of third party access:[11]

> *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.*

What is clear is that the original Act was framed in a way that fundamentally was concerned with behaviour in the relevant market – the capacity of incumbents with market power to charge higher prices, whether coupled with a restriction on supply or not. The way in which the market definition question is approached needs to continually be re-tested against this. In this sense, the QCA has properly and appropriately focused on substitutability and the extent of any competitive interaction to define the relevant market boundaries.

2.1.2 Market boundaries are defined by close competition

It is useful to revisit the guidance reflected in the QCA's initial Staff Issues Paper.[12] The Staff Issues Paper cited an oft-referenced determination from the then Trade Practices Tribunal, which defined the market as:

> *… the area of **close competition** between firms or, putting it a little differently, the field of rivalry between them …*
>
> *So a market is the field of actual and potential transactions between buyers and sellers amongst whom there can be **strong substitution**, at least in the long run, **if given sufficient price incentive.***

[10] Queensland Government (1997), *Queensland Competition Authority Bill 1997 - Explanatory Notes*, available at: https://www.legislation.qld.gov.au/view/pdf/bill.first.exp/bill-1997-442
[11] ibid
[12] QCA (2018), *Staff Issues Paper - Declaration reviews: applying the access criteria* (emphasis added)

The QCA's analysis, and observed commercial behaviour of both users and terminal managers, clearly indicates there is no contestability between the services provided by DBCT and other coal terminals for the overwhelming majority of the users.

The relative supply chain costs established by the QCA's analysis, and broadly validated by analysis undertaken by the User Group, shows that there is no reasonable claim that the terminals at Abbot Point or Gladstone (whether RG Tanna or WICT) are in any way substitutes for the services provided at DBCT.

Our analysis demonstrates the significant cost advantage held by DBCT over other export coal supply chains (see Table 1). Total supply chain costs are at least 47 per cent higher at the next-least cost terminal, which would imply that the TIC at DBCT could more than double before there would be sufficient price incentive for users to look to a substitute service. This scale of price increase is well beyond conventional ranges tested by competition regulators under a SSNIP approach.

Table 1: Supply chain costs - PwC

Cost component	DBCT	Abbot Point	RG Tanna	WICT
Rail cost estimates	$9.56	$16.05	$17.43	$17.43
Port cost estimates	$5.05	$6.77	$4.00	$22.00
Supply chain estimate	$14.61	$22.82	$21.43	$39.43
PwC difference to DBCT	**-**	**$8.21 (+56%)**	**$6.82 (+47%)**	**$24.82 (+170%)**

Source: PwC modelling

Even in a market where significant demand growth is forecast, and using the QCA's average cost methodology, our analysis suggests that within the relevant market DBCT has a material cost advantage over any alternative export coal terminal (see Figure 1).

Figure 1: Average cost per tonne of options to service total foreseeable demand

Source: PwC modelling, costs scaled to capacity requirement.

While an expanded DBCT may be developed under the current socialised cost approach (similar to the QCA's average cost methodology), a user seeking to export through either Abbot Point or Gladstone would pay the (higher) incremental cost of those supply chains, not the average cost. The QCA's average cost methodology is not a relevant basis on which to assess the boundaries of the relevant market as it does not reflect the way in which actual supply chain costs influence substitutability from the perspective of users.

There is no basis for the QCA to adopt a broader market definition based simply on the premise of some users infrequently or historically using the services of another terminal. This does not demonstrate 'close competition' between existing facilities, nor an environment of 'strong substitution' driven by price.

Anecdotal examples of a particular user accessing services from multiple facilities does not evidence substitution relevant to market definition. The appropriate question is whether the incentive effect of price- or quality-based substitution possibilities is sufficiently strong, so as to create a meaningful competitive discipline such that the two terminals are in the same market. Establishing that one user might avail themselves of otherwise services with otherwise similar attributes does not of itself define those services to be in the same market.

To answer this properly requires an assessment of the commercial options that confront users, and the reasons underpinning their supply chain decisions. For instance, where a particular user may have sought capacity at another terminal at a previous point in time where sufficient capacity was not available at DBCT, the QCA appropriately finds that this does not evidence substitution in a way that suggests the two services are in the same market.

2.1.3 Substitution needs to be considered in the context of cost and price incentives

HoustonKemp views any use of a similar service by the same customer as relevant to defining market boundaries. HoustonKemp suggest that the market should be defined broadly, noting that '*any factor which drives values to users is relevant to substitutability*'.[13]

The QCA's focus is on price and quality factors as determining substitutability. This approach is entirely consistent with key reference points from Australian competition law precedent, including in QCMA where the Tribunal defined market as the field of rivalry between firms where there is 'substitution between one product and another, and between one source of supply and another, in response to changing prices'.[14]

The price signal that is relevant here is the actual prices received by market participants. For third-party supply chain costs these prices will include a component of a return on existing (sunk) capital costs and be different to actual resource costs, but

[13] HoustonKemp (2019), *Assessment of the QCA's draft recommendation to declare the DBCT service - criterion (b),* Page 3
[14] Trade Practices Tribunal (1976), *Re Queensland Co−operative Milling Association Ltd., Defiance Holdings Ltd. (Proposed Mergers with Barnes Milling Ltd.) - Review of Commission's determination denying authorization.*, available at: https://www.accc.gov.au/system/files/49%20-%20Queensland%20Co-operative%20Milling%20(1976)%20ATPR%2040-012.pdf

this is appropriate given that the focus of market definition should be on the incentives which actually influence the behaviour of participants in that market.

Consider the following simplified illustration, reproduced from our July report[15]:

> Assume that capacity is exhausted at the existing DBCT facility, yet there is unmet demand. All users face the same rail charge to DBCT ($5 per tonne) and that resource costs are 40 per cent of this (so, the underlying resource cost is $2 per tonne).
>
> Expanding DBCT will cost $10 per tonne (levelised capital and operating costs, so an expansion charge of $10 per tonne is also a proxy for resource cost). Assume further that there is rail capacity available to cater for this expansion in throughput.
>
> There is spare capacity at an (unregulated) alternative terminal which has a resource cost of $2 per tonne, but an actual user-charge of $15 per tonne. Similarly, there is assumed capacity on the rail line to that alternative terminal with a rail charge of $10 per tonne (and underlying resource cost of $4 per tonne).
>
> The economic decision confronting the user is:
>
> - DBCT expansion, $15 per tonne, comprised of a rail charge of $5 per tonne plus a port expansion charge of $10 per tonne, or
> - alternative terminal, $25 per tonne, comprised of a rail charge of $10 per tonne plus a port charge of $15 per tonne.
>
> A rational user would prefer the DBCT expansion, and the quantum of the differential in user-cost would suggest no contestability between the two terminals.
>
> However, a focus on resource cost would imply a different view of market definition.
>
> The resource costs of a DBCT expansion is $12 per tonne (comprised of a rail resource cost of $2 per tonne plus a port expansion cost of $10 per tonne), whereas the resource cost of the alternative terminal is $6 per tonne (comprised of a rail resource cost of $4 per tonne plus a port resource cost of $2 per tonne).
>
> A resource cost approach would suggest the least-cost pathway is the alternative terminal, and as applied by Houston Kemp would imply that both terminal facilities are in the same market.

2.1.4 Market definition is a tool, but judgement is still required

HoustonKemp submits that a precise approach to market definition is required, particularly in the context of assessing whether access declaration should apply. Moreover, they submit that the QCA's approach in its draft recommendation is precisely wrong.

Whilst diligence and analytical depth is critical, there inevitably will be 'grey' areas in market definition. Judgement still needs to be exercised, both in setting the appropriate boundaries of the market and in looking back at the resulting market definition and challenging whether this is logical and consistent with the purpose for which it is to be applied.

[15] PwC (2018), *Dalrymple Bay Coal Terminal User Group - Declaration review regarding Dalrymple Bay Coal Terminal*

Not that any of this is contentious or novel. In its Pilbara decision, for instance, the Tribunal observed:

> *It is often difficult, and sometimes impossible, to define with any precision the relevant dimensions (product, geographic, functional and temporal) of a market. On occasion, it can be particularly difficult to describe the relevant product market and its geographic borders. The process often involves judgments as to matters of degree that can be difficult to measure.*[16]

Similarly, in *Air New Zealand Ltd v ACCC* [2017] HCA 21,[17] Gordon J noted that market identification is not a task undertaken in a vacuum, and that both the task, and the extent of the task, ought to be framed against the conduct in question:

> *That approach recognises that the concept of a "market" is "not susceptible of precise comprehensive definition". It recognises that market identification is an economic tool, or instrumental concept, that uses and integrates those legal and economic concepts best adapted to analyse the asserted anticompetitive conduct. It recognises that market identification is "not an exact physical exercise to identify a physical feature of the world" and that there is often little or no utility in debating or identifying "the precise physical metes and bounds of a market". It recognises that market identification is "not a physical thing, or essence, which can be identified in a manner divorced from the relevant context". And it recognises that market identification depends upon the issues for determination – the impugned conduct and the statutory provision proscribing anti-competitive behaviour that the conduct is said to contravene."*[18]

Ultimately, the QCA needs to exercise its judgement on where the boundaries sit for the relevant market. Our view is that that judgement ought to be exercised by having regard to the primary function that access declaration serves.

2.1.5 Market definition and market power

There is an obvious inconsistency in the parallel claims of DBCTM and HoustonKemp that there is:

- close competition between various coal terminals, such that a far broader market definition ought to be adopted than that proposed by the QCA

- whilst simultaneously suggesting that terminal charges at DBCT could increase substantially, yet this would not cause demand to respond in any material way.

[16] Australian Competition Tribunal (2010), *In the matter of Fortescue Metals Group Limited [2010] ACompT 2,* available at: http://ncc.gov.au/images/uploads/DERaFoTD-001.pdf

[17] High Court of Australia (2017), *Air New Zealand Ltd v Australian Competition and Consumer Commission; PT Garuda Indonesia Ltd v Australian Competition and Consumer Commission [2017] HCA 21*, available at: http://eresources.hcourt.gov.au/downloadPdf/2017/HCA/21

[18] *Air New Zealand Ltd v Australian Competition and Consumer Commission [2017] HCA 21,* Paragraph 59

HoustonKemp's latest report supposes that the current Terminal Infrastructure Charge (TIC) is below that which would apply in a workably competitive market:[19]

> *There is no ready basis to assume that the price charged for existing capacity DBCT reflects the price that would be determined in the market by rivalrous interactions between coal terminals. Indeed, there are strong reasons to believe that the price for coal handling services in a competitive market would be* ***substantially higher than the TIC determined by the QCA*** *for DBCT.*
>
> *First among those reasons is that, although a workably competitive market can be expected to give rise to cost-based prices, these may not be the costs of a particular supplier in the market. Rather, established economic principles and case law indicate that the measure of costs that constrains the pricing decisions of a firm in a workably competitive market is not its own costs, but the forward-looking costs of efficient actual or potential rivals.*

A different interpretation would be that it is precisely the absence of workable competition that creates the need for regulatory intervention in the form of access declaration. Without declaration it would seem clear from HoustonKemp's report that DBCTM would expect terminal charges to be substantially higher. In fact, HoustonKemp's assertion would seem more to support the QCA's analysis that DBCT has a material cost advantage over other supply chain options, which goes directly to the way in which the QCA has defined the market.

It is important also to reconcile this statement to the way in which the QCA regulates terminal access charges. The TIC is essentially derived from the proxy cost-structure of a hypothetical market entrant, developing substantially the same facility but using modern-equivalent technologies and assets. The TIC does not reflect a return on DBCTM's actual or historic costs (at least for the terminal asset that existed at the point in time that access regulation was initiated – given that the regulatory asset base was originally determined using a depreciated optimised replacement cost valuation method). Rather, it is a forward-looking assessment for an efficient terminal manager, including terminal management costs derived from the costs of a hypothetical stand-alone, listed entity operating the terminal as its only asset.[20]

HoustonKemp's argument appears to be that, without regulation DBCTM could 'substantially' increase charges, beyond what the QCA already has determined as the prudent and efficient costs of a hypothetical new market entrant. The QCA's own analysis establishes clearly that port charges, if based on the cost-differential of exporting through existing terminals either at either Abbot Point or Gladstone, would be substantially higher that the current TIC. This suggests that DBCT has significant market power.

The structure of the Access Framework proposed by DBCTM would seem to further support the view that DBCT holds significant market power.

[19] HoustonKemp (2019), *Assessment of the QCA's draft recommendation to declare the DBCT service - criterion (b),* Page 10, (emphasis added).
[20] QCA (2006), *Decision - Dalrymple Bay Coal Terminal - 2006 Draft Access Undertaking*, available at: http://www.qca.org.au/getattachment/1e3051ac-748d-43b9-a07c-601188601dd2/DBCT-2006-Draft-Access-Undertaking.aspx

The Access Framework proposed by DBCTM outlines a 'maximum spread' between the floor TIC (offered at the same rate as the QCA) and the ceiling TIC (the sum of the floor TIC and the 'maximum spread'). This maximum spread may be up to an additional $3 per tonne (in July 2020 dollar terms) for new users at the terminal.[21]

An increase of $3 per tonne represents more than a doubling of current terminal charges, or around a 60 per cent increase on total port costs (including the pass-through of operating costs). Either way, the scale of the price increase is substantially more than a conventionally-accepted SSNIP test. Yet DBCTM maintain that it would not result in any change in demand for terminal services.

[21] DBCT Management (2019), *DBCT Management response to QCA draft recommendation*

3. Least cost analysis

Having discussed the market for the services offered at DBCT, this section goes on to consider whether the 'least cost' test in criterion (b) is satisfied, with reference to:

- foreseeable demand within the defined market using forecasts from Wood Mackenzie, the use of capacity entitlement rather than throughput, the relevance of the current DBCT capacity access queue, and expansion feasibility

- the QCA's approach to least cost analysis including the averaging of costs and the treatment of sunk costs, our least cost modelling results, and limitations on the applicability of the analysis.

As explored below, given the many non-price barriers to substitution (e.g. capacity constraints, blending and co-shipping opportunities – as discussed in our previous reports), as well as the QCA's clear finding that other terminals are not in the same market as DBCT, the appropriate least cost test to be a comparison of meeting foreseeable market demand at an expanded DBCT against combination of the existing DBCT facility with a greenfield development.

To test the significance of these barriers to substitution, we have also conducted least cost analysis by incorporating existing coal export facilities.

3.1 Foreseeable demand

3.1.1 Demand forecast

In our earlier analyses we adopted a forecast of throughput estimated by Wood Mackenzie (Table 2) as the most appropriate measure of market demand at DBCT. Wood Mackenzie is an independent and respected market analyst in the energy and resources sector whose reputation is dependent on the accuracy of its forecasts. As noted in our previous report, Wood Mackenzie's forecast of peak market demand is essentially identical to the QCA's, with a maximum throughput of 83.8 mt compared to 83.7 mt.

Table 2: Estimates of throughput - QCA and Wood Mackenzie (mt)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
QCA	83.7	80.2	80.2	76.2	78.4	82.5	82.5	82.5	82.5	82.5
Wood Mackenzie	74.5	74.9	71.9	73.9	78.2	82.5	79.2	83.8	83.1	80.2

Source: QCA throughput estimates per Draft Recommendation, Page 45, Table 8; Wood Mackenzie March 2019

3.1.2 Capacity entitlement

The QCA's draft recommendation adopts capacity entitlement as the relevant measure of total foreseeable demand, although has provided only limited discussion on the basis

for this.[22] Whilst historically users have tended to contract for more capacity than is actually shipped, this need not always be the case. We maintain that throughput is the better measure of demand as it better aligns with the core service provided by DBCT, and avoids the need to introduce a subjective capacity entitlement uplift factor.

Nonetheless, our analysis, as presented in our previous reports and in Section 3.3 and Section 3.4, demonstrates that DBCT can satisfy criterion (b) even when adopting the higher measure of forecast capacity entitlement (Table 3).

Table 3: Estimates of capacity entitlement - QCA and Wood Mackenzie (mt)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
QCA	93.0	89.1	89.1	84.7	87.1	91.7	91.7	91.7	91.7	91.7
Wood Mackenzie	82.8	83.2	79.9	82.1	86.9	91.7	88.0	93.1	92.3	89.1

Source: QCA capacity entitlement estimates per Draft Recommendation, Page 45, Table 8; Wood Mackenzie March 2019 (adjusted to capacity entitlement equivalent using 0.9:1 ratio assumption)

3.1.3 DBCT access queue

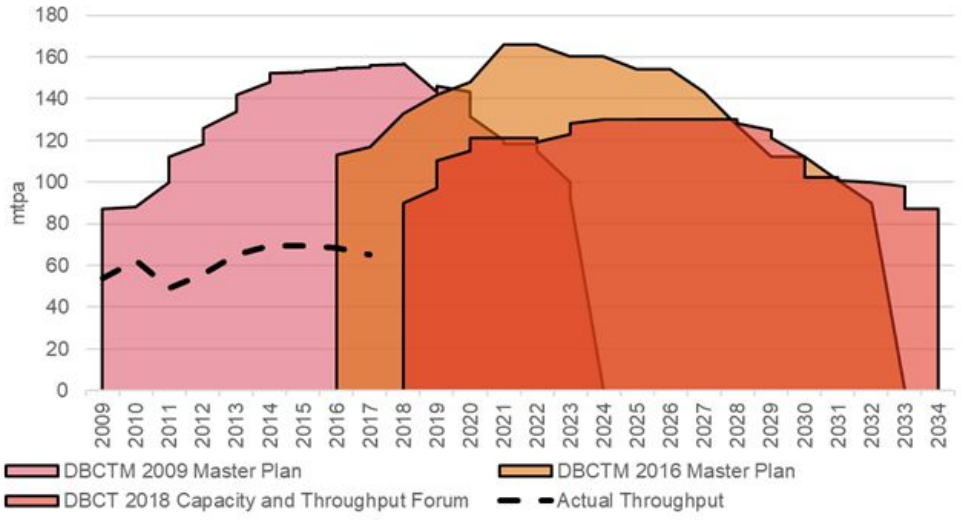
DBCTM's submission repeats claims that the QCA has not sufficiently considered the access queue as part of its assessment of market demand. DBCTM argue that the access queue represents 'incontrovertible evidence' of foreseeable demand for the DBCT service.[23]

Figure 2 shows the access queues previously published by DBCTM in each of its 2009 and 2016 Master Plans, and in the 2018 Capacity and Throughput Forum.

What this suggests is that, historically, the access queue has not provided a reliable or accurate indication of actual throughput realised at the terminal (or indeed capacity contracted). The 2009, 2016 and 2018 queues depict a profile of 'demand' increasing significantly over the medium term, with a rapid ramp-up over the immediate 4-5 year period.

[22] QCA (2018), *Draft Recommendation - DBCT declaration review*, Page 45
[23] DBCT Management (2019), *DBCT Management response to QCA draft recommendation*, page 34

Figure 2: Historic DBCT access queues v actual throughput[24]



Sources: See Footnote 25.

In both 2009 and 2016, the demand aspiration represented by the access queue has failed to materialise, suggesting the queue is not a reliable indicator of future demand. Our understanding is that there is no cost for users to secure a place in the queue, nor are there any penalties for unrealised queue tonnages. Given this, it is logical to expect that the access queue will be overstated relative to future demand.

3.1.4 Ability of the terminal to service foreseeable demand

Were throughput to be used as the metric for demand, there would be no trigger for expansion at DBCT as demand (peaking at 83.8 mt in Wood Mackenzie's forecast and 83.7 mt in the QCA's forecast) would not exceed existing capacity (see Table 1). Under this scenario, any comparison of costs is moot, as both our analysis and that of the QCA show that the existing DBCT facility is unequivocally the least cost option for foreseeable demand in the relevant market.

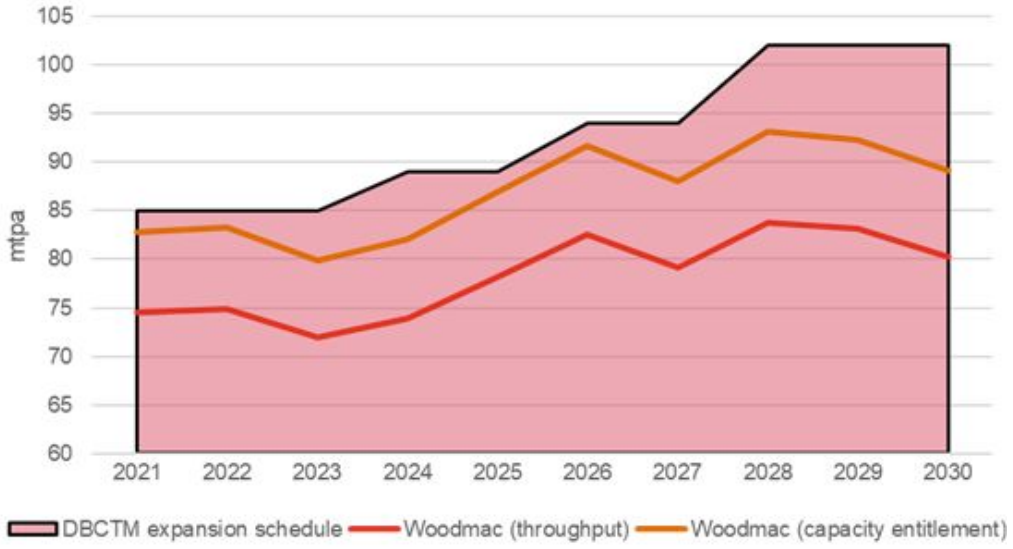
Further to this, maintaining the 85 mtpa baseline capacity estimate for DBCT — noting technical advice from the Integrated Logistics Company[26] which suggests a significantly higher terminal capacity — has a significant impact on the timing and triggering of an expansion.[27]

Accepting the accuracy of the expansion schedule outlined by DBCTM,[28] we note that Wood Mackenzie's demand forecast even when converted to capacity entitlement

[24] Note that throughput reflects declared tonnes.
[25] DBCT Management (2009), *DBCTM 2009 Master Plan*, available at: http://ncc.gov.au/images/uploads/CECTQlAp-006.pdf; DBCT Management (2016), *DBCT Management - Master Plan 2016*, available at: http://www.dbctm.com.au/_files/EOMReports/Master%20Plan%202016.pdf; DBCT Management (2018), *DBCTM 2018 Capacity and Throughput Forum*, unpublished; 2006-2014 throughput data from Dalrymple Bay Coal Terminal Pty Ltd (2018), *Milestones & History,* as provided by the DBCT User Group; 2015 throughput data from North Queensland Bulk Ports Corporation (2018) *Trade*, available at: https://nqbp.com.au/trade/throughputs; 2016 throughput data from the QCA (2016), *2016 - DBCT Management's 2015 draft access undertaking – Final Decision*, available at: http://www.qca.org.au/getattachment/081401b3-903e-4aea-b9fd-9da8e544cf94/Secondary-Undertaking-Notice%E2%80%94Attachment%E2%80%94QCA-decisi.aspx
[26] ILC (2018), *DBCT Management response to QCA draft recommendation*, Appendix 6 - DBCT Capacity Estimates
[27] PwC (2018), *Dalrymple Bay Coal Terminal User Group - Declaration review regarding Dalrymple Bay Coal Terminal,* Figures 4 and 5
[28] DBCT Management (2019), *DBCT Management response to QCA draft recommendation*, Appendix 6

using the QCA's suggested 0.9:1 ratio could feasibly be met by expanding the existing facility in accordance with the outlined schedule.

Figure 3: Wood Mackenzie forecast versus DBCTM expansion schedule

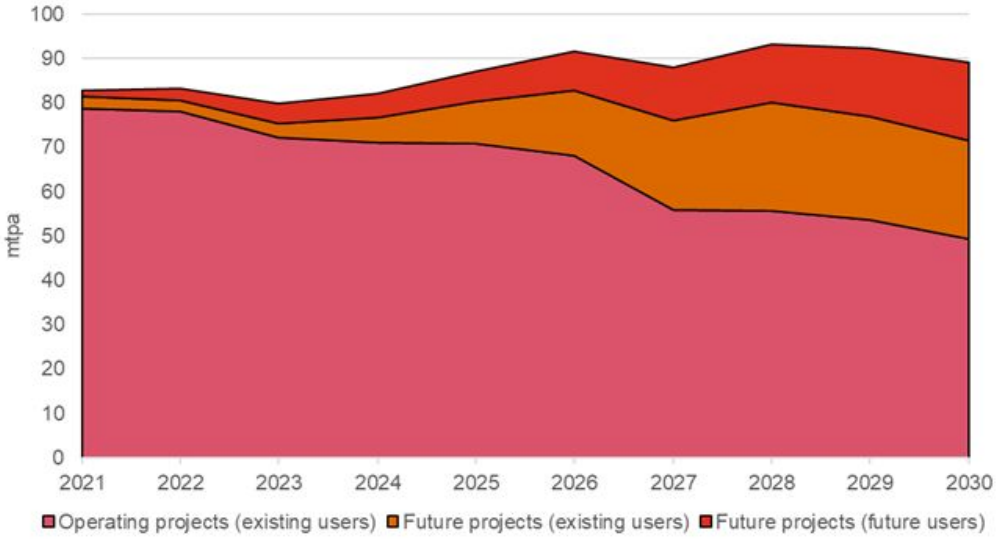


Source: Wood Mackenzie March 2019; DBCTM

3.1.5 New users comprise an increasing share of foreseeable demand

Figure 4 shows the composition of demand in the Wood Mackenzie forecast shifting from existing users to include both new projects and new users over the course of the proposed declaration period.

Figure 4: Wood Mackenzie forecast - composition of capacity entitlement



Source: Wood Mackenzie March 2019 (adjusted to capacity entitlement equivalent by PwC)

This suggests that a material fraction of future demand at DBCT is anticipated from new users, as well as the contribution of existing users whom are expected to transition current evergreen terminal agreements from existing to new projects. This analysis is relevant to the QCA's consideration of potential impacts on competition in the upstream tenement market, and in Appendix B we present high-level valuation modelling showing

the impact on tenement valuation of a $3 per tonne differential in port costs, reflecting the terms of DBCTM's proposed Access Framework.

We used production cost, volume and coal price data provided by Wood Mackenzie for a number of development projects in the Goonyella system to develop indicative valuations for these projects at a pre-development phase, as a proxy for the underlying tenement value. We then assessed the impact on those valuations of port charges being increased by $3 per tonne.

This analysis shows that valuations for all prospects decline under a scenario of higher port charges, although the relative impact depends on each project's particular cost and other characteristics. For some prospects, the impact on tenement valuation of a higher port charge would be material.

3.2 Least cost assessment approach

3.2.1 Average and incremental costs

Our initial report focused on the incremental cost of satisfying total foreseeable demand, and excluded sunk costs related to the existing DBCT facility. This aligned with the Tribunal's analysis in its Pilbara decision,[29] and reflects the choice faced by users in the event of insufficient capacity at the existing DBCT facility (on the assumption that expansion capacity would be differentially priced). An incremental cost approach better reflects the actual economic incentives likely to be faced by users in comparing different services.

The QCA's draft recommendation adopted an average cost approach. Averaging the cost of meeting market demand by total tonnes has the effect of reducing the apparent magnitude of cost variations between DBCT and a duplicated facility, but otherwise produces the same order of preference for a user and as such the application of either method makes no difference in assessing criterion (b). We discuss this further at Appendix A.1.

3.2.2 Treatment of sunk costs

The QCA's approach to assessing least cost considers both incremental and sunk costs.[30] The approach which the QCA outlines as appropriate for least cost analysis[31], based on a hypothetical scenario where foreseeable demand is 100 units and the existing facility has a capacity of 90 units, is replicated in the box below:

[29] Australian Competition Tribunal (2010), *In the matter of Fortescue Metals Group Limited [2010] ACompT 2*, available at: http://ncc.gov.au/images/uploads/DERaFoTD-001.pdf
[30] QCA (2018), *Draft Recommendation - DBCT declaration review*, Pages 47-49
[31] ibid, Page 49

Least cost involves the following comparison:

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

compared with

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

The QCA's assessment of foreseeable demand peaks at 93 mt.[32] If it is assumed that the existing DBCT facility can accommodate 85 mtpa, that leaves 8 mt of demand un-met. Therefore, applying the QCA's approach the least cost test for DBCT should become:

- **capital costs of DBCT at 85 mtpa + operating costs of DBCT at 85 mtpa** + incremental capital costs to expand DBCT by 8 mtpa + operating costs associated with the 8 mtpa

compared with

- **capital costs of DBCT at 85 mtpa + operating costs of DBCT at 85 mtpa** + capital and operating costs of the alternative export facility in the same market (e.g. Dudgeon Point) associated with the 8 mtpa.

HoustonKemp claim the methodology adopted in the QCA's draft recommendation is inconsistent with the Tribunal's determination on the Pilbara rail matter, and that the QCA ought to include the sunk costs of the existing RG Tanna terminal in both sides of this comparison.[33]

The Pilbara rail matter involved a significantly different set of circumstances. Rather than assessing whether the existing facility in question (e.g. DBCT) and another existing facility (e.g. RG Tanna) were able to meet market demand at least cost relative to the expanded existing facility (e.g. an expanded DBCT), the least cost analysis in the Pilbara rail matter focused on the cost of duplicating a facility, relative to the cost of accessing an existing rail line and including any necessary capacity augmentation.

The costs considered by the Tribunal are shown in Table 4. The highlighted ('original') costs were excluded from the analysis as they would be incurred in either scenario.

[32] ibid, Page 45
[33] Australian Competition Tribunal (2010), *In the matter of Fortescue Metals Group Limited [2010] ACompT 2*

Table 4: Australian Competition Tribunal - treatment of costs in the Pilbara determination

Comparing the cost of sharing versus duplicating the facility		
	One line (access)	**Two lines (no access)**
Capital costs		
Original	Cost of line at 2014/15 (without access)	Cost of line at 2014/15 (without access)
Additional	Cost of expanding line to cater for third parties	Cost of new line
Operational costs		
Original	Cost of operating line at 2014/15 (without access)	Cost of operating line at 2014/15 (without access)
Additional	Additional cost due to operating shared line	Cost of operating new line

Source: Australian Competition Tribunal (2010), In the matter of Fortescue Metals Group Limited [2010] ACompT 2, Paragraph 906

The Tribunal's test involved the quantification of capital savings (the cost of 'expanding the existing facility' versus the cost of 'constructing the alternative facility'[34]). Consistent with the Pilbara matter, we hold that where an expansion would be required at an alternative facility within the same market (i.e. an 'additional' cost per the above), the capital cost associated with that alternative facility should be considered. This is consistent with the QCA's approach to capital costs.

Table 5: Treatment of costs for the purposes of access criterion (b)

Comparing the cost of an expanded DBCT versus DBCT and another facility		
	Expanded DBCT	**DBCT and another facility**
Capital costs		
Original	Cost of existing terminal at 85 mtpa	Cost of existing terminal at 85 mtpa
Additional	Cost of expanding terminal to service market demand above 85 mtpa	Cost of constructing/expanding terminal(s) to service market demand above 85 mtpa
Operational costs		
Original	Cost of operating terminal at 85 mtpa	Cost of operating terminal at 85 mtpa
Additional	Additional cost due to operating expanded facility to cater for market demand above 85 mtpa	Cost of operating terminals to service market demand above 85 mtpa

[34] Australian Competition Tribunal (2010), *In the matter of Fortescue Metals Group Limited [2010] ACompT 2,* Paragraphs 966 - 1006

3.3 Least cost in the defined market

In its draft recommendation, the QCA determined the relevant market for criterion (b) as the market for DBCT's coal handling service in the Goonyella system, and clarified that in this market, there are no viable substitutes to DBCT's coal handling service.[35]

The explanatory memorandum to the Bill that introduced the revised criterion (b) to the national access regime states that if there is not a substitute service provided at another facility there may only be one potential alternative scenario, that is the duplication (or partial duplication) of the facility.[36]

Consistent with the QCA's approach in its draft recommendation and the explanatory memorandum, we consider below a least cost comparison between an expanded DBCT facility, and a new facility that could service the market in conjunction with an unexpanded DBCT. As a proxy for a 'new facility,' we have used cost data for Dudgeon Point as estimated by engineering firm Beca.[37]

Figure 5 compares the cost of the options available to the relevant market in the event of demand exceeds DBCT's current capacity and reaches 93.1 mt on a capacity entitlement basis (per Wood Mackenzie's demand forecast).[38]

Figure 5: Average cost per tonne of options to service total foreseeable demand, scaled to capacity requirement

Source: PwC modelling

Assuming maximum foreseeable demand of 93.1 mtpa, an expanded DBCT facility is the least cost option for satisfying market demand. Dudgeon Point (Stage One) has a nominal capacity of 30 mtpa, with an estimated development cost of $4,128 million.[39]

[35] QCA (2018), *Draft Recommendation - DBCT declaration review*, page 11
[36] Explanatory memorandum for *Competition and Consumer Amendment (Competition Policy Review) Bill* 2017 [12.29]
[37] Beca (2012), *Dudgeon Point Coal Terminal Concept Study Volume I of II*, unpublished.
[38] *PwC submission on the QCA's Draft Recommendation*, available at: http://www.qca.org.au/getattachment/c66f15dd-c86f-4568-8d1c-210ca2d2f0f1/DBCT-User-Group-Submission.aspx, Appendix A
[39] In June 2018 dollars.

The incremental cost of capacity at Dudgeon Point (Stage One) is around $11.17 per mtpa of capacity, or $34.54 per mtpa when scaled to the required capacity increment to foreseeable demand of 93.1 mtpa. Using the QCA's average cost approach we estimate an average cost of $17.17 per mtpa for Stage One, as shown in Figure 5.

Table 6 shows a breakdown of the supply chain costs incorporated in Figure 5.

Table 6: PwC - supply chain costs ($ per tonne)

Cost component	DBCT	Zone 4 + 8X	Dudgeon Point (Stage One)
Total rail cost	$9.56	$9.56	$9.56
Total port cost	$5.05	$6.82	$34.54
Total cost	$14.61	$16.39	$44.10
Difference to Zone 4 + 8X	**-**	**-**	**$27.71**

Source: PwC modelling, scaled to capacity required

We acknowledge that the above estimates for Dudgeon Point are for a facility capable of handling 30 mtpa (e.g. Dudgeon Point Stage One). Given an expectation of demand not being sufficient to fully contract for this level of nominal capacity, we expect that some components could be scaled down. Hence, it is possible that the modelling above above may overstate the actual cost of duplicating the facility; however, we have no data to indicate what the impact of this would be on upfront capital expenditure.

As a proxy, we have modelled a scenario reducing the up-front capital cost of Dudgeon Point by 25 per cent. Applying this assumption provides a total cost of $36.60 per tonne (relative to $44.10 for the full Dudgeon Point Stage One cost) and an average cost of $16.52 per tonne (relative to $17.17 for the full Stage One cost). Even with a material reduction in assumed development costs, this is still substantially higher than an expanded DBCT.

Note that in this analysis we have held constant our estimate of below- and above-rail costs, focusing solely on the differences in port costs. Details on the DBCT expansion and Dudgeon Point development costs are provided at Appendix A.2.

3.4 Least cost across existing facilities outside the defined market, applying PwC's cost estimates

In the analysis above we consider a least cost comparison between an expanded DBCT facility and a new facility that could service the market in conjunction with an unexpanded DBCT, on the premise that there are no viable substitutes to DBCT's coal handling service.[40] As outlined in our earlier reports, there are a number of non-cost factors which limit substitutability including terminal and rail capacity, coal shipping and blending opportunities offered at DBCT, existing rail and mine infrastructure limitations and take or pay contracts.

[40] QCA (2018), *Draft Recommendation - DBCT declaration review*, Page 11

However, for completeness we have included least cost modelling which considers alternative existing terminals. Figure 1, reproduced from above (and our most recent report), compares the average cost of an expanded DBCT to the average cost of meeting foreseeable demand through a combination of the existing DBCT facility and other coal export terminals.

While the QCA's draft recommendation highlights that these other terminals operate in separate markets to DBCT, Figure 1 provides further evidence that the alternative terminals do not constitute substitutes for users in the market for 'DBCT's coal handling services in the Goonyella system.

This is even more evident considering the way in which different export pathways would present to users in actual price terms. Whilst an expanded DBCT may be developed under the current socialsed cost approach (similar to the QCA's average cost methodology), a user seeking to export through either Abbot Point or Gladstone would pay the (higher) incremental cost of those options, not average cost. The QCA's average cost methodology is not a relevant basis on which to assess the boundaries of the relevant market as it does not reflect the way in which actual supply chain costs influence substitutability from the perspective of users.

Figure 1: Average cost per tonne of options to service total foreseeable demand, scaled to capacity requirement

Source: PwC modelling

The next lowest cost option after an expanded DBCT, is the combined use of RG Tanna and the existing DBCT facility. As the User Group noted in their initial submission, we understand that RG Tanna is contracted close to its capacity.[41] To the extent that capacity is not available at RG Tanna, and in the absence of definitive evidence that spare capacity is available to contract, its inclusion in this analysis is questionable.

[41] DBCT User Group (2018), *Submission to 2018 Access Declaration Review*, Page 36

3.5 Least cost across existing facilities outside the defined market, applying the QCA's cost estimates

In its draft recommendation the QCA appears to have inconsistently applied the methodology it proposed for assessing average costs across total foreseeable demand. This had the effect of overstating the QCA's supply chain cost estimates for Abbot Point, RG Tanna and WICT, relative to the DBCT figures (Table 7).

Table 7: QCA - supply cost to Goonyella system users of accessing alternative coal terminals ($ per tonne)

Cost component	DBCT (pre-exp.)	DBCT (post-exp.)	Abbot Point	RG Tanna	WICT
Below-rail cost (2016-17 data), lower bound estimate for accessing other terminals	$3.07	$3.61	$10.69	$7.25	$7.25
Above-rail cost, lower bound estimate for accessing other terminals	$3.25	$3.25	$5.03	$4.54	$4.54
Coal handling cost	$5.05	$5.14	$7.01	$5.18	$14.67
Other port and shipping costs	$0.05	$0.05	$0.05	$0.05	$0.05
QCA's supply chain cost estimate	$11.42	$12.05	at least $22.79	at least $17.02	at least $26.51
Cost difference relative to accessing DBCT (post Goonyella rail and DBCT expansions)			**at least $10.73 (+89%)**	**at least $4.97 (+41%)**	**at least $14.46 (+120%)**

Source: QCA supply chain cost estimates per Draft Recommendation, Page 16, Table 5; Page 51, Table 9

Table 8 shows the equivalent supply chain cost estimates calculated applying the QCA's average cost methodology.[42] Looking solely at these recalculated costs implies that servicing foreseeable demand through a combination of DBCT and RG Tanna and would be the least cost option, on average $0.15 per tonne less than an expanded DBCT.

Table 8: QCA - least cost analysis

Cost component	DBCT (post-exp.)	Abbot Point	RG Tanna	WICT
Cost of 85 mtpa ($m)*		970.7	970.7	970.7
Cost of 8 mtpa ($m)		182.2	136.2	212.1
Average cost per tonne	**$12.05**	**$12.40**	**$11.90**	**$12.72**

Source: PwC analysis; *assumed to be handled at the existing DBCT facility

However, our most recent analysis suggests that the properly calculated cost of capacity at RG Tanna is significantly higher than estimated by the QCA (and indeed is higher than presented in our own earlier cost comparisons), and further that there are

[42] QCA (2018), *Staff Issues Paper - Declaration reviews: applying the access criteria*, Appendix B

other relevant non-price factors which challenge the legitimacy of including RG Tanna in this comparison:

- **Available capacity at RG Tanna** — as discussed in Section 3.4, the DBCT User Group understand that RG Tanna is contracted at close to its current capacity. [redacted] It is questionable whether a combination of an unexpanded DBCT and RG Tanna is even technically feasible, and on this basis RG Tanna should not be considered in a least cost comparison of potential options.

- **Actual prices for new capacity at RG Tanna would be higher than either the QCA's or PwC's current estimate** — we note that the port costs for RG Tanna provided by users and used in our modelling (Section 3.4) are lower than the figure applied by the QCA ($4.00 per tonne and $5.23 per tonne respectively). [redacted]

- **Constrained rail capacity on the Blackwater system** — as noted in the QCA's determination on Aurizon Network's BCAR, the information provided by Aurizon was potentially out of date given changes in the market and Aurizon's maintenance regime. Glencore's submission on the process claimed that Aurizon's maintenance regime changes created a capacity deficit on the Blackwater system in the order of 26 mtpa.[43] The impact of these changes were not considered in either the QCA's final decision on Aurizon Network's 2017 Draft Access Undertaking or draft declaration recommendation.

  [redacted]

  Additionally, the QCA's analysis in both the DBCT draft recommendation and the Aurizon draft recommendation highlight capacity constraints on the Goonyella system. As such, traversal inland from the Goonyella system to the Blackwater

[43] Glencore (2018), *Submission to the Queensland Competition Authority*, available at: http://www.qca.org.au/getattachment/4dbc267e-8b90-4e8d-affc-e112150468c5/Glencore-Submission-on-GHD-Report-Public.aspx

system to export through the Port of Gladstone could not be accommodated without expanding the Goonyella system.

- **Rail costs** — for the purposes of the QCA's least cost analysis lower bound estimates were used. These do not consider intra-system costs[44] and include conservative assumptions regarding distance[45] and payload differences[46] between systems. Our analysis (see Appendix A.3) suggests that this omission means the QCA's estimated below-rail costs for other terminals are materially understated. Data points provided by Users suggest above-rail costs of up to $8 per tonne on the Goonyella system, around double the estimates used by the QCA and which it then uses to derive proxy estimates for the Blackwater system.

Collectively, these factors suggest that there is significant doubt as to whether RG Tanna should be included in any comparative least cost analysis. If the QCA does elect to retain RG Tanna in any comparative cost analysis, it will need to revisit its cost estimates to ensure that these reflect the most recent and accurate basis for calculating both rail and port costs associated with this export pathway.

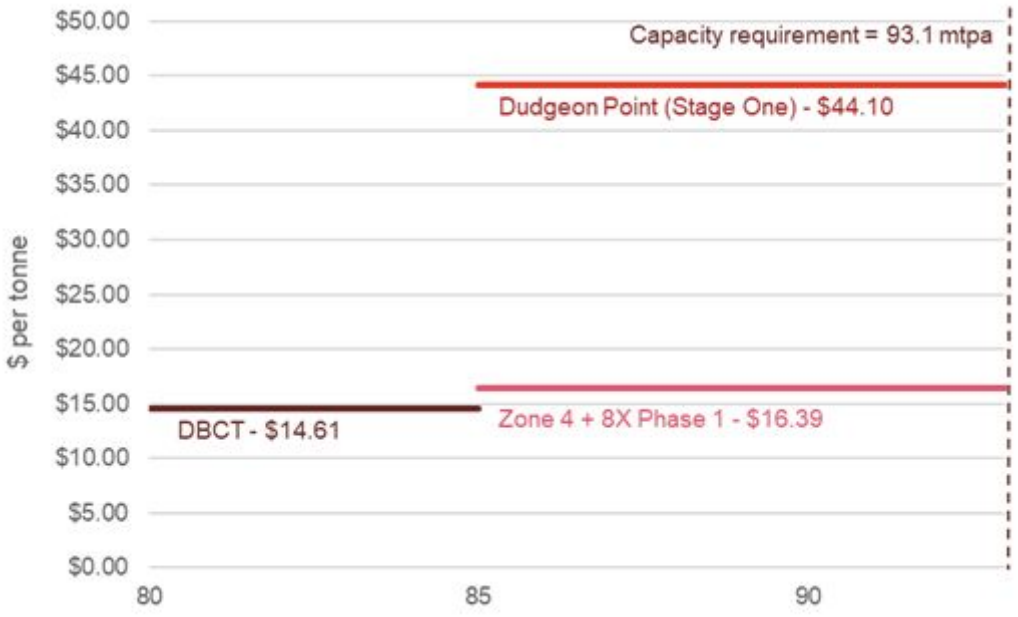
[44] QCA (2018), *Draft Recommendation - DBCT declaration review*, Page 129
[45] ibid, Page 131
[46] ibid, Page 132

Appendix A

A.1 Comparison of average and incremental costs

As noted above, averaging the cost of meeting market demand by total tonnes has the effect of reducing the apparent magnitude of cost variations between DBCT and a duplicated facility. While both methods produce the same order of preference, assessing the average cost per tonne of each facility overlooks the actual supply chain charges a user would need to consider in deciding where to contract port and rail capacity.

Figure A1: Incremental cost per tonne of options to service total foreseeable demand, scaled to capacity requirement

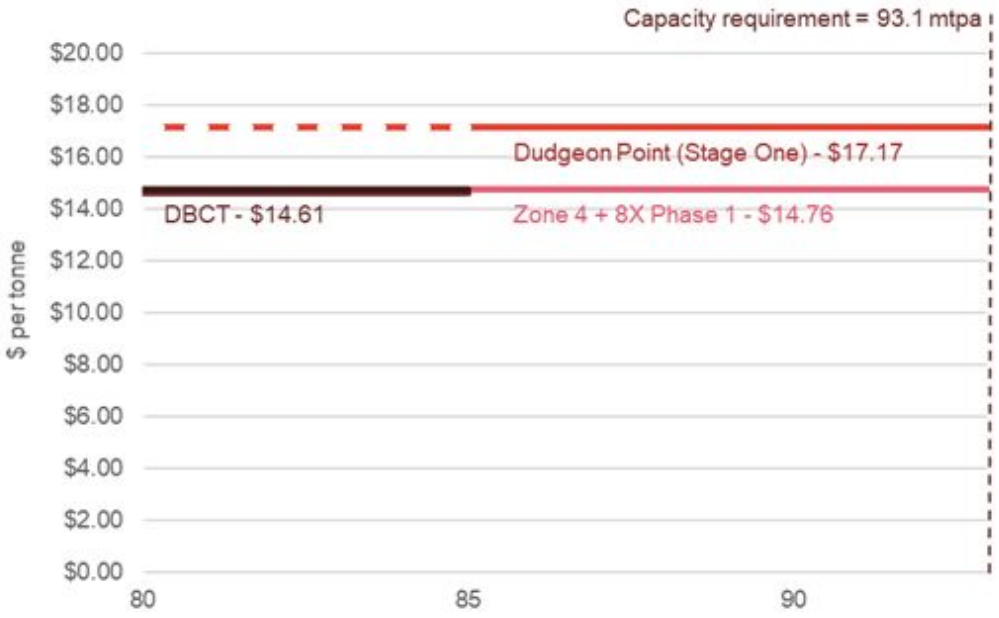


Source: PwC modelling

Figure A1 shows the incremental cost of either expansion capacity at DBCT or the cost of an alternative facility in the same market (both scaled to the relevant capacity requirement). Figure A2 shows the same comparison, but using the 'average cost' methodology outlined in Appendix B of the QCA's initial Staff Issues Paper.[47]

[47] QCA (2018), *Staff Issues Paper - Declaration reviews: applying the access criteria*

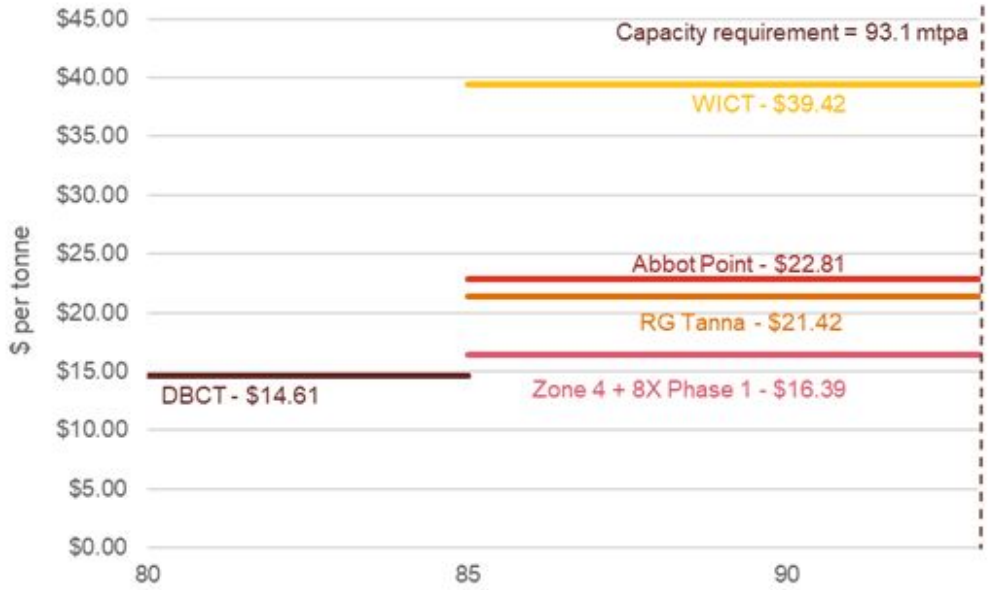
Figure A2: Average cost per tonne of options to service total foreseeable demand, scaled to capacity requirement



Source: PwC modelling

Figure A2 shows a much narrower cost differential for a user, 16.3 per cent, than Figure A1, 169.1 per cent. Figures A3 and A4 show a similar minimising effect when comparing DBCT to existing Bowen Basin coal export terminals on an average cost basis.

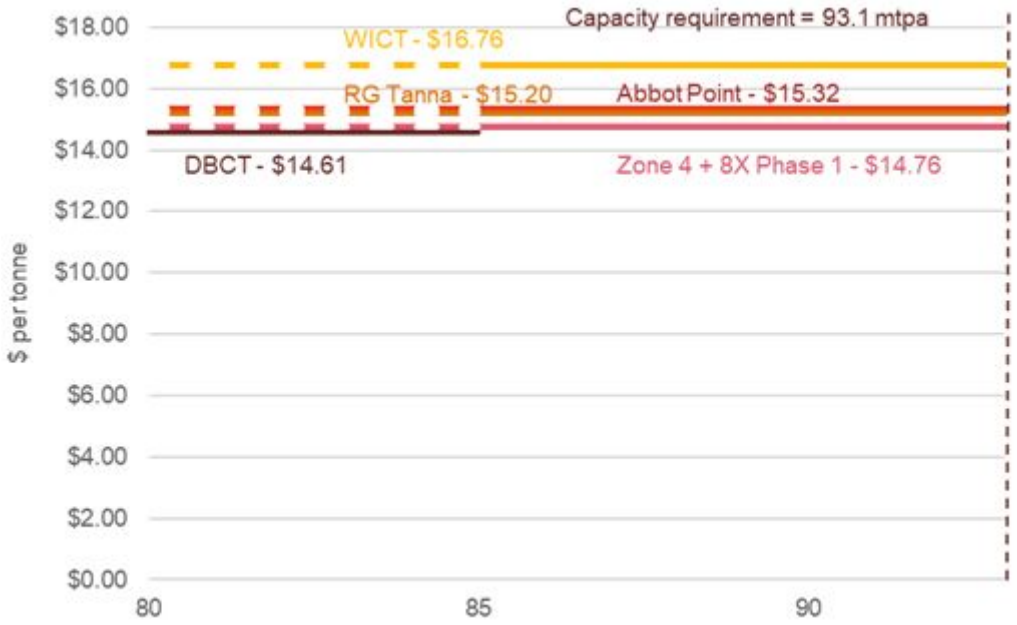
Figure A3: Incremental cost per tonne of options to service total foreseeable demand, scaled to capacity requirement



Source: PwC modelling

An average cost approach makes the alternative export terminals appear more viable price substitutes than they actually are. No user would actually receive a price signal reflecting this 'average' rate - charges would reflect either the (lower) cost of existing capacity at DBCT or the (significantly higher) cost of accessing an alternative supply chain through either Gladstone or Abbot Point.

Figure A4: Average cost per tonne of options to service total foreseeable demand, scaled to capacity requirement



Source: PwC modelling

A.2 Capital cost estimates

Our modelling has applied the following capital cost figures:

Table A1: Capital cost estimates - DBCT expansion projects and Dudgeon Point (June 2018 dollars, $m)

DBCT		Dudgeon Point	
Expansion project	**$m[48]**	**Stage**	**$m[49]**
Zone 4	374.3	Stage One	4,128.4
8X Phase 1	168.2	Stage Two	1,977.1
8X Phase 2	497.2	Stage Three	1,997.9
9X	2,984.3	**Total**	**8,103.4**

Source: DBCT cost estimates per DBCTM (2018) *Submission on the DBCT Declaration Review, available at:* http://www.qca.org.au/getattachment/468d7edc-4137-4ab1-bfee-f65d78126d2e/1-DBCT-Management-Submission.aspx, Appendix 11; Dudgeon Point cost estimates per BECA (2012) *Dudgeon Point Coal Terminal Concept Study*, unpublished

[48] Escalated from 2015 dollars.
[49] Escalated from 2012 dollars.

A.3 Estimating below- and above-rail costs

To calculate the below-rail cost of accessing DBCT (and the other export terminals), the QCA '*divided the combined AT1-4 revenue by actual coal throughput*' on the linking rail system. Table A2 outlines these estimates.

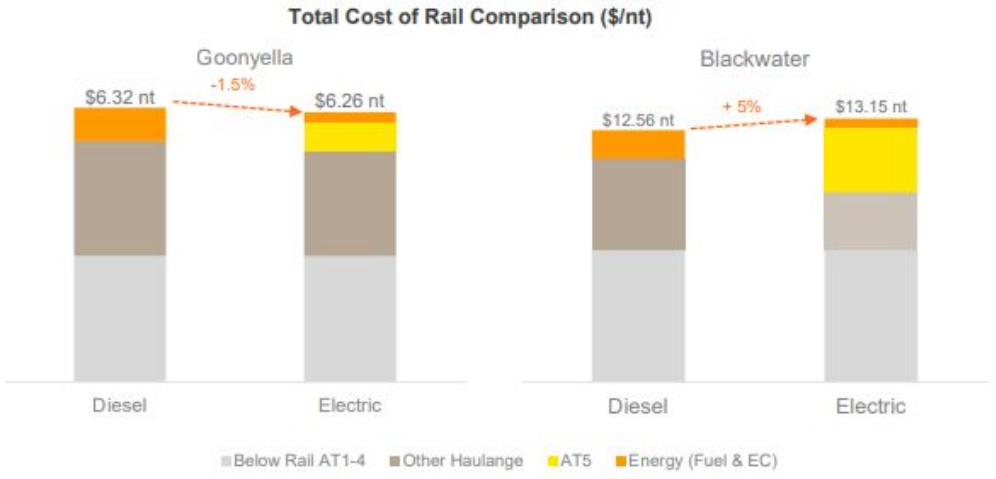
Table A2: QCA - below-rail cost estimates for mines in the Goonyella system ($ per tonne)

	DBCT (pre-exp.)	Abbot Point	RG Tanna	WICT
Below-rail cost (2016-17 data), lower bound estimate for accessing other terminals	$3.07	$10.69	$7.25	$7.25

Source: QCA supply chain cost estimates per Draft Recommendation, Page 130, Table 1

As the QCA has noted, there is no publicly available information on above-rail costs for the Central Queensland Coal Network (CQCN). As such the QCA has used an Aurizon Network Submission in relation to its 2017 Electric Traction Draft Amending Access Undertaking to derive its estimate of $3.25 for above-rail access to DBCT. The submission outlined 'average haul costs' for diesel and electric traction on the Blackwater and Goonyella rail systems, re-published in Figure A5, below.

Figure A5: Aurizon Network - average haul costs ($ per net tonne)



Source: Aurizon Network (2017) *Aurizon Network Submission - 2017 Electric Traction Draft Amending Access Undertaking*, available at: http://www.qca.org.au/getattachment/ecea63ba-680a-4a72-bf6d-9a5ee11d6745/Aurizon-Network%E2%80%94submission-supporting-DAAU.aspx

The QCA has taken the average cost of diesel haulage on the Goonyella system and subtracted their estimates of below-rail access costs to determine the cost of above-rail haulage (Table A3).

Table A3: QCA - above-rail cost estimates for DBCT ($ per tonne)

	Cost component	$ per tonne	Cost component	$ per tonne
	Average haul cost	$6.32	Average haul cost	$6.32
-	Below-rail cost (2016-17 data), lower bound estimate for accessing other terminals	$3.07	Below-rail cost (3-year average), lower bound estimate for accessing other terminals	$2.62
=	**Above-rail cost, lower bound estimate for accessing other terminals**	**$3.25**	**Above-rail cost, lower bound estimate for accessing other terminals**	**$3.70**

Source: Aurizon Network (2017); QCA above-rail cost estimates per Draft Recommendation, Pages 134-135

Aurizon's submission references comparative modelling by Synergies as the source of the average haul costs,[50] though the methodology is not clear. Actual haulage costs provided by Users to PwC are substantially higher than these estimates, with the mean figure (for total rail costs) provided being $9.56 per tonne (and the maximum provided almost double the QCA's $6.32 per tonne).

Nonetheless, the Aurizon submission figures serve as the basis of the QCA's estimates for DBCT. These estimates were then uplifted to calculate the cost of accessing alternative terminals. As the QCA's figures start from a lower base, they similarly understate the cost of accessing alternative terminals.

Other export terminals

To estimate above-rail costs for alternative terminals, the QCA has applied three factors to upscale their cost estimate for rail access to DBCT. The QCA assumed a 50/50 split between fixed and variable costs for above-rail.

For the RG Tanna above-rail costs:

- a 14 per cent uplift was included for accessing RGT as the distance between Oaky Creek and RG Tanna is 29 per cent greater than the distance between Oaky Creek and DBCT *(distance uplift)*
- a further 22 per cent uplift was included due to the difference in train payloads between the two Goonyella and Blackwater systems *(payload uplift)*[51]
- another 3 per cent uplift was applied as additional train services would face greater variable costs as a result of travelling greater distances *(variable cost uplift)*

[50] Aurizon Network (2017), *Aurizon Network Submission - 2017 Electric Traction Draft Amending Access Undertaking*, Page 12

[51] On Page 132 of their Draft Recommendation, the QCA note that this 22 per cent is a conservative estimate as it does not fully capture the impact of smaller payloads caused by intra-system travel.

The QCA's above-rail estimate of $3.25 to access DBCT has been scaled up by these factors to generate an estimate of $4.54 for accessing RG Tanna (Table A4).

Table A4: QCA - above-rail cost to Goonyella system users ($ per tonne)

Cost component	DBCT (Goonyella)		RG Tanna (Blackwater)
Above-rail cost, lower bound estimate for accessing other terminals	$3.25	+40%	$4.54

Source: Aurizon Network (2017); QCA above-rail cost estimates per Draft Recommendation, Pages 128-133

Data points provided by Users suggest above-rail costs of up to $8 per tonne on the Goonyella system, around double the estimates used by the QCA and which it then uses to derive proxy estimates for the Blackwater system.

As noted above, below-rail costs for each system were calculated by the QCA using Aurizon Network's allowable revenue and actual throughput for the CQCN. The QCA has labelled its estimates as 'lower bound' as they do not consider the costs incurred for traversing the Goonyella system before switching to another rail system. By using the 'lower bound' below-rail costs the QCA has materially understated the cost of rail access to alternative terminals.

The QCA also has calculated 'upper bound' below-rail estimates which do consider the cost of cross-system traversal. Using these estimates rather than the 'lower bound' estimates, the QCA's supply chain numbers show than an expanded DBCT would satisfy (b). However, we note that the 2016 Aurizon Access Undertaking (UT4) grants cross-system users between the Coppabella and Hay Point Junction an exemption from the AT2 reference tariff such that the QCA's upper bound may in this case slightly overstate costs.[52] As outlined by the QCA, current cross-system volumes are low,[53] were volumes to markedly increase, the potential pricing impact is unclear.

[52] Aurizon (2018), *Aurizon Network's 2016 Access Undertaking (UT4),* available at: http://www.qca.org.au/getattachment/9741f86a-add4-4b5a-8b61-bab4091a297b/AN%E2%80%94October-2018-Extension-DAAU-clean.aspx; Schedule F, 2.3

[53] QCA (2018), *Draft Recommendation - DBCT declaration review*, Page 11

Appendix B

B.1 Valuation impact of DBCTM's proposed access framework

DBCTM has proposed an Access Framework that would apply where access declaration is revoked. A key feature of this Access Framework is that it explicitly permits DBCTM to charge new users a higher TIC than would apply to existing users under the terms of their evergreen User Agreements. The Access Framework provides that the TIC could be increased by as much as $3 per tonne.

In the analysis below, we use production cost, volume and coal pricing data provided by Wood Mackenzie for a number of development projects in the Goonyella system. This data has not been adjusted, nor has it been reviewed by any of the user companies whom may have interests in these development projects.

Using this data we apply a conventional discounted cash flow valuation approach with a common valuation base date of January 2019 (with no residual value) to develop proxy valuations for these projects at a pre-development phase. This valuation is a broad proxy for the underlying tenement value. We then assess the impact on tenement valuations were port charges to increase by $3 per tonne, under the terms of DBCTM's proposed Access Framework.

We have applied a discount rate of 13.75 per cent, based on analysis of comparable projects and companies. See Section B.2 for further details.

Figure B1 shows the value of each project using Wood Mackenzie production cost, volume and coal pricing assumptions, with existing terminal charges.

[redacted]

[redacted]

The Access Framework proposed by DBCTM outlines a 'maximum spread' between the floor TIC (offered at what is suggested to be the same rate as would be determined by QCA) and the ceiling TIC (the sum of the floor TIC and the 'maximum spread.') This maximum spread may be up to an additional $3 per tonne (in July 2020 dollar terms) for new users at the terminal.[54]

Figure B2 shows the proportion of the operating margin for each project that would be eroded by the imposition of an additional $3 per tonne TIC for each project.

[redacted]

[54] DBCT Management (2019), *DBCT Management response to QCA draft recommendation*

Figure B3 shows the impact of an assumed $3 per tonne increase in port charges, proxying the effect of DBCTM's proposed Access Framework, on each of the project valuations. All other cost, production volume and revenue assumptions are unchanged.

[redacted]

This analysis shows that valuations for all projects decline, although the relative impact depends on each project's particular cost and other characteristics. [redacted]

Table B1 summarises the impact of a higher port charge on each project's valuation.

[redacted]

B.2 Discount rate

The discount rate used in this valuation analysis was developed using a first principles approach, selecting inputs from market sources including analysis from a set of comparable companies to derive an estimate of the asset beta for these projects.

We then employed the Capital Asset Pricing Model to derive a market-participant WACC and adopted a capital structure based on our comparator company analysis.

Based on the above we have estimated the post-tax nominal WACC for the Proposed Projects to be between 12.5 per cent and 15 per cent as at 31 January 2019 (Table B2).

Table B2: WACC calculation

	Low	Mid	High
Risk Free Rate (Rf)	4.00%	4.00%	4.00%
Equity Market Risk Premium (EMRP)	6.00%	6.00%	6.00%
Asset Beta (Ba)	1.20	1.35	1.50
Equity Beta (Be)	1.50	1.69	1.88
Target Gearing (D/(D+E))	20.0%	20.0%	20.0%
Debt/Equity Ratio (D/E)	25.0%	25.0%	25.0%
Asset Specific Risk Premium (ASRP)	2.0%	2.5%	3.0%
Cost of Equity (Ke)	15.0%	16.6%	18.3%
Long Term Cost of Debt	3.0%	3.0%	3.0%
Debt Margin	0.5%	0.5%	0.5%
Debt Issuance Costs	0.20%	0.20%	0.20%
Pre Tax Cost of Debt	3.70%	3.70%	3.70%
Tax Shield	30.0%	30.0%	30.0%
Pre Tax Cost of Debt (Kd)	2.6%	2.6%	2.6%
Post Tax Nominal WACC	**12.50%**	**13.75%**	**15.00%**

Source: Bloomberg, Capital IQ, PwC analysis

Schedule 3 - Wood Mackenzie Methodology and Assumptions

Methodology and Assumptions

Coal and metals mine

Introduction

The aim of Wood Mackenzie's coal/metals mine reports is to provide a detailed review of the key technical, commercial and economic issues surrounding the historic and future development of a mine. Although not all mines have cash flows, where applicable, cash flows provide the necessary financial information to indicate Wood Mackenzie's view of the future value of each mine, based on the development scenario outlined. The key sections in a Wood Mackenzie mine report include:

- Key facts
- Summary and key issues
- Location maps
- Participation
- Timeline
- Reserves and resources
- Production
- Operations
- Infrastructure
- Costs
- Sales contracts
- Economic assumptions
- Economic analysis

Wood Mackenzie also delivers mine, company and country unit costs and margins in ranked tables (leagues) and cost curves in the Metals Cost Benchmarking Tool. The data are presented on a nominal basis for historical years, and on a constant dollar basis for future years. Coal mine unit cash cost and margin curves are shown on a nominal basis in the Coal Cost Benchmarking Tool.

Summary

Wood Mackenzie's approach to producing its reports is to conduct primary research, supported by a range of data and information available in the public domain and our in-house deep industry and regional knowledge. This allows us to generate high-quality proprietary information and analysis, using our proprietary models, and insightful commentary on all major mine developments around the world.

Data collection

Data sources

Wood Mackenzie's research analysts conduct extensive and detailed research into their respective focus areas. We use a wide variety of sources, but we do not purchase data other than from entities which own the data and are entitled to sell it to us.

Internal data sources

Our research uses our propriety databases and costing models which have been built up over many years of industry research and analysis.

External data sources

The primary external data sources used by Wood Mackenzie to compile metals and mining asset reports are shown.

External data sources

Information source	Description

Interviews with mining company and government conta	Wood Mackenzie aims to conduct mine visits and interact with operators on an annual basis in all regions and countries. If possible this interaction is extended to all of the other non-operating company participants in any mine or development. In addition meetings are held with contacts in the relevant government and regulatory organisations.
Government publications and other regulatory informati	In many countries the relevant regulatory authorities publish an annual review of mining activities that have taken place each year in that country. This may contain for example details of new licences awarded, production levels, and any new legislation impacting the sectors. We also review other regulatory authority information, such as websites, press releases and historical databases.
Company annual reports and other company document	Wood Mackenzie regularly reviews all key company annual reports, investor presentations and SEC or other stock exchange (e.g. ASX, SEDAR) filings. In addition, we review other company sources of information, such as websites and press releases.
General and industry-specific media	Our analysts regularly review general media and a wide variety of industry-specific publications.

Source: Wood Mackenzie

Data validation

Our data are subject to a rigorous integrity checking and quality control process. We have developed a comprehensive set of checks, which are carried out on a regular basis, at a mine, country, regional and global level.

In addition to the checking and validating process for each individual asset, Wood Mackenzie's analysts perform holistic checks on the sector, country or region to ensure consistency and feasibility. For example, a number of mines in an area may be competing for development or production expansion, but concurrent development of all of them as predicted by their respective owners may be unfeasible. This might be due to the lack of available market demand, or the constraining limits of export infrastructure capacity. In such instances, Wood Mackenzie's regional experts will make their own assessment as to the likely schedule of developments and adjust the various project parameters in our analyses accordingly.

Scope of coverage

It is Wood Mackenzie's intention within each commodity to provide sufficient coverage of the operating mines and new projects to generate a comprehensive picture of the sector. Wood Mackenzie strives to cover all mines in any particular country or sector. However, for a variety of reasons individual or groups of mines may not be covered.

The primary reason for exclusion is the (lack of) significance of that asset or group of assets to the sector and/or the industry as a whole. This may be a result of the physical scope and scale of such assets in terms of reserves, production or investment.

A second key reason for the exclusion of assets from our coverage is where data availability precludes an adequate analysis being undertaken. Wood Mackenzie uses a wide variety of information sources as the basis for its analyses. If it is deemed that inadequate publicly available information exists on any particular asset(s), then a detailed analysis will not be attempted.

Updating process

Updating cycle/publishing schedule

Wood Mackenzie focuses its research and updating processes with the aim that each mine will be updated at least annually. In performing these updates, we generally work to quarterly publication deadlines, although analyses may be published at any time throughout the year. We prioritise our updates based on a number of factors, including the last publication date, the level of client interest and the scale of individual asset developments.

Wood Mackenzie also aims to update a proportion of its analyses more frequently than annually. These updates will usually focus on, for example, assets that have been materially affected by a significant event or areas of higher client interest.

To support our updates, research activities by the various regional teams occur continually throughout the 12-month period to fit in with access to the various research sources. For example, the information contained in company annual reports and government publications is collated as and when those documents are published. Hence, at the start of a particular update, a certain amount of information on the sector and individual assets will already have been gathered. Wood Mackenzie's analysts then commence the detailed research and updating processes specific to the relevant asset.

Analysis validation

Using all possible published (i.e. publicly available) information together with information gathered from company interviews, Wood Mackenzie's analysts complete a draft of each mine analysis. In an important part of the updating process, where possible, these drafts are forwarded to each operator, and very often to the other non-operating company participants in any particular mine, for their comments. This stage of the process is designed to ensure that each analysis is as accurate as possible, within the limits of what may be differing interpretations of a particular development amongst the various equity holders. It should be stressed that the final analysis produced is Wood Mackenzie's view of the most likely development of an asset and may not necessarily reflect the view of the operator, partners or other parties.

Type of analysis performed

Mine analysis types

Analysis type	Description
Stand-alone mine	The stand-alone mine analysis is the most common type of report produced. The analysis is based on an operating or proposed mine distinctly separate (geologically and/or geographically) from any other mine, and whose development forms an identifiably individual project. The relevant report sections such as reserves, production profiles and cost profiles relate purely to that mine alone. The mine analyses are normally divided into surface and underground groupings due to the different cost structures and development issues associated with the different styles of operations.

Mine complex	In some instances an operation may produce from multiple nearby underground and surface mining localities using a central processing facility. In these cases it can be difficult to distinguish the production sourced from the different mining areas and therefore the overall complex is treated and analysed as a single entity.
Other mine analyses	In some instances the number of individual mines in a particular area may be so numerous as to make stand-alone mine analyses impractical. In such instances the key summary information on costs, production, reserves, participation, infrastructure, and coal quality is presented for these mines in a single Other Mine analysis.
Company analyses	In some instances the number of individual mines in a particular area may be so numerous as to make individual mine analyses impractical. In such instances the Company Analysis format is used. Typically this will include reports similar to those generated for mine analyses, but will combine the information into a single analysis covering the company-s different mining operations.

Source: Wood Mackenzie

Classification of mines and projects

Wood Mackenzie defines commercial mines as those currently producing and those under construction. Our analysis classifies new mining projects into different groups; highly probable, probable and possible, depending on their stage of development or perceived likelihood of advancement to commercial production.

Highly-probable projects

Highly-probable projects are considered highly likely to achieve commercial production within the time-scale indicated.

Probable projects

Probable projects are those projects likely to enter commercial production in the future, but are subject to a significant degree of uncertainty, particularly with regard to timing. The uncertainty usually relates to economic or technical matters.

Possible projects

Possible projects are those with a high degree of uncertainty, which may apply to any aspect of the project. Such projects are usually at an early stage of development.

Key steps - mine modelling

Production

Wood Mackenzie's estimates of mine life and production are based on our view of likely future commercial production. We do not conduct independent geological modelling or detailed mine engineering assessments. Rather, we make an independent analysis of production forecasts provided by operators and/or partners (where available), integrated with our own view of other commercial factors such as demand, infrastructure availability and costs. We validate this assessment by comparing this to data from analogous operations in the same region, and through our extensive industry experience.

Our total future production estimates are broadly equivalent to company reported proved and probable reserves (after allowing for the processing into a marketable product), although they can include additional resources that, in our view, are very likely to be exploited. We take this approach, as opposed to basing asset modelling solely on a strict reported reserves basis, because it is believed to represent the most likely future commercial outcome for each asset. In some instances, where

there is a high degree of uncertainty or risk associated with proposed future mining, these areas may be excluded from our production and cash flow forecast.

Such exclusions will be noted in the mine report, as will reserve upside if it is known to exist; for example where resource areas are yet to be drilled to a sufficiently defined status, or deeper resources are present but their commercial status is unknown. These additional resources will not be included in our cost, cash flow and valuation analysis of the asset.

Capital and operating costs

Wood Mackenzie develops capital and operating expenditure forecasts associated with our view of production and mine life for an asset or group of assets.

Capital expenditure (capex) costs are broken down into development or expansionary capex, and sustaining capex required to maintain production. Development or expansionary capex is further broken down, where appropriate, into exploration and acquisition costs, mining development works, mining equipment, handling facilities, processing plants, general infrastructure, transport infrastructure, any other capital costs, and finally any closure or final rehabilitation costs.

Operating costs are estimated for mining operations based on paid production rather than sales volumes. Allowance for co-products or by-product revenue is also made, with unit costs presented either on a normal or pro-rata basis. Under normal costing, full operating costs are allocated to the commodity under analysis and net by-product revenue is credited to give a net cash operating cost. On a pro-rata basis, the operating cost is shared amongst different metals according to their contribution to net revenue.

Operating costs are divided into direct cash costs and indirect cash costs. The cost definitions used in the coal/metals mine research are shown below.

Cost definitions - metals

Cost	Description
C1-	The direct cash cost associated with the mining, processing and realisation of the concentrate or marketable product, with an allowance for by-product credits. Includes general and administration costs directly related to mine production.
C2-	The direct mine cash cost (C1-) cost plus depreciation and amortisation (D&A).
C3-	The fully allocated cost. This is the C2- cost plus royalties, levies and other indirect taxes (excluding profit related taxes), plus head office costs and other expenses incurred by the company, e.g. research and exploration, which are not directly related to production at the mine level.
Total cash cost	The total of all cash operating costs, both direct and indirect.

Source: Wood Mackenzie

Cost definitions - coal & iron ore

Cost	Description

C1-	The direct cash cost associated with the mining, processing and transport of the marketable product. Includes general and administration overhead costs directly related to mine production.
Total cash cost	The direct cash cost (C1-) plus royalty, levies and other indirect taxes (excluding profit related taxes).

Source: Wood Mackenzie

Cost definitions - bauxite & alumina

Cost	Description
C1-	The cash cost associated with the mining, processing and realisation of the refined or marketable product. Includes general and administration overhead costs directly related to mine production.
C2-	The C1- cost plus depreciation and amortisation (D&A).

Source: Wood Mackenzie

Sustaining capital expenditure can be added to the total cash cost to give a full cash cost measure. Cash margins are analysed on different levels according to need. Common points are a M1 basis (revenue less C1™ costs), operating basis (revenue less total cash cost), or on a full cash cost basis (revenue less total cash cost plus sustaining capex.

Coal markets

Introduction

Wood Mackenzie provides in-depth analysis and forecasts of global and regional coal, iron ore and steel market fundamentals. Our coverage includes thermal and metallurgical trade at a global level and regional coverage of North America, China and India.
Our key deliverables include:

- Long-term market outlooks - 20-year supply, demand and price forecasts, updated twice annually,
- Short-term market reports - supply, demand and price forecasts for the subsequent 18-30 months and discussion of short-term market drivers updated monthly (for thermal trade, metallurgical trade and North America)

The key sections in a Wood Mackenzie long-term market outlook are:

- Executive Summary
- Economic Outlook
- Price
- Demand
- Supply
- Ocean Freight and Infrastructure
- Trade Flows

- Risks and Uncertainties

Summary

Data collection

Data sources

Wood Mackenzie's research analysts conduct extensive and detailed research into their respective focus areas. We use a wide variety of sources, and most of our data is proprietary; however, we do publish some information from third party sources, with which we have agreements to do so.

Internal data sources

We leverage Wood Mackenzie's highly integrated analysis of global energy and commodity markets. Our base case long-term coal market reports, updated semi-annually, derive from modelling of key coal demand and supply drivers. They are fully integrated with our power, natural gas, oil and steel market modelling, all of which use consistent global upstream supply research, macroeconomic forecasts and take into consideration key trends.

Internal data flows

The primary internal data sources utilised in Wood Mackenzie's fundamental coal market analysis are:

Internal data sources

Data/Modelling Input	Wood Mackenzie Source	Comments
Macroeconomic data (GDP, IP, foreign exchange rates)	Macroeconomics	
Power demand	Regional power market teams including: North America, Europe, Southeast Asia and China	In regions where Wood Mackenzie has an established power market team, power demand in megawatts is a direct modelling input to the coal market analysis. We calculate the coal volume-based equivalent in metric tonnes or short tons (North America only).

	Energy markets team	Where a regional power team does not exist, we rely on power demand figures developed by our energy markets analysts. In the case of substantial data lags, we develop coal-based power demand independently with a feedback loop to our energy markets colleagues.
Industrial and other coal demand	Energy markets team	
Steel and hot metal production	Steel market team	
Coal production and costs	Coal supply team	
Oil prices	Macro oils team	
Natural gas prices	Regional gas team and Global Gas Model (GGM)	

Source: Wood Mackenzie

External data sources

The primary external data sources used by Wood Mackenzie to develop its fundamental short- and long-term coal market analyses are shown.

External data sources

Information source	Description
General and industry-specific media and databases	Our analysts regularly review general media and a wide variety of industry-specific publications and databases. For certain historical price series we rely on information published by, and attributed to, globalCOAL and SX Coal. For trade data, we use information provided by GTT cross-checked against government and other data sources.
Interviews with energy company and government contacts	Wood Mackenzie aims to interact with industry participants in all regions and countries. This takes place, most often, on a face-to-face basis in the relevant country. Meetings are also held with contacts in the relevant government and regulatory organisations. In many countries, the relevant regulatory authorities publish an annual review of energy activities. This may contain, for example, details of coal demand by sector, imports and exports, domestic production, port throughput, environmental data, and any new legislation impacting the energy sector. We also review other regulatory authority information, such as websites, press releases and historical databases.
Company annual reports and other company documentation	Wood Mackenzie regularly reviews all key energy company annual reports, investor presentations and SEC or stock exchange filings. In addition, we review other energy company sources of information, such as websites and press releases.

Source: Wood Mackenzie

Data validation

Our data are subject to a rigorous integrity checking and quality control process. We have developed a comprehensive set of checks, which are carried out on a regular basis, at a country, regional and global level.

Scope of coverage

We analyse coal markets in over 100 countries, providing complete coverage of global seaborne thermal and metallurgical coal trade. Of the 102 countries we model, we develop full detailed market models for 57 countries, which are generally those with a prominent role in the global seaborne coal market (either as a consumer or supplier). For the remaining countries, which are not major participants in the seaborne market, we develop smaller, less granular models. We revisit our coverage regularly to ensure that we are conducting the appropriate level of analysis for the major coal importing and exporting countries.

Updating process

Updating cycle/publishing schedule

As part of the integrated cross-sector modelling cycle, Wood Mackenzie updates its long-term fundamental coal market analyses twice annually. Our five long-term outlooks, comprising Thermal Trade, Metallurgical Trade, North America, China, and India, are released over a 3-4 week period in June and again in December.

Our short-term reports are released on a monthly basis, with the exception of the India report which is quarterly.

Updating cycle

Update Cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Short-term outlooks (thermal, met, NA, China)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Short-term outlooks (India)			✓			✓			✓			✓
Long-term outlook (all)						✓						✓
Insights	→	→	→	→	→	→	→	→	→	→	→	
Presentations and Webinars	→	→	→	→	→	→	→	→	→	→	→	

Analysis validation

Wood Mackenzie develops its view of the market using publicly available information, information gathered from interaction with industry participants, and model results. Using this information, we compile drafts of our long- and short-term reports, insights, and other deliverables. Prior to publication, our reports are subject to rigorous internal peer review. This review includes participation from coal market team members as well as representatives from other appropriate Wood Mackenzie research teams (e.g. coal supply, regional gas and power teams, steel markets etc.). Also, in instances in which our analysis has a corporate focus, we regularly provide a draft to the appropriate companies for their review and comment.

This stage of the process is designed to ensure that each report is as accurate as possible, within the limits of what may be differing market views amongst the various participants. The final analysis produced is always Wood Mackenzie's market view and may not necessarily reflect the view of other parties.

Type of analysis performed

Type of analysis performed

Type of analysis	Description
Demand	Discussion of key coal demand drivers. Forecast of coal demand by relevant sector at a country level (international trade deliverables), regional level (China and India market reports), or plant-level (North American report).
Supply	Analysis of key coal supply issues and drivers. Development of coal supply curves by exporting country/basin, port/origin point, and coal type for existing mines, known projects, and yet-to-find reserves. Development of global freight matrix and forecast for international trade reports. North America, China, and India reports include analysis of inland transportation elements (rail, barge, truck).
Price	Fundamental short- (18-24 month) and long-term (20-year) price analysis and forecast.

Source: Wood Mackenzie

Key steps - demand analysis

Wood Mackenzie develops coal demand forecasts at a country level using a top-down (GDP-driven) approach that is met in many key demand regions by a bottom-up approach driven by plant-level analysis.

In regions where we have dedicated power teams (Europe, South East Asia, China and North America), we use those teams projections of electricity demand, generating capacity and electric intensity to develop our long-term power coal demand forecast.

Elsewhere and for other non-power thermal coal demand, we integrate our analysis with that of Wood Mackenzie's energy markets analysis, which provides country-level energy balances using a top-down approach starting with a long-term outlook for GDP. Similarly, for metallurgical coal, our demand outlook leverages analysis from Wood Mackenzie's steel markets specialists, who forecast long-term steel production by technology (basic oxygen furnace, electric arc furnace, etc.), hot metal production and steel demand by country. Using our proprietary assumptions on coke rates, pulverised coal (PCI) rates, and coal share by quality type (hard coking, semi-soft, and PCI coal), we develop a long-term forecast of metallurgical coal demand by quality type.

In North America, a key input to our coal market analysis is the zonal electricity demand equivalent of the demand assumptions underlying Wood Mackenzie's North American power modelling efforts. Our North American power analysts use the Aurora XMP® production cost simulation tool for energy price forecasting in North American power markets. Simulation of the North American power markets within Aurora XMP® using Wood Mackenzie's proprietary data and assumptions forms the basis for electricity price forecasting as well as fuel demand and generation mix inputs for the PRISM™ model and the models used by Wood Mackenzie's North American gas research team. Projections of industrial steam coal use and thermal coal exports are estimated outside of PRISM™ and are treated as separate demand.

Supporting this analysis is our underlying proprietary power plant database, which includes information on coal utilisation, quality specifications, emissions control processes, regulatory limits and future plans. Existing plant clean-up equipment is updated on an annual basis and supplemented with announcements of equipment that will be installed in the future. The model includes options for the purchase and sale of emissions offsets.

Key steps - supply cost analysis

We develop coal supply curves for every major coal exporting country by port/port region for different coal types and quality specifications using granular, mine production, mine-to-port transportation, and

port costs produced by Wood Mackenzie's coal supply analysts. We include supply from existing mines, known projects and yet-to-find reserves.

We have 180 international supply curves representing both thermal and metallurgical coals traded on the seaborne market. Importer specifications, trade patterns, coke blend requirements and environmental regulations are taken into account. Additionally, due to the nature of international trade, we take into account currency exchange rates and their impact on changing costs of supply over the forecast period.

In North America, our supply analysis considers around 80 different coal types that are defined on the basis of coal origin and quality. Detailed mine-by-mine analysis, cost build-up for nearly 1,000 US mines, and thermal coal imports, petroleum coke and waste coal, underpin our supply curves.

Key steps - transportation analysis

Another major input into international coal trade modelling is our proprietary long-term freight forecast, which is developed using historical freight pricing, supply availability - informed by our view on the new vessel order book - and our view on short-term demand, capacity bottlenecks and planned capacity expansions. We consider vessel costs, both fixed and variable, and the costs incurred through the entire movement from originating port to destination port, including port efficiencies, port capacities, size of vessel that can load/offload at each port, fuel usage, fuel cost and port charges. This allows us to leverage Wood Mackenzie's expertise in other areas, including our view of oil and oil-derivatives and global economic trends.

Key steps - price analysis

Internationally, our International Coal Trade (ICT) model optimises seaborne trade flows, yielding our long-term view of coal trade and prices. In general, price outputs reflect the average short term - one year or less - contract price negotiated in the then-current year in the most competitive market for that coal.

In North America, with coal demand, coal supply and natural gas prices generated by the Wood Mackenzie North American Gas Market Model as inputs, PRISM™ simulates the North American power grid, solving for electricity demand while simultaneously selecting the lowest-cost fuel supply for the system subject to meeting applicable emissions constraints. The availability of coal types into specific plants is based upon usage patterns on a unit-by-unit basis, announced plans for fuel switching and our judgement of which additional coals seem likely fuel-switching candidates. Resulting outputs are the estimated demand and price of coal and emission allowances, as well as unit-level emission rates. Coal prices generated by PRISM™ are projections of prices in future years based on the then-current fundamental market conditions and reflect the average short-term (one year or less) contract price negotiated in the then-current year.

Models

Wood Mackenzie has developed proprietary linear algebraic models for use in forecasting supply, demand and prices in North America and for seaborne trade. The International Coal Trade (ICT) and PRISM™ models incorporate our views of demand, supply and infrastructure, and determine trade patterns and prices for each coal type modelled.

International Coal Trade (ICT) model

The International Coal Trade (ICT) model is a proprietary model developed by Wood Mackenzie to forecast seaborne coal trade and prices for both thermal and metallurgical coal. By modelling thermal and metallurgical coal together, we are able to capture coals that can move between both markets.

International Coal Trade (ICT) model


Power Demand
Generation by Fuel
Type by Country
Steel Demand
Metallurgical Coal Demand
Mine / Project Data
Ocean Freight Rates
Currency Exchange Rates
Volume
Metallurgical & Thermal Coal Tonnes by Rank
Supply & Demand by Country
Coal Flows by Country and Region
Price
Market Clearing Prices
Marginal Prices

Schedule 4 – Access Queue Analysis

[redacted]

Schedule 5 – [redacted]

Schedule 6 – Castalia Criterion (a) Report

DBCT Declaration Review Draft Decision:

Assessment of DBCTM's response to criterion (a)

24 April 2019

1 Introduction

DBCTM and their advisors, HoustonKemp, assert that the coal handling service provided at DBCT does not satisfy criterion (a) and that the QCA have erred in their Draft Decision.

They assert this on the basis that:

- *the market for coal tenements is wider than the market in which the DBCT service is provided, such that a change in the terms of access at DBCT without declaration would not be expected to affect the opportunities and environment for competition in this market;*
- *new entrants would not be deterred from entering the coal tenements market without declaration, as compared to with declaration, because the uncertainty as to whether and when they would gain access to DBCT is not addressed by declaration, and prices for DBCT capacity will not be significantly affected by declaration as compared to access under DBCTM's access framework; and*
- *there is a well-functioning secondary market for capacity that provides the means for any new entrants that are more efficient than incumbents to secure DBCT capacity.*

In this note we assess the DBCTM position and conclude that the coal handling service provided at DBCT does satisfy criterion (a) as it would "promote a material increase in competition" in a dependent market.

Our assessment is based on three key findings:

- The tenement market, properly defined, is restricted to the Hay Point catchment area because it is in this area that declaration will foster competition by placing incumbents and new entrants on the same footing.

  Further, DBCT offers all producers opportunities to blend coal—opportunities that are not available at other terminals, again limiting substitutability and confining the market to the catchment

- The DBCTM access framework, despite DBCTM's claims, will not produce identical outcomes to that which would be achieved under declaration and will affect competition in the tenement market.

  There is a clear and material difference between all access seekers having a legislative right to identical terms and conditions of access, with compliance

enforced by the QCA, and the DBCTM Access Framework where participants must individually negotiate access terms and conditions and undertake individual arbitration and other legal action to gain access as well as pay a material price premium over incumbents

- A well-functioning secondary market for capacity is not an appropriate counterfactual in the absence of declaration. Such a market is short-term only and not sufficient to underwrite investment by new entrants.

The key claim by DBCTM and their advisors to justify discontinuing declaration is that the DBCTM "Access Framework" would produce outcomes "substantially" or "materially" identical to that which would occur under declaration.

Implicit in their logic is that DBCT meets the criteria for declaration but DBCTM wishes to avoid the well-established legislative and regulatory approach to access to infrastructure with an untried and untested substitute that they assert produces similar outcomes. DBCTM does not justify their approach on public policy grounds or claim any benefits. Their sole rationale is that it avoids declaration.

We understand the Framework has been developed by DBCTM with little or no consultation with or input from users. It is not a negotiated outcome supported by users.

Report Structure

We address the DBCTM Access Framework in Section 0, and the tenement market and the secondary market for capacity in Sections 2.3 and 4.

2 Effect of DBCTM's Access Framework

DBCTM asserts that there would be no material difference between the terms and conditions, including price, of access between a future with or without declaration on the basis that the design of their Access Framework is such that it replicates all the features of the regulatory regime for access under declaration.

This statement creates an obvious question—if the framework is identical to declaration then why does DBCTM wish to avoid declaration? DBCTM is proposing a complex and untried approach by claiming it is a perfect substitute for an existing regulatory regime, which raises concerns about the operation of the Access Framework. We note that DBCTM have not explained the benefits of the Access Framework or provided any public policy rationale other than it avoids declaration.

Putting aside DBCTM's motivations, in our view, the proposed Access Framework will not produce materially similar access outcomes to that of declaration for four reasons:

- There would likely be a substantial difference between arbitration outcomes and a QCA determination. Those differences relate to individual access seekers having separate and individual negotiations and enforcement of compliance under the Framework as opposed to a common QCA determined approach
- DBCTM's revealed behaviour shows its view of prices based on a QCA type regime are materially different to those determined by QCA, and
- Contrary to DBCTM's assertions, a difference of $3.00/tonne in the Terminal Infrastructure Charge (TIC) will have a material impact on competition in the tenement market.

2.1 Complexity of Arbitration versus Regulation

The Australian regulatory approach to access to infrastructure is a well established and mature process that provides access seekers with a legally enforceable right of access on terms and conditions that have been assessed as reasonable by an independent, experienced and well-resourced regulator.

DBCTM asserts that its untried and untested Access Framework replicates the regulatory function, stating:

> *DBCTM is now bound to provide services on terms substantively the same as under the current QCA approved access undertaking* [1]
>
> *Even so, DBCTM has now executed the Deed Poll to provide absolute certainty as to the terms of access without declaration.*
>
> *Declaration does not result in a materially different environment for investment*

In our view, there is a material difference between declaration and the Framework in terms of complexity and enforceability, particularly for new entrants.

We understand that, in theory, access rights under a declaration may be resolved through individual arbitrations. However, where there is a general access undertaking, all access seekers have a legally enforceable right of access on reasonable terms and conditions. Importantly, there is no further negotiation process for a new entrant and compliance is enforced by the QCA, not the access seeker.

[1] DBCTM letter page 2

Under the Framework, each new entrant would individually negotiate a price between the TIC floor and ceiling with DBCTM. DBCTM has no incentive to offer anything but the profit maximising price—the cap. This means that each new entrant would be forced into arbitration and receive a price between the floor and the ceiling. By contrast, with declaration, incumbents will have the certainty of an arbitrated price that will be the new entrants' floor price on a group basis with a single arbitrator stepping into the role of a quasi-regulator.

Further, since new entrants have no statutory protection, they must individually ensure DBCTM compliance with the Framework through the legal system. While arbitration is almost always a consensual dispute resolution process, in the case of the Framework it is clearly non-consensual. New access seekers would be required to agree and be bound by arbitration as a condition of access.

In summary, under the Framework, new entrants face a materially higher degree of uncertainty, especially when access is complex, for example requiring expanded capacity at DBCT.

2.2 DBCTM Revealed Behaviour to QCA Prices

The DBCTM submission asserts that under the Framework the Floor TIC would be the same as under a QCA administered pricing regime. However, this ignores the fact that the QCA price determination is not a mechanistic process with a single result but a process that produces a "reasonable range" of prices, with the regulator being required to select a point within the range that appropriately balances the interests of the service provider and the access seekers.

DBCTM's revealed behaviour in past QCA determination processes shows that it has a very different view to the QCA about the point estimate within the reasonable range and even the bounds of the range. Figure 2.1 shows the differences between the TIC as proposed by DBCTM and the final TIC as determined by QCA in the various access undertaking processes to date.

Figure 2.1: DBCTM Proposed and QCA Determined TIC

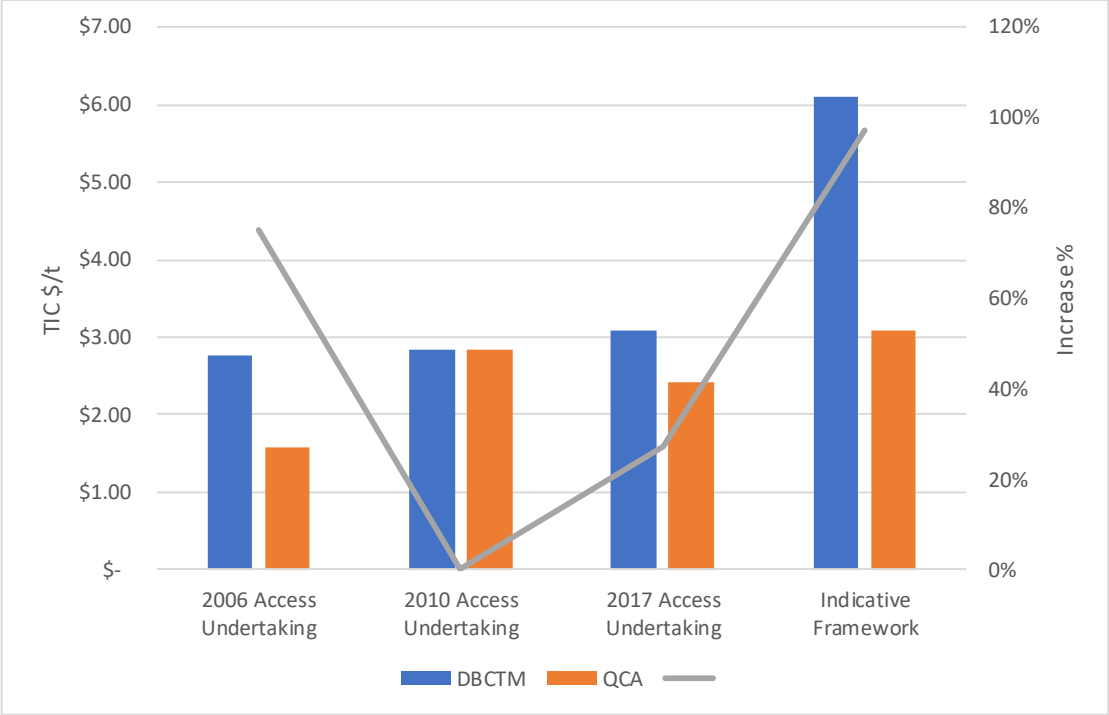


Figure 2.1 also shows the Floor and Ceiling TICs based on the current price of $3.09/t. Across the 2006 and 2017 access undertakings, the price initially proposed by DMCT was between 27 and 75 percent higher than the price determined by the QCA to be reasonable. It also shows that the proposed ceiling TIC is almost 100 percent higher than the current TIC.

In the 2010 determination, the TIC price was accepted by users and not determined by the QCA. The 2010 price is almost double the 2006 price and the 2017 price was lower. This "agreement" resulted from the fact that users wanted an upgrade in terminal capacity and thus their negotiating power was limited.

Under the Framework, DBCTM's incentive, as a rational profit maximising entity, is to propose a TIC Floor price at the upper limit of the reasonable range, forcing users to arbitration unless the costs and delays resulting from arbitration are such that users would accept DBCTM's ambit claim.

Figure 2.1 also shows that the TIC Ceiling price is almost double the current QCA determined price. This analysis demonstrates that the TIC Floor price as proposed by DBCTM is likely to be well above their efficient costs.

Arbitrator as a Regulator

DBCTM will undoubtedly contend that this price differential will be resolved by the arbitrator acting as a quasi-regulator. This is unlikely given the differences between the resources and expertise of the QCA when compared to a commercial arbitrator, as well as their differing objectives.

On the matter of resources, the QCA is a well-established regulator having been set up in 1997. It has a staff of 48 and an annual budget of $15 million. While it has many functions, it can clearly bring substantial resources, expertise and experience to apply to DBCT TIC determinations.

By contrast an arbitrator as appointed under clause 16.4(c) of the Framework Deed must be *"a single suitably qualified and experienced arbitrator"*. The Framework Deed asks such an arbitrator to second-guess what the QCA would have decided.

More importantly, while the arbitrator must take into account the Framework Objective which mirrors Part 5 of the QCA Act, commercial arbitrators as a matter of practice focus on the commercial intent of the agreement while the QCA is able to take into account wider public policy matters such as the promotion of competition and the public interest.

2.3 Competition Impacts in the Tenement Market

DBCTM asserts that the Framework will have no effect on the tenement market as the TIC Ceiling Price is capped at $3/tonne greater than the Floor Price which is set at the level of a QCA determination. They then claim that the prospect of a $3/tonne increase in coal handling charges, relative to the uncertainties around total coal production costs and global coal prices:

> *…seems unlikely to be critical to whether or not a tenement would be developed*

As explained above, we do not agree with the statement that the price difference would be confined to $3/tonne, since it would be very difficult for an arbitrator to second-guess what the QCA would have decided. In the absence of QCA experience and information gathering powers, a commercial arbitrator is more likely to set the Floor Price at a level closer to DBCT's starting claim.

However, even if we were to accept that the Floor Price would be equal to a hypothetical QCA determination, the observation about the effect of a $3/tonne differential does not relate to the relevant market. The market is for the ***acquisition*** of tenements, not the ***development*** of tenements. This is an important difference which we explain below.

HoustonKemp list factors such as the assessment of the coal resource, likely extraction costs, supply chain costs and international coal prices that prospective buyers of tenements would take into account. It is true that there is wide variability in these factors and in comparison, a $3/tonne change in DBCT tariff may not be significant in the total overall costs.

However, in a competitive market for the acquisition of tenements, it is likely that prospective buyers, all being experienced miners and all having access to the same information, would be likely to have similar views on these factors. There are credible independent forecasts of both coal prices and mining costs and all prospective buyers would have access to the same geotechnical data supplied by the Government.

In Table 3.1 of their report, for example, HoustonKemp show the operating costs of 17 mines with a range from $73.13/tonne to $131.35/tonne as estimated by specialist mining consultants.

We would expect, in a competitive market, to see a high degree of convergence on these factors for an individual mine between prospective acquirers of tenements—except for one factor—DBCT coal handling charges. For DBCT charges, new entrants would factor in at least $3/tonne premium over the price paid by incumbents.

An analysis of recent transactions for yet to be developed coal mining tenements, as shown in

Table 2.1, suggests that a reasonable range of prices might be in the order of $0.50 to $1.00/tonne of reserves. JORC definition of reserves refers to the recoverable and marketable part of the resource found in the tenement. Reported reserves are already based on a high-level analysis of what would be economic to develop in a tenement.

Table 2.1: Recent Transactions for Undeveloped Tenements

Date	Site	Seller	Buyer	Price $M	Resource MT	Reserves MT [2]	$/tonne Reserves
May-16	Olive Downs	Peabody	Pembroke	$104.0	813	514	$0.20
Jun-18	Wotonga South	Peabody	Stanmore	$30.0	23	15	$1.96[3]
Mar-18	Winchester South	Rio Tinto	Whitehaven	$200.0	267	179	$1.12
May-18	Eagle Downs	Vale	South32	$176.0	561	376	$0.47
						Average (all transactions)	$0.94
						Average (excluding Wotonga South)	$0.45

Source: Various ASX announcements, company websites, press releases and newspaper articles

The price paid for a tenement is the residual after discounting forecast future costs and revenues. The value of a tonne of reserves is the pure value of access to the resource, after return on the capital required to develop, construct and operate the mine. All other things being equal, experienced new entrants and incumbents with similar expectations of development and operating costs could be expected to place a similar value on access to the reserves.

However, DBCT's ability to charge differential prices to incumbents and new entrants under the Framework Deed would mean that all things are not equal. If we assume that a reserve is extracted over a twenty-year mine life, payment of addition $3/tonne (at a discount rate of 5 percent) amounts to $1.87/tonne in present value terms—that is, every tonne of reserves owned by a new entrant is worth $1.87 less today than a tonne of reserves owned by an incumbent.

One can argue about the proportion of the reserve that would be extracted and hence the true underlying valuation of access to the resource. We are aware of research indicating that up to 20 percent of JORC reserve may be left at the end of mine life. This assumption would mean that the economic price of anticipated extracted reserves may be slightly higher than the reported price.

Similarly, one can argue about the extraction profile and the discount rates, and hence about the present value of the $3/tonne differential. However, the orders of magnitude are clear and unambiguous: an incumbent and a new entrant evaluating the value of a tenement would have face vary different implied economic prices. This difference would be caused by the Framework Deed and would distort competition for the acquisition of tenements.

[2] Reserves estimated at 67 percent of resources if not stated or not known

[3] Note: Wotonga South has significant synergies for Stanmore being a continuation of their Isaac Plains mine complex

It is important to emphasise that $3/tonne differential may not appear to be significant when compared to the cost of a tonne of coal, but this comparison is misleading. The price for tenements—which is the relevant price in the market under consideration—is the residual value of access to the resource after recovery of operating costs and return on capital employed in the development of the tenement. It is that price that would be materially distorted between incumbents and new entrants.

3 Definition of the Tenement Market

HoustonKemp claim that potential acquirers of tenements are driven by the greatest returns, not the lowest price. We agree with this proposition.

However, HoustonKemp then claims this proposition means that tenements in the Hay Point catchment are substitutable for tenements elsewhere in Queensland. Here we disagree. Of course, investors may look for tenement opportunities globally, be it elsewhere in Queensland, in Australia or in other countries. What reason do HoustonKemp have for suggesting that tenements elsewhere in Queensland are in the same market while those in Indonesia are not?

It is obviously implausible to suggest that coal tenements in Indonesia are in the same market because they operate within different logistics chains. However, while it may seem less counterintuitive to lump all Queensland tenements together compared to those in Queensland and Indonesia, the error is the same.

The geographic extent of the relevant tenement market is the extent of the potential distortion that can be caused by different participants in a logistics chain having access to different prices.

The market distortion that leads to a material impact on competition is that in the Hay Point catchment, incumbents have materially lower coal handling prices through their evergreen contracts with DBCTM.

We have shown in Section 2.3 that, in the context of tenement acquisition this is a material advantage. It follows that, absent declaration, new entrants will be unlikely to bid for tenements in the catchment as they, and their financiers, will assume a significant difference in an important component of cost.

It is true that absent declaration, new entrants could bid for tenements outside the DBCT catchment and would do so on equal footing to DBCT incumbents. This does not change the fact that bidding for tenements in the catchment would be distorted, changing price and development outcomes in ways that could reduce efficiency.

4 Secondary Market for Capacity

HoustonKemp assert that more efficient new entrants can acquire capacity in the secondary market in the absence of declaration and thus there would be no harm to competition in the tenement market. While this may be possible it is unlikely to significantly reduce the distortion to competition in the tenement market for three reasons:

- It would be unlikely that a prospective buyer of tenements would be able to put in place a legally binding contract for capacity prior to bidding for a tenement.

  Even if it could be so through, for example, a binding option contract there would be costs and complexity

- The circumstances under which an incumbent would sell their valuable rights are limited to those where an incumbent's mines are winding down and they have no other tenements in the catchment or no desire to acquire them.

  It would not be rational for an incumbent to monetarise the value of their evergreen contract on the assumption that they could negotiate a replacement at anything less than the TIC Ceiling

- Experience to date in the secondary market is that trades are short term and for small quantities as miners adjust production and sales for operational and financial reasons.

  We are not aware of any long-term and material trades of capacity, except as has occurred with sales of mining companies themselves.

For these three reasons, the secondary market for long-term capacity is unlikely to be deep and liquid, and at best prices would be equal to or greater than the DBCTM's Framework Ceiling TIC price in the absence of declaration.

Schedule 7 – [redacted]

As is evident from the above, neither of the Queensland explanatory notes or Commonwealth explanatory memorandum take the matter much beyond confirming the clear intention to focus the assessment on the effect of declaration.

The statements of intent remain too high level in nature to have expressly contemplated the issue now in question about the treatment of contractual constraints unilaterally imposed by the provider of an existing declared service.

7 Legislative intent as expressed in the law reform proposals and Federal government response

7.1 The Productivity Commission Report

The changes to criterion (a) were originally recommended in the Productivity Commission (***PC***) Final Report on its 2013 inquiry into the National Access Regime.

In respect of the recommendation to amend the criterion (a) test to better capture the effect of declaration on competition, the PC stated:

> ***The competition test should be amended so that it is only satisfied where access to an infrastructure service on reasonable terms and conditions through declaration (rather than access per se) would promote a material increase in competition in a dependent market****. This amendment would confirm the NCC's current interpretation of the criterion by* ***requiring a comparison of the state of competition under the status quo against the state of competition where access is granted on reasonable terms and conditions****. This competition test would not be satisfied where there is already effective competition in dependent markets. It would also not be satisfied where access is already granted to all third parties on reasonable terms and conditions, as declaration would not be expected to alter the terms and conditions of access.*[4]

There are a number of things that are evident from that statement of the Productivity Commission's intentions:

(a) firstly, the PC considered the focus must be on the effect of declaration;

(b) secondly, the PC intended that the future without declaration was to be assessed principally by reference to the status quo (with no suggestion it was intended that the service provider was to be able to change the assessment of criterion (a) by unilaterally seeking to alter the likely outcomes without declaration from those that would have existed under the status quo); and

(c) thirdly, the PC did not intend for the NCC (under the QCA Act, the QCA) or relevant Minister to have to determine the detailed terms that would apply with declaration – but rather to assume that declaration would produce reasonable terms and conditions.

The question is what the PC intended when the status quo in respect of the Terminal service is that declaration exists (which was a circumstance not expressly contemplated in the PC's Report).

It is also worth noting that PC's commentary that the issue access regulation is intended to address is *market failure arising from an enduring lack of effective competition due to natural monopoly in markets for infrastructure services*.[5]

[4] Productivity Commission Final Report, National Access Regime 2013 p 17-18.

[5] PC Report, pages 6-7.

Schedule 8 – [redacted]