HOUSTONKEMP
Economists

Assessment of the QCA's draft recommendation to declare the DBCT service – criterion (a)

A report for DLA Piper

March 2019

HoustonKemp.com

Report authors

Greg Houston

Daniel Young

Contact Us

Sydney
Level 40
161 Castlereagh Street
Sydney NSW 2000

Phone: +61 2 8880 4800

Singapore
8 Marina View
#15-10 Asia Square Tower 1
Singapore 018960

Phone: +65 6817 5010

Contents

Figures

Tables

Executive Summary

We have been asked by DLA Piper (DLA), on behalf of DBCT Management Pty Limited (DBCTM), to review whether the coal handling service provided by the Dalrymple Bay Coal Terminal (DBCT) is likely to satisfy criterion (a) of section 76(2) of the *Queensland Competition Authority Act 1997* (QCA Act). The focus of our review is the draft recommendation published by the Queensland Competition Authority (QCA) on 18 December 2018 and the expert advice upon which it relies. Our report should be read in conjunction with two previous reports we have prepared similarly addressing whether the coal handling service provided by DBCT (the DBCT service) satisfies criterion (a).

Assessment of criterion (a)

There are three crucial aspects to assessing criterion (a) in the case of DBCT, ie:

1. The criterion (a) test is a with and without declaration test that compares the state of competition in a world where DBCT is declared, against a world in which it is not.
2. There is a two-step framework that must be applied to determine whether DBCT satisfies the criterion (a) test, requiring the assessment of:
   > the effect of declaration on the terms and conditions of access to the DBCT service; and
   > whether this effect on access would materially affect competition in a dependent market service.
3. The promotion of a material increase in competition requires there to be a material enhancement of the competitive process, and the volume and/or quality of output in the market must be expected to increase.

While there is substantial agreement on the approach to the first two of these aspects, there remains disagreement on how to identify whether a promotion of competition is material.

DBCTM's access framework

An assessment of criterion (a) requires active consideration of the terms and conditions of access without declaration, under the two-step assessment framework that we set out at section 2 above. Acknowledging the importance of this consideration, DBCTM has executed a binding access framework that determines the terms and conditions of access if the DBCT service were not declared.

DBCTM's access framework adopts many of the terms and conditions that would apply under declaration. Its structure provides that the terminal infrastructure charge (TIC) is to be negotiated between DBCTM and the access seeker, with an arbitration process to apply if the parties are unable to reach agreement.

In the event agreement is not able to be reached, the access framework directs the arbitrator to determine a TIC that:

- would be agreed between a willing but not anxious buyer and a willing but not anxious seller of coal handling services for mines that are proximate to the Port of Hay Point; but
- notwithstanding this direction:
  > is not less than the floor TIC, being that which would have prevailed had a QCA-administered regime continued to be applied; and
  > is not greater than the ceiling TIC, being:
    ▪ the highest price at which coal volumes served at DBCT would be the same as if the floor TIC applied – with this assessment being made without reference to any contractual limitations on volumes that are able to be delivered to DBCT or any other coal terminal; but
    ▪ no higher than $3.00 per tonne above the floor TIC, expressed in real terms of 2020-21.

The 'willing but not anxious' standard referenced in the pricing principles above is a commonly applied commercial standard for determining prices that reflect market value in Australia. Beyond this, the floor and ceiling ensure that prices cannot change to levels that would affect volumes served at the terminal, as compared to those that would be the case with declaration.

On our assessment, the expected ceiling TIC is unlikely to exceed $7.44 per tonne at any point over the period for which the DBCT service would otherwise be declared. The ceiling TIC may be less than this if:

- the floor TIC remains at or near its current level of $2.60 per tonne, in which case the constraint posed by the maximum spread between the floor and ceiling TIC of $3.00 (in 2020-2021 price terms) will be binding; or
- coal prices fall short of expectations at the current time, reducing the willingness of coal mines to pay for the DBCT service.

Effect of declaration on access

The first step in an assessment of whether DBCT satisfies the criterion (a) test is to evaluate the effect of declaration on the terms and conditions of access to the DBCT service. In making our evaluation, we use the only reasonable counterfactual without declaration – a world where DBCT is bound by its executed access framework – and perform the analysis by reference to the ability and incentive of DBCTM to exert market power given this constraint.

The effect of declaration on access is expected to vary depending upon whether access to coal handling services is provided:

- under existing DBCT standard user agreements, which apply to the entire current capacity of the terminal; or
- under new DBCT user agreements, which would apply to expanded capacity at the terminal.

The table below organises this assessment and highlights the key areas in which our assessment differs from that of the QCA.

Access terms between incumbents and potential entrants with and without declaration

	Existing user agreements	Potential user agreements	Outcome
Future with declaration	Access terms as per existing user agreements, including access charge as approved by the QCA under an approved access undertaking. Presently, a TIC of approximately $2.60 per tonne, representing one to two per cent of forecast metallurgical coal prices.	Access terms governed by the QCA Act; access terms and charges approved by the QCA under an approved access undertaking. An expected TIC of approximately $2.67 per tonne if expansion is socialised and, at most, $6.00 per tonne if expansion is differentiated – representing one to four per cent of metallurgical coal prices.	With declaration, the price for access under potential user agreements is likely to be higher than under existing user agreements.
Future without declaration	Access terms as per existing user agreements, with access charges expected to be similar to those that the QCA would determine. Presently, as TIC of approximately $2.60 per tonne.	Access terms determined under DBCTM's access framework, which applies the same terms as those approved by the QCA at prices that would be agreed between a willing but not anxious buyer and a willing but not anxious seller. A TIC not to be less than a QCA determined charge and not greater than a ceiling that is expected no more than $7.44 per tonne and may be less in periods of low demand and/or low prices.	Without declaration, the price for access under potential user agreements is likely to be higher than under existing user agreements.
Outcome	Under existing user agreements, the price for access is likely to be the same, or similar, with and without declaration.	Under potential user agreements, prices for access may be higher without declaration than with declaration. The extent of this difference depends upon the price that would be agreed between a willing but not anxious buyer and a willing but not anxious seller, as determined under binding arbitration.	

Effect on competition in the tenements market

The second step that we apply in our assessment of criterion (a) is to determine whether the effect of declaration on access would materially improve competition in at least one dependent market.

The QCA considers that declaration will promote a material increase in competition in the market for coal tenements. This conclusion follows from its contentions that:

- differences in terms and conditions of access, as between users under existing user agreements and those under new user agreements would arise without declaration; and

- these differences would distort competition in the market for coal tenements under the access framework.

Underpinning the QCA's view are three critical assumptions:

- the market for tenements is no wider than the market in which the DBCT service is provided, such that a new entrant in the market;
  - would be negatively affected by an asymmetry in the terms of access at DBCT; and
  - would not be able to seek to utilise capacity at other terminals;
- the differences in terms and conditions faced by new entrants without declaration are such that;
  - a number of them would be deterred, as compared to the prospects for new entrants with declaration; and
  - the quantum of the deterred new entrants would be sufficiently great that, with declaration, the otherwise deterred new entrants would give rise to a material promotion of competition; and
- there is not a well-functioning secondary market for capacity that would provide the means for any new entrants that were more efficient than incumbents to secure DBCT capacity.

For the QCA to reach its conclusion, each of these assumptions must be made out. However, in our opinion, none of them can be justified.

Tenements market is broader than the Hay Point catchment

The QCA contends that different infrastructure costs between the Goonyella coal supply chain and other coal supply chains would give rise to a relatively narrow geographic market for coal tenements because:[1]

> …the value 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 Queensland.

The step in the QCA's analysis where it falls into error is its contention that differences in tenement prices between regions imply a lack of substitutability. This is not correct. The price of a tenement says nothing about its substitutability with tenements in other areas. Other things being equal, a buyer of coal tenements will prefer to buy a tenement that provides it the *greatest return*. This is not the same as the tenement with the *lowest price*. Similarly, there are many reasons to expect the price of two tenements from within the same geographic region not to be the same.

Rather, the critical consideration for the degree of substitutability between tenements in one geographic region and another is the ability of buyers to re-deploy capital and relevant expertise from one region to another, so as to bring about this equalisation of expected returns. It follows that there is no basis to conclude that the geographic scope of the coal tenements market is limited to the Hay Point catchment. Rather, the coal tenements market likely extends across Central Queensland or beyond.

Barriers to entry and prices are similar with and without declaration

The QCA contends that the promotion of a material increase in competition under declaration would arise because existing users (with access to lower charges at DBCT) would value tenements more than new users (with access to higher charges at DBCT) and that this could deter the entry of more efficient firms into the tenements market.

[1] QCA draft recommendation, p 57.

However, even if the tenements market was assumed to be limited to the Hay Point catchment, there are strong reasons to believe that the effect cited by the QCA would not give rise to the promotion of a material increase in competition.

A thorough assessment of the barriers to entry faced by new entrants in a tenements market limited to the Hay Point catchment would most likely conclude that the level of difference in prices for the DBCT service cited by the QCA is neither an 'unmanageable' nor 'fundamental' risk factor faced by a potential new entrant to the tenements market. Once the range of factors and uncertainties that a firm would need to consider in acquiring a tenement are taken into account, the prospect of the charge at DBCT increasing seems most unlikely to be critical to whether or not a tenement would be developed.

Rather, two risk factors that would play a much greater role in decisions of whether or not to enter the tenements market are likely to be:

- uncertainty associated with global coal prices that would be earned on coal produced from the tenement; and
- uncertainty associated with the ability to obtain access to coal supply chain infrastructure in Queensland, including DBCT.

When set against the level of volatility in coal prices, the potential for coal handling charges at DBCT to increase by up to A$3.00 per tonne cannot be described as an 'unmanageable' risk. Consistent with the view of the National Competition Council (NCC), a small difference in coal handling charges under declaration is not likely to be a determinative factor in a decision on whether to enter the coal tenements market.

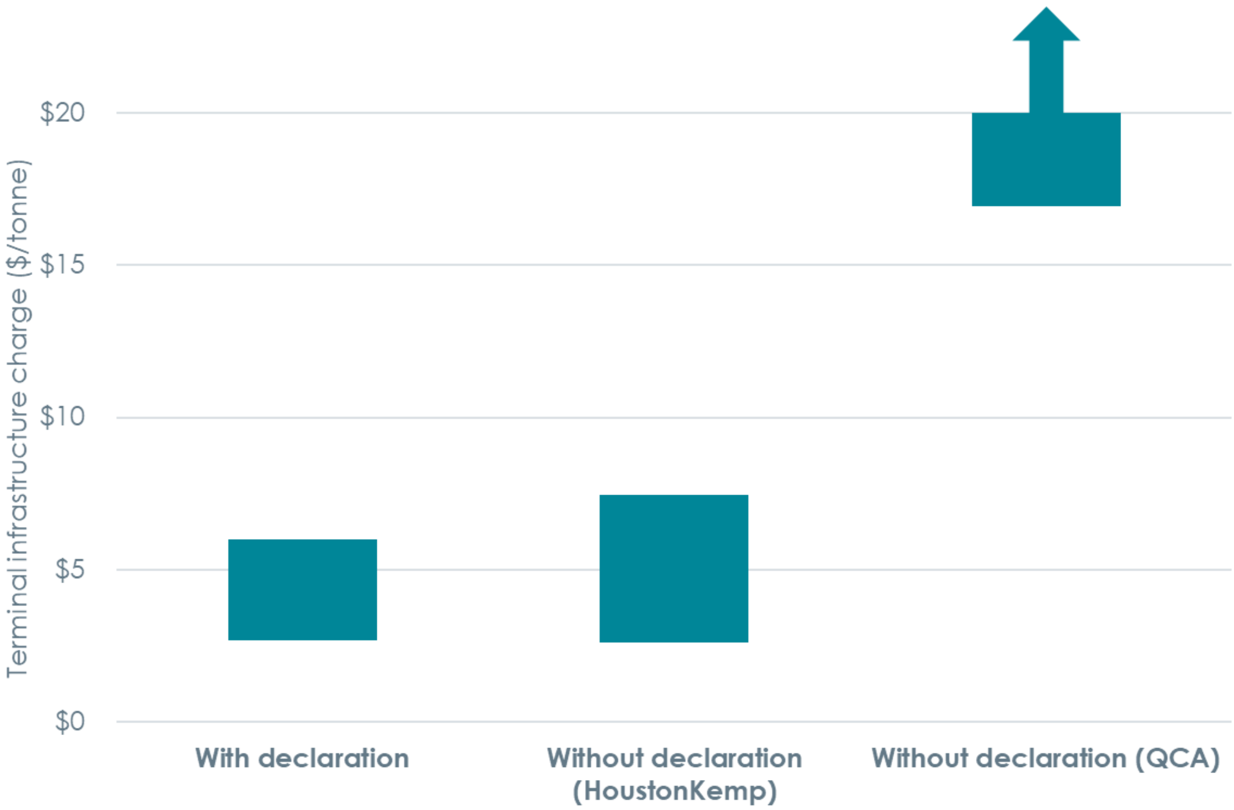
The level of charges for the DBCT service is also likely to be less material to a decision to enter the market than the question of whether access to the DBCT service (and other infrastructure services) would be available to facilitate new entry. As the QCA correctly states, uncertainty as to 'whether or when' new entrants would be able to access the DBCT service is fundamental for access seekers. With or without declaration, new entrants in the market for tenements can have no certainty about the availability of access to the DBCT service, or potentially other infrastructure services over the period for which the DBCT service would be declared. This is a significant barrier to entry that will persist whether the DBCT service is declared or otherwise.

The QCA's consideration of DBCTM's access framework causes it to overestimate considerably the charges that would be likely to apply to access under new user agreements without declaration.

The QCA describes the effect of the access framework as giving rise to prices 'based on willingness to pay'. In its view, these would be commensurate with the charges associated with accessing the Wiggins Island Coal Export Terminal (WICET) of $26.51 per tonne (implying a TIC of at least $16.99 per tonne). This is considerably more than the costs of accessing expanded capacity at DBCT, which the QCA assesses at $12.05 per tonne if the expansion is socialised or $15.41 per tonne if it is differentiated.

Given a thorough consideration of the terms of the access framework, the potential range of outcomes for the TIC without declaration overlaps substantially with the outcomes that the QCA expects with declaration. Both these ranges differ substantially from the potential charges suggested by the QCA without declaration, in line with or above charges at WICET. We depict these three potential ranges in the figure below.

Comparison of potential ranges for the terminal infrastructure charge



This analysis shows that the QCA has significantly overstated the materiality of any consequential effect on competition in the tenements market. It follows that, given the market for tenements preferred by the QCA, and given the access framework executed by DBCTM, it is not possible for declaration to promote an increase in competition in the market for tenements.

More efficient entrants can acquire capacity in the secondary market

Even with the QCA's geographic market for tenements and setting aside its treatment of barriers to entry and prices, the most efficient operators will still be able to acquire and operate coal tenements.

If there were potential new acquirers of tenements (who do not hold DBCT capacity) that were more efficient than incumbent holders of DBCT capacity, then these more efficient new entrants have the ability to engage in secondary market trades with miners holding existing user agreements at DBCT. By definition, more efficient potential acquirers of new tenements would have a higher willingness to pay for these existing capacity rights than a less efficient incumbent holder of DBCT capacity, who planned to bid for the same tenement. The result of the potential for such trades is that the more efficient entrants will, in fact, prevail and be most likely to enter.

Even if this were not possible, trading in tenements themselves should also provide for a similar result. The activities undertaken by holders of tenements are the exploration and development of tenements. More efficient potential new acquirers of tenements (who do not hold DBCT capacity) will not be deterred from acquiring tenements and exploring and developing them so long as they have the ability to on-sell these tenements (for an expected capital gain) to a miner with existing user agreements at DBCT.

Conclusion

We find that the coal handling service provided at DBCT does not satisfy criterion (a) under Part 5, Division 2 of the QCA Act. We draw this conclusion because, on our assessment:

- 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.

1. Introduction

The Queensland Competition Authority (QCA) is reviewing whether the declared services specified in section 250 of the *Queensland Competition Authority Act 1997* (QCA Act) should be declared following the expiry of the existing declarations on 8 September 2020.

1.1 Scope of this report

We have been asked by DLA Piper (DLA), on behalf of DBCT Management Pty Limited (DBCTM), to review whether the coal handling service provided by the Dalrymple Bay Coal Terminal (DBCT) is likely to satisfy criterion (a) of section 76(2) of the *Queensland Competition Authority Act 1997* (QCA Act).

Criterion (a) reads:[2]

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

Our report should be read in conjunction with two previous reports we have prepared similarly addressing whether the coal handling service provided by DBCT (the DBCT service) satisfies criterion (a).:

- in our first report, dated 29 May 2018,[3] we set out a framework for analysis and found that the use of all infrastructure across the relevant supply networks will remain unchanged, with or without declaration, and therefore that declaration of the DBCT service would not promote an increase in competition in any dependent markets; and;
- in our second report, dated 13 July 2018,[4] we revisited this advice in light of submissions from the DBCT User Group and expert advice prepared by Castalia, and affirmed our earlier conclusions.

On 18 December 2018, the QCA published its draft recommendation. At this time, it also published reply submissions made by parties in response to our first report.

The QCA concludes in respect of the DBCT service that:[5]

> Criterion (a) is satisfied
>
> DBCT Management has an ability and incentive to exercise market power, such that in the absence of declaration, efficient entry to the coal tenements market would be discouraged and there will be a material impact on competition in that market
>
> Access (or increased access) to the DBCT service on reasonable terms and conditions as a result of declaration would promote a material increase in competition in the coal tenements market

DLA has asked us to revisit our earlier conclusions in relation to whether the DBCT service satisfies criterion (a), or otherwise. The focus of our review is the draft recommendation published by the Queensland Competition Authority (QCA) on 18 December 2018 and the expert advice upon which it relies.

---

[2] QCA Act, section 76(2)(a).

[3] HoustonKemp, *Does DBCT's coal handling service satisfy criterion (a)?*, 29 May 2018 ('HoustonKemp first criterion (a) report').

[4] HoustonKemp, *A review of the economic issues raised in relation to criterion (a)*, 13 July 2018 ('HoustonKemp second criterion (a) report').

[5] QCA, *Draft recommendation | Part C: DBCT declaration review*, December 2018, p 5 ('QCA draft recommendation').

1.2 Structure of this report

The remainder of this report is structured as follows:

- in section 2 we set out the framework that we use in the application of criterion (a) to the DBCT service in this report;
- in section 3 we summarise the essential economic features of DBCTM's access framework and undertakes an assessment of the outcomes which it would be expected to promote;
- in section 4 we assess the effect of declaration on the terms and conditions of access to the DBCT service;
- in section 5 we describe the market for coal tenements and define its scope;
- in section 6 we assess whether any effect on access would materially affect competition in the market for coal tenements; and
- in section 7 we declare the basis on which we have prepared this report.

2. Assessment framework for criterion (a)

To clarify our approach to determining whether DBCT is likely to satisfy criterion (a), in this section we set out the framework that we use in the application of criterion (a) to the DBCT service in this report. There are three crucial aspects to assessing criterion (a) in the case of DBCT,ie:

1. The criterion (a) test is a with and without declaration test that compares the state of competition in a world where DBCT is declared, against a world in which it is not.
2. There is a two-step framework that must be applied to determine whether DBCT satisfies the criterion (a) test, requiring the assessment of:
   > the effect of declaration on the terms and conditions of access to the DBCT service; and
   > whether this effect on access would materially affect competition in a dependent market service.
3. The promotion of a material increase in competition requires there to be a material enhancement of the competitive process, and the volume and/or quality of output in the market must be expected to increase.

Although there is substantial agreement on the approach to the first two of these aspects, there remains disagreement on how to identify whether a promotion of competition is material.

Table 2.1 below summarises different views about each of these aspects of the assessment of criterion (a) as they have been expressed to date. The remainder of this section assesses these views and sets out the approach to the assessment of criterion (b) that we adopt in the remainder of this report.

Table 2.1: Comparison of views on the framework for the application of criterion (a)

Assessment of criterion (a)	DBCTM / HoustonKemp	DBCT User Group / Castalia	National Competition Council	Queensland Competition Authority
The criterion (a) test	A with and without declaration test, that compares the state of competition as between two states of the world, ie: • with access (or increased access) to the service, on reasonable terms and conditions that will apply, as a result of declaration; and • with access to the services on terms that would apply if the service was not declared.	Not stated.	This requires a comparison of two future scenarios: one in which the Service is declared and access to the Service is through declaration on reasonable terms and conditions, and one in which the Service is not declared and any access to the Service is in the absence of declaration.	If, in a scenario without declaration, the QCA finds there would still be access on reasonable terms for a reason other than declaration (eg, because of constraints imposed by competition or some other regulatory regime), such that there would be no material increase in competition in a dependent market, it would follow that criterion (a) is not satisfied.

Assessment of criterion (a)	DBCTM / HoustonKemp	DBCT User Group / Castalia	National Competition Council	Queensland Competition Authority
The assessment framework	An examination of the dynamic process of competition, and whether declaration is likely to lead to higher output or better quality products/services. The definition of relevant markets, which are areas of close competition, by identifying the competitive constraints that are likely to have a material effect on a product or service, assisted by use of the hypothetical monopolist test where this can aid the analysis.	It only requires that there would be a 'significant finite possibility' of an enhanced environment for competition and greater opportunities for competitive behaviour arising from declaration. It does not require satisfaction that, if the declaration was to cease there would definitely or even probably be an immediate and material decline in competition levels.	Would the provider have the ability and incentive to deny access to a relevant service or restrict output and charge monopoly prices? And secondly, if the provider has that ability and incentive, would such conduct materially affect competition in a dependent market?	Whether, in a future without declaration, the access provider of the service would have an ability and incentive to exert market power such that it would adversely affect the environment for competition in at least one dependent market. If so, the next issue to consider is whether declaration of the service would improve the environment for competition in the dependent market by constraining the access provider's ability and incentive to exert market power such that opportunities or conditions for competition in the dependent market would be materially better with declaration than they would be without declaration.
The promotion of a material increase in competition	Requires that: • the structure of the market or conduct of firms is changed in a way that can be expected to bring about a material enhancement of the competitive process; and • the volume and/or quality of output in the market is expected to increase.	Requires: • an enhanced environment for competition and greater opportunities for competitive behaviour than there would be otherwise; and • the improvement in competition need merely be more than trivial or marginal.	The promotion of a material increase in competition involves an improvement in the opportunities and environment for competition such that competitive outcomes are materially more likely to occur.	The promotion of a material increase in competition involves an improvement in the opportunities and environment for competition such that competitive outcomes are materially more likely to occur. In so doing, the QCA has considered the extent to which the service provider for the relevant service would, in both a factual and counterfactual scenario, have the ability and incentive to exert market power such that, in the absence of declaration, it could restrict access or unreasonably increase its access price, thereby materially impacting on competition in markets that are dependent on access to the service.

Source: HoustonKemp, DBCT User Group, National Competition Council, Queensland Competition Authority

2.1 Criterion (a) test

In our first criterion (a) report, we stated that criterion (a) is a with and without declaration test, such that the two states of the world to be compared are those:[6]

- with access (or increased access) to the service, on reasonable terms and conditions that will apply, as a result of declaration; and
- with access to the services on terms that would apply if the service was not declared.

In its draft recommendation, the QCA expresses the same fundamental understanding of criterion (a).[7]

2.2 Criterion (a) assessment framework

In its statement of preliminary views on the revocation of the declaration of the shipping channel service at the Port of Newcastle, the NCC set out a two-step assessment framework for criterion (a), ie:[8]

- **Step 1: Assess the effect of declaration on the terms and conditions of access.** This requires an assessment of whether, without declaration, the provider would have the ability and incentive to restrict supply or charge monopoly prices, as compared to with declaration.
- **Step 2: Assess whether this effect on access would materially affect competition in a dependent market.** This requires an assessment of whether changed access as a result of declaration will result in an improvement in the opportunities and environment for competition such that competitive outcomes are materially more likely to occur.

The importance of the two-step framework to the NCC's assessment of criterion (a) is revealed in its findings that:

- the Port of Newcastle may have both the ability and incentive to earn monopoly profits by restricting supply or increasing prices for access to the shipping channel service;[9] but
- despite this ability and incentive, the price for access to the shipping channel service is a very small component of overall costs in the coal supply chain, and the potential increase in access prices would have a minimal effect on access and consequently no material effect on dependent markets.[10]

The QCA's statement of its approach appears to adopt a two-step framework, similar to that of the NCC. The QCA introduces its assessment framework for criterion (a), as applied to the DBCT service, as follows:[11]

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

Our understanding of the QCA's framework is that:

[6] HoustonKemp first criterion (a) report, p 2.

[7] QCA draft recommendation, p 20;

[8] National Competition Council, *Revocation of the declaration of the shipping channel service at the Port of Newcastle – statement of preliminary views*, 19 December 2018, para 6.16 ('NCC statement of preliminary views').

[9] NCC statement of preliminary views, paras 6.26-6.43.

[10] NCC statement of preliminary views, paras 6.93-6.99;

[11] QCA draft recommendation, p C52.

- in the first step, it needs to be *established*, rather than *assumed*, that an ability and incentive to exert market power would adversely affect the environment for competition in at least one dependent market; and
- in the second step, it needs to be *established*, rather than *assumed*, that the effect of declaration in constraining the access provider's ability and incentive to exert market power would render the opportunities or conditions for competition in the dependent market materially better than they would be without declaration.

The significance of establishing rather than assuming these outcomes is reinforced by the NCC, which states that, to satisfy criterion (a), it is not sufficient to show that declaration will simply result in lower prices, giving rise to a redistribution of wealth because:[12]

> While access (or increased access), on reasonable terms and conditions as a result of declaration may change the distribution of gains as between the port and its users, this is not in itself sufficient to satisfy criterion (a).

Put another way, the NCC draws a distinction between an ability and incentive to increase prices and a finding that declaration would increase competition.

2.3 Promotion of a material increase in competition

The approach adopted in our first criterion (a) report was that the promotion of a material increase in competition requires that:[13]

- the structure of the market or conduct of firms be changed in a way that can be expected to bring about a material enhancement of the competitive process; and
- the volume and/or quality of output in the market would be expected to increase.

Our assessment framework was derived in light of careful consideration of the economic literature and the published views of the NCC and the Australian Competition Tribunal.

2.3.1 Structure and conduct

It is common ground that the promotion of a 'material increase' in competition in a dependent market requires an improvement in the structure of the market or conduct within the market.

The NCC expresses this requirement by stating that the promotion of a material increase in competition:[14]

> Requires an improvement in the opportunities and environment for competition such that competitive outcomes are materially more likely to occur.

The QCA endorses this approach. However, the QCA's proposed approach involves subtleties that amount to a variation from the approach we and the NCC have described.

For example, the QCA clarifies its reference to what would be required to improve the opportunities and environment for competition as follows:[15]

> …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

[12] NCC statement of preliminary views, para 6.55.

[13] HoustonKemp first criterion (a) report, p 18.

[14] NCC statement of preliminary views, para 6.51.

[15] QCA draft recommendation, p C80.

> with declaration. If so, it would indicate that access as a result of declaration would promote an increase in competition that is material.

By this statement, the QCA appears to conclude that an improvement in the opportunities and environment for competition may be established by a lowering of barriers that might increase the prospect that more efficient firms would enter the market, whereas otherwise they could be discouraged.

The concept that lowering barriers to entry may promote the environment for competition is unremarkable. However, the unequivocal nature of the QCA's contention – that the 'possibility' of more efficient firms being discouraged from entering a dependent market is sufficient to conclude that 'access as a result of declaration would promote an increase in competition that is material' – is surprising, because:

- the 'possibility' of more efficient firms being discouraged sets a low qualitative hurdle for the establishment of a 'material' increase in competition; and
- the QCA's approach does not invite an empirical assessment of the implied increase in competition in the dependent market – for example, an increase in either output or quality – that would be required to be considered material.

The QCA's statement of its framework also appears to raise the prospect that a material effect on competition in dependent markets may be triggered by an 'unreasonable' increase in the access price in a scenario without declaration. This approach is reflected in the QCA's application of its framework, where it refers to the 'materiality' or otherwise of potential price changes without a clear standard for this assessment.[16]

Criterion (a) does not imply the need for an intermediate assessment of the materiality of price changes as a result of declaration. The relevant test is whether the changes to terms and conditions, as a result of declaration of the service, would promote a material increase in competition in at least one dependent market for the service. It follows that a reasonable basis for assessing a 'material' change in access terms or prices, for the purpose of criterion (a), is to show that this change in terms or would give rise to a material change in competition in at least one dependent market.

This understanding is reflected in the two-step assessment framework that is endorsed by both the QCA and the NCC. The first step involves no materiality threshold in its assessment of the effect of declaration on terms and conditions of access. Rather, the materiality threshold contained in the second step – whether the effect on access from the first step would materially affect competition in a dependent market – is derived directly from criterion (a).

2.3.2 Volume supplied in the market

The QCA does not appear to consider it necessary to expect that volumes and/or quality will increase for competition to be promoted. Rather, the QCA appears to consider it sufficient to show that there is some prospect that a more efficient firm might be discouraged from entering the market. It follows that the QCA would find a promotion in competition in circumstances in which, relative to a counterfactual:

- the same volumes and quality were provided in the market; but
- some of those volumes were provided by firms that were more efficient.

We disagree. In our first criterion (a) report, we cited extensive findings of both the NCC and the Tribunal that unequivocally support the view that a promotion of competition requires that the volume and/or quality of output be expected to increase.[17]

[16] See for example, QCA draft recommendation, pp C82-C97.

[17] HoustonKemp first criterion (a) report, pp 17-18.

The QCA does not directly engage with this material. However, the prospect of increased volume and/or quality outcomes in one or more dependent markets is of considerable importance for understanding the relevance of DBCTM's access framework. For this reason, we reiterate below the key references from the Tribunal and the NCC. We note that while these references do not refer specifically to the coal tenements market, they illustrate the principle that underpins our assessment of criterion (a) in relation to the coal tenements and other dependent markets.

The NCC has explained that higher prices for access to a port would not affect competition in coal production if the total volume of coal produced did not change, ie:[18]

> PNO could therefore price (or aim to price) its services in a way that maintains throughput volumes and maximises profits, for instance by bargaining directly with producers with mines at risk of closure, or their shippers. Consequently, it does not necessarily follow from an ability to increase prices that there will be a reduction in coal production that impacts competition in a market.

In the same matter, the Tribunal also stated that there was no effect on competition in the coal export market if volumes in that market would remain the same, ie:[19,20]

> Either a price rise would have an impact on coal export volumes, in which case the estimates are of questionable value, or it would not, in which case the claim of any competitive impact is seen to be empty.
>
> Consequently, it does not necessary follow from an ability to increase prices that there will be a reduction in coal production that impacts competition in the coal export market because PNO has the commercial motivation to ensure that the Service supports the ongoing coal export market and its expansion.

The NCC has also said that increases in volumes in a dependent market need to be material for competition to be promoted, eg:[21,22]

> The Applicant submits that it will produce additional ethanol from sugar by-products, including all of the molasses it produces and lignocellulosic material. It submits that the higher fibre content of 'energy canes' can be used to increase ethanol production. However, the Council is not satisfied, at least in the short to medium term, that any additional ethanol produced from sugar by-products in the Herbert River **will be sufficient to have a material impact on the national market for ethanol**. The Council considers that access would not promote a material increase in competition in the ethanol market.
>
> The Council is not satisfied that access will promote a material increase in competition in any dependent electricity market. The Federal Court found that the market for electricity was NEM-wide when it considered the acquisition by AGL of an interest in the Loy Yang A power station. In the NEM, electricity is traded through a central pool. **An additional 50-55MW in North Queensland would have virtually no effect in a market based on the NEM**… The Applicant argues that the relevant market for the Council to consider is a North Queensland market. However, even to the extent that it may offset increases in marginal loss factors or demand growth in North Queensland, the Council considers that the Applicant's claimed additional generation capacity will not be sufficient to have any material effect on electricity prices in North Queensland. [emphasis added]

[18] NCC, *Declaration of the shipping channel service at the Port of Newcastle – Final recommendation,* 2 November 2015, p 38, para 4.93.

[19] *Application by Glencore Coal Pty Ltd* [2016] ACompT 6, para 137.

[20] *Application by Glencore Coal Pty Ltd* [2016] ACompT 6, para 155.

[21] NCC, *Herbert River cane railway: Application for declaration of a service under section 44F of the Trade Practices Act 1974 (Cth) – Final recommendation,* 16 July 2010, p 26, paras 5.40-5.41.

[22] NCC, *Herbert River cane railway: Application for declaration of a service under section 44F of the Trade Practices Act 1974 (Cth) – Final recommendation,* 16 July 2010, p 27, paras 5.45-5.48.

The NCC has stated that any effect of a service not being declared would need to lead to such a material impact on demand as to lead to a possible exit or contraction in the number of services offered in the dependent market, for competition to be promoted by declaration.[23]

Finally, the Productivity Commission examined the national access regime in 2013, including whether competition should be said to be promoted in a dependent market for the purpose of criterion (a) when a firm sets a monopoly price for a service. It said that poor terms and conditions for a service can affect competition in dependent markets, but only when they disrupted competition in the dependent market.[24] In other words, criterion (a) would not apply to all situations in which declaration improved the terms and conditions offered for access to a service.

[23] NCC, *Application by Virgin Blue for Declaration of Airside Services at Sydney Airport – Final recommendation,* November 2003, p 99.

[24] Productivity Commission, *National Access Regime*, 25 October 2013, p 173.

3. DBCTM's access framework

An assessment of criterion (a) requires active consideration of the terms and conditions of access without declaration, under the two-step assessment framework that we describe at section 2 above. Acknowledging the importance of this consideration, DBCTM has executed a binding access framework that determines the terms and conditions of access if the DBCT service were not declared.

DBCTM's access framework adopts many of the terms and conditions that would apply under declaration. Its structure provides that the terminal infrastructure charge (TIC) is to be negotiated between DBCTM and the access seeker, with access to arbitration if the parties are unable to reach agreement.

In the event that agreement is not able to be reached, the access framework directs the arbitrator to determine a TIC that:[25]

- would be agreed between a willing but not anxious buyer and a willing but not anxious seller of coal handling services for mines that are proximate to the Port of Hay Point; but
- notwithstanding this direction:
  - is not less than the floor TIC, being that which would have prevailed had a QCA-administered regime continued to be applied; and
  - is not greater than the ceiling TIC, being:
    - the highest price at which coal volumes served at DBCT would be the same as if the floor TIC applied – with this assessment being made without reference to any contractual limitations on volumes that are able to be delivered to either DBCT or any other coal terminal; but
    - no higher than $3.00 per tonne above the floor TIC, expressed in real terms of 2020-21.

The 'willing but not anxious' standard referenced in the pricing principles above is a commonly applied commercial standard for determining prices that reflect market value in Australia. Beyond this, the floor and ceiling ensure that prices cannot reach levels that would affect volumes served at the terminal, as compared to those that would be the case with declaration.

In this section we explain the relevance of the access framework to an assessment of criterion (a). In particular, we explain:

- the provenance of the 'willing but not anxious' standard and some examples of its use in Australia as a commercial standard for market value;
- why the presence of the floor and ceiling parameters ensures that volumes served at DBCT will be the same with and without declaration;
- why the design of the access framework means that declaration could not give rise to an increase in volumes or quality in any dependent market; and
- why an improvement in competition requires an increase in volumes or quality.

We also explain how the access framework would be applied, both at a principled level and in practice. On our assessment, the expected ceiling TIC is unlikely to exceed $7.44 per tonne at any point over the period for which the DBCT service would otherwise be declared. The ceiling TIC may be less than this if:

- the floor TIC remains at or near its current level of $2.60 per tonne, in which case the constraint posed by the maximum spread between the floor and ceiling TIC of $3.00 (in 2020-2021 price terms) will be binding; or

[25] DBCTM access framework, schedule C2(b) and (c).

- coal prices fall short of expectations at the current time, reducing the willingness of coal mines to pay for the DBCT service.

3.1 'Willing but not anxious' standard

In the event that DBCTM and an access seeker are unable to agree on the terms and conditions of access, the access framework provides for the dispute to go to commercial arbitration.

The access framework directs the arbitrator to determine a price that *'would be agreed between a willing but not anxious buyer and a willing but not anxious seller'*. This is the primary guidance supplied to the arbitrator, and is constrained only by the resulting price being bounded below and above by a price floor and a price ceiling. The QCA's consideration of the access framework previously presented by DBCTM as being that which would apply in the absence of declaration appears to disregard the 'willing but not anxious' standard. Rather, the QCA's consideration focusing only on its interpretation that charges would be based on 'willingness to pay' – a point that we discuss in greater detail in section 4.2.2 below.

The 'willing but not anxious' standard is in common use in Australia as a valuation concept in circumstances where an independent means of arriving at a market value is required. For example, the International Valuation Standards Council defines market value as:[26]

> The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.

Similarly, the Australian Tax Office cites typical practice by Australian business valuers to defining market value as:[27]

> the price that would be negotiated in an open and unrestricted market between a knowledgeable, willing but not anxious buyer and a knowledgeable, willing but not anxious seller acting at arm's length.

The origins of the term arise from a decision of the High Court of Australia in 1907, on appeal in respect of the value of land located in North Fremantle that had been compulsorily acquired by the Commonwealth for the construction of a fort.[28]

In the initial hearing, Justice Higgins accepted the view of witnesses for the Commonwealth that, as at January 1905, the greatest value that could be obtained for the land was subdivision for lots into workmen's dwellings. On that basis, he determined the value of the land at 2,250 pounds.

On appeal, Chief Justice Griffiths adopted these findings of fact but found that the value of the land was not concluded by them. He found instead that:

> …the test of value of land is to be determined, not by inquiring what price a man desiring to sell could actually have obtained for it on a given day, i.e., whether there was in fact on that day a willing buyer, but by inquiring "What would a man desiring to buy the land have had to pay for it on that day to a vendor willing to sell it for a fair price but not desirous to sell?"

The 'willing but not anxious' standard is a means of determining market value that is now well accepted by the Australian courts. For example, the New South Wales Court of Appeal has noted:[29]

[26] International Valuation Standards Council website, https://www.ivsc.org/standards/glossary, accessed 3 February 2019.

[27] Australian Tax Office website, https://www.ato.gov.au/general/capital-gains-tax/in-detail/market-valuations/market-valuation-for-tax-purposes/?page=6, accessed 3 February 2019.

[28] *Spencer v. The Commonwealth of Australia* (1907) 5 CLR 418.

[29] *International Petroleum Investment Company v Independent Public Business Corporation of Papua New Guinea* [2015] NSWCA 363 (26 November 2015), para 67.

> …the settled meaning at general law of the concept of, and test for, market value as articulated in Spencer v The Commonwealth [1907] HCA 82; (1907) 5 CLR 418, namely that which a willing and knowledgeable but not anxious purchaser would pay a willing and knowledgeable but not anxious vendor in an arm's length transaction…

The courts also acknowledge the potential hurdles associated with the 'willing but not anxious' standard. For example, the High Court has noted that:[30]

> [T]here may be no readily identifiable market, or the market may be controlled or for some other reason artificial. There may be room for argument as to the nature of the relevant market. It is necessary to make the hypothesis of a sale between a willing but not anxious vendor and a willing but not anxious purchaser. A decision as to what price would be achieved in such a sale involves a factual judgment, and may be made by reference to comparable sales, or a capitalization of profits formula, or, in certain circumstances, by reference to costs of reinstatement or other criteria.

The standard has also been accepted by Australian regulators. The Australian Competition and Consumer Commission (the ACCC), in its recent draft copyright guidelines, seeks to develop a framework that focuses on countering market power held by collecting societies and providing guidance with the objective of reducing the number of cases taken to the Copyright Tribunal.

One of its two preferred approaches is the construction of a hypothetical bargain by applying an economic model to construct an appropriate licence fee level and structure. The ACCC explains that this approach, due to its symmetry, reduces the effect of any market power that may be held by the collecting society:[31]

> The hypothetical bargain approach refers to a hypothetical bargain between a willing but not anxious licensor and a willing but not anxious licensee. This description is symmetrical and implies that neither party has particular power over the other. In this sense it reduces the effect of any market power held by the collecting society. It does so by assuming symmetry in power between the parties.

3.2 No effect on access under DBCTM's access framework

In our criterion (a) report, we found that implementation of DBCTM's access framework would mean that declaration of the DBCT service:

- would not give rise to increases in output from any mine, as compared to the output that would arise if the DBCT service was not declared; and
- would not give rise to changes in the use of any coal terminal or railway facility, as compared to that which would arise if the DBCT service was not declared.

These conclusions rest upon the key terms of the access framework – which ensure that the TIC:

- is not less than the floor TIC, being that which would have prevailed had a QCA-administered regime continued to be applied; and
- is not greater than the highest price at which coal volumes served at DBCT would be the same as if the floor TIC applied – with this assessment being made without reference to any contractual limitations on volumes that are able to be delivered to DBCT or any other coal terminal.

If the TIC is no less than the price that would have prevailed under a QCA-administered regime, it must follow that, without declaration, the volumes served at DBCT cannot exceed the volumes that would be served with declaration. The ceiling prevents the TIC increasing to a level that would result in the volumes served at DBCT falling below the volumes that would be served with declaration.

[30] *Boland v Yates Property Corporation Pty Limited* [1999] HCA 64; 74 ALJR 209; 167 ALR 575 (9 December 1999), para 79.

[31] ACCC, *Draft copyright guidelines*, October 2018, p 23.

In other words, so long as the TIC is constrained to be between the floor and the ceiling, the utilisation of DBCT without declaration will be the same as it would be with declaration.

Furthermore, the particular mines that utilise DBCT will not be affected by declaration. Both with and without declaration, the mines that place the greatest value on coal handling services at DBCT can be expected to use the DBCT service.

If this were not the case, implying that there was a firm not taking the DBCT service that valued it at materially higher levels than a firm that did take the service, there would be a potential trade of capacity between the parties in the secondary market that would benefit them both. We explain in section 6.3 below that there is no significant restriction on the ability of parties with access rights at DBCT to assign these rights to other parties.

It follows from these observations that, under the access framework, there can be no difference in the utilisation of tenements, mines and supply chain infrastructure – including with and without declaration, since all mines would continue to use the same coal terminal.

3.3 No effect on competition under DBCTM's access framework

In light of the considerations set out above, we concluded that declaration of the DBCT service will not result in a material increase in competition in any coal export market.[32] The essential reasoning is that:

- declaration would not change the structure of any coal export market or the conduct of mines, since:
  - prices will still be determined in the same way by the Asia-Pacific or global seaborne coal market; and
  - the volume transported by each miner will not be affected, so there will be no change in the structure of the market, including the likelihood of entry; and
- declaration would not affect the total volume or quality of coal supplied in any coal export market because:
  - no mine would change the quantity of coal that it sends to any terminal as a result of declaration; and
  - neither the quality of coal itself will change as a result of declaration nor will the mix of coal at each terminal due to the resources available at each coal tenement; while
  - the non-price terms and conditions for accessing DBCT will remain substantively the same, and so the level of service provided to coal miners will not change.

Since the volumes supplied in each of the other dependent markets depend on the volumes in the coal export market, those dependent markets also will not change as a result of declaration. There is also no reason for the quality of the services in other dependent markets to be affected by declaration of the DBCT service. As such, there is no reason for either the structure of any derivative market or the conduct of firms in those markets to change. It follows that declaration will also not promote a material increase in competition in those markets.

Specifically, in respect of the market for tenements (which we have also referred to as the market for mining authorities) we noted that:[33]

> …the volumes of coal that is mined and exported will not change as a result of declaration of the DBCT service. Therefore, the number of mining authorities sought will not change.

[32] HoustonKemp first criterion (a) report, p 30.

[33] HoustonKemp first criterion (a) report, p 38.

Tenements are an essential input to mining operations.[34] Since no mine would change the quantity or quality of coal that it sends to any terminal as a result of declaration, it follows that there will be no change in the use of tenements without declaration.

Our assessment is consistent with the NCC's assessment of those dependent markets it took to be 'derivative' of the coal export markets relevant for shipments from the Port of Newcastle[35] – a point originally made by the Tribunal in its decision on Glencore's application for declaration of the shipping channel service at the Port of Newcastle:[36]

> The Tribunal does not consider it necessary to address the impacts asserted in relation to derivative markets. If the impact of increased access on the coal export market is not such as to satisfy the Tribunal that it would promote a material increase in competition in that market, it is difficult to see how there would be the flow-on effects on the derivative markets as noted above. The Tribunal was not taken to material specifically concerning those derivative markets or any of them which would indicate a material increase in competition by increased access independently of the coal export market (and the asserted consequences to competition in that market) if the declaration was made. Senior counsel for Glencore in oral submissions, whilst not abandoning the relevance of the derivative markets, focused largely on the coal export market itself.

The QCA and Castalia have indicated views that suggest a different perspective from that of the NCC and the Tribunal about this relationship, at least in respect of the market for tenements. We address these concerns in detail at section 5.2 below.

3.4 QCA's consideration of DBCTM's access framework

It follows from our observations in the previous section that consideration of DBCTM's access framework is a requirement for the assessment of criterion (a). However, the QCA does not assess DBCTM's access framework in detail, and states that it is not required to do so.[37]

Nevertheless, we explain at section 4.2.2 below that in the assessment of the terms and conditions of access without declaration that the QCA does undertake, it application of the highest prices that could feasibly be set for access *without* the constraints imposed by DBCTM's access framework. This follows from the QCA's summary of the terms of the access framework as giving rise to prices:

> …based on users' willingness to pay.[38]

By contrast, we explain in section 3.2 and section 3.3 above how the pricing principles under the access framework can be expected to operate. The large increase in the TIC cited by the QCA based on the willingness to pay of a mine that can only access WICET in the alternative to DBCT could not occur under DBCTM's access framework because:

- the ceiling TIC is calculated by reference to the lowest willingness to pay amongst miners using the terminal without regard to contractual limitations and capped at $3.00 per tonne above the floor TIC (in 2020-21 terms); and
- the TIC determined by an arbitrator would in any case not be the ceiling TIC, but rather would likely be a lower value determined by reference to the 'willing but not anxious' standard.

Consistent with these observations, there is no reasonable basis on which to conclude that these principles give rise to a TIC 'based on users' willingness to pay'. In section 3.5 below we undertake a calculation of the

---

[34] Section 5.1 below sets out some relevant context for the coal tenements market.

[35] NCC statement of preliminary views, para 6.70.

[36] *Application by Glencore Coal Pty Ltd* [2016] ACompT 6, para 139.

[37] QCA draft recommendation p C69.

[38] QCA draft recommendation, p C70.

ceiling TIC that confirms the QCA's consideration of the TIC that would result without declaration is substantially in error.

3.5 Calculation of the ceiling TIC

We establish estimates of the ceiling TIC over the declaration period using:

- the production forecasts supplied by MMI Advisory and AME; and
- coal prices, mine operating costs and rail and terminal charges supplied by AME.

In the sub-section below we describe the specification of the ceiling TIC set out in DBCTM's access framework and our approach to its estimation.

3.5.1 Specification of the ceiling TIC

The formulation for the ceiling TIC is set out at schedule C2 of DBCTM's access framework. The essential elements of the calculation are that the ceiling TIC is not to exceed the floor TIC by more than $3.00 per tonne (in 2020-21 price terms) and, subject to this:[39]

> …set equal to the lowest 'willingness to pay' (as defined in paragraph (d) below) to be served at the relevant Terminal Component of those mines expected to be served at the Terminal Component, where:
>
> (1) mines are served at the Terminal Component in the order of the their 'willingness to pay' to be served at that Terminal Component, with those with higher 'willingness to pay' served before those with lower 'willingness to pay'; and
>
> (2) the coal volumes to be served at the Terminal Component are the same as if the Floor TIC in respect of that Terminal Component applied and do not exceed the capacity of that Terminal Component to serve those coal volumes.

In this calculation, willingness to pay is assessed as:[40]

> (A) the Floor TIC for the relevant Terminal Component; plus
>
> (B) the expected profit per tonne where the mine's coal volumes are served at the relevant Terminal Component at the Floor TIC for that Terminal Component; less
>
> (C) either:
>
> (i) the highest expected profit per tonne where the mine's coal volumes are served at a coal terminal other than the Terminal that is technically capable of taking delivery of those coal volumes (in that the mine is connected to that terminal by rail), if this expected profit per tonne is greater than zero; or
>
> (ii) zero, if there is either no coal terminal other than the Terminal that is technically capable of taking delivery of the mine's coal volumes or no coal terminal other than the Terminal that provides an expected profit per tonne greater than zero.

However, a mines' willingness to pay for terminal capacity is taken to be zero if the coal volumes of that mine either:[41]

- cannot technically be delivered to that terminal; or
- can be more profitably delivered to any other coal terminal; or

[39] DBCTM access framework, schedule C2(b) and (c).

[40] DBCTM access framework, schedule C2(d)(3).

[41] DBCTM access framework, schedule C2(d)(2).

- do not give rise to a profit of more than zero when delivered to the terminal.

In the assessment of willingness to pay, profits per tonne are to be assessed as:[42]

> (1) the FOB coal price;
>
> less
>
> (2) mine costs, being the sum of operating costs, royalty payments, depreciation and a reasonable return on the capital costs of developing and operating the mine;
>
> (3) rail transport charges for delivering coal to the coal terminal; and
>
> (4) applicable infrastructure and handling charges for using port infrastructure including the coal terminal;

Profits must be assessed on the assumption that miners make terminal usage decisions without reference to any contractual constraints.

3.5.2 Estimates of the ceiling TIC

We calculate the ceiling TIC using:

- production volumes estimated by MMI Advisory, consistent with those used by the QCA to assess total foreseeable demand in the market in its assessment of criterion (a);[43] and
- coal prices, mine costs, rail transport charges and coal terminal charges as set out in appendix A3 of our first criterion (b) report.[44]

MMI Advisory provides production forecasts only for coal mines that it assesses as being in the relevant market in which the DBCT service is provided. This is likely to be sufficient for a robust calculation of the ceiling TIC because it includes almost all mines that are likely to prefer DBCT to other terminals, noting that:

- MMI Advisory does not accept the result of our calculation that shows that Kestrel would have lower costs to access DBCT than RG Tanna Coal Terminal (RGTCT); and
- BMA and BMC mines have the alternative option of using Hay Point Coal Terminal (HPCT) and we do not included them in the assessment of the ceiling price at DBCT.

In contrast to the QCA, we do not seek to truncate MMI Advisory's forecasts of production to remain constant from 2026. The calculation of the ceiling TIC requires the production, prices and costs for individual mines, whereas the QCA's basis for forecasting total foreseeable demand, by capping total mine production, is unable to inform these inputs beyond 2026. Our use of unadjusted MMI Advisory 'high case' forecasts means that we assume higher total foreseeable demand than the QCA, giving rise to potentially higher ceiling TICs (prior to application of the constraint that the ceiling TIC cannot exceed the floor TIC by more than $3.00).

Table 3.1 below sets out a calculation of the willingness of these mines to pay for DBCT's TIC in 2021.[45] In the table, consistent with schedule C2 of DBCTM's access framework:

- mines with no alternative but to use DBCT have a relatively high willingness to pay for the terminal, since otherwise they have no means of sending coal to market; whereas

[42] DBCTM access framework, schedule C2(e).

[43] MMI Advisory, *Reconciliation of DBCT demand forecasts submitted by stakeholders*, December 2018.

[44] HoustonKemp first criterion (a) report, pp 71-102.

[45] MMI estimates production for Moorvale of 1.5mt in 2021. However, we do not have information about the costs attributable to Moorvale in 2021, since AME does not forecast production for that time.

- mines that have the option of using other terminals have relatively low willingness to pay, reflecting their alternative options.

Table 3.1: Calculation of willingness to pay for DBCT, 2021

Mine	Production (mt)	Average price ($/t)	Operating cost ($/t)	Transport and terminal charges ($/t)			Profit ($/t)			Willingness to pay for DBCT ($/t)
				DBCT	AAPT	RGTCT	DBCT	AAPT	RGTCT	
Ironbark No. 1	2.10	147.81	84.83	13.81			49.17			51.77
Hail Creek	10.00	139.65	95.18	15.96			28.51			31.11
Hillalong	3.60	119.57	76.82	15.96			26.79			29.39
Middlemount	3.80	136.06	88.60	19.61	40.60		27.85	6.86		23.59
Isaac Plains	1.20	128.04	87.74	15.10		24.26	25.20		16.04	11.76
Coppabella	4.00	155.14	131.35	14.90			8.89			11.49
Grosvenor	5.00	174.22	104.26	16.23		24.74	53.73		45.22	11.11
Moranbah North	5.80	174.13	89.07	16.64		24.74	68.42		60.32	10.70
North Goonyella	2.00	197.34	128.43	18.45		25.18	50.46		43.73	9.33
Olive Downs North	1.00	165.11	75.74	15.49	21.35		73.88	68.02		8.46
Eagle Downs	3.50	177.70	125.53	16.03	21.89	22.91	36.14	30.28	29.26	8.46
Lake Vermont	9.30	167.32	88.66	17.38	23.23	22.13	61.28	55.43	56.53	7.35
Clermont	13.00	108.79	46.79	18.22	22.68	26.52	43.78	39.32	35.48	7.06
Blair Athol	2.00	98.69	73.13	18.23	22.68	26.53	7.33	2.88	-0.97	7.05
Capcoal	7.93	162.66	85.90	18.07	23.92	20.94	58.69	52.84	55.82	5.47
Foxleigh	3.30	155.60	96.63	18.56	23.92	20.94	40.41	35.05	38.03	4.98
Oaky Creek	5.11	181.64	100.64	18.48	24.33	20.52	62.52	56.67	60.48	4.64

Source: MMI Advisory, AME

The ceiling TIC is the lowest willingness to pay to be served, given the current capacity of the terminal. In 2021 this is the willingness to pay of Oaky Creek, at $4.64 per tonne. This estimate is based on our AME data indicating that Oaky Creek can earn gross profits of:

- $62.52 per tonne exported through DBCT, at a TIC of $2.60 per tonne; and
- $60.48 per tonne exported through RGTCT, its cheapest alternative coal terminal.

It follows that Oaky Creek's maximum willingness to pay for the DBCT service is $4.64 per tonne, being $2.60 per tonne plus the additional $2.04 per tonne it would incur to export through RGTCT.

We assume terminal capacity for throughput of 75.78 mtpa, consistent with capacity for contracts of 84.2 mpta.[46]

For the purpose of the calculation, we assume a floor TIC of $2.60 per tonne. However, except in relation to the constraint imposed by the maximum spread, the calculation of the ceiling TIC is not affected by the floor TIC assumption because:

- for mines that have no alternative to DBCT, a higher floor TIC gives rise to a commensurately lower profit and therefore lower willingness to pay; and

[46] HoustonKemp first criterion (a) report, p 37.

- for mines that do have alternatives to DBCT, a higher floor TIC at DBCT, with no change to charges at other terminals, gives rise to a commensurately lower willingness to pay.

If DBCT were to be expanded, then the ceiling TIC for the expanded terminal (if it were socialised) would be evaluated at the higher capacity and would likely be lower than our estimate above.

Table 3.2 below sets out estimates of the ceiling TIC, calculated using the process described above, for each year in the declaration period, with estimates based on MMI Advisory production forecasts placed alongside those based on AME production forecasts. The table shows that the ceiling TIC has some sensitivity to production forecasts, being lower under the more pessimistic forecasts prepared by MMI Advisory prior to 2028. Notwithstanding this, the estimates of the ceiling TIC fall within a similar range, being from:

- $4.64 per tonne in 2021 to $7.42 in 2029, based on MMI Advisory forecasts; and
- $5.47 per tonne to 2021 to $7.44 per tonne in 2027, based on AME forecasts.

Table 3.2: Estimates of ceiling TIC for DBCT

Year	Ceiling TIC using MMI production forecasts ($/t)	Ceiling TIC using AME production forecasts ($/t)
2021	4.64	5.47
2022	4.64	5.47
2023	4.64	7.05
2024	4.64	7.35
2025	4.64	7.35
2026	5.47	7.35
2027	5.47	7.44
2028	7.35	7.44
2029	7.42	7.42
2030	7.41	7.41

Source: MMI Advisory, AME

All of the estimates of the ceiling TIC set out above are subject to the additional constraint that they cannot exceed the floor TIC by more than $3.00 per tonne. It follows that a ceiling TIC of $7.44 per tonne could only apply in a context in which the floor TIC was at least $4.44 per tonne.

We also examine the sensitivity of the ceiling TIC to forecasts of coal prices. Table 3.3 shows how the ceiling TIC, calculated on the basis of MMI Advisory production forecasts, is affected by different coal pricing scenarios. The table suggests that the ceiling TIC may fall to the level of the floor TIC under low coal price assumptions.

Table 3.3: Sensitivity of the ceiling TIC for DBCT to changes in coal prices

Year	Coal prices lower by 20%	Coal prices lower by 10%	Base case	Coal prices higher by 10%	Coal prices higher by 20%
2021	2.60	2.60	4.64	4.98	4.98
2022	2.60	2.60	4.64	4.64	4.64
2023	2.60	4.22	4.64	4.64	4.64
2024	2.60	3.94	4.64	4.64	4.64
2025	2.60	4.64	4.64	4.64	4.64
2026	2.60	5.47	5.47	5.47	5.47
2027	2.60	5.47	5.47	5.47	5.47
2028	3.96	7.35	7.35	7.35	7.35
2029	4.64	7.42	7.42	7.42	7.42
2030	4.64	7.41	7.41	7.41	7.41

Source: MMI Advisory, AME

4. Effect of declaration on access

The first step in applying the analytical framework laid out in section 2 to determine whether DBCT satisfies the criterion (a) test is to assess the effect of declaration on the terms and conditions of access to the DBCT service. To do this, we use the only reasonable counterfactual without declaration – a world where DBCT is bound by its executed access framework – and perform the analysis by reference to the ability and incentive of DBCTM to exert market power given this constraint.

The effect of declaration on access is expected to vary depending upon whether access to coal handling services is provided:

- under existing DBCT standard user agreements, which apply to the entire current capacity of the terminal; or
- under new DBCT user agreements, which would apply to expanded capacity at the terminal.

The QCA has highlighted the importance of the constraints that the DBCT standard user agreements impose on the ability of DBCTM to alter materially the terms and conditions of access.[47] We agree that the presence of any such constraints would be an important feature of the market structure, both with and without declaration, and can be expected to affect the conduct of market participants. This view is also expressed by the DBCT User Group.[48]

Consistent with this position, the QCA frames its assessment of the effect of declaration on access by reference to that provided under existing DBCT standard user agreements and under new DBCT user agreements. In this section, we adopt a similar framework.

Table 4.1 below organises this assessment, and closely follows the format and content of Table 11 in the QCA's draft recommendation. This highlights the key areas in which our assessment differs from that of the QCA. The remainder of this section sets out the basis for our assessment.

In this section we do not take the second step in the analytical framework by drawing any conclusion as to whether the effect of declaration on access at DBCT would be likely to promote a material increase in competition in any dependent market. Rather, we undertake that assessment, in respect of the market for tenements, in section 6 below.

[47] QCA draft recommendation, pp C66-C68.

[48] Dalrymple Bay Coal Terminal User Group, *Declaration review regarding Dalrymple Bay Coal Terminal*, 16 July 2018, pp 71-72.

Table 4.1: Access terms between incumbents and potential entrants with and without declaration

	Existing user agreements	Potential user agreements	Outcome
Future with declaration	Access terms as per existing user agreements, including access charge as approved by the QCA under an approved access undertaking. Presently, a TIC of approximately $2.60 per tonne, representing one to two per cent of forecast metallurgical coal prices.	Access terms governed by the QCA Act; access terms and charges approved by the QCA under an approved access undertaking. An expected TIC of approximately $2.67 per tonne if expansion is socialised and, at most, $6.00 per tonne if expansion is differentiated – representing one to four per cent of metallurgical coal prices.[49]	With declaration, the price for access under potential user agreements is likely to be higher than under existing user agreements.
Future without declaration	Access terms as per existing user agreements, with access charges expected to be similar to those that the QCA would determine. Presently, as TIC of approximately $2.60 per tonne.	Access terms determined under DBCTM's access framework, which applies the same terms as those approved by the QCA at prices that would be agreed between a willing but not anxious buyer and a willing but not anxious seller. A TIC not to be less than a QCA determined charge and not greater than a ceiling that is expected no more than $7.44 per tonne (or $3.00 per tonne above the floor TIC if this is lower) and may be less in periods of low demand and/or low prices.	Without declaration, the price for access under potential user agreements is likely to be higher than under existing user agreements.
Outcome	Under existing user agreements, the price for access is likely to be the same, or similar, with and without declaration.	Under potential user agreements, prices for access may be higher without declaration than with declaration. The extent of this difference depends upon the price that would be agreed between a willing but not anxious buyer and a willing but not anxious seller, as determined under binding arbitration.	

One important difference in inputs between our assessment and that of the QCA is the assumed level of utilisation of the terminal. The QCA assumes that existing user agreements account for 77 mtpa of terminal capacity. However, from July 2021 DBCT will be contracted to its full capacity of 84.2 mtpa, as noted in DBCTM's submission to the QCA in December 2018,[50] and we adopt this parameter as the starting point for our analysis.

[49] QCA draft recommendation, pp C85-C86.

[50] DBCTM, *DBCT declaration review – update on contract profile*, p 1.

4.1 Declaration will not affect access for existing user agreements

Declaration is not likely to affect access provided under existing user agreements.

Existing user agreements with terms of more than 10 years are evergreen, meaning that users have the option to extend the terms by five years or more any time up to 12 months prior to the term of the agreement. Users may continue to extend this term in perpetuity.[51]

Under existing user agreements, the TIC is revisited at the date of commencement of each DBCT access undertaking or otherwise each five years. If there is no agreement as to the revised TIC at this date, the matter must go to arbitration. The arbitrator must have regard to the following matters:[52]

(i) an appropriate asset valuation of the Terminal and the relevant Terminal Component;

(ii) an appropriate rate of return for DBCT Management;

(iii) the terms of this Agreement;

(iv) the expected future tonnages of Coal anticipated to be Handled through the Terminal and the relevant Terminal Component;

(v) any other matter agreed to by the User and DBCT Management and notified by them in writing to the arbitrator;

(vi) any other matter which is submitted by either the User or DBCT Management and accepted by the arbitrator as being relevant; and

(vii) the then current approach of the QCA in respect of appropriate charges for services comparable to the Services (with the intent that arbitration should produce an outcome similar to that which might have been expected had the QCA determined it).

On this information, the QCA concludes that existing user agreements provide an effective constraint on DBCTM's exercise of market power, up to the volumes specified in those agreements. The QCA also observes that existing users have an incentive to continue to access DBCT up to the volumes in their agreement rather than switch to another terminal.[53]

DBCT will be contracted to its full capacity of 84.2 mtpa from July 2021.[54] Given excess demand for the DBCT service at the current time, it is reasonable to assume that these agreements will be renewed over the declaration period.

It follows that declaration cannot be expected to affect access for volumes served by DBCT's existing capacity. The QCA estimates total foreseeable demand in the market for the DBCT service to be 93 mtpa, which is reached in 2021. Of this, only 8.8 mtpa (or 9.5 per cent) of demand in the market could possibly be supplied under new user agreements, and only if DBCT was expanded to meet this demand – as opposed to it being satisfied by available or expanded capacity at other terminals.

4.2 Declaration may affect access for new user agreements

Declaration may affect access provided under new user agreements because DBCTM and users may agree, or an arbitrator may impose, prices that exceed those that the QCA would have otherwise determined had the DBCT service been declared, ie;

[51] 2016 Access Undertaking DBCT Standard User Agreement, clause 20.

[52] 2016 Access Undertaking DBCT Standard User Agreement, clause 7.2(e).

[53] QCA draft recommendation, p C66.

[54] DBCTM, *DBCT declaration review – update on contract profile*, p 1.

- with declaration, the QCA estimates that access would be at a TIC of between $2.67 per tonne and $6.00 per tonne, depending upon whether expansions of DBCT were socialised or differentiated; whereas
- without declaration, we estimate that under the access frameworks, the TIC would not be expected to exceed $7.44 per tonne, could not exceed the floor TIC by more than $3.00 per tonne in any case, and would be less than this to the extent that a lower price reflects the price that would be agreed between a willing but not anxious seller and a willing but not anxious buyer.

4.2.1 Access for new user agreements with declaration

With declaration, access under the terms of new user agreements would require DBCT to be expanded. It is not clear whether DBCT would be expanded in this scenario.

If DBCT were to expand to provide access to additional coal volumes served under new user agreements, the terms and conditions for access would be determined by the QCA under the QCA Act.

The QCA states that, given estimates of the capital costs for expansion projects provided in our report, the expansions would likely be socialised with a new TIC in 2018-19 of $2.67 per tonne, up from $2.60 per tonne without expansions. This would result in a total coal handling charge of $5.20 per tonne.[55]

By contrast, the QCA notes that, if these expansions were instead prices on a differentiated basis, the TIC for the expanded capacity would, at most, be $6.00 per tonne, implying a total coal handling charge of at most $8.50 per tonne. On the QCA's assessment, a coal handling charge of this magnitude:[56]

> …would be about 3 to 5 per cent of the forecast metallurgical coal price, all other things remaining unchanged. Considering the possibility that this estimate would be an overestimate, a coal handling charge of this order would not appear to be materially different from the 2 to 3 per cent for existing users.

There appears to be a discrepancy in the QCA's estimates of charges under a socialised expansion as against a differentiated expansion. Our understanding is that these approaches reflect different means of recovering the same quantum of costs. It follows that the annual revenue of the terminal should be the same with socialisation and with differentiation. However, this is not the case with the QCA's estimated charges, since:

- under socialisation, total revenue for the terminal is $248.3 million, reflecting a TIC of $2.67 per tonne applied over 93 mt; whereas
- under differentiation, total revenue for the terminal is $271.7 million, reflecting a TIC of $2.60 per tonne applied over 84.2 mt and a TIC of $6.00 per tonne applied over 8.8 mt.

It is apparent that the average TIC with a differentiated expansion is $2.92 per tonne, which is $0.25 per tonne higher than the QCA's estimated charge under socialisation. This suggests that the QCA has either underestimated the socialised charge or overestimated the differentiated charge.

4.2.2 Access for new user agreements without declaration

Without declaration, access under the terms of new user agreements would require DBCT to be expanded.

If DBCT were to expand to provide access to volume under new user agreements, the terms and conditions for access would be determined under DBCTM's access framework. The essential features of this framework are:

- five year pricing periods with a review of the TIC able to be triggered at the discretion of either party with effect from the start of each period;

[55] QCA draft recommendation, p C137.

[56] QCA draft recommendation, p C86.

- for the TIC to be adjusted during a pricing period if a review event occurs, such as changes to tonnage at the terminal or in the event of a socialised expansion;
- all review event adjustments subject to a floor and ceiling, with the TIC not to fall below the floor or above the ceiling;
- arrangements for the TIC to be increased at the start of each financial year by the change in the consumer price index over the previous year; and
- in the event of a dispute as to price, an arbitrator must determine a TIC that reflects the price that would be agreed between a willing but not anxious buyer and a willing but not anxious seller, while also at a level that is not less than the floor TIC and not greater than the ceiling TIC.

Importantly, apart from the pricing conditions we summarise above, the terms and conditions of access would be substantively the same with and without declaration.

The QCA does not seek to assess DBCTM's access framework in detail and states that it was not required to do so.[57] In practice, the QCA seems not to have had close regard to the basis on which pricing would be determined, and access would be facilitated, under the access framework.

For example, the QCA states that the access framework would:[58]

> …provide access to terminal capacity based on users' willingness to pay…

On the QCA's assessment, the willingness to pay for the DBCT service would likely reflect the charges associated with accessing an alternative terminal. In its view, the only available alternative to DBCT for mines located in the Goonyella system is WICET. However, the total terminal and rail charges associated with sending coal to WICET would be materially greater than the charges involved with sending coal to DBCT. The QCA estimates these as $26 per tonne as compared to $11 per tonne.[59]

This assessment amounts to a *worst case* assessment of the alternative for miners, under a scenario where the DBCTM *does not commit* to any access framework. By adopting this stance, the QCA's assessment appears to assume that the terms and conditions of DBCTM's access framework would have no effect on DBCTM's ability to set prices without declaration.

The assessment is also a *worst case* because it assumes there is no available capacity at either AAPT or RGTCT over the entire declaration period. The QCA adopts this assumption despite evidence that both terminals continue to negotiate new contracts with miners located in the Goonyella systems.

The QCA's assessment effectively assumes that:

- DBCTM *does not commit* to an access framework;
- WICET is the only option that is available to Goonyella miners with or without the access framework; and
- therefore, the charges associated with sending Goonyella coal to WICET are the only form of constraint on the level of charges that DBCTM can obtain from new users.

The terms of DBCTM's access framework impose substantially greater constraints on DBCTM's ability to increase prices than those assessed by the QCA. Further, WICET is likely to represent one of several alternative non-DBCT coal terminals available to Goonyella mines.

A reasonable assessment of the effect of DBCTM's access framework on access for miners would need to consider that the framework:

[57] QCA draft recommendation, p C69.

[58] QCA draft recommendation, p C70.

[59] QCA draft recommendation, pp C70-C71.

- gives rise to a TIC that reflects the price that would be agreed between a willing but not anxious buyer and a willing but not anxious seller; and
- specifies the ceiling price to be determined as if there were no contractual limitations on volumes able to be delivered to DBCT or any other coal terminal.

Charges determined on these terms and conditions would not be based on willingness to pay. Furthermore, they would be determined without regard to any contractual constraints on the ability of AAPT or RGTCT to serve mines located in the Goonyella system.

Our assessment, set out in section 3.5 above, is that the applicable ceiling TIC, being the outer-most constraint on the TIC under DBCTM's access framework, would be at most $7.44 per tonne (or $3.00 per tonne above the floor TIC if this is lower). These estimates are based on the data disclosed in our first criterion (b) report, taking into account the estimates of demand prepared for the QCA by MMI Advisory.

4.3 Materiality of price changes depends on their effect on competition

In table 11 of its draft recommendation, the QCA summarises the effect of potential price changes for existing user agreements and new user agreements, with and without declaration, in terms of their 'materiality' on the terms and conditions of access. For example, the QCA concludes that:[60]

- total coal handling charges of at most $8.50 per tonne for new user agreements, with declaration, were not materially different from those for existing user agreements; whereas
- total coal handling charges of at least $20 per tonne for new user agreements, without declaration, would give rise to material cost and risk disadvantages for potential entrants.

The QCA summarised its analysis as follows:[61]

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

The basis upon which the QCA made its assessment that coal handling charges of at most $8.50 per tonne would not be material, whereas coal handling charges of at least $20 per tonne would not, is unclear from its analysis.

We note in section 2.2 above that criterion (a) contains only one materiality standard – in relation to the effect of access (or improved access) on the promotion of competition in a dependent market. It follows that the only reasonable basis for assessing a 'material' change in access terms or prices, for the purpose of criterion (a), is to show that this change in terms would give rise to a material change in competition in at least one dependent market.

[60] QCA draft recommendation, p C86.

[61] QCA draft recommendation, p C86.

5. Market for coal tenements

In order to determine whether the effect of declaration on access would materially affect competition in at least one dependent market – the second step of the analytical framework for assessing criterion (a) – it is important to establish the facts of a given potential dependent market as they pertain to the effect of declaration on access to DBCT.

The QCA's draft recommendation, and reports by Castalia, identify a market for tenements as a potential dependent market in which increased access due to the declaration of DBCT is expected to promote a material increase in competition. These conclusions differ from those drawn in our first criterion (a) report, and in our second report, that the market for tenements would not be affected by declaration of the DBCT service. Consequently, in the remainder of this report, we narrow our focus of competition in dependent markets to that for the market for tenements.

In this section, we set out some contextual information about tenements and our assessment of the scope of the market for tenements.

5.1 Context for the tenements market

The *Mineral Resources Act 1989* (Qld) defines a coal exploration tenement as:[62]

> …an exploration permit or mineral development licence granted for coal.

New coal exploration permits are only available through a successful tender submitted in the context of a competitive process managed by the Queensland government. Tender applications are typically assessed on financial and technical capabilities as well as community engagement measures.[63] At present, there is an open tender process under way for five coal exploration tenements in Queensland. Another tender process is due to open later in 2019.[64]

Existing exploration permits may be transferred to a third party, subject to ministerial consent. Existing permits may also be obtained by merger or acquisition.

In each of these scenarios, each prospective buyer of a tenement can be expected to assess its willingness to pay (WTP) by reference to the principal variables we set out below, expressed in present value terms, ie:

$WTP = E[profit\ from\ investment\ ]$, ie, the expectation of the present value of profits

$$WTP = E[revenue - costs]$$

$$WTP = E[f(coal\ price, quantity, quality, etc) - f(mining\ costs, logistics\ costs, cost\ of\ capital, etc\ )]$$

It follows that willingness to pay for a coal tenement increases with its expected revenue (eg, higher coal price) and falls with expected costs, eg, expected logistics costs. However, it is important not to conflate changes in willingness to pay with the degree of competition between or the competitive environment as it affects prospective buyers of a tenement (or the likely supply of new tenements).

Prospective buyers of coal tenements weigh up a range of factors including their:

---

[62] *Mineral Resources Act 1989*, section 318AE(1).

[63] See https://www.business.qld.gov.au/industries/mining-energy-water/resources/geoscience-information/exploration-incentives/competitive-tendering accessed 5 February 2019.

[64] See https://www.business.qld.gov.au/industries/mining-energy-water/resources/geoscience-information/exploration-incentives/exploration-program, accessed 5 February 2019.

- assessment of the (intrinsically uncertain) extent and quality of the potential coal resource;
- perceived ability to extract that resource efficiently;
- expectations as to future export coal market prices;
- prospects of access to the infrastructure necessary to export their product; and
- total supply chain costs, including the cost of capital associated with exploration and development of a mine.

An important property of the competitive tender process is that the willingness to pay of any one bidder is likely to differ materially from its rivals, according to the numerous factors that make up the total strength of its tender.

5.2 Scope of the market for tenements

In this section, we explain that the application of a conventional approach to market definition gives rise to a market that extends substantially beyond the geographic confines of the Goonyella system – and likely extends to Central Queensland or beyond. The establishment of the bounds of the relevant dependent market is a necessary first step to an assessment of whether declaration of the DBCT service could be expected to promote a material increase in competition in that market.

The dimensions of a market are commonly assessed by reference to product, geography, function and time. However, for a tenements market, the most consequential dimension is likely to be its geographic extent. Although there appear to be some differences between our assessment and the QCA's conclusion in relation to the product and functional dimensions of this market, little turns on these differences.[65]

The geographic scope of the market for tenements is important because, if this market was to extend beyond the Hay Point catchment, there is little reason to expect that a change in the terms of access at DBCT could have a material effect on competition in a dependent market for any form of tenements.

In our second criterion (a) report, we concluded that the geographic scope of the market for tenements is likely to extend beyond the Hay Point catchment, to Central Queensland or potentially beyond.[66] The rationale underpinning this conclusion, consistent with the Tribunal's reasoning in *Fortescue Metals,*[67] is that:

- a monopoly seller of tenements in the Hay Point catchment could not profitably apply a price increase because buyers would substitute to other tenements; and
- a monopsony buyer of tenements in the Hay Point catchment could not profitably impose a price reduction because sellers would easily find a purchaser from outside this geographic area.

It follows that a SSNIP test, applied to a candidate market for tenements restricted to the Hay Point catchment, would be defeated by the availability of coal tenements from other locations. Or if a SSNIP was applied as a price reduction by a hypothetical monopsonist buyer of coal tenements in the Hay Point catchment, it too would be defeated by buyers of coal tenements emerging from outside the catchment.

[65] We agree with the QCA that the relevant market will be for coal tenements, but do not consider that there is merit in further narrowing the market definition to tenements with predominantly metallurgical coal, since buyers of tenements appear to be able to substitute between the two.

Further, although the QCA appears to identify separate markets for exploration and development tenements, as compared to production tenements, we did not address whether separate markets exist for these functions and do not consider it necessary to do so.

[66] HoustonKemp second criterion (a) report, p 9.

[67] *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, 30 June 2010, p 258, paras 1118-1119. This decision relates to iron ore, a similar commodity resource.

The QCA contends that different infrastructure costs between the Goonyella coal supply chain and other coal supply chains would give rise to a narrow geographic market for coal tenements because:[68]

> …the value 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 Queensland.

The QCA's conclusion does not follow from its analysis. Put another way:

- although we agree that different prices for infrastructure access in the Hay Point catchment may mean that tenements in this region are valued at different levels from those in other regions;
- we disagree that this provides any information that is relevant to an assessment of the geographic scope of the market for tenements.

The fundamental value of tenements follows from the expectation that they will eventually operate as profitable mines. It follows that if the costs of operating those mines increase, the potential value of a tenement will fall. Any such change will have a one-off effect on holders of existing tenements and the Queensland government, who holds the right to sell new tenements.

However, there is no reason to expect that such a change would give rise to any change in the structure of the market of the conduct of its participants.

The step where the QCA's analysis falls into error is its contention that differences in tenement prices between regions imply a lack of substitutability. This is not correct. The price of a tenement says nothing about its substitutability with tenements in other areas. Other things being equal, a buyer of coal tenements will prefer to buy a tenement that provides it the *greatest return*. This is not the same as the tenement with the *lowest price*.

By way of example, a tenement in the Gladstone catchment might cost twice as much as an identical tenement in the Hay Point catchment yet provide exactly the same expected return to a buyer given differences in infrastructure costs. From the buyers' perspective, these tenements would be closely substitutable. It follows that, even if infrastructure costs in the Hay Point catchment were substantially different from those in other regions, this does not affect the substitutability of tenements from the perspective of buyers. Rather, it simply alters the price of those tenements (to the extent that port charges are relevant in the context of coal prices and mine costs).

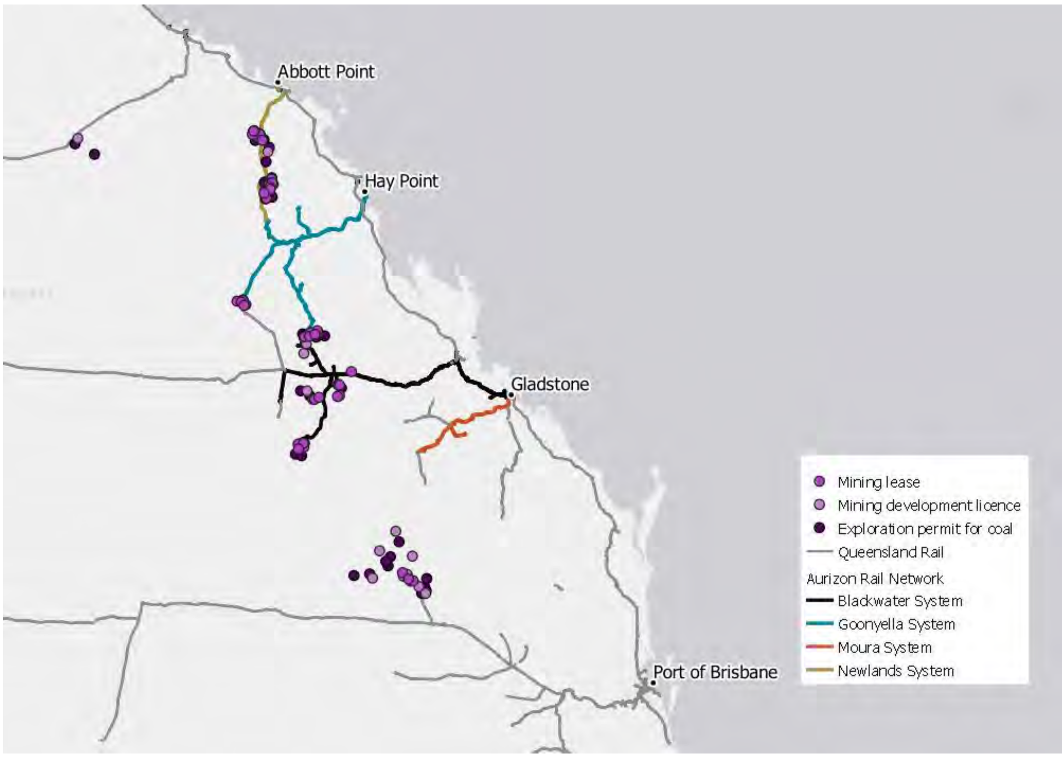
Similarly, there are many reasons to expect the price of two tenements from within the same geographic region not to be the same. Any two tenements may differ according to the ease with which coal may be extracted, the quality of the coal resource, or the distance to the nearest port terminal(s). The fact and inevitability of such price differences provides no information as to their degree of substitutability, from the perspective of potential buyers.

Rather, the critical consideration for the degree of substitutability between tenements in one geographic region and another is the ability of buyers to re-deploy capital and relevant expertise from one region to another, so as to bring about this equalisation of expected returns. In other words, is it reasonable to expect that buyers of tenements in one region can redirect a sufficient proportion of their financial and technical resources to another region in the face of a SSNIP by a hypothetical monopolist supplier of tenements?

The answer to this question can be informed by the geographic spread of tenements held by miners in Queensland. We have prepared this information both for miners who hold access rights at DBCT and for those who do not, and present this in the figures below.

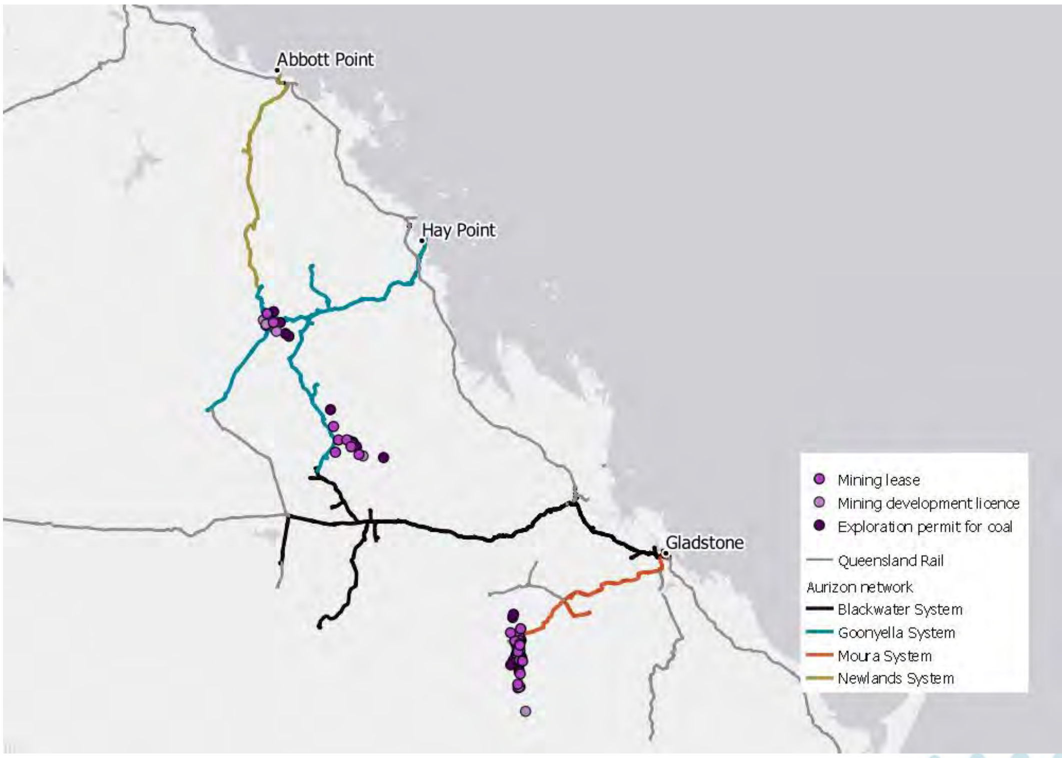
[68] QCA draft recommendation, p 57.

Figure 5.1: Coal tenements in Queensland held by Glencore



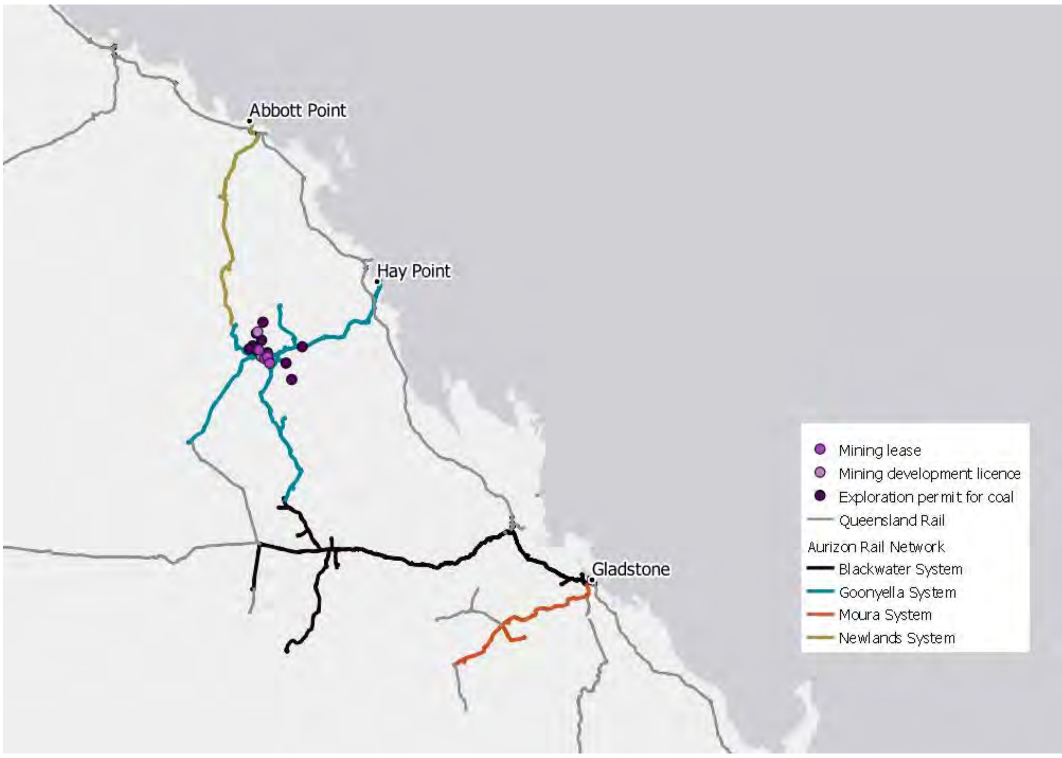
Source: Queensland government

Figure 5.2: Coal tenements in Queensland held by Anglo American



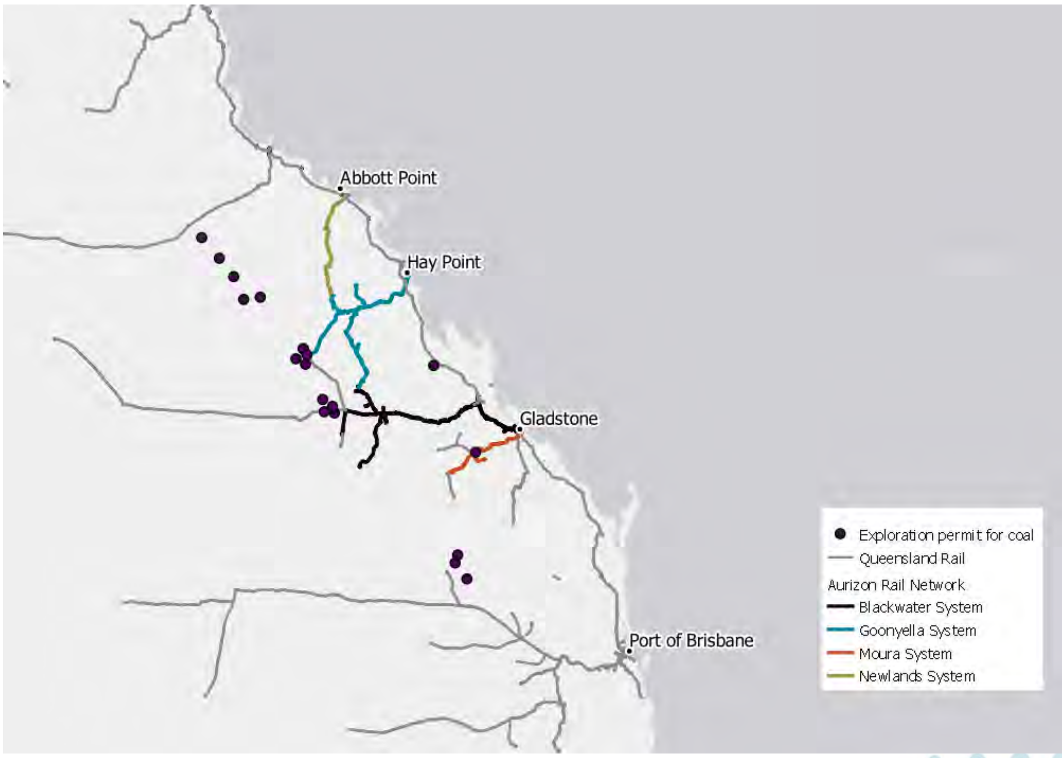
Source: Queensland government

Figure 5.3: Coal tenements in Queensland held by Fitzroy Resources



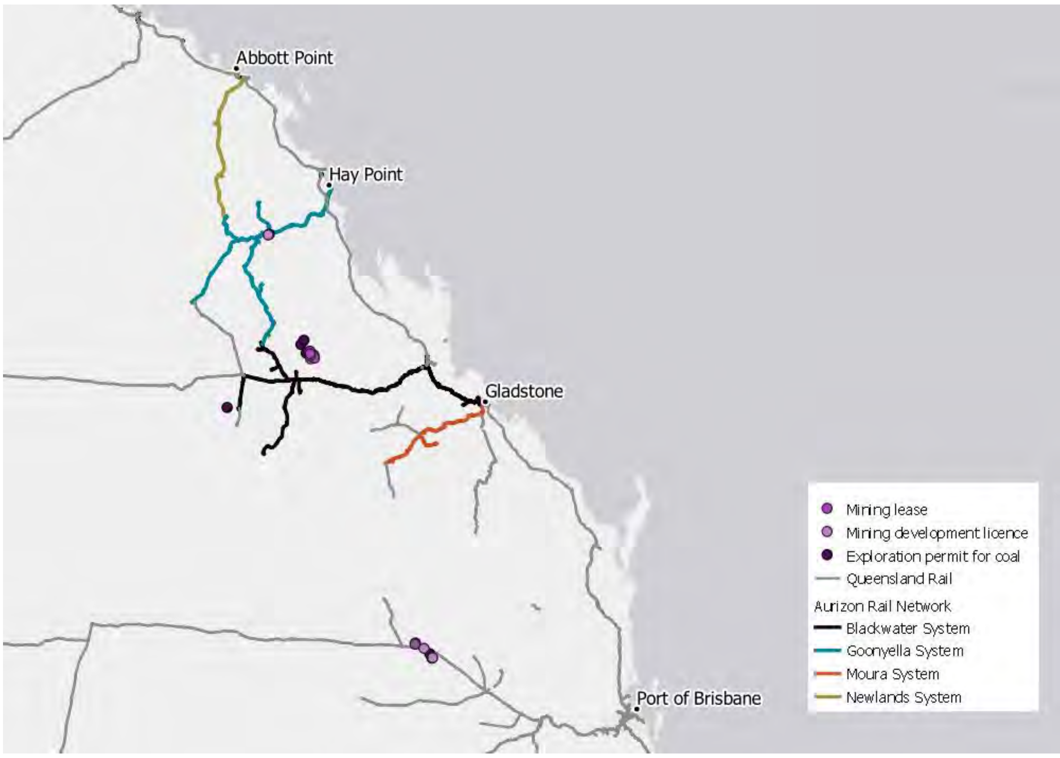
Source: Queensland government

Figure 5.4: Coal tenements in Queensland held by Cuesta Coal



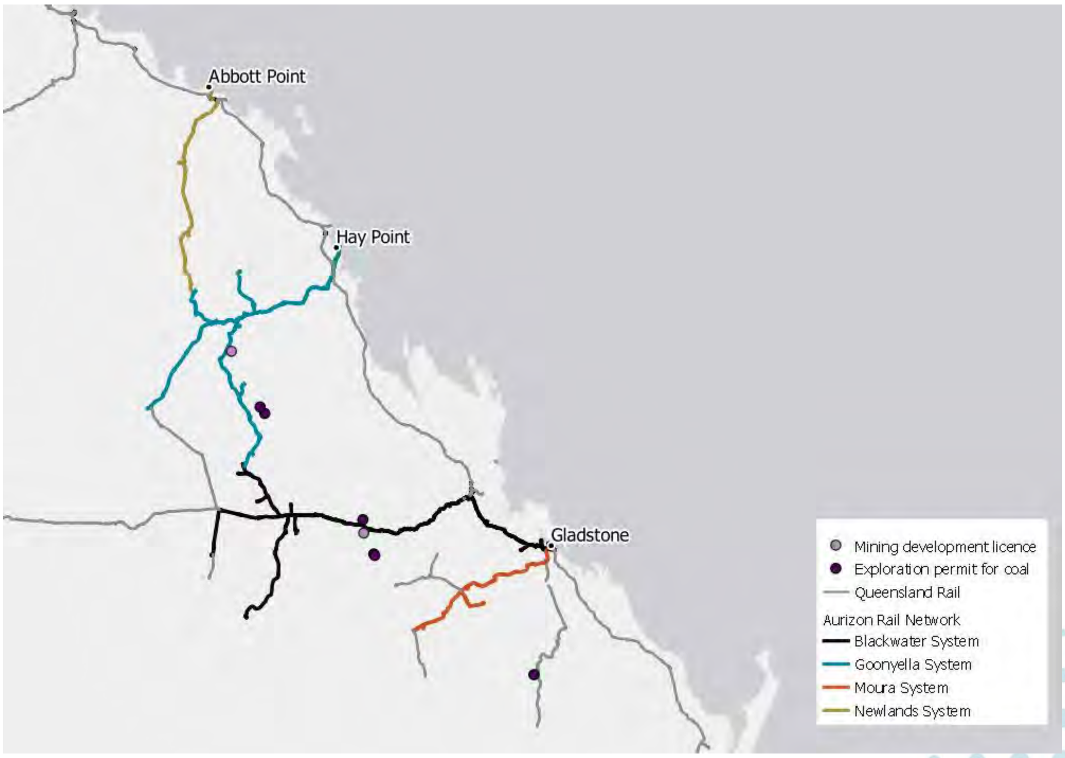
Source: Queensland government

Figure 5.5: Coal tenements in Queensland held by Yancoal



Source: Queensland government

Figure 5.6: Coal tenements in Queensland held by Whitehaven



Source: Queensland government

The pattern disclosed by this information is not consistent with a contention that tenement markets are delineated by port catchment areas, such as the Hay Point catchment (or the Goonyella system).

If this were the case, such that there were strong substitution possibilities within these areas but not outside them, the evidence would be much more likely to show coal tenement ownership patterns that were strongly defined by port catchment area. This is not the case.

The information in the figures above shows that there is a diversity to the ownership of tenements by miner, ie:

- many miners, such as Glencore, Anglo American, Cuesta Coal, Yancoal and Whitehaven, own tenements distributed across two or more Queensland port catchments; whereas
- some miners, including Fitzroy sources, own tenements in only one Queensland catchment area.

The most notable conclusion to be drawn from the charts is that proximity to coal rail infrastructure is the most important driver for the location of tenements. Beyond this, most miners tend to own clusters of tenements concentrated in one or more narrow areas. This is consistent with the most important economies in the ownership of and development of tenements being those related to local mine site infrastructure.

However, miners that own tenements away from one cluster may often have other clusters located in other port catchments. The data disclosed in the maps does not suggest strong economies related to the ownership of or development of mines within a port catchment that extends beyond the mine site economies identified above. Rather, it appears that miners develop mine sites (and acquire tenements to underpin those mine sites) across a range of port catchment areas. This is not consistent with a pattern of conduct that suggests a lack of substitutability between Hay Point catchment tenements and those in other locations, at least for many businesses.

6. Effect on competition in the tenements market

The second step of the analytical framework, laid out in section 2, that we apply in our assessment of criterion (a) is to determine whether the effect of declaration on access would materially improve competition in at least one dependent market.

We explain in section 2 that our approach is to assess whether:

- the structure of the market or conduct of firms is changed in a way that can be expected to bring about a material enhancement of the competitive process; and
- the volume and/or quality of output in the market is expected to increase.

In this section, we consider whether access (or increased access) as a result of declaration would promote a material increase in competition in the tenements market. Our analysis focuses on this market because it is the only dependent market for which there are substantive differences of view as to whether declaration would give rise to the promotion of a material increase in competition.

The QCA considers that declaration will promote a material increase in competition in the market for coal tenements. This conclusion follows from its contentions that:

- differences in terms and conditions of access, as between users under existing user agreements and those under new user agreements would arise without declaration; and
- these differences would distort competition in the market for coal tenements under the access framework.

The QCA summarises its view as follows:[69]

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

Underpinning the QCA's view are three critical assumptions:

- the market for tenements is no wider than the market in which the DBCT service is provided, such that a new entrant in the market;
  - would be negatively affected by an asymmetry in the terms of access at DBCT; and
  - would not be able to seek to utilise capacity at other terminals;
- the differences in terms and conditions faced by new entrants without declaration are such that;
  - a number of them would be deterred, as compared to the prospects for new entrants with declaration;
  - the quantum of the deterred new entrants would be sufficiently great that, with declaration, the otherwise deterred new entrants would give rise to a material promotion of competition; and

[69] QCA draft recommendation, p C71.

- there is not a well-functioning secondary market for capacity that would provide the means for any new entrants that were more efficient than incumbents to secure DBCT capacity.

For the QCA to reach its conclusion, each of these assumptions must be made out. However, in our opinion, none of them can be justified. In the remainder of this section we set out the basis for this conclusion.

6.1 Tenements market is wider than the Hay Point catchment

In section 5.2 above, we explain that the geographic scope of the market for tenements is greater than the Hay Point catchment, and likely extends to Queensland or beyond.

If the market is wider than the Hay Point catchment, then a new entrant in the market would be able to select between tenements from different regions, served by different coal terminals. It follows that any increase in the asymmetry of terms of access to DBCT as between new entrants and incumbents without declaration:

- would not be determinative in raising the possibility that more efficient new entrants could be deterred from entering the market; since
- new entrants faced with such an increase in asymmetry in pricing of capacity at DBCT could simply choose to acquire tenements in regions in which other coal terminals may be more cost effective.

In other words, it is highly unlikely that access as a result of declaration would promote a material increase in competition in the market for coal tenements market if that market is wider than the Hay Point catchment suggested by the QCA.

6.2 Barriers to entry and prices are similar with and without declaration

The QCA states that the extent of the differential effect of price changes for the DBCT service on new entrants in the market for tenements, as compared to incumbent users of the DBCT service, means that declaration will promote a material increase in competition.

The QCA contends that this effect would arise because existing users (with access to lower charges at DBCT) would value tenements more than new users (with access to higher charges at DBCT) and that this could deter the entry of more efficient firms into the tenements market.

However, even if the tenements market was assumed to be limited to the Hay Point catchment, there are strong reasons to believe that the effect cited by the QCA would not give rise to the promotion of a material increase in competition. In particular:

- the principal barriers to entry faced by new entrants in the market for tenements are risks associated with variability in the price of coal and uncertainty about the right of access to (as opposed to the terms of access to) infrastructure services – these risks will not be affected by declaration under DBCTM's access framework; and
- the TICs that apply with and without declaration will be sufficiently similar that the expected usage of DBCT is not affected by declaration.

6.2.1 New entrants face substantial barriers to entry that will not be alleviated by declaration

The QCA's contentions rest on an assumption that, without declaration, the barriers to new entry in the market for tenements are significantly higher than would be the case with declaration such that new entry would be promoted by declaration. Barriers to entry raise the possibility that new entrants that are more efficient than incumbents would be excluded from the market. On the presumption that this was a realistic prospect, over time, lower barriers to entry would allow for the entry of more efficient new entrants, promoting an increase in the environment for competition.

We note in section 2.3 above that that the 'possibility' of more efficient firms being discouraged from entering a dependent market appears unlikely to be sufficient to conclude that 'access as a result of declaration would promote an increase in competition that is material'. This is unsurprising, because:

- the 'possibility' of more efficient firms being discouraged sets a low qualitative hurdle for the establishment of a 'material' increase in competition; and
- the QCA's approach does not invite an empirical assessment of either:
  - the structural likelihood that firms not already present in the Goonyella catchment may be more efficient developers of tenements than incumbent tenement holders; or
  - the likelihood that the implied increase in competition in the dependent market – through, for example, an increase in either output or quality – would be sufficient to be considered material.

Other factors weigh more heavily on decisions to enter than difference in access terms

The QCA gives considerable weight to the potential effect of uncertainty imposed by the DBCTM's access framework on users. For example:[70]

> …the QCA's view is that in a future without declaration, access seekers would face the risk of negotiating access in an environment where DBCT Management would have the discretion to set access terms and conditions, the risk of paying a materially higher access charge reflecting the cost of accessing WICET as well as the uncertainty as to whether and when they would obtain access to the terminal. This risk would be unmanageable and fundamental, considering the essential nature of the DBCT service for mining operations in the Goonyella system, and is over and above the normal uncertainties miners would face in conducting their operations.

However, a thorough assessment of the barriers to entry faced by new entrants in a tenements market limited to the Hay Point catchment would likely conclude that the level of difference in prices for the DBCT service cited by the QCA is not an 'unmanageable and fundamental' risk factor faced by a potential new entrant to the tenements market. Once the range of factors and uncertainties that a firm would need to consider in acquiring a tenement are taken into account, the prospect of the charge at DBCT increasing is unlikely to be critical to whether or not a tenement would be developed.

Rather, two risk factors that would play a much greater role in decisions of whether to enter or not are likely to be:

- uncertainty associated with global coal prices that would be earned on coal produced from the tenement; and
- uncertainty associated with the ability to obtain access to coal supply chain infrastructure in Queensland, including DBCT.

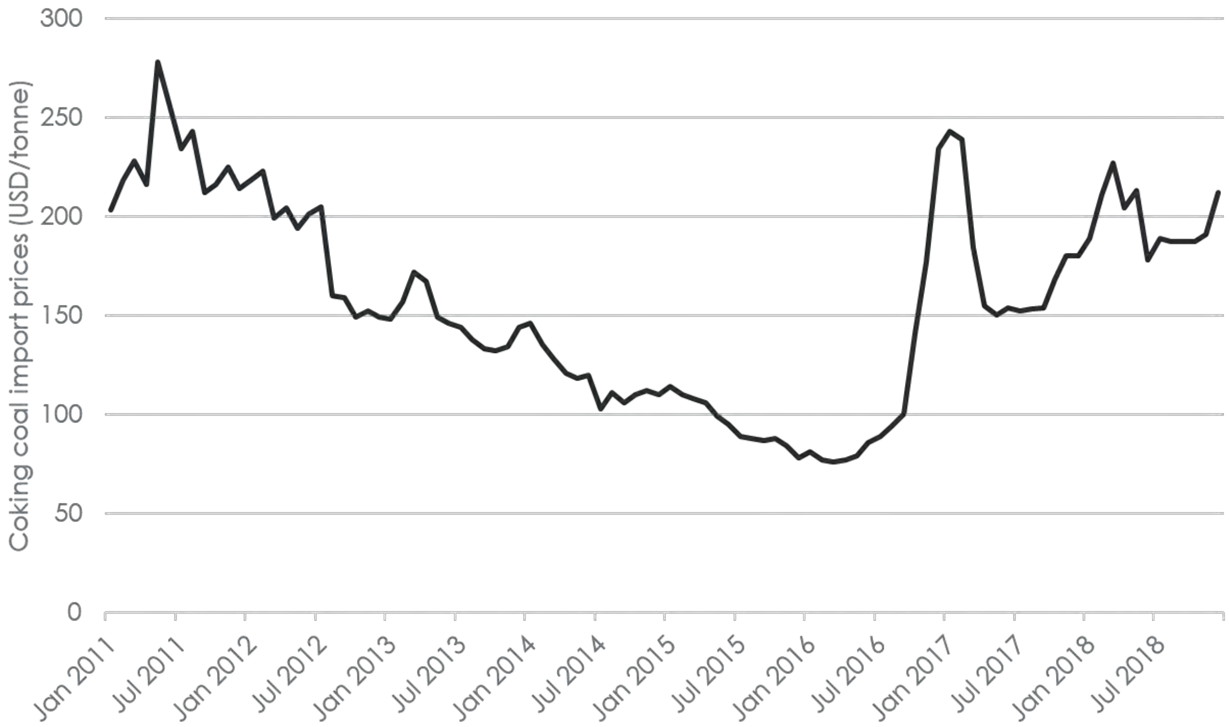
The uncertainty associated with global coal prices far exceeds the potential effect of higher charges for coal handling at DBCT. The NCC similarly noted in respect of the tenements market that:

> …any uncertainty about port charges is likely to be relatively small compared to uncertainty about other factors such as coal prices, labour costs and taxes. Accordingly, the Council considers that the reduction in uncertainty associated with port charges in a future with the Service declared, as compared to a future where there is no declaration of the Service, is so small that it is not likely to promote a material increase in competition in the tenements market.

Demonstrating this, figure 6.1 shows Chinese customs statistics for monthly average import prices of Australian coking coal, collated by Bloomberg, since the beginning of 2011. The figure indicates the high levels of volatility in traded coal prices, with the highest price over this period being US$278 per tonne and the lowest price being US$76 per tonne.

[70] QCA draft recommendation, p C71.

Figure 6.1: China import prices for Australian coking coal, USD per tonne



Source: Bloomberg

Against this level of volatility, the potential for coal handling charges at DBCT to increase by up to A$3.00 per tonne, consistent with DBCTM's access framework, cannot be described as an 'unmanageable' risk.[71] Consistent with the NCC's view, a small difference in coal handling charges under declaration is not likely to be a determinative factor in a decision on whether to enter the coal tenements market.

Similarly, the level of charges for the DBCT service is likely to be less material to a decision to enter the market than whether access to the DBCT service (and other infrastructure services) would be available to facilitate new entry. As the QCA correctly states, uncertainty as to 'whether or when' new entrants would be able to access the DBCT service is fundamental for access seekers. However, this fundamental uncertainty is not affected by declaration of the DBCT service.

Under the 2017 DBCT access undertaking, DBCTM may reject an access application where:[72]

- it does not demonstrate that the access seeker is reasonably likely to commence delivery of coal to the terminal at the commencement date; or
- it does not demonstrate that the access seeker has marketable coal reserves sufficient to cover its proposed tonnages for the first five years of its application and total coal reserves sufficient to cover all proposed tonnages.

Furthermore, DBCT will be at full capacity from July 2021.

It follows that, with or without declaration, new entrants in the market for tenements can have no certainty about the availability of access to the DBCT service, or potentially other infrastructure services over the period for which the DBCT service would be declared. In other words, an investment in a tenement is

[71] We note that the QCA has not yet considered the addition of the maximum spread component to DBCTM's access framework.

[72] Dalrymple Bay Coal Terminal Access Undertaking (approved 16 February 2017), 5.3(d).

required before a new entrant can enter the access queue and begin to form expectations about when, and on what terms, they may be able to obtain access to the DBCT service. This is a significant barrier to entry that will persist whether the DBCT is declared or otherwise.

The QCA appears to contend that the capacity allocation mechanism under the access framework would not be as predictable or transparent as under declaration.[73] However, our understanding is that the mechanism for capacity allocation under the access framework is the same as applies under declaration.

Incumbents already place a higher value on tenements than new entrants

The QCA concludes that, without declaration, existing users would value tenements more highly than existing users – but that this would not be the case with declaration:[74]

> In an environment where existing users would likely seek coal tenements to continue to benefit from their existing user rights, this adverse effect on potential DBCT users would likely discourage efficient entry in the coal tenements market. **In contrast, in a future with declaration, efficient entry in the coal tenements market would not be discouraged**, and so the competitive conditions in the coal tenements market would be materially better with declaration than they would be without declaration. [Emphasis added]

However, there are good reasons to believe that, under declaration, existing users would also have a higher valuation for tenements than existing users such that, on the QCA's reasoning, efficient entry in the coal tenements market would in any case be discouraged.

Existing users face strong incentives to retain the use of their existing agreement since, if they were to relinquish them, they may face the prospect that:

- they would be unable to regain them at the same or similar price, for example, if DBCT were to be expanded with a differential price; or
- they would be unable to regain them at all, if DBCT were at capacity but did not expand.

In other words, even if the access framework gives rise to the discriminatory effect suggested by the QCA, a similar effect already exists under declaration.

It follows that it is not sufficient for the QCA to show that the effect of DBCT's access framework is discriminatory, because the access regime currently administered by the QCA similarly discourages new entry as set out above. Rather, for the QCA's theory of competitive harm to be valid, it must show that the effect of DBCTM's access framework would give rise to changes in the structure of the market or the conduct of participants to a sufficient extent that declaration would promote a material increase in competition. It does not do so.

Indeed, the QCA presents evidence that is inconsistent with these contentions. For example, the QCA notes that, of those incumbents with mines that are expected to reach the end of their economic life during the declaration period, Peabody has already secured sufficient tenements to replace these volumes and other incumbents have expressed interest in doing so.[75] This amounts to *prima facie* evidence that incumbent miners already have strong incentives to seek out tenements under the status quo with declaration, including because there is no reason to expect them to be less efficient than new entrants. The QCA's analysis does not show that outcomes can be expected to be different without declaration.

The QCA's analysis also shows that, even with strong incentives for incumbents to seek out tenements to retain their existing access rights, there have been examples of transactions for tenements involving new

[73] QCA draft recommendation, pp C71-C73.

[74] QCA draft recommendation, p C73.

[75] QCA draft recommendation, pp C89-C90.

entrants. This suggests that the mere existence of these incentives does not raise insuperable barriers for new entry in the market for tenements.

6.2.2 Prices without declaration will be similar to those with declaration

The QCA's analysis assumes that the difference in prices for DBCT capacity without declaration, as opposed to those with declaration, would be sufficient to give rise to a material effect on competition. However, the QCA's consideration of DBCTM's access framework causes it to overestimate considerably the charges that would be likely to apply to access under new user agreements without declaration.

The QCA describes the effect of the access framework as giving rise to prices 'based on willingness to pay'. In its view, these would be commensurate with the charges associated with accessing WICET of $26.51 per tonne (implying a TIC of at least $16.99 per tonne). This is considerably more than the costs of accessing expanded capacity at DBCT, which the QCA assesses at $12.05 per tonne if the expansion is socialised[76] or $15.41 per tonne if it is differentiated.[77]

Our analysis of the key terms of DBCTM's executed access framework presented at sections 3.1 and 4.2.2 above suggests that likely coal handling charges would be much lower than assessed by the QCA. This is because:

- the 'willing but not anxious' standard would – by design – be expected to reduce the ability of DBCTM to exert any market power that it may retain; and
- the ceiling imposed on the TIC determination process constrains these prices to be at most $7.44 per tonne, and less during periods in which demand and/or price is lower than the assumptions underpinning this upper bound.

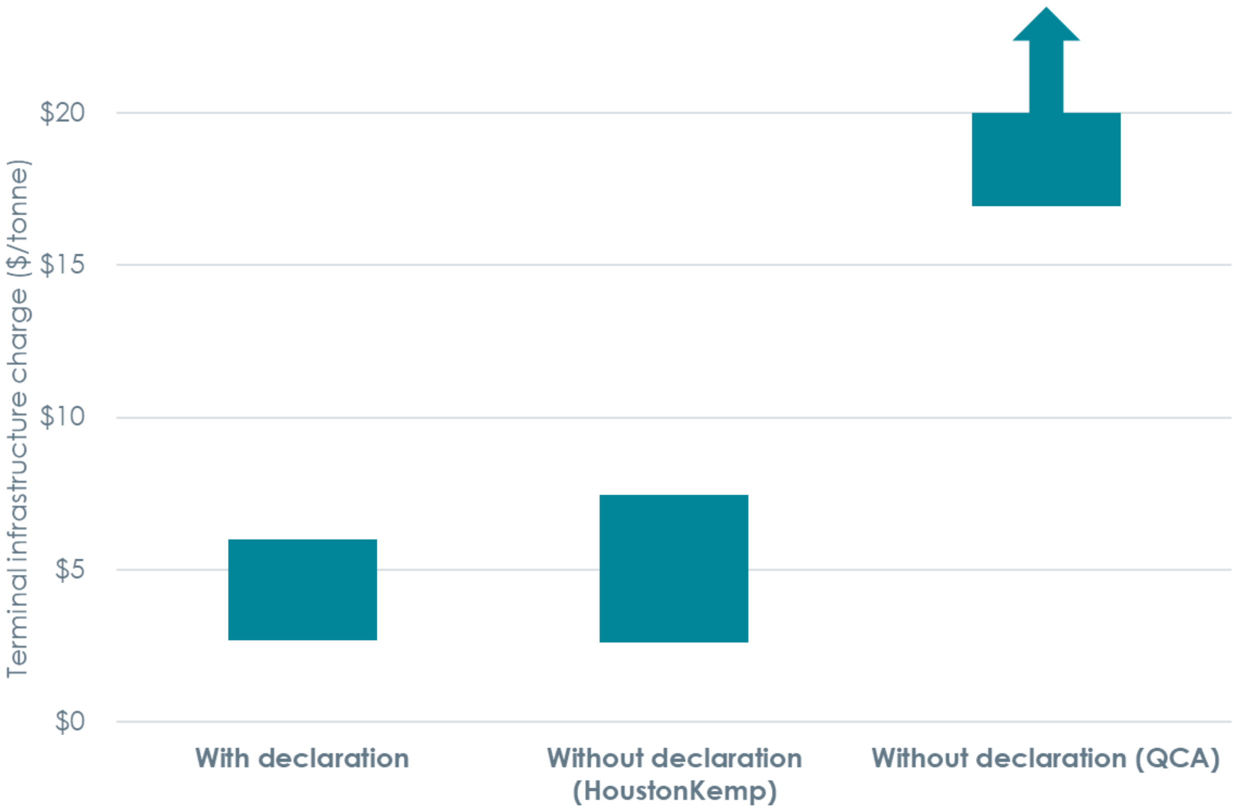
Given the floor and ceiling bands, the total cost of access to DBCT under the executed access framework could be between $12.05 per tonne and $16.82 per tonne.

Given a thorough consideration of the terms of the access framework, the potential range of outcomes for the TIC without declaration overlaps substantially with the outcomes that the QCA expects with declaration. Both these ranges differ substantially from the potential charges suggested by the QCA without declaration, in line with or above charges at WICET. We depict these three potential ranges at figure 6.2 below.

[76] QCA draft recommendation, p C51.

[77] QCA draft recommendation, p C86. We calculate the higher charges as $12.05 + ($8.50 - $5.14).

Figure 6.2: Comparison of potential ranges for the terminal infrastructure charge



This analysis shows that the QCA has significantly overstated the materiality of any consequential effect on competition in the tenements market.

We explain the features and effects of DBCTM's access framework at section 3.2 above. The access framework provides that, without declaration, the utilisation of DBCT and other coal chain infrastructure in Queensland is the same as it otherwise would be with declaration, Furthermore, the mines that utilise DBCT would not be affected by declaration. Both with and without declaration, we would expect the mines that place the greatest value on coal handling services at DBCT to use the DBCT service.

It follows that, given the market for tenements preferred by the QCA, and given the access framework executed by DBCTM, it is not possible for declaration to promote an increase in competition in the market for tenements. This is because:

- the environment for competition would remain the same with and without declaration, with the same tenements being developed into mines and using the DBCT service; and
- the quantity and quality of tenements bought and sold would be the same with and without declaration.

6.3 More efficient entrants can acquire capacity in the secondary market

The QCA's theory of harm without declaration turns on the premise that there exist potential new acquirers of tenements that are 'more efficient' than existing holders of tenements who do not hold DBCT capacity, who plan to exploit this superior efficiency by means of exploration and development of new tenements.

However, it does not follow that more efficient new acquirers of tenements would be deterred from obtaining new tenements, whether access to DBCT export capacity is declared, or managed by the access framework.

The QCA's analysis of the secondary market for DBCT capacity concludes that the ability under existing user agreements to trade capacity directly between users would be maintained without declaration. It follows that if there were potential new acquirers of tenements (who do not hold DBCT capacity) that were more efficient than incumbent holders of DBCT capacity, then these more efficient new entrants have the ability to engage in secondary market trades with miners holding existing user agreements at DBCT. By definition, more efficient potential acquirers of new tenements would have a higher willingness to pay for these existing capacity rights than a less efficient incumbent holder of DBCT capacity, who planned to bid for the same tenement. The result of the potential for such trades is that the more efficient entrants will, in fact, prevail and be most likely to enter.

Even if this were not possible, trading in tenements themselves should also provide for a similar result. The activities undertaken by holders of tenements are the exploration and development of tenements. More efficient potential new acquirers of tenements (who do not hold DBCT capacity) will not be deterred from acquiring tenements and exploring and developing them so long as they have the ability to on-sell these tenements (for an expected capital gain) to a miner with existing user agreements at DBCT. This result follows from the QCA's assumption that the incumbent miner (by virtue of its entitlement to lower price DBCT capacity) has a higher willingness to pay for tenements.

Consistent with the QCA appearing to have overlooked this likely outcome, we note that its draft recommendation addresses the potential implications of secondary trading of capacity only in respect of the ability of potential DBCT users to transfer their access rights to other users.[78] The QCA does not appear to take account of the more important consequence of secondary trading – being the ability of incumbent DBCT users to transfer their access rights to other users.[79]

[78] QCA draft recommendation, p C82.

[79] QCA draft recommendation, p C92.

7. Declaration

We are pleased to confirm that in relation to the analysis presented and the conclusion drawn in our report:

- the factual matters set out in our report are, as far as we know, true;
- in preparing this report, we have made all enquiries we consider appropriate; and
- that the opinions stated in our report are genuinely held by us and that our report contains reference to all the matters that we consider significant.

Greg Houston/Daniel Young

10 March 2019

Sydney
Level 40
161 Castlereagh Street
Sydney NSW 2000

Phone: +61 2 8880 4800

Singapore
8 Marina View
#15-10 Asia Square Tower 1
Singapore 018960

Phone: +65 6817 5010