NQXT declaration application: Do the services satisfy criterion (a)?

Report for Gilbert+Tobin

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1. Introduction and overview

1.1 Scope of report

1. QCoal has applied to the Queensland Competition Authority (**QCA**) for a recommendation that the services it refers to as the "**Coal Handling Services**" that are provided by means of the Abbot Point Coal Export Terminal (the "**Terminal**") be declared. The Coal Handling Services are further defined as the unloading, storing, reclaiming and loading of coal at the Terminal. The Terminal is owned by the Queensland Government and leased to North Queensland Export Terminal (**NQXT**) under a 99-year lease, which in turn is part of the Adani group of entities. The Adani group of entities also owns and operates the Carmichael Mine in the Galilee Basin through its subsidiary Bravus, the below-rail rail transport operations between the Carmichael Mine and the rail network operated by Aurizon Ltd through Bowen rail, the above-rail rail transport operations between the Carmichael Mine and the Terminal in respect of the output of the Carmichael Mine also through Bowen rail and is the operator of the Terminal through the entity Abbot Point Operations.[1]

2. I have been asked to provide an opinion as to whether the Coal Handing Services provided by means of the Terminal satisfies criterion (a) of the declaration criteria, namely:[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*

3. I have also been asked to reply to the evidence of Mr Houston in relation to this matter that was presented as part of QCoal's application for declaration.

4. I have read the Experts' Code of Conduct and have prepared this report in accordance with it.

5. In preparing this report I have been briefed with certain materials and asked to assume that those materials are correct. I append at Attachment A my letter of instruction, which includes a schedule of the information with which I have been briefed.

1.2 Qualifications

6. I am the Managing Director of Incenta Economic Consulting, a firm that specialises in advising in relation to economic regulation issues in the infrastructure sector and prior to that I was a Principal at PricewaterhouseCoopers and prior to that a Director at the Allen Consulting Group. I have over 30 years of experience in relation to economic regulation and pricing issues across the ports (coal terminals and container / general cargo ports), airports, electricity, gas, water and rail sectors (both coal and general cargo) in Australia and New Zealand, having advised governments, regulators and major corporations on

[1] Statement of Mark Bradley Smith ("**MBS**"), para.37.
[2] QCA Act, section 76(2).

issues including the development of regulatory frameworks, regulatory price reviews and with respect to the negotiation of charges for unregulated infrastructure services. As part of this, I have had extensive experience advising in relation to competition assessment and coverage / declaration matters in a number of industry sectors that include rail access, gas transmission pipelines and electricity transmission and distribution. My Curriculum Vitae is provided as Attachment B.

7. I have been assisted in producing this report by my colleagues, Dr Michael Lawriwsky, although I am solely responsible for its contents.

1.3 Summary of conclusions

1.3.1 Declaration is likely to result in the QCA setting regulated prices

8. The effect of declaration of the services of a facility like the Terminal is that prices are likely to be determined by the regulator (the QCA). Even though parties are encouraged to negotiate the terms of access to declared services, the terms of that negotiation would become framed in terms of what regulation is likely to deliver, and indeed it is very likely that the QCA would either require an undertaking to be prepared with reference tariffs (potentially at the urging of parties) or would be called upon to arbitrate a dispute.

9. Imposition of price regulation brings with it a series of risks, including the potential to become a barrier to the investment needed for capacity augmentations or for the refurbishment required for service provision to continue into the long-term. The risks to investment from price regulation are common to a greater or lesser extent to all instances where infrastructure is regulated. However, particular challenges will arise with regulating the prices of the Terminal at this point in time.

   a. Applying price regulation to assets that are part way through their economic lives has always been challenging as a range of initial settings needs to be established, most notably the initial regulatory asset base. This was a key matter of contention during all of the first round regulatory determinations for energy networks, during the initial imposition of price regulation of DBCT,[3] and in setting the initial regulatory asset base (RAB) for the Port of Newcastle.[4]

   b. Declaration would also imply imposing price regulation to the Terminal right at the time [redacted].[5] How best to regulate facilities that are subject to material demand uncertainty – whilst preserving the incentive to invest – is the issue that is currently confronting regulators of gas networks, and was an issue that was faced early on in relation to high-risk greenfields gas pipelines. The standard regulatory model may result in prices that are very high (as acceleration of depreciation is the principal tool that is used to address stranded

3 Queensland Competition Authority (April 2005), Final Decision, Dalrymple Bay Coal Terminal Draft Access Undertaking, p.121.

4 The ACCC's decision on the DORC (Depreciated Optimised Replacement Cost) valuation was highly contentious and was taken to the High Court before declaration was revoked.

5 The [redacted] are addressed in MBS, paras.140-141.

asset risk), and potentially volatile (as uncertainty in demand leads directly to uncertainty in price). Regulators of gas networks do not have an enduring solution to the problems with setting regulated prices in an environment of demand uncertainty, and the consensus solution to the issue of greenfields gas pipelines was that cost-based regulation should not be applied to such projects.[6]

10. It follows that extending price regulation to the Terminal (via declaration) would be requiring the QCA to confront complex regulatory issues, including those that currently do not have an enduring solution in other sectors (i.e., dealing with material demand uncertainty), and be moving contrary to the one solution that has been applied (i.e., withdrawing – rather than imposing – price regulation). It also follows that the QCA cannot simply assume that its methods will result in a price that is any more reasonable than what the parties may negotiate.

11. Indeed, I observe that NQXT's proposed standard agreement [redacted] should increase the QCA's scepticism about whether the regulated price that it would determine is likely to be more reasonable than the parties would negotiate.

1.3.2 What benefits would result from declaration?

12. It follows that, for price regulation to be justified in the context of the Terminal, the benefits expected from this would need to be commensurately large relative to downside risks of regulation. Moreover, criterion (a) is very specific about the benefit that declaration must achieve, which is to promote a material increase in competition in a related market. The risks – and challenges – associated with declaration as listed above are very real, and so it follows that the benefits also need to be tangible, rather than some form of theoretical possibility, and expected in a market that is substantial rather than trivial.

13. The QCA, as well as the Tribunal and NCC, have established clear principles to govern assessment of whether declaration will promote competition. One of the clear findings is that the charging of monopoly prices (even if possible) is not sufficient. A profit maximising facility owner will understand that the development of the market(s) it serves

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6 Deregulation of gas distribution networks has also been floated as a "solution" to demand uncertainty for natural gas, and indeed this may occur at some point. However, deregulation of gas distribution networks is more politically vexed because those networks predominately serve small businesses and residences.

7 MBS, paras.105-111. Mr Smith also sdescribes at length [redacted] (MBS, paras.113-144).

is critical to its short-term and long-term profitability and so charging of monopoly prices does not necessarily lead to a diminution of activity and competition in related markets.

14. The main difference between the NQXT and the other similar facilities for which declaration applications have been considered is that the Terminal is also owned by the Adani group, which has other interests in the coal supply chain, namely being a coal producer in the Galilee Basin, owns the rail infrastructure between the Galilee Basin and the Aurizon network, is provider of its own above-rail transport and is operator of the Terminal.[8] These vertical relationships are the main difference that is emphasised in the QCoal application. The other difference to the DBCT is that the NQXT has never been regulated before, and so the initial regulatory settings would need to be established. This factor raises the complexity of setting regulated prices if the services are declared and so should weigh against declaration.

15. On the issue of vertical relationships, one clear conclusion that can be drawn from the economics of foreclosure is that the mere existence of vertical relationships does not mean that an incentive for access denial is likely to exist. Rather, the facts of the matter need to be analysed. Specifically, for an incentive to foreclose in relation to an essential facility to exist, it must be the case that:

    a. there is a market that is able to be monopolised via a denial of access

    b. the benefits from that denial of access – arising from "rents" in the final market – must exceed the loss of revenue from the access service,[9] and

    c. the nature of the market must be such that the owner of the essential facility must be unable to extract any rents that are available in the final market through its pricing for the access service.

16. In the case of the NQXT, none of these conditions are likely to be met.

    a. First, the related market where the Adani entities operate is in the supply of thermal coal. This is a global market, and shutting out other NQXT thermal coal producers would be unlikely to have any discernible effect on the coal price.

    b. Secondly, as the [redacted]. Accordingly, even in the very unlikely event that foreclosure shifts the world thermal coal price, it is unlikely that this would be profitable.

    c. Thirdly, if there was a "rent" that was able to be extracted, there would be no obvious barriers to NQXT extracting this via the access price, and so nothing to be gained

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8 I note for completeness, however, that it is commonly the case that the owners of a piece of infrastructure also operate that infrastructure, and this set of arrangements would not normally be referred to as vertical integration.

9 The standard economic models of foreclosure assume that the access denier is able to ramp up production immediately to displace the output of competitors (up to the rent-maximising level), so that there is little loss of explicit or implicit revenue to the access service.

(aside from risking the ire of competition regulators) from foreclosure.[10] Clearly, however, the amount of rent that could be extracted (either indirectly via a high access price or directly via foreclosure) is limited by the extent of direct competition for the service, which in this case is the alternative of shipping via the DBCT or other coal terminals.

17. Indeed, when all of the markets in which the Adani entities operate are analysed, it becomes abundantly clear that its incentives are no different to the DBCT and Port of Newcastle, which are to maximise the short and long-term prospects of the mines and markets it serves. That is, as there is no benefit to the Adani entities from restricting access, its profit maximising strategy is to operate the Terminal in a manner that maximises the Terminal's (independent) profit, which is no different to the situation of the DBCT and the Port of Newcastle. Maximising profit over the short term and long term requires the use the facility to be maximised, and for the industry to continue to develop. Indeed, the incentives for NQXT to act in a manner that promotes industry development are likely sharper than those of the DBCT and the Port of Newcastle, given:

    a. [redacted], and

    b. the ownership by the Adani entities of the railway line to the Carmichael Mine, which provides an additional incentive for the Adani entities to encourage coal development in the Galilee Basin as this may allow some of the cost of the Carmichael railway line to be shared.

18. [redacted]. To be clear, this behaviour – even if it was to occur – would not be *foreclosure*, which refers to a denial of access in order to reduce competition in a related market and to benefit from that reduction in competition. This behaviour – again, even were it to occur – would simply be prioritising one's own use of a scarce input, and could be referred to as displacement rather than foreclosure. This concern does not justify declaration because:

    a. the reasonable use of one's own facility is protected under the *Queensland Competition Authority Act 1997* (Qld) (**QCA Act**), and so would not be affected by declaration (section 119 of the QCA Act)

    b. the incentive of the Adani entities is to meet all demand to the extent possible, which includes to expand the Terminal if commercially viable (noting that options have been developed that would permit the expansion of capacity by both small and large amounts), and so any displacement of demand for the NQXT would be expected to occur only as a last resort in circumstances of terminal capacity constraints

[10] One would expect that the capacity to extract rent at an intermediate (i.e., access) level would be an important issue in relation to digital platforms (where there are substantial barriers to platforms "monetising" the benefits that they create). However, this is less of an issue where the benefits to a transaction are internalised to the contracting parties, and even less of a concern again where prices and other terms are negotiated with individual access seekers and where the outcomes are confidential.

c. indeed, as explained by NQXT's general manager,[11] and the general manager of Abbot Point Operations, the business that operates the Terminal,[12] a range of measures have been put in place to provide other Users with confidence over their short term and long term use of the Terminal (to facilitate the short-term and long-term development of the sector), which include:

   i. [redacted][13]

   ii. [redacted][14]

   iii. contractual terms for the port operator (Abbot Point Operations) that are [redacted], and with transparent regulations governing the operation of the Terminal, that have the principal criterion of [redacted], and

   iv. a framework of operations that includes Terminal Regulations,[15] [redacted][17] that enable equitable operation of the Terminal for the benefit of all Users.

d. in any event, the Terminal's existing capacity is [redacted].[18]

1.3.3 Would competition be promoted in related markets?

19. The conclusion reached above was that declaration is unlikely to result in more reasonable terms of access, given:

a. [redacted]

b. the difficulties with setting regulated prices generally, but particularly in the context of [redacted], and

c. that the vertical integration of NQXT (i.e., as part of the Adani entities) does not change this finding.

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11 MBS, sections D.1, D.2, D.3 and E.3. [redacted].
12 Witness Statement of Damien Dederer ("DD"), paras.25-42.
13 MBS, Confidential Annexure MBS5.
14 MBS, para.51 and attached to MBS as Annexure MBS2.
15 Witness Statement of Damien Dederer, paras.25-33.
16 Witness Statement of Damien Dederer, paras.34-37.
17 Witness Statement of Damien Dederer, paras.38-42.
18 MBS, Table 5 at para.201.

20. A consequence of accepting this view is that declaration is unlikely to result in a change in competition in any related market.

21. Moreover, even if NQXT was considered likely to negotiate unreasonable terms of access in the absence of declaration, it is likely that those terms of access would nonetheless avoid any adverse impact on the short term or long term growth of the sector. This is because NQXT's clear interest (and that of the Adani entities more generally) is to maximise the value of the Terminal independently of any of the Adani entities' other interests, which is achieved through maximising the use of the Terminal. This finding means that declaration is unlikely to result in a material increase in competition in a related market even if NQXT is considered likely to impose unreasonable terms of access in the absence of declaration.

22. I now turn to each of the markets where there is claimed potential for declaration to cause a material promotion of competition with these findings in mind.

Thermal and coking coal export markets

23. The propositions above were that:

    a. declaration is unlikely to result in more reasonable terms or access, or

    b. even if more reasonable terms of access were to result from declaration, these are unlikely to affect the output of the mines served by the NQXT.

24. Accepting either of these propositions means that there cannot be a material increase in competition in the world thermal or coking coal markets.

25. In addition, both the world thermal coal and world coking coal markets are very large and highly competitive. The contributions to these markets of the output served by NQXT are immaterial, and could be readily displaced with no perceptible impacts on consumption or world prices. These markets have quite correctly previously been accepted as being workably competitive. Accordingly, there is no prospect of foreclosure at NQXT affecting competition in any way. Thus, even if declaration was expected to lead to a material change in output of the mines served by the NQXT, the effect on competition in the relevant market(s) would not be material.

26. It is noted that the evidence of Mr Houston suggests that a change in coal volumes through the NQXT may affect competition in the coking coal market. Given the very small proportion of the world coal market that flows though the NQXT, this is very unlikely (this is discussed further in paragraphs 52-53).

27. Lastly, as discussed above, the Adani entities do not have an incentive to deny access in relation to coal producers because:

    a. in relation to thermal coal, there is little prospect that the world price would be affected by reducing the output of other producers, but access revenue would be lost, and so this behaviour would be unprofitable, and

b. in relation to coking coal because the Adani entities do not operate in this market, and so a denial of access would cause a loss of access revenue without any prospect of a gain.

Coal tenements market

28. The same conclusions reached above also apply to the later stage coal tenements market, that is:

    a. the finding that declaration would not lead to more reasonable terms of access, or that any unreasonableness in the terms of access would not deter activity in the mining sector, means that

    b. declaration is unlikely to have a material effect on competition in the market for tenements.

29. In addition, the Tribunal and NCC both recognised that the markets for tenements are a derivative market of the world coal market – that is, the competition for tenements (and the activities that tenements authorise) occurs between coal producing regions, and so is part of a world market. The implication of this finding is that even a large change in tenement activity (if this was to occur) could not affect competition in the relevant markets (i.e., the world coal markets).

30. I note that the evidence of Mr Houston appears to assume that the geographic market for late stage tenements is the region he refers to as the "northern mine area". This narrow geographic market is inconsistent with the past position of the Tribunal and NCC that the geographic market is a world market (by virtue of being a derivative of the world coal markets), as noted above. Moreover, even if a different view about tenements being a derivative of the world coal markets were to be taken, no evidence has been provided that the market should be defined as narrowly as the "northern mine area" rather than a broader geographic market (such as the Central Queensland coal producing area).

31. Moreover, it is far from clear that there is a functionally separate and material market for late stage tenements. I understand that the activities that comprise late stage tenements are normally undertaken by coal producers rather than independent firms, which is a contrast to the activities that comprise early stage tenements where a substantial number of independent operators exist. In addition, I note that Mr Houston only points to two transactions in late stage tenements since 2013 (one of which is better characterised as a trade in a share of a mine).[19] This would suggest that the activities in relation to late stage tenements do not occur in a market that is separate to coal production and in which a material promotion of competition could occur.

32. In addition, as discussed earlier, [redacted].

[19] Houston, Greg, (13 June 2025), Expert report of Greg Houston – does NQXT's coal handling service satisfy criterion (a)? ("Houston"), para.122. Four transfers are identified, but two were for early stage tenements (exploration permits).

33. Lastly, it is also not clear that the prospective terms of access to the NQXT would have a meaningful impact on the activities that give rise to tenements given that decisions around exploration activities are likely to be much more impacted by other factors such as conditions in global coal markets, demand outlook, mine approval risk, and so forth.

Rail haulage

34. Since declaration is unlikely to materially affect the output of the mines in NQXT's catchment region it cannot influence the conditions for competition in the market for rail haulage. I note that declaration will not change the fundamental structure of the industry, whereby:

    a. Bowen Rail provides the haulage service to Bravus, but does not compete with the other operators

    b. Pacific National and Aurizon provide the haulage services to the other mines, and

    c. the barriers to entry remain relatively low (facilitated by regulated terms of access to the Aurizon Network), and so the threat of new entry will continue to provide substantial discipline.

35. It follows that declaration is unlikely to result in a change to the level of competition in above-rail activities even if there was an impact on the output of mines.

36. I note that Mr Houston's evidence appears to be that declaration will cause a change to mining activity that may in turn affect above rail competition. In my view, this is very unlikely because:

    a. as discussed earlier, declaration is unlikely to alter the output of mines in NQXT's catchment as assumed by Mr Houston, and

    b. even if there is a change in the output of these mines, Mr Houston has not presented analysis or evidence that suggests a change to the level of competition in the activity – in my view, as the structure of the sector is unlikely to change, including the ongoing potential for new entry to discipline incumbent operators (noting the mobility of above-rail infrastructure).

Below rail activities

37. In the case of DBCT, the QCA quickly reached the conclusion that declaration would not affect competition in below rail services, as the sole provider (Aurizon Network) would continue in that role. An analogous situation exists in NQXT's catchment, but with Aurizon Network serving the Newlands system and Bowen Rail serving the Galilee system.

38. I note that the evidence of Mr Houston appeared to be that declaration would:

    a. increase the level of activity in the Galilee Basin, and

b. as a consequence, raise the likelihood that a duplicate railway line to the Carmichael Line would be constructed, and thereby increase competition in the below-rail sector.

39. For the reasons discussed above, I do not think declaration is likely to lead to an increase in activity in the Galilee Basin. However, even if it did, it is extremely unlikely that a duplicate railway line would be constructed. Rather, the least-cost outcome would be for access to be provided to the Carmichael Line, which would be facilitated by the access principles that have been approved for the line.[20]

Mining services

40. The same conclusions reached above also apply to the markets for mining services, that is:

a. the finding that declaration would not lead to more reasonable terms of access, or that any unreasonableness in the terms of access would not deter activity in the mining sector, means that

b. declaration is unlikely to have a material effect on competition in the markets for mining services.

41. In addition, mining services (e.g. geological and drilling services, construction services and mining safety services) are provided by large firms with principally mobile equipment, and so the market arguably spans at least Australia. It is difficult to see how even a material change in the output of the activity of the mines served by NQXT could affect competition in this market.

1.3.4 Response to the evidence of Mr Houston

42. My overall observation with respect to Mr Houston's evidence is that while he discusses theoretical abilities to affect competition in related markets, he pays little attention to whether there is in fact an incentive and ability for the Adani entities to influence the state of competition in related upstream and downstream markets. Specifically, my principal issues with Mr. Houston's evidence are as follows.

Reasonableness of the current terms at the Abbot Point Coal Terminal

43. Mr Houston asserts that in the absence of declaration the terms upon which Users would gain access to the Terminal would be likely to be unreasonable in the sense that the terms of access would result in greater uncertainty for existing and new Users.[21] However, whilst this outcome is asserted in his evidence, there is an absence of reasoning as to why this would be likely.

44. As discussed above, in my view it cannot simply be assumed that declaration will result in more reasonable terms of access – irrespective of whether one focuses on the expected level of prices or the uncertainty around that expected level of prices – given:

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[20] Witness statement of Brendan Lane dated 22 August 2025 ("BL"), paras.21-27.

[21] Houston, pp.3-4.

a. [redacted] and

b. the difficulties with setting regulated prices generally, but particularly in the context of [redacted].

45. In terms of the level of certainty that would be expected with declaration, I note that the situation of the NQXT is very different to the case the QCA considered in relation to the DBCT. In relation to the DBCT the services of the facility had been declared for some time, and so there was substantial certainty as to what a "with declaration" world would look like, and a concern of the QCA was the uncertainty that may result from a removal of declaration. In contrast, the NQXT has never been subject to independent price regulation, and as a consequence there is substantial uncertainty as to the terms of access that would result in a "with declaration" world. In my view, it is plausible that the expected prices for the services of the Terminal will be higher (at least initially) in the "with declaration" world, and very likely that those prices will be more volatile – and so less certain – over time.

46. I observe that a report of HoustonKemp to the Port of Newcastle matter reached a similar conclusion about the uncertainty associated with applying independent price regulation to an existing facility in relation to the Port of Newcastle as I do in relation to NQXT.

Incentives stemming from vertical integration

47. Mr Houston asserts that because NQXT is vertically integrated with other Adani entities (i.e., Bravus and Bowen Rail), it has an incentive to deny or frustrate access to customers, or impose access terms that would reduce competition in a related market. However, the incentives from vertical integration are simply assumed, rather than analysed in detail.

48. As I discuss in paragraph 15, for vertical integration to provide an incentive for an entity to foreclose access several requirements need to be met, the principal one being that there is a market that can be monopolised. As I noted earlier in this report,[22] none of those requirements are likely to be met in relation to the NQXT – most notably that no amount of foreclosure to Users of the NQXT is likely to shift the world thermal coal price.

49. Rather, in the case of NQXT, the clear incentive of the Adani entities is to set terms of access that maximise the short term and long term success of the sector, and in turn maximise the use of the facility. This is consistent with how the NQXT has operated since privatisation.

The Adani entities' own use is protected

50. Mr Houston's main complaint is that there is the potential for NQXT to give priority to the use of the Terminal by Bravus at the expense of other Users. However, the QCA Act specifically prevents an arbitrator from denying an asset owner access to its own facility,

[22] Paras.16 and 17.

and so this would not be affected by declaration. Furthermore, it is strongly in NQXT's interest to encourage third party use of its facility (as it has done), and the prospect of such prioritisation over the declaration period is unlikely in any event [redacted] (noting that the current capacity constraint lies in the rail network).

51. I also note that, when expressing concern about vertical integration, Mr Houston assumes implicitly that there may be a shortage of capacity at the Terminal, such that NQXT provides Bravus with preferred access. On the other hand, when considering whether criterion (b) is met, Mr Houston assumes that the NQXT will be able to meet all foreseeable demand over the term of the declaration. These positions do not appear to be consistent.

Effectiveness of competition in global coal markets

52. Mr Houston asserts that the Adani entities "have the ability and incentive to restrict throughput of metallurgical coal through NQXT and instead favour its own, thermal coal mined by Bravus Mining," and that declaration would "promote an increase in competition in global markets for metallurgical coal exports".[23]

53. However, as the Terminal is likely to [redacted], NQXT has no incentive to curtail those exports, and even less so because its affiliate, Bravus Mining, exports thermal coal. Moreover, the export markets for both thermal and metallurgical coal are effectively competitive (and the output of the NQXT form only a small share), and so even if changes in throughput at NQXT were to occur this could not be said to have a material effect on competition.

Queensland's tenements markets are derivatives of global coal export markets

54. In previous declaration matters concerning the Port of Newcastle, it has been established by the Tribunal and NCC that coal tenements markets are a derivative of the (global) coal markets. This means that the finding of effective competition in relation to thermal and coking coal export markets applies equally in relation to tenements. Mr Houston reaches his conclusions by defining the tenements market as a narrow geographical market, contrary to this established position.

No implications for rail haulage and below-rail markets

55. Mr Houston concludes that declaration may increase competition by providing greater certainty to existing and new Users:

    a. for the Carmichael Line this would encourage further development in the Galilee Basin and duplication of the line, and

    b. potentially in above-rail haulage, as a consequence of the change in volumes produced by the mines.

56. As noted already above, in my view, it is very unlikely that further development in the Galilee Basin would result in a duplicate to the Carmichael Line – any mine would find it

[23] Houston, para. 245.

lower cost to use the Carmichael Line, and the Adani entities would have an incentive to negotiate this.

57. In relation to above rail haulage, Mr Houston's conclusion rests on his assumption that declaration will cause a large change in the output of the mines served by the NQXT, which I think is unlikely. In addition, he also ignores the competition for rail haulage that is provided by the threat of entry by a new operator (noting that, for rail haulage, the barriers to entry are relatively low).

1.4 Structure of this report

58. Chapter 2 discusses the key economic issues that are relevant to whether criterion (a) is likely to be satisfied in relation to the services for which declaration has been sought, and most notably whether declaration is likely to result in more reasonable terms of access in the context of the NQXT, and how the vertical integration across the Adani entities referred to above may affect the incentives of NQXT.

59. Chapter 3 the discusses each of the dependent (related) markets in which the potential exists for declaration to result in a material increase in competition, and addresses whether such a material promotion is likely, applying the matters discussed in chapter 2.

60. Chapter 4 then provides my response to the evidence of Mr Houston.

2. How would terms and conditions of access change as a result of declaration?

2.1 Introduction

61. A key question is whether access regulation would produce a sufficiently significant change in the reasonableness of terms of access that this could cause a material promotion of competition. Addressing this question requires:

    a. an assessment of the reasonableness of the terms of access that are likely to apply in the absence of declaration, including analysis of the constraints that apply to the pricing of the services, and

    b. a realistic assessment of the challenges that would exist with applying regulated third-party access to the Coal Handling Services in the specific context of the Terminal, and a realistic assessment of whether a regulated outcome in this specific context is likely to result in an improved outcome for Users of the Coal Handling Services.

62. These two issues are addressed in section 2.2. I conclude that, in the specific context of the Terminal, it cannot be supposed with any certainty that the prices with declaration are likely to be more reasonable than the prices without declaration, and in fact I think the opposite is likely to be the case.

63. A further issue that needs to be considered is whether the vertical integration of the Adani entities into coal production and aspects of rail transport may provide the Adani entities (and, through this, the Terminal) with an incentive to frustrate access by certain Users of the Terminal to depress competition in related markets in which they operate. This issue is addressed in section 2.3, where I conclude that, notwithstanding the vertical integration of the Adani entities, those entities (and hence the Terminal) do not have any incentive to frustrate access, but rather have a strong incentive to act in a manner that maximises the short term and long term growth of the Users of the Terminal in order to maximise the long term profit from the Terminal, and also to maximise the potential for third-party use of the Carmichael railway line. I note that the incentives of the Adani entities in this regard are no different in this respect from those of the Port of Newcastle and the Dalrymple Bay Coal Terminal, for which the Tribunal/NCC and the QCA, respectively, observed would be unlikely to lead to a reduction in competition in related markets (see section 2.3).

64. Quite a separate issue to whether the Adani entities have an incentive to frustrate access in order to depress competition in a related market is the question of whether there may be an incentive for the Adani entities to give priority to their own use of the Terminal over that of other parties where this is not inconsistent with the contractual rights of Users and the demand for the Terminal exceeds the capacity, which I address in section 2.4. I acknowledge that the Adani entities would be expected to favour their own use of terminal where there is such a conflict (i.e., for the output of the Carmichael mine); however, I further note that:

a. the QCA Act specifically preserves an access provider's own use of facilities, and so this situation would not change with declaration, indeed, I note that the preservation of a facility owner's rights to use a facility for their own reasonable needs has been a bedrock of access regulation in Australia since it was introduced in the 1990s, but

b. to the extent that there is spare capacity at the Terminal, the Adani entities would have a strong incentive to provide services to third party Users of the Terminal wherever possible, which includes to provide the certainty needed to encourage new investment in the region, and

c. in any event, [redacted].[24]

2.2 Comparison of likely prices "without declaration" against prices "with declaration"

2.2.1 Likely prices "without declaration"

Nature of the current price offering for the Coal Haulage Services

65. The evidence that I have considered suggests that NQXT's pricing is [redacted] That is, the pricing and terms of access at NQXT are shaped by [redacted], as well as [redacted]. These factors provide a material constraint over the charge that the Terminal offers to Users. In the case of NQXT, [redacted]. Of the current [redacted] mtpa contracted capacity at NQXT, [redacted] Competitive pressure on NQXT is created because, on average [redacted]

66. [redacted]

a. [redacted][25]

b. [redacted]

[24] MBS, Table 5 in para.201.
[25] MBS, paras.156-163.

[redacted][26]

c. [redacted][27]

d. [redacted][28]

e. [redacted][29]

Issues with Legacy User Agreements

67. Noting in recent commercial agreements [redacted] the Statement by NQXT's general manager Mr Mark Smith identifies [redacted][30]

a. First, through the operation of the [redacted]

b. Secondly, in a period of [redacted]

c. Thirdly, the Legacy User Agreements have resulted in [redacted], and

d. Fourthly, [redacted]

26 MBS, paras.164-170.
27 MBS, para.113.
28 MBS, paras.121(d), 196.
29 MBS, paras.189-191.
30 MBS, paras.88-100, see also 131-134.

Nature of the current non-price terms and options offered

68. Except for NQXT [redacted] These features include measures that improve the attractiveness of NQXT relative to DBCT:[31]

[redacted]

[31] MBS, Confidential Annexure MBS5 [redacted].

[32] For example, in its negotiations with [redacted] see MBS, para.162.

[redacted].[33]

Why NQXT's current offering can be considered reasonable

69. The reasonableness of NQXT's current pricing offer can be observed by considering associated factors:

a. The fact that [redacted]

b. It is evident that NQXT's pricing is constrained by direct competition from the DBCT, [redacted].

c. As discussed above, NQXT has taken on [redacted].

[33] MBS, para.129.

According to the demand forecast presented by NQXT's general manager, Mr Mark Smith, [redacted][34] He concludes that [redacted][35]

d. In the current circumstances [redacted].[36]

e. [redacted].

f. [redacted].[37]

[redacted][38]

g. [redacted]

h. Unlike the case for DBCT, there is no barrier to the trains that operate on the Newlands rail network being diverted to the Goonyella network (i.e., the diesel-only

34 MBS, Table 5 at para.201.
35 MBS, para.198.
36 MBS, paras. 131-134.
37 MBS, para.122.
38 MBS, paras.186-188.

Newlands trains work on the Goonyella system, whereas the electric trains applied on the Goonyella system cannot be diverted to the Newlands network).

i. [redacted], it should help avoid protracted and repeated arbitration and disputes that arose under the previous contract (which involved periodic price setting according to the [redacted]

j. While DBCT (with a nameplate capacity of 84.2 mtpa) is currently capacity constrained and with a large queue for new capacity, four incremental expansions are to be commissioned between 2024 and 2028, which will take its capacity up to 99.1 mtpa.[39] This will place additional competitive pressure on NQXT.

Comparison with previous "terminal infrastructure price" is irrelevant

70. It is noted that the [redacted].[40]

71. In my view, no valid inference can be drawn from the fact that the [redacted] for the following reasons.

a. First, as noted by NQXT's general manager, Mr Mark Smith, previously there was "rapid and strong growth in the coal market as part of a 'super cycle' which saw high global demand and prices, primarily driven by the industrialisation of emerging economies such as China", "pressure on supply chain capacity", which resulted in NQXT rapidly expanding", and "an expectation that there would continue to be strong demand for Terminal capacity over the term of the legacy agreements."[41] With [redacted]

b. Secondly, the legacy agreements were reflective of the conditions described above, where the Terminal entered into a commercial arrangement with Users to secure long term capacity that would underwrite the X50 Expansion of the Terminal. [redacted].[42]

c. Thirdly, the pricing formula set out in the legacy agreements was never the subject of an independent review by a regulator, and so cannot be presumed to reflect the methods or inputs that a regulator would determine. As an example, we are aware that

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39 MBS, paras. 118-119. See also, https://www.qca.org.au/wp-content/uploads/2021/11/dbct-price-ruling-the-8x-expansion-ruling-notice-and-determination-final14590371.pdf, pages 7, 20.

40 [redacted]

41 MBS, para. 78.

42 MBS, para. 79, Table 5 at para.201.

the legacy [redacted].

d. Fourthly, [redacted].

e. Fifthly, as discussed earlier, [redacted].

f. Sixthly, under [redacted] in the Legacy User Agreements NQXT was not able to [redacted], which are a legitimate cost item for recovery.

2.2.2 Likely prices "with declaration"

Framework for setting the reasonable terms of access

72. Declaration of the Coal Handling Services would activate regulatory obligations and processes.

73. First, the access provider would be obliged to negotiate with access seekers, and to provide substantial information to support those negotiations.[43] Relevantly, that information includes the standard cost inputs that regulators apply when setting cost-based prices, including the following:[44]

> *(a)information about the price at which the access provider provides the service, including the way in which the price is calculated;*
>
> *(b) information about the costs of providing the service, including the capital, operation and maintenance costs;*
>
> *(c) information about the value of the access provider's assets, including the way in which the value is calculated*

[43] QCA Act, sections 99-100.
[44] QCA Act, section 101(2).

74. Secondly, in the case of a dispute, the QCA may be asked to determine the terms of access, including the price.[45] The pricing principles the QCA must apply include an instruction that prices should align with costs, as follows:[46]

> *The pricing principles in relation to the price of access to a service are that the price should—*
>
> > *(a) generate expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved …*

75. Thirdly, under the QCA Act, the QCA is also empowered to require the provider of declared services to submit an undertaking in relation to the declared services, and has the power to determine its own undertaking if it disagrees with the terms of the undertaking presented.[47] In essence, this route permits the QCA to undertake an *ex ante* price determination in respect of the declared services. The same pricing principles as discussed above are also required to be applied by the QCA when assessing the pricing components of an undertaking.[48]

76. In my view, the most likely outcome of declaration of the Coal Handling Services is that the QCA will decide to require the service provider to submit an access undertaking for the services, and so implement what is essentially an *ex ante* review of prices and other terms of access. The decision to require an undertaking would be consistent with how access regulation was applied in the first review to the DBCT, and continues to be applied to Aurizon Network. We would also expect agitation from some Users of the Terminal for the QCA to require an undertaking to be produced in order to determine at least the initial regulatory settings (such as the initial RAB), and the QCA would be required to consider such representations. The alternative is that the parties would be left to negotiate the terms of access; however:

a. there would be a strong likelihood that the QCA would be asked to arbitrate the terms of access, and

b. the negotiations between the parties would be framed against expectations of how the parties expected the QCA would determine the terms of access if the QCA was called to arbitrate a dispute.

77. Under any of these alternatives, it is likely that prices either will be determined with reference to cost by applying the standard techniques and methods applied by Australian regulators in relation to similar infrastructure facilities, or those prices will be negotiated against expectations of what such a cost-based regulatory determination would entail. Accordingly, it is necessary to consider the nature of the prices that may result from such

45 QCA Act, section 117.
46 QCA Act, section 120(1)(l), 168A.
47 QCA Act, sections 133, 135.
48 QCA Act, sections 138(g) and 168A.

a process, and to understand how they may differ from the likely prices on offer if declaration is not to occur (i.e., those discussed in section 2.2).

Uncertainties that would arise in applying cost-based regulation to the Terminal

78. While the methods and processes that Australian regulators apply to determining cost-based prices are well-established, their outcome in the case of the Coal Handling Services is uncertain, and in my view may result in prices that are higher in the short to medium term than in the absence of declaration, and that are unstable over time. My reasons for this are discussed below.

Initial regulatory asset base

79. A key source of the uncertainty as to the cost-based price level is that the Terminal has never been subject to cost-based regulation by an independent regulator, and so the QCA would need to determine an appropriate starting value for the assets that are employed to provide the services. As the QCA would be aware, the setting of the initial regulatory asset base for assets that are part-way through their life was the most difficult and contentious issue facing regulators when independent, cost-based regulation was first applied to the infrastructure sector in Australia. Even though the QCA's previous decisions and the other most relevant regulatory precedent[49] would suggest that the initial value would be determined at an estimate of the "depreciated optimised replacement cost" (DORC) of the assets employed, the application of this method is subject to substantial imprecision.

80. While the legacy User agreements contain [redacted], this schedule was determined by the government prior to privatisation and was never subject to independent regulatory oversight. I understand that the prices for the use of the DBCT prior to privatisation were also determined on a similar "shadow regulation" basis, but the QCA nonetheless determined the regulatory settings for the DBCT from scratch when it assumed responsibility for its regulation. In that case the range of estimates of the Depreciated Optimised Replacement Cost (DORC), which the QCA applied as the regulated asset base (RAB), was very wide:[50]

> *A number of DORC valuations were submitted to the Authority for consideration. DBCT Management proposed a single stage DORC value of $1084 million while the DBCT User Group proposed a DORC value of $462 million. In its Draft Decision, the Authority adopted a DORC value of $824 million.*
>
> *In its final decision, the Authority has adopted a DORC value of $850 million.*

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49 Namely the case of the Port of Newcastle, for which the ACCC set a price based on a DORC estimate of $1.16 billion. See: Australian Competition and Consumer Commission, (18 September 2018), Final Determination: Statement of Reasons, Access dispute between Glencore Coal Assets Australia Pty Ltd and Port of Newcastle Operations Pty Ltd, p.140.

50 Queensland Competition Authority, (April 2005), Final Decision, Dalrymple Bay Coal Terminal Draft Access Undertaking, p. 121.

81. In the case of Port of Newcastle, Glencore Coal Assets Australia Pty Ltd brought a matter against the Australian Competition Tribunal to the Federal Court of Australia to determine whether the Tribunal erred in deciding that contributions of service Users should not be deducted when calculating the RAB, as the ACCC had done. While the parties had both agreed to apply the building block model and the DORC methodology to calculate the RAB, the issue of how $912 million in User contributions should be treated in that calculation was material. Under the ACCC's approach, deducting User contributions reduced the DORC valuation to $1,163.8 million. [51] The Federal Court's judgement was handed down in December 2020,[52] and was then appealed to the High Court, which delivered its judgement in December 2021.[53]

82. As well as the large variances in estimates of the replacement cost of infrastructure facilities, some of the issues that are likely to be particularly complex for the Terminal given its unique context are:

a. what would the optimal terminal look like if constructed today, i[redacted]

b. how should the [redacted] feed into the "depreciation" that is applied when applying the DORC method – the economically-correct view is that the depreciation step of DORC should reflect only the cost disadvantage of operating the "old" facility compared to a hypothetical "new" facility and so be (largely) unaffected by [redacted];[54] however, the QCA is likely to receive advocacy that the [redacted] (and so the potential for premature stranding of the assets) should mean the assets are more depreciated than otherwise, and

c. what rate of "interest during construction" should be applied when estimating the replacement cost – the QCA assumed that debt finance for the DBCT would be obtained via "project finance" and so applied a much higher interest rate than the standard regulatory allowances: [redacted]

Dealing with demand uncertainty

83. The second issue the QCA would need to address is how best to ensure an "NPV=0" outcome for the Terminal in the face of material uncertainty over the life of the market that is served by the Terminal. The difficulty that regulators face when attempting to set regulated charges for an asset that is subject to material demand uncertainty is that the

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51 Australian Competition and Consumer Commission, (18 September 2018), Final Determination: Statement of Reasons, Access dispute between Glencore Coal Assets Australia Pty Ltd and Port of Newcastle Operations Pty Ltd, p.140.

52 Federal Court of Australia – Full Court, Glencore Coal Assets Australia Pty Ltd v Australian Competition Tribunal [2020] FCAFC 145 (24 August 2020), paras.170-294.

53 High Court of Australia, Port of Newcastle Operations Pty Limited v Glencore Coal Assets Australia Pty Ltd [2021] HCA 39.

54 This means that the [redacted] – and so the potential shortening of the period over which costs are able to be recovered – should leave the initial RAB largely unchanged, but rather result in a higher price. This is consistent with the position of a hypothetical new entrant into the market, for whom a shortening of the life of the market it plans to serve would raise the price it requires to recover its costs.

prices they determine will apply a cap to the earnings that a regulated business will make if demand turns out to be better than expected, but leave the business exposed to the loss that results if demand turns out to be worse than expected. The necessary result is that an NPV<0 outcome results. The potential for cost-based regulation to truncate returns and cause an NPV<0 outcome – and especially where demand is uncertain – has long been recognised, and has been described by the Productivity Commission (in relation to the national gas access regime) as follows:[55]

> *Investments are risky and so have a distribution of possible profits. The mean of an investment's profit distribution is often used to measure the investment's expected profit.*
>
> *In essence, expected economic profit is constrained to zero (in net present value terms) under the Gas Access Regime to encourage competitive behaviour ex ante (economic profit is the difference between revenue and the opportunity cost of inputs). However, the presence of risk means that actual economic profit might not be zero. That is, a high actual profit can be consistent with competitive behaviour. Nevertheless, regulators might tend to interpret a high actual profit as evidence of monopolistic behaviour …*
>
> *Hence, regulators might be tempted to curtail high profits. This is termed asymmetric truncation because only high profits are curtailed. If a profit distribution is asymmetrically truncated, then its mean (expected profit) will fall. As noted by Train (1991):*
>
> > *If the firm makes less than the allowed rate of return in 'bad' years and yet is not allowed to make more than the [upper bound of] return[s] in 'good' years, the firm's average return over time is less than the allowed return. (Train 1991, p. 105)*

84. One potential response to the "asymmetric truncation" issue is to provide a premium that was designed to compensate for the potential downside risk that is borne by the provider (i.e., stranded asset risk). However, calculating the necessary premium in practice requires assumptions about the potential for asset stranding, which is a very difficult task for a regulator to undertake and defend. Moreover, a particular issue with providing compensation for stranded asset risk is that the consequences of getting the estimate wrong is that a windfall gain or loss may accrue. The Productivity Commission also made similar observations in the context of gas pipelines:[56]

> *Adding a 'truncation premium' to the ex ante regulatory rate of return for new pipelines might address the adverse effects of asymmetric truncation. A truncation premium seeks to give back (by means of a higher price) what a regulator takes away (through regulatory resets or benefit sharing mechanisms that truncate upside returns).*

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55 Productivity Commission, 2004, Review of the Gas Access Regime, p.103, Box 4.4.

56 Productivity Commission, 2004, Review of the Gas Access Regime, pp.407, 408-409.

> *It is useful to note the distinction between a risk premium and a truncation premium. The former provides an incentive to risk averse investors to invest in more risky projects, while the latter compensates for the asymmetric truncation of returns under regulation.*
>
> *…*
>
> *The Commission acknowledges that a truncation premium could, in theory, address the distortionary impact of asymmetric truncation on investment. However, significant implementation issues would have to be addressed before the introduction of such a premium. To calculate project-specific premiums, a regulator would require knowledge about the distribution of returns, as well as some explicit estimate of the extent to which the regulator expects to limit the upside potential of such returns. As detailed in the review of the national access regime (PC 2001c), such an approach would entail some degree of regulator subjectivity and, as such, might become an additional source of gaming and disputation between the regulator and the service provider.*

85. The Productivity Commission ultimately decided not to recommend that truncation premiums be applied to compensate for the asymmetric truncation of returns.[57]

86. Rather the standard mechanism that Australian regulators apply to deal with future demand uncertainty (and the resulting stranded asset risk) is to permit the recovery of capital (via depreciation) to be shortened so that costs can be recovered in full prior to the risk of asset stranding (and asymmetric truncation) becoming material. This is how the issue of impending stranded asset risk has been addressed in the context of regulated gas transmission and distribution pipelines,[58] which has similarities to the current case.

87. A consequence of addressing stranded asset risk by accelerating depreciation, however, is that prices in the near term may be high (reflecting the additional capital that is recovered in the near term), although this would be balanced off by lower prices than otherwise in the longer term, provided asset stranding does not occur. Moreover, Australian economic regulators universally apply forecasts of actual demand when deriving regulated prices, and so the uncertainty in demand in the near term will flow through directly into prices.

88. In contrast, if unregulated, it is possible for an access provider to assume a longer recovery period when setting prices, as it knows that it will benefit from the "upside" if demand proves more resilient than expected, and so be compensated for the downside risk of demand falling away faster than expected. It is also possible for an unregulated provider to lock in its price offering over an extended period and so bear the uncertainty of demand in both the near and longer terms rather than passing this risk through to

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57 Productivity Commission, 2004, Review of the Gas Access Regime, pp.433.

58 See for example: Economic Regulation Authority Western Australia (1 April, 2021), Final decision on proposed revisions to the Dampier to Bunbury natural Gas Pipeline access arrangements 2021 to 2025, Submitted by DBNGP (WA) Transmission Pty Ltd, pp.313-360; and Australian Energy Regulator (June, 2023), Final decision, AusNet Gas Services, Gas distribution and access arrangement 1 July 2023 to 30 June 2028, Attachment 4 – Regulatory depreciation, p.4.

Users. [redacted]

2.2.3 Conclusion

89. As a consequence of asset valuation issues, demand uncertainty and increased stranding risk that confronts the coal industry, in my view it is unlikely that declaration would result in any better (or more reasonable) terms than the terms that are expected without declaration. Importantly, the tools that are practicable and available to regulators to preserve NPV=0 in the presence of material demand uncertainty are limited and blunt, which leave little option but to set prices such that the regulated business is shielded from this demand risk to the extent possible. As such, there can be no confidence that the "with declaration" prices will be lower and more certain (stable) than those that would be negotiated commercially, indeed the opposite is likely to be the case.

90. I observe here that the situation of the NQXT is counterposed to the situation the QCA was addressing in relation to the DBCT. In the latter case, the outcomes under declaration were well-known as the facility had been declared almost two decades earlier, and had been subject to multiple price determinations by the QCA. Accordingly, the QCA's main concern when considering whether declaration should cease is the uncertainty for Users in the "without declaration" world. In contrast, the world "without declaration" for the NQXT is reasonably certain as this world has applied to date, and NQXT has made clear, public commitments as to its proposed access terms and conditions going forward. The world "with declaration" for the NQXT, however, is fundamentally uncertain given the issues discussed above. This uncertainty of the outcomes of declaration in relation to the NQXT at this time provides strong grounds for the QCA forming a different view about the benefits to Users from (retaining) declaration for DBCT as opposed to a (new) declaration for the NQXT.

2.3 Does the vertical integration of the Adani entities create a risk that access may be denied?

2.3.1 Introduction

91. As discussed earlier, the Adani entities are involved in multiple activities in the coal supply chain, namely:

a. as owner/operator of the Carmichael coal mine (via Bravus)

b. owner of the below-rail assets between the Carmichael coal mine and the Aurizon rail network

c. operator of an above-rail rail transport between the Carmichael mine and the Terminal,

d. operator of the Terminal, and

e. owner of the Terminal.

92. These interests raise the question of whether the Adani entities may have an incentive to frustrate access to the Terminal in order to benefit its activities in these related markets. We observe that the potential for vertical integration to affect the incentives of owners of essential facilities over the terms and conditions of access have featured in the past discussion of the QCA in relation to criterion (a), as well as those of the Tribunal, the NCC and the report into national competition policy that gave rise to the third party access regimes as we know them now.

93. Notwithstanding the prominence of vertical integration as a source of potential access issues in these previous discussions, it needs to be established in the context of the case being considered that the vertically integrated entity actually does have the capacity and incentive to reduce competition in a related market to boost its competitive position in that market.

94. The incentive to deny access is part of what is referred to in competition economics as economic foreclosure, which has been an evolving and contentious area of economic investigation. The history of concerns about economic foreclosure in competition cases in the US is neatly summarised in the following except from Viscusi et al:[59]

> *Historically, the most common complaint raised in legal proceedings against vertical merger is that it promotes market foreclosure. As the Supreme Court stated in its famous Brown Shoe (1962) decision: "the diminution of the vigor of competition which may stem from a vertical arrangement results primarily from a foreclosure of a share of the market otherwise open to competitors." As an example, the acquisition of ready-mixed concrete firms by cement suppliers was said to foreclose the market for cement to non-integrated cement suppliers. The idea was that if some of the demand or supply was taken out of the market through vertical integration, then the market was made less competitive.*
>
> *Though the welfare-reducing foreclosure effect of vertical mergers was part of antitrust doctrine for many years, it was not predicated on a careful economic analysis. Eventually, the Chicago school of antitrust economics showed that the foreclosure argument was flawed, and in fact, there were no anticompetitive effects. ... However, only decades later (in the 1980s) did antitrust policy become more lenient with regard to vertical mergers.*
>
> *While the Chicago school analysis remains correct, time has shown that their conclusions are relevant only under some special circumstances. Game-theoretic analyses since the 1990s have identified situations in which foreclosure can have anticompetitive effects. ... One general point is that a necessary condition for a vertical merger to have anticompetitive effects is that there is market power in one or both of the upstream and downstream markets.*

95. The crux of the Chicago school argument (with terminology adopted to the context of essential facilities) was that a provider of an essential service is able to extract any rents that are available in the market through the prices that it sets for the essential service.

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[59] Viscusi, K., J. Harrington and D. Sappington (2018), Economics of antitrust and regulation, fifth edition, pp.265-266.

Thus, there is no need for access to be denied in order to extract rent, and indeed the interests of the provider would be best served from vigorous competition in a dependent market as this may raise efficiency and so increase the extent of rent that is available. The conclusion of the Chicago school analysis was that where vertical mergers were proposed this is more likely to reflect cost efficiencies than an attempt to monopolise, but the analysis also means that a provider of essential services need not have an incentive to deny access even when it participates in a related market.

96. As the quote from Viscusi et. al. makes clear, however, the Chicago school position serves as a starting point, and there is a rich subsequent literature that has identified situations where an incentive to foreclosure may exist. The key requirements for an incentive to foreclose to exist include that:[60]

a. *a market that foreclosure allows to be monopolised* – as there is nothing to be gained from foreclosure that has only a minimal impact on competition in the related market

b. *benefits exceed the costs* – the benefit in terms of the greater "rent" that is earned directly through the related market must exceed any loss of sales of the access service. The standard assumption of the economic models of foreclosure is that the vertically integrated access provider is able to increase its own production to displace any loss of volumes of sales from competitors (i.e., up to the point at which the "rent" in the final market is maximised), and

c. *cannot extract the rent via the access price* – the nature of the market must be such that the provider of the access service is unable to extract any "rent" that may exist in the final market through the price it charges for the access service. One would expect this issue to be very important for digital platforms, where the prevalence of externalities may make it difficult for platforms to extract the benefits from the services they provide directly.[61]

97. The important implication of this discussion is that whether or not an incentive to foreclosure (deny access) exists cannot simply be assumed, but rather requires an analysis of the specific facts of the case at hand. Moreover, a cursory consideration of the factors set out above suggests that it is very unlikely that <u>any</u> of these conditions will be met in relation to the Adani entities (noting that <u>all</u> need to be met). In particular:

a. the principal final market that the Adani entities serve is the world market for thermal coal. The volumes of thermal coal that pass through the NQXT are an immaterial

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60 An implicit assumption in the Chicago school position on foreclosure is that the inputs to a service are required to be applied in fixed proportions, so that it is not possible to substitute the access service for some other input if the price of the access service is increased. I observe that the case of the NQXT is one where the fixed factor proportions assumption will be met given that one unit of coal terminal capacity is needed for one unit of coal production (at least up until the point at which the User switches to a competing coal terminal).

61 The case where a clear incentive to foreclose is created is where the price of access to the essential service is regulated below the market-clearing level, and so the price for the essential service cannot be set in a manner that allows any market rents to be extracted. This is the case in relation to electricity network infrastructure. In this case, the network owner would have an incentive to operate in a related market (e.g., retail) and do things that depress competition in that market, which is why we have had strong rules to protect retail competition.

share of the world market. There is, therefore, no material market that the Adani entities are able to monopolise

b. even if the Adani entities were able somehow to move the price of the world thermal coal market, [redacted] Thus, even if the world thermal coal price could be moved, this would be unlikely to offset the loss of access revenue, and

c. as NQXT negotiates privately with individual access seekers, there is no obvious reason as to why it could not capture any rent that is available in the related market through the access price.

98. I expand on these points below.

2.3.2 Is it likely that the Adani entities will engage in foreclosure?

Introduction

99. The related markets in which the Adani entities operate or could have an incentive to stifle competition are:

a. the production of thermal coal

b. the exploration and development in relation to new coal reserves in the area adjacent to its coal production (referred to below as the market for "tenements", which is the legal right to undertake and benefit from these activities)

c. the provision of below-rail rail infrastructure between the Galilee Basin and the Aurizon rail network, and

d. the above-rail rail transportation of the coal produced by Bravus to the NQXT.

100. The likely incentives of the Adani entities in relation to competition in these related markets are discussed in turn below.

Thermal coal production

101. The main related activity of the Adani entities is the operation of the Carmichael mine producing thermal coal that it exports and sells at the world coal price. The potential therefore exists for the Terminal to deny access to other producers of thermal coal in order to raise the price that the Adani entities receive for its coal.

102. However, this strategy self-evidently would reduce the profit of the Adani entities rather than raise it.

a. First, the thermal coal production that passes though the Terminal accounts for about 2 per cent of the global export of coal,[62] [redacted] Thus, even if the Terminal was to deny access to all of the other thermal coal producers that currently export via the Terminal causing those producers to cease production, global exports (production) would fall at best by around 1 per cent, which is unlikely to cause a discernible change in the world coal price. Moreover, some of the production that is currently served via the Terminal may divert to the DBCT in any event, which is why this is framed as the maximum change.

b. Secondly, the Terminal would lose the terminal revenue from producers whose access was denied.

103. Clearly, the fact that the coal production is sold into a competitive markets that are vast (as described more fully in section 3 below) means that neither the prices charged at the Terminal nor the relatively immaterial volumes passing through the Terminal will affect world coal prices. This in turn means that there is no benefit from seeking to foreclose on its competitors. Given that it would only reduce terminal revenue, this would be an economically irrational strategy.

104. In addition, the broader Adani group is also a producer of electricity in India, and so it is not even clear that this broader group would benefit from a higher world coal price (even if it were possible for NQXT to influence world coal prices through foreclosure of access to the Terminal, if this broader group is a net buyer of coal, then it may benefit from a lower world coal price).

Tenements

105. This issue is whether the Adani entities may use the terms of access to the Terminal to seek to depress competition in the exploration and development of new coal reserves in the area surrounding the Carmichael mine. In theory, the Adani entities may have an incentive to do this in order to purchase the rights to further prove or develop the reserves more cheaply than otherwise.

106. First and foremost, even if the Adani entities were to act in such a manner, it would not be properly characterised as causing a reduction in competition, and so precluding such behaviour would not cause a promotion of competition. This is because the exploration and development of coal reserves are derivatives of the coal market, and so are already competitive (i.e., exploration and activities in Australia competes, via the world coal market, with exploration activities in other export-orientated coal producing areas). This concept is explained further in section 3.4.

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62 The declaration decisions for similar facilities have referred to the global coal export markets when seeking an indication of the size of the market in which the volumes from a certain export terminal compete. However, I note that the true market will be larger than this, as the price in the world export markets will also be affected by the extent of coal production from exporting areas that is consumed domestically (i.e., not exported). The contributions of the output of NQXT to the overall market referenced here therefore should be taken as a likely overstatement.

107. In addition, [redacted][3] [redacted].[64] As has been publicly reported, the Carmichael mine was commenced as a smaller operation than originally intended in order to reduce the upfront capital cost of the mine. The interests of the Adani entities would be best served by encouraging independent parties to explore and develop other coal mines in the Galilee Basin in order to share in the cost of the (Adani owned) railway operations to the basin.

Below-rail rail transport operations

108. The issue relates to the potential for the Terminal to provide access terms that encourage mines in the Galilee Basin to use the Carmichael Line rather than to construct a duplicate to that line.[65]

109. The Carmichael Line serves the Galilee Basin, and so only producers from within that basin have the opportunity to use the Carmichael Line. As Bravus is the only producer at present in the Galilee Basin, and the Statement by Mr. Brendan Lane, Bowen Rail's General Manager, confirms that while an access policy is in place and was approved by the State Government in 2021, [redacted].[66] As no other producer is expected to establish mining operations in the Galilee Basin over the proposed declaration period, there is no potential for access to the Terminal to be applied to dissuade a potential competitor to the Carmichael railway line.

110. If coal production from a non-Adani entity were to commence at some time, the high cost of constructing the rail infrastructure and the sunk nature of the investment would provide a strong incentive to seek to use the Carmichael Line. The Adani entities would have a strong incentive to accommodate other Users of the infrastructure in order to have others share in the cost of this infrastructure.

Above-rail rail transport operations

111. As discussed earlier, the Adani entities currently provide their own above-rail rail transport services in respect of the output of the Carmichael mine. The issue is whether access to the Terminal could be used to encourage other producers to use the Adani-provided above-rail services.[67]

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63 Based on Wood Mackenzie asset reports for 2024, in the Carmichael Mine region the Adani entities have access to a resource of [redacted]

64 [redacted] See MBS, Table 5 at para.201.

65 This is different to the comments that Mr Houston made about competition for below-rail services, where he expressed the concern that a reduction in the output of mines in the Galilee Basin (caused by unreasonable Terminal pricing) may reduce the likelihood that a duplicate for the Carmichael Line is constructed – this issue is discussed in section 4.2.7.

66 BL, paras.21-27.

67 This is different to the comments that Houston made about competition in above-rail services, where he expressed the concern that a reduction in the output of mines (caused by unreasonable Terminal pricing) may lead to a reduction in above-rail competition – we address that issue in section 4.2.7.

112. [redacted].[68] According to Mr Brendan Lane, Bowen Rail's General Manager, [redacted].”[69] Accordingly, the potential for Terminal access to be used to encourage coal producers to switch to the Adani service is a theoretical rather than real proposition.

113. Moreover, it is not clear as to why the Adani entities would have an incentive to attempt to make a rent in above-rail operations, rather than to simply attempt to capture any rent that is available via its charge for the use of the Terminal. Indeed, any effort that raised the cost of rail transport of coal to the Terminal would reduce its competitiveness against the DBCT.

2.4 The Adani entities' own use of the Terminal capacity is protected

114. When discussing the effect of the Adani entities' wider interests on competition, the key contention in the application for declaration and the supporting expert report of Mr Houston would appear to surround the potential for the Adani entities to preference their own use of the capacity of the Terminal to export coal from the Carmichael Mine. The key concern with this preferencing of capacity is that the production of metallurgical coal may be dissuaded, and lead to a reduction in competition in the market for metallurgical coal.

115. I observe at the outset that while the potential for the Adani entities to preference their own use of the Terminal capacity as the outworking of “vertical integration”, this label is incorrect and misleading as the Adani entities do not have interests in the production of metallurgical coal. Accordingly, this activity cannot be interpreted as a denial of access that is intended to foreclose competition in a related market, which is the principal economic concern with vertical integration – and the harm that is intended to be addressed by access regulation – as discussed earlier.

116. More generally, I observe that giving priority to one's own use of one's own facility has never been interpreted as a nefarious or anticompetitive activity. Rather, the Australian third-party access regimes are directed to providing a right of access to spare capacity (i.e., the amount that remains after the asset owner's requirements), rather than the effecting the compulsory acquisition and reallocation of capacity, which would raise the regulatory risk associated with access regulation, potentially to the detriment of investment. The report that gave rise to the third party access regimes as we know them today discussed this matter as follows (the first quote is the third of the four principles

[68] BL, section 4.
[69] BL, para.18.

the committee identified for the national access regime, and the second quote is the subsequent discussion of the issue of an owner's own use of a facility):[70]

> *III The legitimate interests of the owner of the facility must be protected through the imposition of an access fee and other terms and conditions that are fair and reasonable, including recognition of the owner's current and potential future requirements for the capacity of the facility.*
>
> *With privately-owned facilities, in particular, it would be appropriate to ensure that an obligation to provide access does not unduly impede an owner's right to use its own facility, including any planned expansion of utilisation or capacity. It may be appropriate to require that access be provided on a "non-discriminatory" basis, although what this is intended to mean in a particular setting should be spelt out. For example, it may be appropriate for the owner of a private facility to give priority to its own requirements in determining access to the facility in some circumstances.*

117. Indeed, to this end, the QCA Act expressly prevents the QCA (when arbitrating a dispute of making a determination in relation to an undertaking) from preventing a facility owner to have access to "its reasonably anticipated requirements", and raises the prospect of compensation to the provider if its actual requirements (as distinct from those anticipated at the time of the access dispute" are impeded (QCA Act, s119). This mirrors a similar provision from the national regime. Accordingly, the "with declaration" world would be no different in relation to NQXT's parent's own use of the facility as it is in the "without declaration" world.

118. Having said that, the prospect of the Adani entities preferencing their own use of the Terminal in a manner that displaces the use of others over the term of the declaration is remote.

119. First, as discussed earlier, NQXT will have a strong incentive to accommodate all use of the terminal to the extent possible. Claiming a requirement for capacity in cases where there no real conflict will lead to a loss of access revenue for the Terminal for no compensating benefit. Indeed, [redacted]. To this end, I observe that the Adani entities have enacted a range of measures that are intended to give confidence over short term and long term access to the terminal, which include: [71]

[redacted]

[70] National Competition Policy, Report by the Independent Committee of Inquiry, 1993 (Hilmer report), pp.252, 256.

[71] MBS, sections D, E.2. Mr Smith observed that there had been [redacted]

b. [redacted] and

a. [redacted] and with [redacted] As explained by Mr Damien Dederer, General Manager, Abbot Point Operations, the measures that combine to enable the Terminal to be operated equitably for the benefit of all Users are:[72]

i. Terminal Regulations - [redacted]

ii. User Committee Meetings - [redacted],[74] and

iii. the Information Security Protocol - [redacted]

120. Secondly, the evidence that I have considered suggests [redacted].[75] NQXT also has options available to expand capacity if required, which include a relatively low cost option to add approximately 10 mtpa of capacity, as well as the option to construct a new export terminal (referred to as the T0 expansion),[76] which further reduce the potential for a conflict in demand for the Terminal capacity. Having said that, the evidence also suggests that the operative constraint on the amount of coal that can be shipped out of the Terminal is the capacity of the Aurizon rail network (which is currently only able to transport 40 mtpa to the Terminal), and the Adani entities do not have a role in deciding how the Aurizon rail capacity is allocated.

2.5 The Adani entities have an incentive to maximise short term and long term use of the Terminal

121. In the absence of any capacity to benefit from a denial of access (either via an improvement to the thermal coal price, or the capacity to purchase tenements at a lower price), subject to the caveat that I address below, the incentive of NQXT's parent is for the NQXT to be operated in a manner that maximises its independent profit. The

72 Witness Statement of Damien Dederer ("DD"), paras.38-42.
73 DD, paras.25-33.
74 DD, paras. 34-37.
75 MBS, Table 5 at para.201.
76 MBS, paras.204-209. The following paragraphs in MBS discuss alternative new terminal options that have been proposed by other parties. I note that Adani's original proposal to develop a 60 mtpa mine in the Galilee Basin assumed the construction of the second terminal at Abbot Point, rather than the use of the whole of the existing capacity of the Terminal for Adani's own use.

independent profit of the NQXT will be maximised by setting access terms and conditions that:

a. maximise the use of the NQXT in the short term

b. create the conditions by which that profit from the use of the NQXT is maximised over the long term, which includes to promote the continuation of existing mines and development of new mines, and

c. additionally in relation to potential mines in the Galilee Basin, promote other developments in the area in order to have others share in the cost of the Carmichael railway line.

122. Neither NQXT nor its parent has an incentive to deny access; in fact, its incentive is the opposite.

123. The conclusions from the previous section were that it is unlikely that the reasonable terms of access that may be generated via declaration would result in a material improvement in the reasonableness of the terms of access. The implication of these findings is that declaration is unlikely to result in a change in the conditions for competition in any potential related (dependent) market.

124. However, even if the NQXT were assumed to set unreasonable prices absent declaration, the focus needs to be on how competition may be affected rather than on whether certain parties in the supply chain may benefit or even whether economic efficiency may be improved, as the NCC noted:[77]

> *Criterion (a) is not met merely by establishing that a service provider is a natural monopolist with respect to the provision of a service, possesses market power or is able to charge a price above what would be charged in a competitive market for the service. For instance, even where lower prices for access to a service may arise in a future with declaration of a service, compared to a future without declaration, this does not necessarily mean that competition will be promoted in a dependent market. This might be the case if, for example, a lower price for access would lead to little or no change in consumption or production decisions with respect to the service the subject of a declaration application. In these circumstances, a lower price for access may merely have the effect of redistributing the economic surplus generated within a supply chain. Criterion (a) will not be satisfied by establishing that regulated access will result in a different distribution of rents between access seekers and a provider of a service.*

125. A central question when establishing whether there may be an impact on competition is whether any unreasonableness in pricing would be expected to lead to a change in the output (and derived demand) of the sector that is facing the unreasonable access charges. If those charges do not result in a change in output decisions, then it is highly unlikely that competition in related markets may be affected.

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[77] NCC, 2020, Application for declaration of certain services at the Port of Newcastle, Recommendation, December, para.7.12.

126. As I have already discussed above, NQXT has a strong financial incentive to promote the use of the terminal, which means to ensure that its charges do not lead to a reduction in the output of mines in the short term, and that mines continue in operation and new mines are developed in the long term. It can be inferred from this that it is unlikely that any unreasonableness in NQXT's pricing is likely to affect the output of mines and so have a discernible effect on competition in related markets.

127. This finding is materially the same as found previously by the Tribunal in comparable matters. As summarised by the Tribunal in connection with an application for declaration of a service at the Port of Newcastle (PNO):[78]

> *In short, PNO has an incentive to maximise its profits. It has a commercial objective to recover its efficient costs of providing the Service, and a commercial imperative to maximise trade volumes through the Port. Excess capacity in the Port accords PNO an incentive to encourage growth.*

128. Following the same approach, the Tribunal noted that:[79]

> *In its Final Recommendation, the NCC accepted that coal producers have limited ability to pass on increases in port charges, and that demand for the shipping channel service is relatively inelastic. However, there is a practical constraint on PNO of ensuring that coal producers continue to supply into a highly competitive market. That is, if price rises imposed by PNO made some coal producers uncompetitive globally, and led to some operations ceasing in the Hunter Valley, this could reduce volumes and revenues for PNO. While it is possible that this may not constrain PNO if other producers remained that could absorb the price increases, it is more likely that PNO would have an incentive to maximise the flow of coal through the Port so as to capture as much of the benefits from this coal export market as possible. 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.*

129. Against the backdrop of these remarks, I now turn to the potential for declaration to improve the conditions for competition in the potential related markets.

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78 Australian Competition Tribunal, Application by Glencore Coal Pty Ltd [2016] ACompT 6, para. 154.

79 Australian Competition Tribunal, Application by Glencore Coal Pty Ltd [2016] ACompT 6, para. 155.

3. Potential related (dependent) markets

3.1 Introduction

130. This section applies the discussion from Chapter 2 to each of the markets where there may be a claimed potential for declaration to cause a material promotion of competition.

3.2 Thermal coal export market

3.2.1 State of competition without declaration

131. The thermal coal that is transported via the Terminal is sold in the world thermal coal export market,[80] which is widely acknowledged to be an effectively competitive market. During the declaration review of the Port of Newcastle, which is primarily a thermal coal exporting port, the NCC concluded that:[81]

> *The coal export market is likely to be effectively competitive such that declaration would not promote a material increase in competition in that market. Further, PNO is unlikely to have the incentive to diminish competition in this market. Coal export accounts for a substantial portion of activity at the Port and PNO is likely to have a commercial incentive for the coal export market to be effectively competitive in order to maximise demand for its Service.*

132. The world thermal coal export market reached a record high of 1,178 mt in 2024, which was 27 mt above the tonnage exported in 2023,[82] with the three largest exporting countries being Indonesia (521 mt), Australia (353 mt), and Russia (211 mt). In 2023/24 the Terminal's exports of thermal coal were 21.2 mt, which accounted for only 1.8 per cent of exported thermal coal volumes. Moreover, as the volumes reported refer only to traded quantities of coal (and so excludes any domestic consumption of coal that displaces exports) this is a likely overstatement of the significance of the NQXT volumes for the world market. I conclude that Abbot Point accounts for an insignificant fraction of this highly competitive market.

3.2.2 Would declaration of NQXT be likely to materially affect competition in the market?

133. In my view, competition in the extensive and still growing world thermal coal export market would not be affected by declaration of the Terminal because:

a. First, as discussed in Chapter 2, declaration is unlikely to lead to an improvement in the reasonableness of the terms of access, including once the issues of vertical integration are considered.

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80 This is also often referred to as the seaborne (thermal) coal market. There is also substantial coal that is produced but not able to be traded or to displace traded coal, and so form separate markets.

81 National Competition Council (18 December 2020), Application for declaration of certain services at the Port of Newcastle, para.126.

82 International Energy Agency (2024), Coal 2024, Analysis and forecast to 2027, pp.58 and 113.

b. Secondly, even if declaration were considered likely to produce an improvement in the reasonableness of the terms of access, NQXT would have an incentive to offer price and non-price terms of access that maximise the short term and long term prospects for the sector. A consequence of this is that the output and investment of the mines is unlikely to change in any material way, so that competition in the market could not be affected in any material way as a result of declaration. I also discussed this matter in Chapter 2.

c. Thirdly, as discussed above, the thermal coal market is a very large global market that is already effectively competitive. Even if declaration had an effect on the output of the mines utilising NQXT's services, competition in the market could not be said to be affected given the size of the world market for thermal coal, as discussed above.

134. As I also discussed earlier, there is no incentive for the Adani entities to deny access to the NQXT in order to stifle competition in the world thermal coal market in order to benefit the Adani entities' own thermal coal production. Rather:

a. the sheer size of the world thermal coal market means that it is very unlikely that such a denial of access would have any discernible effect on the coal price, but

b. the NQXT would suffer a reduction in revenue from access services, thus making the denial of access unprofitable.

135. The Adani entities may have an incentive to provide priority to its own use of the Terminal over others; however:

a. this behaviour is not foreclosure, but is better interpreted as displacement of other demand, and the reasonable use of one's own facility is not affected by declaration, but

b. displacing other demand is something that would be expected to occur only as a last resort when there is a shortage of Terminal capacit [redacted]

3.3 Coking coal export market

3.3.1 State of competition without declaration

136. The coking coal that is transported via the Terminal is sold in the world coking coal export market, which is widely acknowledged as being effectively competitive. When reviewing the declaration of DBCT, which is a coking coal exporting port, the QCA observed that:[83]

> *No stakeholder contested DBCT Management's view, which would suggest that the seaborne metallurgical coal market is already effectively competitive, with a large*

[83] Queensland Competition Authority, (March 2020), *Final recommendation, Part C: DBCT declaration review*, p.200.

> *number of participants and prices set by reference to international spot prices. This also seems consistent with the views of market analysts*.

137. The world coking coal export market reached a record high of 368 mt in 2024, which was 18 mt above the tonnage exported in 2023.[84] During 2023/24 the Terminal exported [redacted] of coking coal, which accounted for [redacted] per cent of the world export market and is a much smaller share of global production/consumption. Again, as with thermal coal, this is a likely overstatement of the significance of the NQXT volumes for the world market given than any domestic consumption that diverts exports is excluded from the export volumes. Abbot Point accounts for a very small segment of this highly competitive market.

3.3.2 Would declaration of NQXT be likely to materially affect competition in the market?

138. In my view, competition in the extensive and still growing world thermal coal export market will not be affected by declaration of the Terminal because:

a. First, as in the case of thermal coal, declaration is unlikely to lead to an improvement in the reasonableness of the terms of access, noting that there is no issue of vertical integration in relation to coking coal given that the Carmichael Mine is a purely thermal coal mine.

b. Secondly, even if declaration were considered likely to produce an improvement in the reasonableness of the terms of access, NQXT would have an incentive to offer price and non-price terms of access that maximise the short term and long term prospects for the sector. A consequence of this is that the output and investment of the mines is unlikely to change in any material way, so that competition in the market could not be affected in any material way as a result of declaration.

c. Thirdly, the coking coal market is a global market that is already effectively competitive. Even if declaration had an effect on the output of the NQXT producers, competition in the market could not be said to be affected given the sheer size of this market, as discussed above.

139. I also observe that with its terminal capacity of approximately 85 mtpa, DBCT accounts for up to 23 per cent of the global export trade in coking coal, which is relatively much more important to that market than the [redacted] per cent accounted for by NQXT, yet the QCA still concluded in relation to DBCT that:[85]

> *Based on the evidence before it, the QCA is not satisfied that declaration would promote a material increase in competition in the metallurgical coal export market.*

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84 International Energy Agency (2024), Coal 2024, Analysis and forecast to 2027, pp.58 and 113.

85 Queensland Competition Authority, (March 2020), Final recommendation, Part C: DBCT declaration review, p.200.

140. Since the coking coal export market is very large, global in scope and is already effectively competitive, even if declaration had an effect on the output of the mines utilising NQXT's services, competition in the market could not be said to be affected.

141. I observe that QCoal's central proposition is that the Adani entities are likely to give priority to their own use of the Terminal capacity,[86] which is likely to see thermal coal (i.e., from the Carmichael Mine) displace coking coal, and lead to a reduction in competition in the market for export coking coal. From the discussion above, there are substantial flaws in this line of argument.

a. First, if the Adani entities wished to prioritise their own use of the Terminal capacity, this would not be affected by declaration as its reasonable use is protected under the QCA Act (see section 2.4 of this report).

b. Secondly, the prospect of the Adani entities limiting capacity to other parties (coking coal) to give priority to their own use is remote because:

   i. the incentive of the Adani entities is to maximise the use of the Terminal, and so to offer terms of access to maximise prospects for the short term and long term success of the sector – and indeed, [redacted] and

   ii. [redacted], and the operative constraint on volumes through the Terminal comes from the Aurizon rail network.[87]

c. Thirdly, the export coking coal market is already effectively competitive, and so even if there was a substitution of thermal coal for coking coal, this could not be said to have a material effect on competition.

3.4 Later Stage Coal Tenements

3.4.1 State of competition without declaration

142. As discussed above, the thermal and coking coal markets are global markets that are already effectively competitive. The market for later stage coal tenements (to the extent it exists) is a derivative market of the global coal markets, and so the competitive constraint that operates in relation to the final product (thermal and coking coal) also operates in relation to tenements. While the competition is for a tenement may be at a specific site, when analysing tenements in the Port of Newcastle (PNO) catchment, the NCC's adviser NERA stressed:[88]

> *However, this competition for a specific development tenement is in most cases likely to occur within a broader field of rivalry for coal tenements located across a geography that is wider than the Newcastle catchment. This is because a tenement's*

86 QCoal Request for Declaration, para 57. See also Houston report at [221].
87 MBS, Table 5 at para.201.
88 NERA Economic Consulting, (8 April 2019), Declaration of the shipping channel service at the Port of Newcastle, Prepared for the National Competition Council, paras. 21 and 24.

> *ultimate value is derived from its sole use as an input into the production of supply for the coal export market*
>
> *…*
>
> *In fact, because the coal export market is global (or at least as broad as the Asia-Pacific region), it does not make sense to consider the "tenement market" to be limited to the Newcastle catchment…*

143. In recent years the Tribunal and the NCC have concluded that coal tenements are a derivative of the global export coal markets, which are effectively competitive, and that declaration will not result in a material increase in competition in the coal tenements market.

144. It follows under this view that the geographical scope of the late stage tenements market (even if it exists) that could be impacted by declaration of NQXT is far wider than its catchment area, and extends instead to the global market.

145. Having said that, in my view there is good reason to question whether a functionally separate market for late stage tenements can be said to exist. It is my understanding that the activities that give rise to late stage tenements are more commonly undertaken by producing mines rather than independent entities (which contrasts to early stage tenements, where there are a large number of independent operators), which likely reflects the strong economies of scope between these activities and mining production. Moreover, I note that there is little evidence of trade in late stage tenements in the vicinity of the Galilee Basin – Mr Houston identifies two transfers over the past 13 years,[89] of which one appears to be a trade in an interest in an operating mine – which is evidence against the existence of a functionally separate market for late stage tenements.

146. Lastly, as discussed above, as the. Adani entities (and specifically, Bravus) [redacted]

3.4.2 Would declaration of NQXT be likely to materially affect competition in the market?

147. In my view, it is unlikely that declaration would materially affect competition in the late stage tenements market, even if such a market were found to exist.

148. First, as noted above and discussed in Chapter 2, declaration is unlikely to lead to an improvement in the reasonableness of the terms of access, including once the issues of vertical integration are considered.

[89] Houston, para.122. Note that whilst Mr Houston refers to four transfers, two were for early stage tenements (exploration permits).

149. Secondly, even if declaration were considered likely to produce an improvement in the reasonableness of the terms of access, NQXT would have an incentive to offer price and non-price terms of access that maximise the short term and long term prospects for the sector. A consequence of this is that tenement activity would be unlikely to change in any material way, so that competition in the market could not be affected in any material way as a result of declaration. I also discussed this matter in Chapter 2.

150. Thirdly, the proposition that tenements are a derivative of the global coal markets would mean that the extent of competition in the global coal markets applies equally to the tenements market. To this end, I observe that in the PNO declaration matter, the Tribunal considered it unnecessary to independently examine the impact on competition in the coal tenements market because, if:[90]

> *… 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.*

151. I note that the evidence of Mr Houston appears to assume that the geographic market for late stage tenements is the region he refers to as the "northern mine area". This narrow geographic market is inconsistent with the past position of the Tribunal and NCC that the geographic market is a world market, as noted above. Moreover, even if a different view about tenements being a derivative of the world coal markets were to be taken, no evidence has been provided that the market should be defined as narrowly as the "northern mine area" rather than a broader geographic market (such as the Central Queensland coal producing area).

152. In addition, as discussed above, I have not seen evidence demonstrating that late stage tenements should be considered to be a functionally separate market in which a promotion of competition could occur. If, as I understand it, the activities that give rise to late stage tenements are typically undertaken by producing mines, this would be suggestive that the economies of scope between coal production and late stage tenement activities are sufficiently strong as to rule out a functionally separate market. Moreover, the limited evidence of transactions in such tenements suggests that a separate market is not a commercial reality. I observe that while Mr Houston has argued that the late stage tenements should be considered to be a separate market, this has not been supported with evidence.

153. Lastly, even if all of the arguments above were put aside, it seems unlikely that declaration would have a material impact on activities that would give rise to new late stage tenements in NQXT's catchment. Decisions about such activities are far more likely to be influenced by the risk factors associated with global coal markets, the weak demand outlook, and mine approval risk.

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[90] Australian Competition Tribunal, Application by Glencore Coal Pty Ltd [2016] ACompT 6, p. 29 [139].

3.5 Rail haulage

3.5.1 State of competition without declaration

154. Under the current arrangements in NQXT's catchment, the Adani entities-owned Bowen Rail provides rail haulage services for the Carmichael Mine, and the other mines use third party rail providers (Aurizon Operations and Pacific National).

155. The rail haulage operators contract for access to the Aurizon Network under regulated terms.

3.5.2 Would declaration of NQXT be likely to materially affect competition in the market?

156. My principal finding is that declaration would be unlikely to result in a change in the output of the mines. This would mean that there would be no change in the conditions for competition in the market for rail haulage (i.e., above-rail activities on the Aurizon network in the Newlands system).

157. In addition, even if declaration was likely to cause a change to the output of coal mines, it will not change the fundamental structure of the industry, whereby:

a. Bowen Rail provides the haulage service to Bravus, but does not compete with the other operators

b. Pacific National and Aurizon provide the haulage services to the other mines, and

c. the barriers to entry remain relatively low (facilitated by regulated terms of access to the Aurizon Network and the mobility of above-rail assets), so that the threat of new entry continues to provide a substantial discipline over rail haulage activities.

158. It follows that declaration is unlikely to result in a change to the level of competition in above-rail activities even if there was an impact on the output of mines.

159. In relation to the activities of the Adani entities, Bowen Rail only serves the Carmichael Mine and so it does not compete with the other above-rail providers, and this would be unchanged with declaration. Hence, the industry structure in which Bowen Rail provides rail haulage services for the Carmichael Mine, and the other mines use Aurizon Operations and Pacific National third party rail would be unaffected by whether or not NQXT is declared.

160. I note that Mr Houston's evidence appears to be that declaration will cause a change to mining activity that may in turn affect above rail competition. However, Mr Houston does not articulate how a change in mining output will affect competition in above-rail activities. I observe that, even if mining output was to change:

a. the incumbent competitors in the market would likely continue to be Pacific National and Aurizon given that Bowen Coal only serves Bravus' demand and so does not compete, and

b. entry barriers will remain low (facilitated by regulated terms of access to the Aurizon Network and the mobility of above-rail assets, as noted earlier), and so continue to provide a strong discipline on these activities.

161. These factors suggest that a change to the intensity of competition is unlikely.

3.6 Below rail activities

3.6.1 State of competition without declaration

162. The below-rail Carmichael Line is fully owned by the Adani entities, and the only use of that line is to transport the output from the Carmichael Mine to the Aurizon Network. There are no current or prospective third party developments that might utilise that infrastructure.

163. The situation on the Aurizon Network line in the Newlands system and at the GAPE is essentially the same as in the Goonyella system, i.e., subject to declaration and regulation by the Queensland Competition Authority.

3.6.2 Would declaration of NQXT be likely to materially affect competition in the market?

164. With respect to below-rail services, the QCA determined very quickly that declaration of DBCT could not affect competition, concluding that:[91]

> *Below-rail services in the Goonyella system are provided by Aurizon Network, which is also the subject of a separate declaration review. Aurizon Network is the sole provider of below-rail services and does not face competition. The QCA's view is that this market structure is unlikely to change in future, regardless of whether the DBCT service is declared or not. Hence, the QCA does not consider that declaration of the DBCT service would promote a material increase in competition in the below-rail services market.*

165. The same conclusion must follow in relation to Aurizon Network's Newlands system, that is, Aurizon Network will remain as the sole provider, and this will not be affected by declaration.

166. In relation to the Carmichael Mine the same conclusion should also follow, that is, that the Adani entities will remain as the sole provider of infrastructure on this route irrespective of whether or not the Terminal is declared. I note for completeness that the Adani entities have a strong interest in encouraging third parties to use the Carmichael Line in order to have those costs shared, and more generally the Adani entities have an incentive to encourage development in the Galilee Basin to enable that cost sharing. As noted by Bowen Rail's General Manager, Mr Brendan Lane, in 2021 his company established a third-party access policy that has received Government approval, [redacted]

91 Queensland Competition Authority, (March 2020), Final recommendation, Part C: DBCT declaration review, p.212.

[redacted][92][redacted]

[redacted]

167. One of QCoal's arguments is essentially that declaration of the Terminal would increase the prospects of development in the Galilee Basin to the extent that a duplicate of the Carmichael Line would be built, and so lead to a material increase in competition.[94] In my view, it is very unlikely that declaration could have such an effect. In particular, given that the Carmichael Line has been built, [redacted] the strong likelihood – and economically efficient outcome – is that any potential User would seek to negotiate access to the Carmichael Mine and the Adani entities would have a strong incentive to accommodate this access. These negotiations would be assisted by the approved access principles that were referred to above.

3.7 Mining services

3.7.1 State of competition without declaration

168. Many of the providers of mining services are very large entities that operate across many geographic areas and include such activities as geological and drilling services, construction services, mining safety services and mining technology services that are provided with principally mobile equipment.

169. As a consequence, the geographic market for mining services arguably spans at least Australia.

3.7.2 Would declaration of NQXT be likely to materially affect competition in the market?

170. My principal finding is that declaration is unlikely to result in a change in the output of the mines in NQXT's catchment. A corollary of this is that declaration could not change the conditions for competition in the market for mining services markets.

171. In addition, if my view is accepted that the geographic market for mining services must span at least Australia, then it is difficult to see how even a material change in the output of the activity of the mines served by NQXT could affect competition in this market.

172. I note that neither Mr Houston nor QCoal suggest that declaration may cause a material promotion of competition in the mining services market.

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92 BL, paras.21-27.
93 Wood Mackenzie, (May 2024), Carmichael coal mine, Asset Report, p.10.
94 Houston, paras.277-278.

4. Response to Mr Houston's evidence

4.1 Mr. Houston's approach and key propositions

4.1.1 Mr. Houston's approach

173. QCoal Users' legal representatives requested Mr Houston to prepare an expert opinion on "whether the coal handling service provided at the [Abbot Point Export] Terminal satisfies the criteria in Section 76(2) of the Act", and specifically requested:[95]

> *In doing so, please have regard to the methodology that was adopted by the QCA and the Queensland Treasurer in assessing the declaration status of the coal handling service provided at the Dalrymple Bay Coal Terminal (DBCT).*

174. Satisfaction of Section 76(2) of the Act requires demonstrating that 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…"

175. Mr Houston states that he agrees with the methodology adopted by the QCA, and considers that he has applied the same steps, outlined below, in his own assessment:[96]

a. Identify the market for the service

b. Assess the service provider's ability and incentive to exercise market power

c. Identify markets other than the market for the service (dependent markets), and

d. Assess whether access (or increased access) as a result of a declaration of the service would promote a material increase in competition in at least one of the dependent markets.

176. I note that this is a very high level summary of the QCA's methodology. As discussed further below, in my view there are important aspects of the QCA's methodology that have not been applied by Mr Houston.

4.1.2 Mr Houston's key propositions

177. Mr. Houston considers that the coal handling services provided by the Terminal are distinguished from those provided by DBCT due to:

a. the Terminal being vertically integrated with substantive other services, and

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95 Arnold Bloch Leibler (6 June 2025), Instructions – Access Declaration for North Queensland Export Terminal facility at Abbot Point, Letter to Mr Greg Houston, Partner, HoustonKemp, pp.1-2.

96 Houston, pp.1-2.

b. DBCT Users have "evergreen" access rights and have executed a deed poll and access framework that would apply in the absence of declaration, while no such arrangements exist at the Terminal.

178. Mr Houston also considers that because DBCT was already declared at the time of its assessment, while the Terminal is not declared:

a. the situation at DBCT at the time of assessment was closer to the "with declaration" world, while

b. the situation at the Terminal is closer to the "without declaration" world.

179. In Mr Houston's view, since the agreements that were previously struck at the Terminal were between Users and the state, they are unlikely to reflect the agreements that would be struck with the vertically integrated Adani entities. As a result, in his view, in the "without declaration" world the third party Users are likely to face less certain and less favourable circumstances.

180. It is Mr Houston's contention that NQXT has "the ability and incentive to exercise market power" at the Terminal since it is not constrained by:

a. competition from other coal export terminals, because coal handling services at other terminals are "not close substitutes"

b. countervailing power of Users, since they cannot credibly threaten to switch to another terminal

c. threat of declaration or litigation under the *Competition and Consumer Act 2010* (Cth) (**CCA**), or

d. access arrangements without declaration.

181. Mr Houston's analysis leads him to conclude with his opinion that criterion (a) is satisfied in relation to each of the following dependent markets as follows:[97]

a. *Coal tenements markets* – increased competition between the Adani Group entities and third parties in markets for later stage coal tenements in the Newland and Galilee systems would result because of declaration, as otherwise third parties would face significant risk of poor-quality access or access denial, and therefore not undertake transactions

b. *Metallurgical coal export market* – NQXT has "the ability and incentives to restrict throughput of metallurgical coal through [the Abbot Point Coal Terminal] and instead to favour thermal coal mined by Bravus Mining", while declaration would "promote an increase in competition in global markets for metallurgical coal exports, by increasing supply and decreasing prices," and

97 Houston, pp.3-4.

c. *Below rail and above rail markets* – it is assumed that declaration of coal handling services would promote the entry of new Users into the Galilee basin and thereby "facilitate entry or the threat of entry for the provision of below-rail services connecting the Galilee basin to the Newlands system", while "equality of access on reasonable terms for coal hauled by third-party haulage providers" would increase above rail competition in the Galilee and Newlands systems.

4.2 Response to Mr. Houston's report

182. As an overall comment, Mr Houston's evidence focusses on where there may be a theoretical ability to affect competition in related markets. However, there is little or no attention to whether, in the specific circumstances of the Adani entities and the specific characteristics of the upstream and downstream markets, the claimed incentive in fact exists. In addition, the label of "vertical integration" is also applied to suggest potential anti-competitive motives for the Adani entities in circumstances where the complaint is not about the misuse of vertical integration at all. I turn to my principal issues with Mr Houston's evidence in turn.

4.2.1 Reasonableness of the current terms at the Abbot Point Coal Terminal

183. Mr Houston asserts that without declaration the terms upon which Users would gain access to the Terminal would be likely to be "unreasonable".[98] However, Mr Houston does not address the reasonableness of the current terms, which is a critical consideration. If the terms without declaration would be reasonable, then there cannot be any relevant benefit under criterion (a) from declaration. I addressed this issue in Chapter 2 above, where I concluded that it is quite plausible that the terms of access with declaration may be no more reasonable than the terms currently being offered. I reached this conclusion based upon:

a. [redacted]

b. [redacted] and

c. the uncertainty associated with the level of regulated prices that may be determined if the services are declared, given:

   i. the need to establish the initial regulatory settings for the Terminal, and most notably the initial RAB, and

   ii. [redacted] – and the challenges this raises for price regulation given the limited practicable tools that are available for ensuring NPV=0 in this context.

184. Mr Houston asserts that without declaration access charges are likely to be higher, and does not allow for the possibility that access charges could be lower without declaration.

[98] Houston, pp.3-4.

However, I observe that in the Port of Newcastle case Mr Houston's firm (HoustonKemp) expressed views broadly consistent with my analysis:[99]

> *… there is no evidence that PNO has or will set prices at levels that would exceed those that could be expected to result from an arbitration applying the relevant principles. Similarly, there is also no evidence of PNO earning 'super-normal' profits or applying a pricing methodology that would necessarily lead to such outcomes.*

185. That is, HoustonKemp determined, as I have in the case of NQXT, that:[100]

> *[Its] analysis shows that there is no firm basis on which to conclude that, if declared and in the event that any dispute in relation to prices for the relevant services was determined by arbitration decided by the Australian Competition and Consumer Commission (ACCC), this would result in significantly lower future prices for the relevant services.*

4.2.2 Incentives stemming from vertical integration

186. Mr Houston asserts that the vertical integration of NQXT (i.e., via Bravus and the Abbot Point Coal Terminal having the same parent) provides the facility with an incentive to deny or frustrate access in order to benefit from a reduction in competition in a related market. Mr. Houston bases his conclusion on an "economic framework" that implies:[101]

> *The economic motivation for attempting to foreclose downstream rivals is that, by raising the input cost of rivals (such as the cost of coal handling services), the integrated firm can put those rivals at a cost disadvantage and thereby increase its own prices and/or market share in the downstream market, eg, coal exports. Similarly, the economic motivation for foreclosing the purchase of inputs to the relevant service from upstream rivals is to put those rivals at a disadvantage in those markets and thereby increase its own market share or reduce input prices in upstream markets.*

187. However, beyond this unsupported assertion, Mr Houston does not demonstrate that a denial of access would be rational for NQXT. As explained in section 2.3 above, the economics of foreclosure are complex; however, one observation that can be drawn is that it cannot simply be assumed that parties will benefit from foreclosing a market (i.e., through denying access to an essential input) and so cannot be assumed to have an incentive to pursue this course.

188. I demonstrate further in section 2.3 that, rather than having an incentive to deny access, NQXT's incentive (and that of the Adani entities as a collective) is to maximise the short term and long term use of the Terminal, which in turn requires the offering of terms of access are best promotes the short term and long term success of the sector. I therefore conclude that a denial of access would be materially harmful to the ultimate owners of

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99 Houston Kemp (1 October 2015), Potential Declaration of Services Provided at Port of Newcastle, A report for Port of Newcastle Operations, p.3.

100 Houston Kemp (1 October 2015), Potential Declaration of Services Provided at Port of Newcastle, A report for Port of Newcastle Operations, p.2.

101 Houston, p.19.

NQXT. My conclusion is evidenced by the behaviour of the Adani entities to date, and that this behaviour of promoting access to NQXT would be expected to continue.

4.2.3 Declaration will not affect the Adani entities' right to reasonable use of the Terminal

189. As part of his discussion of vertical integration, Mr Houston identifies the potential for NQXT's parent to prefer its own use of the terminal (i.e., via Bravus) to that of a third party as an incentive to deny access that may be remedied by declaration.

190. However, this is quite a separate question to whether NQXT's parent may have an incentive to deny access (i.e., foreclose) in order to stifle competition and benefit from that reduced competition. Indeed, the main complaint of Mr Houston – that NQXT will give priority to Bravus' use of the terminal, which in turn will lead to thermal coal substituting for coking coal and so reduce competition in the market for coking coal – is not even a case of foreclosure, because the Adani entities have no interest in the coking coal market (i.e., the Adani entities do not stand to benefit from the reduction in competition that is hypothesised).

191. As I discussed in section 2.4, Mr Houston's concern that the Adani entities may give themselves priority over the use of the capacity of the Terminal is not something that declaration will change because an asset owner's own reasonable use of its facility is protected. Equally, however, it is also very unlikely that the Adani entities will give themselves priority over others (and so deny others access) during the proposed period of declaration because:

a. NQXT's strong financial incentive is to accommodate all Users of the facility where possible, including through future expansions where this is commercially viable, and to give the industry the confidence of access required to promote short term and long term development

b. to this end, NQXT has adopted a number of measures that are designed to give confidence of security of access (and equality of treatment of all access seekers), which include [redacted], and

c. in any event, [redacted] (and note that the operative constraint on capacity at the current time is in the Aurizon network).

192. I also observe that Mr Houston's arguments on this matter show an internal inconsistency in relation to the outlook for demand. He assumes implicitly when expressing concerns about vertical integration that there may be a shortage of capacity at the NQXT so that the Adani entities may be encouraged to give priority to Bravus over other Users. For

example, Mr Houston's Figure 2.1 shows "connections between Adani Group entities across the supply chain", with:[102]

a. 10 mtpa current production capacity at the Carmichael Mine, but an additional 50 mtpa of Carmichael approved capacity

b. 40 mtpa current capacity on the Carmichael Rail Line, with 10mtpa of potential future capacity, and

c. 50 mtpa of current capacity at the Abbot Point Coal Terminal with a potential 10mtpa (X60/T1) expansion to 60 mtpa.[103]

193. On the basis of the situation presented in the figure, which implies that at a capacity of 50 mtpa the outputs and capacities of the vertically integrated mine, rail line, and coal loading services would be seamlessly aligned to the exclusion of all third party Users. Mr Houston concludes that:[104]

> *NQXT is a bottleneck facility with market power in the coal handling service, while the Adani Group has the incentive and ability to use that market power to advantage itself over its rivals.*

194. On the other hand, when considering whether criterion (b) is met, Mr. Houston assumes that the NQXT will be able to meet all foreseeable demand over the term of the declaration:[105]

> *i. I assume that the service is defined to be the handling of coal at NQXT by the terminal operator, as including the unloading, storing, reclaiming and loading of coal;*
>
> *ii. I conclude that the relevant market for criterion (b) is the market for NQXT's coal handling service for mines that connect directly to the Goonyella to Abbot Point extension (GAPE), Carmichael rail line or the Newlands system, which I refer to collectively as 'northern mines';*
>
> *iii. I estimate that total foreseeable demand in the market for the service will be less than NQXT's nameplate capacity;*
>
> *iv. I conclude that NQXT can meet total foreseeable demand in the market over the declaration period under consideration, and that this conclusion would hold for total foreseeable demand up to 120 mtpa*

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102 Houston, p.7.

103 I note that NQXT's general manager states that [redacted] MBS, para. 184.

104 Houston, para.35.

105 Houston, Greg, (13 June 2025), Expert report of Greg Houston – does NQXT's coal handling service satisfy criteria (b) to (d)?, para.7.

195. Based on the evidence that I have considered,[106] the assumption that Mr Houston applied in his assessment of criterion (b) – namely that there will be excess capacity at the Terminal – is the more correct assumption.

4.2.4 Effectiveness of competition in global coal markets

196. Having concluded that there are separate markets for the export of thermal and metallurgical coal, Mr Houston focussed his attention on the latter, asserting that:[107]

i. the Adani Group has the ability and incentive to restrict throughput of metallurgical coal through NQXT and instead favour its own, thermal coal mined by Bravus Mining

ii. by consequence, declaration could promote a material increase in throughput of metallurgical coal at NQXT, and that NQXT represents a sizable proportion of global metallurgical coal trade; and so

iii. declaration of the service provided by NQXT, and the access on reasonable terms for exporters of metallurgical coal that it would imply, could therefore promote an increase in competition in global markets for metallurgical coal exports, by increasing supply and thereby putting downward pressure on prices.

197. Clearly, the conclusion from the previous section is that:

a. the potential for the Adani entities to prioritise their own use of the Terminal that Mr Houston fears would not be affected by declaration, but

b. it is very unlikely that there would be any displacement of third-party volumes by Adani entity volumes in any event, including because of the existence of spare Terminal capacity.

198. In addition, Mr Houston ignores the well-established precedent that the thermal and metallurgical export coal markets are global and effectively competitive so that a promotion of competition through declaration is unlikely even if there were a material change in volumes from through the NQXT. If Mr. Houston had followed the methodology applied by the QCA, he would have noted its observation that:[108]

> *No stakeholder contested DBCT Management's view, which would suggest that the seaborne metallurgical coal market is already effectively competitive, with a large number of participants and prices set by reference to international spot prices. This also seems consistent with the views of market analysts.*

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106 MBS, para.35, 140, Table 5 at para 201. See also description of constraints in Newlands System and [redacted] in BL, section 6.

107 Houston, para. 245.

108 Queensland Competition Authority, (March 2020), Final recommendation, Part C: DBCT declaration review, p.200.

199. Since coal throughput is unlikely to be affected by declaration of the Terminal, there is no reason to expect any impact on competition in the international metallurgical coal export market.

4.2.5 Queensland's tenements markets are derivatives of global coal export markets

200. In relation to the potential for the promotion of competition in the market for tenements, Mr Houston also ignores the well-established precedent that these markets are a derivative of the (global) coal markets, so that the competitive constraints that apply in those global markets also operate in relation to the tenements markets (which are also global).

201. When the QCA considered coal tenements in the adjacent DBCT catchment region it referenced the Tribunal's opinion in the Port of Newcastle (PNO declaration matter) that "the coal tenements market is a derivative of the coal export market",[109] and considered it unnecessary to independently examine the impact on competition in the coal tenements markets since, if:[110]

> *… 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.*

202. The QCA noted that the NCC took the same view but nevertheless undertook a detailed analysis of competition effects in the coal tenements market. The QCA similarly undertook an extensive analysis before concluding that declaration would not affect the market for exploration stage tenements,[111] nor for operating mine tenements in the DBCT catchment region.[112]

203. Mr Houston asserts that "without declaration parties [in the coal tenements market] won't be willing to undertake transactions,"[113] but defines artificially narrow geographical markets for thermal coal tenements (the Newlands Basin and Galilee Basin), and metallurgical coal tenements (Newlands Basin). Mr Houston's approach fails to recognise that these are investment markets, so the "substitutability" issues he raises are not relevant and investors are not limited by geography. While a transaction for a

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109 Queensland Competition Authority, (March 2020), Final recommendation, Part C: DBCT declaration review, p.114.

110 Australian Competition Tribunal, Application by Glencore Coal Pty Ltd [2016] ACompT 6, p. 29 [139].

111 Queensland Competition Authority, (March 2020), Final recommendation, Part C: DBCT declaration review, p.195.

112 Queensland Competition Authority, (March 2020), Final recommendation, Part C: DBCT declaration review, p.197.

113 Houston, para. 115 c) ii.

tenement may be for a specific site, as observed by the NCC's adviser NERA in the PNO case:[114]

> *However, this competition for a specific development tenement is in most cases likely to occur within a broader field of rivalry for coal tenements located across a geography that is wider than the Newcastle catchment. This is because a tenement's ultimate value is derived from its sole use as an input into the production of supply for the coal export market.*
>
> ...
>
> *In fact, because the coal export market is global (or at least as broad as the Asia-Pacific region), it does not make sense to consider the "tenement market" to be limited to the Newcastle catchment"... Accordingly, we consider the geographic scope of the tenements market to be at least as wide as Australia, and potentially as broad as the Asia Pacific.*

204. That is, as was observed by the Tribunal, the NCC and the QCA, coal tenements are a derivative of the global export coal market, which is workably competitive. In such circumstances, declaration cannot result in a material increase in competition in the coal tenements market.

4.2.6 NQXT's incentives to maximise long term use of the Abbot Point Coal Terminal

205. When assessing the potential for competition to be affected in other markets (such as tenements and rail haulage), Mr Houston assumes that any unreasonableness in the terms of access to NQXT would result in a change in the output of the coal mines served by the NQXT.

206. In my view, it cannot be assumed that the regulated terms of access that may flow from declaration would be any more reasonable than the terms that would be negotiated commercially. However, even if the terms of access were assumed to be unreasonable in the absence of declaration, it cannot simply be assumed that these unreasonable terms would result in a change in the output of the coal mines served by the NQXT.

207. Rather, as discussed earlier, the incentive of the Adani entities will be to maximise the short term and long term use of the Terminal, which is achieved by negotiating access terms that facilitate the efficient short term and long term development of the sector. Setting access terms that encourage an altering of the output of the coal mines served by the NQXT would be inconsistent with this clear commercial incentive.

208. In the context of declaration matters respectively concerning DBCT and PNO, both the QCA and NCC observed that in the undeclared situation it would not be in the long-term interests of the infrastructure owners to impose access terms and conditions that would impede the efficient use of their facilities. Rather, the long-term profit maximising

[114] NERA Economic Consulting, (8 April 2019), Declaration of the shipping channel service at the Port of Newcastle, Prepared for the National Competition Council, paras. 21 and 24.

strategy for the infrastructure owner in the situation of non-declaration would be to adopt what the QCA framed as "option (b)" in which the infrastructure owner earns "some economic rent, but not enough to affect tenement development plans (i.e. a 'favourable rent distribution')".[115]

4.2.7 Below rail and above rail markets

209. I interpret part of Mr Houston's argument being that:

a. declaration will increase certainty of access to the terminal

b. the certainty of access will encourage further development in the Galilee Basin

c. the further development in the Galilee Basin will encourage a duplicate railway line to be built (i.e., duplicating the Carmichael Line) and so

d. create competition for these below rail services.

210. In my view, this is a very unlikely set of events. Even if additional developments (i.e., not by Bravus) were to be developed in the Galilee Basin, the strong incentive for those parties would be to negotiate for access to the Carmichael Line, and the strong incentive of the Adani entities would be to offer that access. The substantial economies of scale and scope in railway infrastructure, combined with costs that are substantially sunk (in economic terms) means that duplication is both unlikely and socially undesirable.

211. In terms of above rail haulage, the potential change in competition that Mr Houston postulates was said to arise indirectly from the change in the output of the mines that would result from setting "reasonable" terms of access. However, as discussed earlier, it is wrong to assume that declaration will result in a change in the output of mines because:

a. it cannot simply be assumed that declaration will result in access terms that are more reasonable, and

b. even if unreasonable terms were considered likely in the absence of declaration, those terms are unlikely to affect the output of mines – rather, consistent with the previous findings of the Tribunal and the QCA, it would be in the interests of NQXT to negotiate access terms that maximise the short term and long term development of the sector.

212. Rather, declaration will not cause any change in the competition for above-rail haulage, but rather:

a. Bravus will continue to be served by Bowen Rail

b. the other mines will continue to use Pacific National or Aurizon, and

115 Queensland Competition Authority, (March 2020), Final recommendation, Part C: DBCT declaration review, pp.176-187.

c. all above-rail operators will use the Aurizon Network under the regulated terms of access.

A. Letter of engagement

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25 August 2025

By email: jeff.balchin@incenta.com.au

Jeff Balchin
Incenta Economic Consulting
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Fitzroy, Victoria, 3065

Dear Mr Balchin

Declaration request to the Queensland Competition Authority – coal handing service at the North Queensland Export Terminal

1 We act for North Queensland Export Terminal Pty Ltd (**NQXT**) in respect of the Queensland Competition Authority's (**QCA**) investigation into whether or not it should recommend that the coal handling service at the North Queensland Export Terminal (**Terminal**) be declared under Part 5 of the *Queensland Competition Authority Act 1997* (Qld) (the **QCA Act**).

2 We wish to engage you as an economic expert in relation to the QCA's investigation. As part of this engagement, we are seeking an expert report in relation to certain economic matters relevant to the QCA's investigation.

Background

3 The Terminal is a deep-water export terminal located within the Port of Abbot Point, approximately 25 kilometres north of Bowen in Queensland. The Terminal is a multi-user, open access facility used to export metallurgical and thermal coal extracted from central Queensland. The Terminal has a current nameplate capacity of 50 million tonnes per annum.

4 NQXT is the lessee of the Terminal. The Terminal is owned by the Queensland Government and is leased to NQXT under a 99-year lease acquired in 2011. The Terminal is operated independently from NQXT by Abbot Point Operations Pty Ltd (**APO**). APO manages the day-to-day running the Terminal under an Operating and Maintenance Contract.

5 On 13 June 2025, QCoal Pty Limited and Byerwen Coal Pty Limited (the **QCoal Users**) applied to the QCA to request that it recommend that the coal handling service at the Terminal be declared under Part 5 of the QCA Act. The requested declaration date is 1 July 2027 with a declaration period of 10 years.

6 NQXT's submission in response to the QCoal Users' application is due to filed with the QCA by 5pm on 26 August 2025.

Instructions

7 We seek a report setting out your expert opinion on whether the coal handling service provided at the Terminal satisfies the criteria in section 76(2)(a) of the QCA Act ('criterion (a)'). Criterion (a) is as follows:

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

8 In providing your opinion, please consider the documents set out in **Annexure A** to these instructions. This includes:

(a) witness statements addressing certain factual matters; and

(b) an expert report of Mr Greg Houston on criterion (a) dated 13 June 2025, which was filed in support of the QCoal Users' application.

9 For the purpose of your report, you should assume that any proposed declaration of the coal handling service at the Terminal will take effect from 1 July 2027, with a declaration period of 10 years.

Expert independence

10 Although your report is not being prepared for use in court proceedings, we request that in undertaking this engagement you comply with the duties and requirements of an expert for court proceedings as set out in rules 429F and 429H of the *Uniform Civil Procedure Rules 1999* (Qld) (**UCPR**), as if those duties and requirements applied to these instructions. A copy of rules 429F and 429H and Schedule 1C of the UCPR (**Experts' Code of Conduct**) is attached as **Annexure B** to these instructions.

11 Your duties under the Experts' Code of Conduct duties provide that your obligation to act independently in assisting the QCA overrides any other obligations that you may have to any party or to any person who is liable for your fees and expenses.

12 Consistent with these requirements, we request that your report include written confirmation that:

(a) you have read, and agree to be bound by, the Experts' Code of Conduct to the extent that it imposes duties and obligations on you relevant to your role as an expert in your assistance of the QCA;

(b) the factual matters stated in the report are, as far as you know, true;

(c) you have made all inquiries considered appropriate;

(d) the opinions stated in the report are genuinely held by you;

(e) the report contains references to all matters you consider significant; and

(f) you understand your duty to the QCA and you have complied with that duty.

13 In addition, please enclose or include in your report the following:

(a) your curriculum vitae and any other relevant training, education and experience;

(b) a statement of the questions you have been asked to consider as set out in this letter;

(c) the factual premise(s) upon which your report proceeds; and

(d) the documents and other materials which you have been provided with and instructed to consider in the preparation of your report.

Confidentiality

14 You must not disclose or discuss any of our correspondence or instructions, or any of your work products, with any third parties. This duty of confidentiality will continue beyond the conclusion of your instructions.

15 Please ensure that you keep all documents (including electronic documents) relating to these instructions confidential and separate from your other files.

Yours faithfully
Gilbert + Tobin

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Annexure A Documents provided

1 Witness statement of Mr Mark Smith, General Manager of NQXT dated 22 August 2025.

2 Witness statement of Mr Brendan Lane, General Manager of Bowen Rail Company and Carmichael Rail Network dated 22 August 2025.

3 Witness statement of Mr Damien Dederer, General Manager of Abbot Point Operations dated 25 August 2025.

4 Expert report of Mr Greg Houston on criterion (a) dated 13 June 2025.

5 NQXT contract profile spreadsheet.

6 Mine asset report for the Carmichael Mine for 2024 and 2025 as published by Wood Mackenzie.

Annexure B Experts' Code of Conduct

429F Duty of expert

(1) The expert has a duty to assist the court.

(2) The expert—

(a) is not an advocate for a party to the proceeding; and

(b) must not accept instructions from any person to adopt or reject a particular opinion.

(3) The expert must comply with the requirements under the code of conduct.

(4) However, subrule (3) does not limit any provision of this part.

(5) The expert's duties under this rule override any obligation the expert may have to—

(a) any party to the proceeding; or

(b) any person who is liable for the expert's fees or expenses.

…

429H Requirements for report

(1) A report prepared by the expert must be addressed to the court and signed by the expert.

(2) The report must include the following information—

(a) the expert's qualifications;

(b) all material facts, whether written or oral, on which the report is based;

(c) the expert's reasons for each opinion expressed in the report;

(d) references to any literature or other material relied on by the expert to prepare the report;

(e) for any inspection, examination or experiment conducted, initiated, or relied on by the expert to prepare the report—

(i) a description of what was done; and

(ii) whether the inspection, examination or experiment was done by the expert or under the expert's supervision; and

(iii) the name and qualifications of any other person involved; and

(iv) the result;

(f) if there is a range of opinion on matters dealt with in the report—a summary of the range of opinion, and the reasons why the expert adopted a particular opinion;

(g) if the expert believes the report may be incomplete or inaccurate without a qualification—the qualification;

(h) a summary of the conclusions reached by the expert;

(i) a statement about whether access to any readily ascertainable additional facts would assist the expert in reaching a more reliable conclusion.

(3) If the expert believes an opinion expressed in the report is not a concluded opinion, the report must state, where the opinion is expressed, the reason for the expert's belief.

Examples of reasons why an expert may believe an opinion is not a concluded opinion—

- insufficient research
- insufficient data

(4) The expert must confirm in the report that—

(a) the expert has read, and agrees to be bound by, the code of conduct; and

(b) the factual matters stated in the report are, as far as the expert knows, true; and

(c) the expert has made all inquiries considered appropriate; and

(d) the opinions stated in the report are genuinely held by the expert; and

(e) the report contains reference to all matters the expert considers significant; and

(f) the expert understands the expert's duty to the court and has complied with the duty.

Schedule 1C Code of conduct for experts

Part 1 Preliminary

1 Purpose of code

(1) The purpose of this code of conduct is—

(a) to state an expert's obligations under the following provisions of chapter 11, part 5—

(i) rule 429A;

(ii) rule 429B(1), (2), (5) and (6);

(iii) rule 429F;

(iv) rule 429H;

(v) rule 429K(1) and (2); and

(b) otherwise to state an expert's obligations in relation to an order made, or a direction given, by the court.

(2) In this code of conduct, the information included in square brackets after a rule heading is a reference to the comparable rule under chapter 11, part 5.

(3) The brackets and information do not form part of these rules.

2 Application of code

(1) This code of conduct applies to an expert who is appointed to give opinion evidence, whether orally or in a report, in a proceeding.

Note— Rule 429F requires the expert to comply with the requirements under this code of conduct.

(2) In a provision of this code of conduct that refers to a direction given under rule 428 requiring 2 or more experts to hold a conference and prepare a joint report, a reference to a joint report is a reference to a report about the conference that states—

(a) the matters, if any, on which the experts agree; and

(b) the matters, if any, on which the experts disagree and the reasons for any disagreement.

Part 2 Duty to comply with orders and directions

3 Duty to comply with court's orders and directions

(1) An expert must comply with an order made, or a direction given, by the court.

(2) Without limiting subrule (1), if the court gives a direction under rule 428 requiring 2 or more experts to hold a conference and prepare a joint report, the experts must hold the conference, and prepare the joint report, in compliance with the direction.

Part 3 Experts' conferences and joint reports

4 Application of part

This part applies if the court gives a direction under rule 428 requiring 2 or more experts to hold a conference and prepare a joint report.

5 Experts' conference and joint report

(1) In holding the conference and preparing the joint report, the experts—

(a) must exercise independent judgement; and

(b) must endeavour to reach an agreement on any matter on which they disagree; and

(c) must not act on any instruction or request to withhold or avoid reaching an agreement.

(2) Unless the court directs otherwise, the experts must—

(a) hold the conference in the absence of the parties or their agents; and

(b) prepare the joint report without reference to, or instructions from, the parties or their agents.

(3) The experts must give the joint report to the parties—

(a) if the court has given a direction about the period within which the report is to be given—as directed by the court; or

(b) otherwise—as soon as practicable after the conference has concluded.

(4) This rule is subject to rule 6.

6 Permitted communications between experts and parties

(1) Any of the experts may, in writing—

(a) ask the parties for information that may assist the proper and timely conduct or conclusion of the conference or preparation of the joint report; or

(b) inform the parties of any matter adversely affecting the proper and timely conduct or conclusion of the conference or preparation of the joint report.

(2) A communication mentioned in subrule (1) must—

(a) be made jointly to all of the parties; and

(b) state—

(i) whether or not all of the experts agree on the terms of the communication; and

(ii) if all of the experts do not agree on the terms of the communication—the matters on which the experts disagree.

(3) The experts must, within 2 business days after a request is made under rule 429B(4), give a progress report about the progress of the conference or the joint report.

(4) The progress report must state—

(a) whether or not all of the experts agree on the terms of the report; and

(b) if all of the experts do not agree on the terms of the report—the matters on which the experts disagree.

Part 4 Giving of evidence by experts and related matters

7 Duty of expert

(1) The expert has a duty to assist the court.

(2) The expert—

(a) is not an advocate for a party to the proceeding; and

(b) must not accept instructions from any person to adopt or reject a particular opinion.

(3) The expert's duties under this rule override any obligation the expert may have to—

(a) any party to the proceeding; or

(b) any person who is liable for the expert's fees or expenses.

8 Requirements for report

(1) A report prepared by the expert must be addressed to the court and signed by the expert.

(2) The report must include the following information—

(a) the expert's qualifications;

(b) all material facts, whether written or oral, on which the report is based;

(c) the expert's reasons for each opinion expressed in the report;

(d) references to any literature or other material relied on by the expert to prepare the report;

(e) for any inspection, examination or experiment conducted, initiated, or relied on by the expert to prepare the report—

(i) a description of what was done; and

(ii) whether the inspection, examination or experiment was done by the expert or under the expert's supervision; and

(iii) the name and qualifications of any other person involved; and

(iv) the result;

(f) if there is a range of opinion on matters dealt with in the report—a summary of the range of opinion, and the reasons why the expert adopted a particular opinion;

(g) if the expert believes the report may be incomplete or inaccurate without a qualification—the qualification;

(h) a summary of the conclusions reached by the expert;

(i) a statement about whether access to any readily ascertainable additional facts would assist the expert in reaching a more reliable conclusion.

(3) If the expert believes an opinion expressed in the report is not a concluded opinion, the report must state, where the opinion is expressed, the reason for the expert's belief.

Examples of reasons why an expert may believe an opinion is not a concluded opinion—

- insufficient research
- insufficient data

(4) The expert must confirm in the report that—

(a) the expert has read, and agrees to be bound by, the code of conduct; and

(b) the factual matters stated in the report are, as far as the expert knows, true; and

(c) the expert has made all inquiries considered appropriate; and

(d) the opinions stated in the report are genuinely held by the expert; and

(e) the report contains reference to all matters the expert considers significant; and

(f) the expert understands the expert's duty to the court and has complied with the duty.

9 Supplementary report following change of opinion

(1) Subrule (2) applies if the expert changes, in a material way, an opinion in a report prepared by the expert under chapter 11, part 5 (an earlier report).

(2) Unless the expert knows the proceeding has ended, the expert must, as soon as practicable after the change of opinion, give written notice of the change of opinion, and the reason for the change, to—

(a) if the expert is a court-appointed expert—the registrar; or

(b) otherwise—the party who appointed the expert.

B. Curriculum vitae of Jeff Balchin

Jeff Balchin

Managing Director

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Overview

Jeff is the Managing Director of Incenta Economic Consulting. Jeff has over 30 years of experience in relation to economic regulation issues across the electricity, gas, ports, airports, telecommunications, and water infrastructure sectors in Australia and New Zealand. He has advised governments, regulators and major corporations on issues including the development of regulatory frameworks, regulatory price reviews and issues around the introduction and measurement of competition (including franchise bidding). His particular specialities have been on the application of finance principles to economic regulation, the design of incentive compatible regulation and efficient tariff structures and the drafting and economic interpretation of regulatory instruments.

In addition, Jeff has substantial experience with the application of economic and finance principles to pricing and investment appraisal and associated commercial disputes in unregulated infrastructure and non-infrastructure markets. He has also assisted with applying economic principles to competition regulation, transfer pricing and taxation issues.

Jeff has undertaken a number of expert witness assignments.

Past positions

Jeff previously was a Principal at PwC in its economics and policy team for almost 4 years, prior to that a director and partner at the Allen Consulting Group for over 13 years, and prior to that he held a number of policy positions in the Commonwealth Government. In this latter role, he was on the secretariat of the Gas Reform Task Force (1995-1996), where he played a lead role in the development of the National Gas Code.

Relevant experience

A. Economic regulation of network / monopoly activities

Assistance to parties during price reviews/negotiations

- Input methodologies for NZ airports (Client: Christchurch International Airport Limited, 2023) – prepared export reports in relation to the asset beta for airport aeronautical services.
- Price review for aeronautical services for PSE4 (Client: Christchurch International Airport Limited, 2021-22) – provided advice in relation to a range of economic issues associated with setting infrastructure prices, including appropriate depreciation methods, acceptable rate of return and calculation of implied returns and techniques for forecasting expenditure. Also responsible for the overall financial modelling that fed into the calculation of prices.
- Economic regulation of ultrafast broadband (Client: Chorus NZ, 2016-24) – advised Chorus on a range of issues associated with transitioning its ultrafast broadband activities from one that is regulated via a concession contract to a building block approach. Key matters of advice have included: the valuation of assets; the treatment of stranded asset risk (including the choice of depreciation method); treatment of its concessional government financing; allocation of shared costs and assets; cost of capital issues, technical financial modelling issues; and issues with

forecasting expenditure and the design of incentive schemes. This advice spanned the period during which the new regulatory framework was being developed, the Commission's determination of the initial Input Methodologies and then the first and second price-quality determinations.

- Cost-based price for equity post-trade services (Client: ASX Ltd, 2021-ongoing) – advised in relation to the compliance of ASX's proposed prices for the regulated services provided by its new clearing and settlement system (the CHESS replacement) with cost-based pricing principles. Key issues included: asset valuation and the relevance of intangible assets; return benchmarks; and cost / asset allocation.
- Financeability for a major electricity transmission business (Client: TransGrid, 2020-21) – provided a report accompanying an application for a rule-change demonstrating the financeability issues posed by TransGrid's pipeline of projects, and illustrating how a change to depreciation would improve its ability to attract capital.
- Tax depreciation of replaced gas distribution assets (Client: AGN, 2020-21) – estimated the extent of tax write-off for regulatory purposes that was justified by AGN's mains replacement program (provided a number of reports and financial modelling).
- Depreciation of gas transmission projects (Client: DPB, 2020-21) – provided a number of reports in support of DBP's proposals to (i) increase the number of asset groupings for regulatory depreciation purposes, and (ii) alter the remaining lives of its main assets to respond to emerging asset stranding risks.
- Regulatory depreciation method for a major container port (Client: Port of Melbourne, 2021) – provided an expert opinion about the options available to use an alternative depreciation method to create a more efficient time profile for prices.
- Asset beta for a major container port (Client: Port of Melbourne, 2020) – provided an expert opinion about the asset beta (and equity beta) for the Port of Melbourne as an input into its annual pricing submissions, which was based on an extensive analysis of the empirical evidence.
- Indicative cost-based prices for a new airport (Client: CIAL, 2019) – assisted to develop preliminary estimates of cost-based charges for a potential new NZ airport, and associated measures of financial performance.
- Depreciation for gas distribution (Client: JGN, 2019) – provided two expert reports in support of JGN's application to advance the depreciation of new investment in gas distribution assets to respond to the emerging stranding risks posed by carbon reduction policies.
- Price review for aeronautical services for PSE3 and Input Methodologies review (Client: Christchurch International Airport Limited, 2015-18) – provided economic advice on a range of economic issues associated with setting infrastructure prices, including: detailed advice and modelling to underpin a reform of tariff structures to better manage CIAL's risk; appropriate depreciation methods; acceptable rate of return; approach in relation to asset / cost allocation; and techniques for forecasting expenditure. I was also responsible for the overall financial modelling that fed into the calculation of prices. In addition, I also prepared reports in relation to the Commission's 2016 review of the airport Input Methodologies that occurred during this period, which included advice in relation to the full range of economic issues arising.
- Compliance with new regulatory regime for non-scheduled pipelines (Client: Epic SA, 2017-18) – assisted Epic SA to respond to the new regulatory regime for non-scheduled pipelines, which included advice on the economic meaning of the new regulatory requirements, modelling of an initial regulatory asset value that best complied with the regime requirements, advice on the

weighted average cost of capital and assistance with determining a price that best complied with the regime requirements.

- Regulatory valuation of telecommunications local loop assets (Client: Chorus NZ, 2014) – prepared a report advising on the appropriate valuation of local loop assets for the purpose of deriving a TSLRIC price for unbundled local loop access and provided subsequent ongoing advice on the application of different methods.
- Cost allocation (Client: BHP, 2014-2016) – prepared two reports on the economic principles behind allocating costs between regulated and unregulated services during the review of tariffs for the Goldfields Gas Pipeline.
- Depreciation and financeability (Client: AGN, 2015-16) – prepared a series of reports on the use of depreciation to manage financeability issues, and its justification within the relevant legal instruments. Also advised in relation to the acceleration of depreciation for "replaced" assets.
- Depreciation and risk management (Client: ENA, 2015) – prepared a report on how depreciation could be used as a stranding-risk management tool, which included a discussion of regulatory precedents and articulation of how this role for depreciation is consistent with economic principles and the relevant legal instruments.
- AER WACC Review (Client: ENA, 2011-12) – prepared expert reports on a range of matters, including the appropriate term of the risk free rate, the appropriate term of debt and a critical assessment of the ERA's (then) method for deriving the debt risk premium.
- Design of incentives for operating expenditure efficiency (Client: ElectraNet, 2012-13) – provided expert advice on the detailed application of the incentive arrangements for operating expenditure, including the link between the incentive scheme and the forecasting method.
- Regulatory depreciation (Client: APA, 2012-13) – provided expert reports on the economic principles relevant to the depreciation method that is applied to set gas transmission charges.
- Regulatory cost of debt (Clients: Powerlink, ElectraNet and Victorian gas distributors 2011-2012) – provided a series of reports addressing how the benchmark cost of debt should be established pursuant to the National Electricity Rules and on the appropriate benchmark allowance for debt and equity raising costs.
- Real cost escalation (Client: Energex, 2009-10) – advised Energex on appropriate escalators to apply to forecasts of operating and capital expenditure over the regulatory period.
- Strategic advice, Victorian electricity distribution review and NSW gas distribution review (Client: Jemena Electricity Networks, 2009-2011) – retained as strategic adviser during the review and also provided advice on a range of technical regulatory economic issues, including on regulatory finance matters, service incentives, party contracts, allocation of costs between regulated and unregulated activities and forecasting of expenditure.
- Regulatory cost of debt (Client: Powercor Australia Limited, 2009-2010) – provided a series of reports addressing how the benchmark cost of debt should be established pursuant to the National Electricity Rules.
- Service incentive scheme (Client: Powercor Australia Limited, 2010) – assisted Powercor to quantify the financial effect that would have flowed if the former service performance incentive scheme had continued. Also prepared an expert report pointing to a material inconsistency in how the AER intended to close out the old scheme and the parameters for the new service performance incentive scheme, which was accepted by the AER.

- Input methodologies for NZ regulated businesses (Clients: Powerco NZ and Christchurch International Airport, 2009-2012) – advised in relation to the Commerce Commission's development of input methodologies, focussing asset valuation, the regulatory cost of capital, the use of productivity trends in regulation and the design of incentive-compatible regulation. Also assisted in briefing counsel in subsequent reviews.
- Commercial negotiation of landing charges (Client: Virgin Blue, 2009-2012) – economic advice to Virgin Blue during its commercial negotiation of landing charges to a number of major and secondary airports.
- Equity Betas for Regulated Electricity Transmission Activities (Client: Grid Australia, APIA, ENA, 2008) – Prepared a report presenting empirical evidence on the equity betas for regulated Australian electricity transmission and distribution businesses for the AER's five yearly review of WACC parameters for these industries. The report demonstrated the implications of a number of different estimation techniques and the reliability of the resulting estimates. Also prepared a joint paper with the law firm, Gilbert+Tobin, providing an economic and legal interpretation of the relevant (unique) statutory guidance for the review.
- Economic Principles for the Setting of Airside Charges (Client: Christchurch International Airport Limited, 2008-2013) – Provided advice on a range of economic issues relating to its resetting of charges for airside services, including the valuation of assets and treatment of revaluations, certain inputs to the cost of capital (beta and the debt margin) and the efficiency of prices over time and the implications for the depreciation of assets and measured accounting profit.
- Treatment of Inflation and Depreciation when Setting Landing Charges (Client: Virgin Blue, 2007-2008) – Provided advice on Adelaide Airport's proposed approach for setting landing charges for Adelaide Airport, where a key issue was how it proposed to deal with inflation and the implications for the path of prices over time. The advice also addressed the different formulae that are available for deriving an annual revenue requirement and the requirements for the different formulae to be applied consistently.
- Application of the Grid Investment Test to the Auckland 400kV Upgrade (Client: Electricity Commission of New Zealand, 2006) - As part of a team, undertook a review of the Commission's process for reviewing Transpower's proposed Auckland 400kV upgrade project and undertook a peer review of the Commission's application of the Grid Investment Test.
- Appropriate Treatment of Taxation when Measuring Regulatory Profit (Client: Powerco New Zealand, 2005-2006) - Prepared a series of statements on how taxation should be treated when measuring realised and projected regulatory profit.
- Application of Directlink for Regulated Status (Client: Directlink, 2003-2004) – Prepared advice on the economic efficiency of the conversion of an unregulated (entrepreneurial) interconnector to a regulated interconnector and how the asset should be valued for pricing purposes.
- Principles for the 'Stranding' of Assets by Regulators (Client: the Independent Pricing and Regulatory Tribunal, NSW, 2005) - Prepared a report discussing the relevant economic principles for a regulator in deciding whether to 'strand' assets for regulatory purposes (that is, to deny any further return on assets that are partially or unutilised).
- Principles for Determining Regulatory Depreciation Allowances (Client: the Independent Pricing and Regulatory Tribunal, NSW, 2003) - Prepared a report discussing the relevant economic and other principles for determining depreciation for the purpose of price regulation, and its application to electricity distribution. An important issue addressed was the distinction between accounting and regulatory (economic) objectives for depreciation.

- Methodology for Updating the Regulatory Value of Electricity Transmission Assets (Client: the Australian Competition and Consumer Commission, 2003) - Prepared a report assessing the relative merits of two options for updating the regulatory value of electricity transmission assets at a price review - which are to reset the value at the estimated 'depreciated optimised replacement cost' value, or to take the previous regulatory value and deduct depreciation and add the capital expenditure undertaken during the intervening period (the 'rolling-forward' method). This paper was commissioned as part of the ACCC's review of its Draft Statement of Regulatory Principles for electricity transmission regulation.
- Application of Murraylink for Regulated Status (Client: Murraylink Transmission Company, 2003) – Prepared advice on the economic efficiency of the conversion of an unregulated (entrepreneurial) interconnector to a regulated interconnector and how the asset should be valued for pricing purposes.
- Proxy Beta for Regulated Gas Transmission Activities (Client: the Australian Competition and Consumer Commission, 2002) - Prepared a report presenting the available empirical evidence on the 'beta' (which is a measure of risk) of regulated gas transmission activities. This evidence included beta estimates for listed firms in Australia, as well as those from the United States, Canada and the United Kingdom. The report also included a discussion of empirical issues associated with estimating betas, and issues to be considered when using such estimates as an input into setting regulated charges.
- Treatment of Working Capital when setting Regulated Charges (Client: the Australian Competition and Consumer Commission, 2002) - Prepared a report assessing whether it would be appropriate to include an explicit (additional) allowance in the benchmark revenue requirement in respect of working capital when setting regulated charges.
- Pricing Principles for the South West Pipeline (Client: Esso Australia, 2001) - As part of a team, prepared a report describing the pricing principles that should apply to the South West Pipeline (this gas transmission pipeline was a new asset, linking the existing system to a new storage facility and additional gas producers).
- Likely Regulatory Outcome for the Price for Using a Port (Client: MIM, 2000) - Provided advice on the outcome that could be expected were the dispute over the price for the use of a major port to be resolved by an economic regulator. The main issue of contention was the valuation of the port assets (for regulatory purposes) given that the installed infrastructure was excess to requirements, and the mine had a short remaining life.
- Relevance of 'Asymmetric Events' in the Setting of Regulated Charges (Client: TransGrid, 1999) - In conjunction with William M Mercer, prepared a report (which was submitted to the Australian Competition and Consumer Commission) discussing the relevance of downside (asymmetric) events when setting regulated charges, and quantifying the expected cost of those events.

Other regulatory compliance work

- Independent review of systems and processes (Client: Jemena, 2024) – undertook a review of the systems and processes of a pipeline company for ensuring compliance with obligations to disclose its short term and medium term capacity outlooks. This review arose as part of an undertaking after non-compliance was identified.

Major roles for regulators

- Review of the approach to regulation (Client: IPART, 2021) – reviewed IPART's proposed reforms to its approach to review regulated utility prices directed to enhancing the quality of utility

proposals and forecasts. Focussed on the practical conditions required for the regime to generate the intended incentives.

- Review of financeability test (Client: IPART, 2018) – provided advice to IPART in relation to the financial metrics and target ratios that IPART proposed to use as part of its financeability test, which was released to stakeholders during the consultation process.
- Aurizon Network price review (Client: Queensland Competition Authority, 2018-19) – advised the QCA on the appropriate rate of return (discount rate) for the Aurizon Network business as in the previous review, and also advised the QCA with respect to the assessment of financeability for a regulated business and the appropriate measures to ameliorate financeability concerns.
- Aurizon Network price review (Client: Queensland Competition Authority, 2013-2014) – advised the QCA on the appropriate rate of return (discount rate) for the Aurizon Network business, which included an assessment of the relative risk of Aurizon Network compared to other infrastructure sectors, advice on the appropriate benchmark gearing level and on the benchmark debt interest rate.
- Victorian Gas Distribution Price Review (Client: the Essential Services Commission, Vic, 2006-2008) - Provided advice to the Essential Service Commission in relation to its review of gas distribution access arrangements on the treatment of outsourcing arrangements, finance issues, incentive design and other economic issues.
- Envestra Gas Distribution Price Review (Client: the Essential Services Commission, SA, 2006) - Provided advice on several finance related issues (including 'return on assets' issues and the financial effect of Envestra's invoicing policy), and the treatment of major outsourcing contracts when setting regulated charges.
- DBCT price review (Client: QCA, Qld, 2004-2006) – advice on a number of finance related issues, including the calculation of IDC for a DORC valuation, cost of debt and equity beta.
- Victorian Electricity Distribution Price Review (Client: the Essential Services Commission, Vic, 2003-2005) - Provided advice to the Essential Service Commission on a range of economic issues related to current review of electricity distribution charges, including issues related to finance, forecasting of expenditure and the design of incentive arrangements for productive efficiency and service delivery. Was a member of the Steering Committee advising on strategic regulatory issues.
- Victorian Water Price Review (Client: the Essential Services Commission, Vic, 2003-2005) - Provided advice to the Essential Services Commission on the issues associated with extending economic regulation to the various elements of the Victorian water sector. Was a member of the Steering Committee advising on strategic regulatory issues, and also provided advice on specific issues, most notably the determination of the initial regulatory values for the water businesses and the role of developer charges.
- ETSA Electricity Distribution Price Review (Client: the Essential Services Commission, SA, 2002-2005) - Provided advice on the 'return on assets' issues associated with the review of ETSA's regulated distribution charges, including the preparation of consultation papers. The issues covered include the valuation of assets for regulatory purposes and cost of capital issues. Also engaged as a quality assurance adviser on other consultation papers produced as part of the price review.
- Victorian Gas Distribution Price Review (Client: the Essential Services Commission, Vic, 2001-2002) - Economic adviser to the Essential Services Commission during its assessment of the price caps and other terms and conditions of access for the three Victorian gas distributors. Was responsible for all issues associated with capital financing (including analysis of the cost of capital

and assessment of risk generally, and asset valuation), and supervised the financial modelling and derivation of regulated charges. Also advised on a number of other issues, including the design of incentive arrangements, the form of regulation for extensions to unreticulated townships, and the principles for determining charges for new customers connecting to the system.

- ETSA Electricity Distribution Price Review (Client: the South Australian Independent Industry Regulator, 2000-2001) - As part of a team, prepared a series of reports proposing a framework for the review. The particular focus was on the design of incentives to encourage cost reduction and service improvement, and how such incentives can assist the regulator to meet its statutory obligations. Currently retained to provide commentary on the consultation papers being produced by the regulator, including strategic or detailed advice as appropriate.
- Dampier to Bunbury Natural Gas Pipeline Access Arrangement Review (Client: the Independent Gas Pipelines Access Regulator, WA, 2000-2002) - Provided economic advice to the Office of the Independent Regulator during its continuing assessment of the regulated charges and other terms and conditions of access for the gas pipeline, including a review of all parts of the draft decision, with particular focus on the sections addressing the cost of capital (and assessment of risk generally), asset valuation and financial modelling. Represented the Office on these matters at a public forum, and provided strategic advice to the Independent Regulator on the draft decision.
- Goldfield Gas Pipeline Access Arrangement Review (Client: the Independent Gas Pipelines Access Regulator, WA, 2000-2004) - Provided economic advice to the Office of the Independent Regulator during its continuing assessment of the regulated charges and other terms and conditions of access for the gas pipeline, including a review of all parts of the draft decision, with particular focus on the sections addressing the cost of capital (and assessment of risk generally), asset valuation and financial modelling. Represented the Office on these matters at a public forum, and provided strategic advice to the Independent Regulator on the draft decision.
- Victorian Electricity Distribution Price Review (Client: the Office of the Regulator General, Vic, 1999-2000) - Economic adviser to the Office of the Regulator General during its review of the price caps for the five Victorian electricity distributors. Had responsibility for all issues associated with capital financing, including analysis of the cost of capital (and assessment of risk generally) and asset valuation, and supervised the financial modelling and derivation of regulated charges. Also advised on a range of other issues, including the design of incentive regulation for cost reduction and service improvement, and the principles for determining charges for new customers connecting to the system.
- Victorian Ports Corporation and Channels Authority Price Review (Client: the Office of the Regulator General, Vic, 2000) - Advised on the finance related issues (cost of capital and the assessment of risk generally, and asset valuation), financial modelling (and the derivation of regulated charges), and on the form of control set over prices. Principal author of the sections of the draft and final decision documents addressing the finance related and price control issues.
- AlintaGas Gas Distribution Access Arrangement Review (Client: the Independent Gas Pipelines Access Regulator, WA, 1999-2000) - Provided economic advice to the Office of the Independent Regulator during its assessment of the regulated charges and other terms and conditions of access for the gas pipeline. This advice included providing a report assessing the cost of capital associated with the regulated activities, overall review of all parts of the draft and final decisions, with particular focus on the sections addressing the cost of capital (and assessment of risk generally), asset valuation and financial modelling. Also provided strategic advice to the Independent Regulator on the draft and final decisions.
- Parmelia Gas Pipeline Access Arrangement Review (Client: the Independent Gas Pipelines Access Regulator, WA, 1999-2000) - Provided economic advice to the Office of the Independent

Regulator during its assessment of the regulated charges and other terms and conditions of access for the gas pipeline, including a review of all parts of the draft and final decisions, with particular focus on the sections addressing the cost of capital (and assessment of risk generally), asset valuation and financial modelling. Also provided strategic advice to the Independent Regulator on the draft and final decisions.

- Victorian Gas Distribution Price Review (Client: the Office of the Regulator General, Vic, 1998) - Economic adviser to the Office of the Regulator General during its assessment of the price caps and other terms and conditions of access for the three Victorian gas distributors. Major issues addressed included the valuation of assets for regulatory purposes, cost of capital financing and financial modelling. Principal author of the draft and final decision documents.

Development/Review of Regulatory Frameworks

- Financeability for ISP electricity transmission projects (Client: AEMC, 2023-24) – advised the AEMC on the rationale for, and design of, rules that would allow cash flows to be advanced to address financeability issues arising in relation to very large (ISP) electricity transmission projects.
- Pricing principles for non-scheduled pipelines (Client: Gas Market Reform Group, 2017) – provided advice to the Group on the range of principles that could be specified for an arbitrator if called to arbitrate a dispute on a non-scheduled pipeline, and the relative merits of the different options.
- Review of the Australian energy economic regulation (Client: Energy Networks Association, 2010-2012) – assisting the owners of energy infrastructure to engage in the current wide-ranging review of the regime for economic regulation of energy infrastructure. Advice has focussed in particular on the setting of the regulatory WACC and on the regime of financial incentives for capital expenditure efficiency, and included strategic and analytical advice, preparation of expert reports and assistance with ENA submissions.
- Review of the Australian electricity transmission framework (Client: Grid Australia, 2010-2013) – assisting the owners of electricity transmission assets to participate in the wide-ranging review of the framework for electricity transmission in the national electricity market, covering such matters as planning arrangements, the form of regulation for non-core services and generator capacity rights and charging. Has included analytical advice on policy choices, facilitation of industry positions and articulation of positions in submissions.
- Implications of greenhouse policy for the electricity and gas regulatory frameworks (Client: the Australian Energy Market Commission, 2008-2009) – Provided advice to the AEMC in its review of whether changes to the electricity and gas regulatory frameworks is warranted in light of the proposed introduction of a carbon permit trading scheme and an expanded renewables obligation. Issues addressed include the framework for electricity connections, the efficiency of the management of congestion and locational signals (including transmission pricing) for generators and the appropriate specification of a cost benefit test for transmission upgrades in light of the two policy initiatives.
- Economic incentives under the energy network regulatory regimes for demand side participation (Client: Australian Energy market Commission, 2006) – Provided advice to the AEMC on the incentives provided by the network regulatory regime for demand side participation, including the effect of the form of price control (price cap vs. revenue cap), the cost-efficiency arrangements, the treatment of losses and the regime for setting reliability standards.
- Implications of greenhouse policy for the electricity and gas regulatory frameworks (Client: the Australian Energy Market Commission, 2008) - Provided advice to the AEMC in its review of

whether changes to the electricity and gas regulatory frameworks is warranted in light of the proposed introduction of a carbon permit trading scheme and an expanded renewables obligation. Issues addressed include the framework for electricity connections, the efficiency of the management of congestion and locational signals for generators and the appropriate specification of a cost benefit test for transmission upgrades in light of the two policy initiatives.

- Application of a 'total factor productivity' form of regulation (Client: the Victorian Department of Primary Industries, 2008) - Assisted the Department to develop a proposed amendment to the regulatory regime for electricity regulation to permit (but not mandate) a total factor productivity approach to setting price caps – that is, to reset prices to cost at the start of the new regulatory period and to use total factor productivity as an input to set the rate of change in prices over the period.
- Expert Panel on Energy Access Pricing (Client: Ministerial Council on Energy, 2005-2006) - Assisted the Expert Panel in its review of the appropriate scope for commonality of access pricing regulation across the electricity and gas, transmission and distribution sectors. The report recommended best practice approaches to the appropriate forms of regulation, the principles to guide the development of detailed regulatory rules and regulatory assessments, the procedures for the conduct of regulatory reviews and information gathering powers.
- Productivity Commission Review of Airport Pricing (Client: Virgin Blue, 2006) - Prepared two reports for Virgin Blue for submission to the Commission's review, addressing the economic interpretation of the review principles, asset valuation, required rates of return for airports and the efficiency effects of airport charges and presented the findings to a public forum.
- AEMC Review of the Rules for Setting Transmission Prices (Client: Transmission Network Owners, 2005-2006) - Advised a coalition comprising all of the major electricity transmission network owners during the new Australian Energy Market Commission's review of the rules under which transmission prices are determined. Prepared advice on a number of issues and assisted the owners to draft their submissions to the AEMC's various papers.
- Advice on Energy Policy Reform Issues (Client: Victorian Department of Infrastructure/Primary Industries, 2003-2009) - advice to the Department regarding on issues relating to the transition to national energy market arrangements, cross ownership rules for the energy sector, the reform of the cost benefit test for electricity transmission investments and the scope for lighted handed regulation in gas transmission.
- Productivity Commission Review of the National Gas Code (Client: BHPBilliton, 2003-2004) - Produced two submissions to the review, with the important issues including the appropriate form of regulation for the monopoly gas transmission assets (including the role of incentive regulation), the requirement for ring fencing arrangements, and the presentation of evidence on the impact of regulation on the industry since the introduction of the Code.
- Development of the National Third Party Access Code for Natural Gas Pipeline Systems Code (Client: commenced while a Commonwealth Public Servant, after 1996 the Commonwealth Government, 1994-1997) - Was involved in the development of the new legal framework for the economic regulation of gas transmission and distribution systems, with advice spanning the overall form of regulation to apply to the infrastructure and the appropriate pricing principles (including the valuation of assets for regulatory purposes and the use of incentive regulation), ring fencing arrangements between monopoly and potentially contestable activities, and whether upstream infrastructure should be included within the regime.

Licencing / Franchise Bidding

- Competitive Tender for Gas Distribution and Retail in Tasmania (Client: the Office of the Tasmanian Energy Regulator, 2001-2002) - Economic adviser to the Office during its oversight of the use of a competitive tender process to select a gas distributor/retailer for Tasmania, and simultaneously to set the regulated charges for an initial period.
- Issuing of a Licence for Powercor Australia to Distribute Electricity in the Docklands (Client: the Office of the Regulator General, Vic, 1999) - Economic adviser to the Office during its assessment of whether a second distribution licence should be awarded for electricity distribution in the Docklands area (a distribution licence for the area was already held by CitiPower, and at that time, no area in the state had multiple licensees). The main issue concerned the scope for using 'competition for the market' to discipline the price and service offerings for an activity that would be a monopoly once the assets were installed.

Assessments of the degree and prospects for competition / need for regulation

- Assessment of the merits of the coverage test in the gas regulatory regime (Client: AEMC, 2015) – advised the AEMC on whether the test contained in the gas regime for determining whether pipelines should be regulated is fit for the intended purpose, which included a detailed review of the coverage / declaration decisions to date.
- Pilbara electricity networks (Client: Public Utility Office, 2014) – provided advice to the Office on whether the applications for declaration of the Pilbara electricity networks would meet the coverage test.
- Transmission connection assets (Client: Grid Australia, 2012) – prepared an assessment of the degree of competition in the provision of transmission connection assets, which included advice on the market within which the service is provided and an assessment of the degree of rivalry (including the prospects for entry) in that market.
- South East network (Client: Kimberley Clarke, 2011) – advised whether the gas pipeline from which it is supplied would pass the threshold for regulation.
- Pilbara rail access (Client: BHP Billiton) – assisted in the preparation of expert evidence on whether the Pilbara rail infrastructure passed the test for declaration of essential infrastructure, with specific focus on the analysis of whether there would be a promotion of competition in other markets from the granting of access.
- Need for regulation of gas transmission pipelines (Client: SA Government) – advised as to whether the Moomba to Adelaide pipeline was likely to pass the threshold required for regulation under the Gas Code, focussing upon an assessment of the degree of competition for its services.

B. Pricing in non-infrastructure markets

Market reviews of the effectiveness of competition

- Review of the NZ retail banking market (Client: ANZ, 2023-24) – advising in relation to the measurement of profitability for the NZ banking sector grocery retailers and its interpretation when assessing the effectiveness of competition. Key issue is the derivation of an appropriate benchmark for returns, in turn spanning: the breadth of countries from which peer firms are sourced; the economic relevance of "intangible" assets; and whether comparisons should be made against a bottom-up estimate of the cost of capital.
- Review of the NZ grocery retailing market (Client: Foodstuffs, 2020-22) – advised in relation to the measurement of profitability for the NZ grocery retailers and its interpretation when assessing

the effectiveness of competition. Key issues included: the valuation of assets; derivation of appropriate benchmarks for returns (including the relevance of "intangible" assets); and advising on how leased assets should be treated when seeking to measure economic returns (including an assessing the economic merits of IFRS16).

- Review of the NZ petrol retailing market (Client: Z Energy, 2018-19) – advised in relation to the measurement of profitability for the NZ petrol retailers and its interpretation when assessing the effectiveness of competition. Key issues included: the valuation of assets; derivation of appropriate benchmarks for returns (including the relevance of "intangible" assets); and advising on the robustness of measures of Tobin's Q (the ratio of the market value to the replacement cost of assets) for making inferences about the degree of competition in a market.
- Assessment of retail competition in Victoria and South Australia (Client: Australian Energy Market Commission) – assisted the Commission to quantity and interpret information on margins for retailers and to draw inferences about the level of competition. Also provided a peer review of the Commission's overall assessment of the level of competition, including the Commission's overall analytical framework and the other indicators it considered.

Default/transitional regulated prices for retail functions

- ACT transitional tariff review (Client: ICRC, ACT, 2010) – advised the regulator on an appropriate method to derive a benchmark wholesale electricity purchase cost for an electricity retailer, including the relationship between the wholesale cost and hedging strategy.
- South Australian default gas retail price review (Client: the Essential Services Commission, SA, (2007-2008) – derived estimates of the benchmark operating costs for a gas retailer and the margin that should be allowed. This latter exercise included a bottom-up estimate of the financing costs incurred by a gas retail business.
- South Australian default electricity retail price review (Client: the Essential Services Commission, SA, 2007) - estimated the wholesale electricity purchase cost for the default electricity retail supplier in South Australia. The project involved the development of a model for deriving an optimal portfolio of hedging contracts for a prudent and efficient retailer, and the estimate of the expected cost incurred with that portfolio.
- South Australian default gas retail price review (Client: the Essential Services Commission, SA, 2005) - As part of a team, advised the regulator on the cost of purchasing gas transmission services for a prudent and efficient SA gas retailer, where the transmission options included the use of the Moomba Adelaide Pipeline and SEAGas Pipeline, connecting a number of gas production sources.

Market Design

- Options for the Development of the Australian Gas Wholesale Market (Client: the Ministerial Committee on Energy, 2005) - As part of a team, assessed the relative merits of various options for enhancing the operation of the Australian gas wholesale markets, including by further dissemination of information (through the creation of bulletin boards) and the management of retailer imbalances and creation of price transparency (by creating short term trading markets for gas).
- Review of the Victorian Gas Market (Client: the Australian Gas Users Group, 2000-2001) - As part of a team, reviewed the merits (or otherwise) of the Victorian gas market. The main issues of contention included the costs associated with operating a centralised market compared to the potential benefits, and the potential long term cost associated with having a non-commercial system operator.

- Development of the Market and System Operation Rules for the Victorian Gas Market (Client: Gas and Fuel Corporation, 1996) - Assisted with the design of the 'market rules' for the Victorian gas market. The objective of the market rules was to create a spot market for trading in gas during a particular day, and to use that market to facilitate the efficient operation of the system.

Transfer pricing

- Application of a netback calculation for infrastructure under the Minerals Resource Rent Tax (Client: BHPB, 2011-2013) – advised on how the arms-length price for the use of downstream infrastructure should be determined, including the valuation of assets, weighted average cost of capital and on the implications for the price of incentive compatible contracts.

Pricing strategy

- Pricing for telephone directory services (Sensis, 2012) – as part of a team, advised on how margins could be maximised for the telephone directory business in the context of falling print advertising and a very competitive digital market, informed by the application of econometric techniques.
- Effectiveness of promotional strategies (Target, 2011-2012) – as part of a team, applied econometric techniques to assess the effectiveness of Target's promotional strategies, with tools developed for management to improve profitability.
- Optimal pricing (Client: Coles, 2011-2012) – applied econometric techniques to assist Coles to set relativities of prices within "like" products and developed a method to test the effectiveness of promotional strategies.

C. Regulatory due diligence and other finance work

- Sale of Port of Melbourne (Client: a consortium of investors, 2014-16) – Prepared a regulatory due diligence report for potential acquirer of the asset, including a review of the financial modelling of future pricing decisions.
- Sale of TransGrid (Client: a consortium of investors, 2011-12) – Prepared a regulatory due diligence report for potential acquirer of the asset, including a review of the financial modelling of future pricing decisions.
- Sale of the Sydney Desalination Plant (Client: a consortium of investors, 2011-12) – Prepared a regulatory due diligence report for potential acquirer of the asset, including a review of the financial modelling of future pricing decisions.
- Sale of the Abbot Point Coal Terminal port (Client: a consortium of investors / debt providers, 2010-11) – Prepared a regulatory due diligence report for potential acquirer of the asset, including a review of the financial modelling of future pricing decisions.
- Private Port Development (Client: Major Australian Bank, 2008) - Prepared a report on the relative merits of different governance and financing arrangements for a proposed major port development that would serve multiple port users.
- Sale of Allgas gas distribution network (Client: confidential, 2006) – Prepared a regulatory due diligence report for potential acquirer of the asset.
- Review of Capital Structure (Client: major Victorian water entity, 2003) - Prepared a report (for the Board) advising on the optimal capital structure for a particular Victorian water entity, taking account of the likely impact of cost-based regulation.

D. Expert Witness Roles

- Roaming fee between operators of toll-roads (Client: ConnectEast, 2021-23): provided an expert opinion on how the fee that one toll road (home operator) charges another (away operator) for recovering tolls when account holders "roam" on the away operator's toll road should be calculated (in conformity with the CityLink Act).
- Commercial dispute around service fee (Client: ZEN Energy, 2022-23): provided an expert opinion about the calculation of certain elements of a service fee, including the cost of procuring a bank guarantee and the appropriate profit margin.
- Access price for a gypsum loading facility at a port (Client: Gypsum Resources Australia, 2019-20) – provided an expert opinion about the appropriate cost-based price for the loading service in an access arbitration. Key issues included: the appropriateness of price benchmarking versus cost-based pricing; asset valuation (in the context of a very old facility); estimation of the required commercial return; the method for forecasting expenditure (including the sharing of risk); and the effect of different forms of price escalation.
- Measurement of short run marginal cost (SRMC) and assessment of market power in electricity generation (Client: Economic Regulatory Authority, WA, 2020-21) – provided expert evidence in support of the ERA WA's action against Synergy (a major generator) before the Electricity Review Board that Synergy had (i) submitted offers into the energy market in excess of SRMC, and (ii) that Synergy had / had exercised market power. Focus of evidence was on (i) concept of SRMC; (ii) the measure of gas costs for the purpose of SRMC, and (iii) whether Synergy had / had exercised market power.
- Stamp duty assessment for a gas distributor (Client: confidential, 2020-21) – provided an expert report about whether the attraction of custom for a gas distributor may create value and so give rise to an intangible asset.
- Assessment of the market / lessening of competition for a container port (Client: NSW Ports, 2019-20) – provided expert evidence in the ACCC's actions to strike down certain agreements between NSW Ports and the NSW Government as lessening competition. Focus of the evidence was on the role of the broader logistics chain (including land transport costs) in defining the geographic market for the services, and the effect of these factors for the financial viability for an alternative container port at Port of Newcastle.
- Arbitration of prices for the Vanuatu electricity utility (Client: UNELCO (asset owner), 2019-21) – provided expert evidence in a commercial arbitration under the concession agreement on a range of economic issues relevant to the arbitration, including the cost of capital, the regulatory valuation of assets (including the treatment of accrued provisions), the form of price control and the determination of operating expenditure allowances.
- Tax consequences of customer contributions (Client: VPN, 2017-19) – provided expert evidence about the regulatory treatment of customer contributions and related matters for a dispute in the Federal Court with the Tax Commissioner about whether these contributions should be assessed as income.
- Goldfields gas pipeline price review (Client: BHP, 2017) – provided expert evidence to the judicial review on the economic principles around whether a "true-up" is permitted when be there is a delay in the commencement of a regulatory period under the National Gas Rules.
- Goldfields gas pipeline price review (Client: BHP, 2014) – provided an expert report on economic principles associated with the allocation of costs between regulated and unregulated assets.

- Kapuni gas contract dispute (Client: Vector, 2013-2015) – provided expert evidence for the arbitration addressing a number of economic issues with determining a fair and reasonable price for the (raw) Kapuni gas, including the overall economic interpretation of the bargain, an appropriate netback price for gas processing, retail margins, value of gas flexibility and interpretation of discovered gas supply arrangements.
- Abbot Point Coal Terminal Pricing Arbitration (Client: Adani, 2013) – prepared a number of expert reports for the arbitration on economic issues arising from the application of the cost-based formula in the pricing agreement, including the economic meaning of key terms, the valuation of assets (and specifically the role and calculation of interest during construction), the quantification of transaction costs of raising finance and the calculation of the required rate of return (most notably, the benchmark cost of debt finance).
- New Zealand Input Methodologies (Clients: Powerco and Christchurch International Airport Limited, 2009-2012) – prepared expert report for both clients on a range of economic issues, including the valuation of assets, weighted average cost of capital, cost allocation, the regulatory treatment of taxation and interpretation of the new purpose statement in the Commerce Act. Appeared as an expert before the Commerce Commission in the key conferences held during the review. Also assisted the clients in their subsequent merit reviews of the Commission's decision.
- Victorian gas market dispute resolution panel (Client: VENCorp, 2008) – prepared an expert report and was cross examined in relation to the operation of the Victorian gas market in the presence of supply outages.
- Consultation on Major Airport Capital Expenditure Judicial Review (Client: Christchurch International Airport, 2008) – prepared an affidavit for a judicial review on whether the airport consulted appropriately on its proposed terminal development. Addressed the rationale, from the point of view of economics, of separating the decision of 'what to build' from the question of 'how to price' in relation to new infrastructure.
- New Zealand Commerce Commission Draft Decision on Gas Distribution Charges (Client: Powerco, 2007-2008) – prepared an expert statement about the valuation of assets for regulatory purposes, with a focus on the treatment of revaluation gains, and a memorandum about the treatment of taxation for regulatory purposes and appeared before the Commerce Commission.
- Sydney Airport Domestic Landing Change ACCC Arbitration (Client: Virgin Blue, 2007) – prepared two expert reports on the economic issues associated with the structure of landing charges.
- New Zealand Commerce Commission Gas Price Control Decision – Judicial Review to the High Court (Client: Powerco, 2006) – provided four affidavits on the regulatory economic issues associated with the calculation of the allowance for taxation for a regulatory purpose, addressing in particular the need for consistency in assumptions across different regulatory calculations.
- Victorian Electricity Distribution Price Review: Appeal to the ESC Appeal Panel (Client: the Essential Services Commission, Vic, 2005-2006) – prepared expert evidence on (i) the workings of the ESC's service incentive scheme and the question of whether the scheme was likely to deliver a windfall gain or loss to the distributors, and (ii) the workings of the ESC's tariff basket form of price control, with a particular focus on the ability of the electricity distributors to rebalance prices and the financial effect of the introduction of 'time of use' prices in this context.
- New Zealand Commerce Commission Review of Information Provision and Asset Valuation (Client: Powerco New Zealand, 2005) - Appeared before the Commerce Commission for Powerco New Zealand on several matters related to the appropriate measurement of profit for regulatory

purposes related to its electricity distribution business, most notably the treatment of taxation in the context of an incentive regulation regime.

- Duke Gas Pipeline (Qld) Access Arrangement Review – Appeal to the Australian Competition Tribunal (Client: the Australia Competition and Consumer Commission, 2002) - Prepared expert evidence on the question of whether concerns of economic efficiency are relevant to the non price terms and conditions of access.
- Victorian Electricity Distribution Price Review: Appeal to the ORG Appeal Panel (Client: the Office of the Regulator General, Vic, 2000) – Provided expert evidence to the ORG Appeal Panel on the questions of (i) whether the distribution of electricity in the predominantly rural areas carried greater risk than the distribution of electricity in the predominantly urban areas and (ii) the implications of inflation risk for the cost of capital associated with the distribution activities.

Qualifications and memberships

- Bachelor Economics (First Class Honours) University of Adelaide
- CEDA National Prize for Economic Development