

Aurizon Network - Review of Declared Services in the Central Queensland Coal Network

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Executive Summary

Declaration of the CQCN does not satisfy the criterion in section 76(2)(d)

To be declared, the services that comprise the Central Queensland Coal Network (**CQCN**) must satisfy all of the criteria in section 76(2) of the *Queensland Competition Authority Act, 1997 (QCA Act)*.

The various services that comprise the CQCN should not be declared because declaration clearly fails to promote the public interest as required in section 76(2)(d) of the QCA Act.

The best evidence of the fact that declaration of the CQCN beyond 2020 would not result in promotion of the public benefit, is found in the results of regulated access under the existing declaration of services.

That evidence reveals:

Material costs of regulation

- there are material costs associated with the overly prescriptive nature of the industry-focused regulation applied in the CQCN, and the fact that those costs significantly exceed the limited benefits of declaration;
- the costs associated with declaration are significant in part because of the very intrusive nature of the regulation applied to the CQCN, extending to areas well beyond the '*minimum extent necessary*' to achieve the desired policy objective of economic efficiency;
- existing regulation in the CQCN has resulted in a very significant set of administrative and compliance costs, estimated to be at least \$15m per annum incurred by Aurizon Network. The QCA's own levy charged to Aurizon Network has increased from \$2m p.a. in 2011/12 to just under \$8m in 2017/18. These increasing administrative and compliance costs have not yielded any identifiable benefits to users of the CQCN;

Material increase in regulatory risk which deters investment

- the nature of regulation in the CQCN has resulted in long and unnecessary delays in processes for the approval of access undertakings and the exercise of regulatory oversight on matters that should be operational rather than regulated activities. In some cases, it has taken over **1000 days** to obtain regulatory approvals for matters required by the regulatory regime;
- the nature and application of the existing regulatory framework acts as a disincentive for investment in long-term rail infrastructure. The nature and value of investments involved in major expansions in the CQCN can only be justified on long term commercial arrangements that provide commercial certainty for the developer and users of the proposed expansion. The current regulatory regime has materially hindered the ability for parties to strike commercial

arrangements that are much better suited to investments of this kind. This has had the effect of hindering improvements to the CQCN;

- Short-term innovation is being impaired due to the lack of incentive or reward within the current regulatory regime; and
- there is weak academic and empirical evidence to support the conclusion that access regulation in the CQCN has resulted in a better matching of supply with demand, or the provision of incentives for improvements in cost efficiency. As noted above, there is actual evidence of the contrary, especially in relation to cost efficiency.

Aurizon Network considers that there are substantial costs from declaration under the QCA Act and those costs materially exceed the expected benefits from increased allocative efficiency. These costs are largely associated with the design and performance of the current regulatory framework. The public interest can only be satisfied where the costs are substantially reduced through less prescription, increased incentives to invest and more commercial flexibility to support increased coordination and supply chain efficiency.

The QCA and the Minister must be satisfied with a high degree of confidence that declaration is needed to ensure access to the CQCN in a manner that will achieve economic efficiency, so as to promote the public interest.

Based on all the evidence set out within this submission regarding the way in which regulation of the CQCN has operated to date, the QCA and the Minister cannot be reasonably satisfied as to those matters. This is particularly so given that Aurizon Network is already materially, economically incentivised to maximise access to the CQCN and would be acting against its own interests to deny or offer access on uncommercial terms.

Declaration of some services also fails to meet other criteria in section 76(2)

The evidence of regulatory failure set out in this submission in relation to the public interest criterion in section 76(2)(d) affects declaration of the entire CQCN. However, there is also evidence to support the conclusion that various individual services fail to meet other criteria in sections 76(2)(a), (b) and (c).

In particular:

- The use of a coal rail system that originate from a coal basin which was not directly connected on 8 September 2020.
 - Access regulation impairs Aurizon Network's ability to effectively negotiate long term access arrangements to promote the public interest of connecting a new coal basin to an existing coal system;
- The use of the Newlands coal system for providing transportation by rail
 - If the Northern Galilee Basin Rail project was to proceed then the use of the Newlands coal system for the transportation of coal would be subject to direct competition with a competing facility. Regulation would interfere with Aurizon Network's ability to directly compete with the alternative service.
- The use of a coal system for the transportation of intermodal and agricultural freight by rail
 - The productivity improvements made in road transportation, including increases in truck size and investment in road networks to improve capacity and transit time has significantly eroded the competitiveness of rail.

- The use of the Moura coal system for providing transportation by rail
 - The QCA will need to consider the impact the loss of the Moura coal system would have on the Queensland economy. The value of total coal exports represents approximately 35% of the total exports for the state, with Moura contributing only approximately 1% of the total value of exports.
- The use of more than one existing coal system (cross system services) for providing transportation by rail.
- The use of a coal system for the transportation of passengers by rail;
 - The QCA must have regard to the extent of competition in this market through other transportation modes, legislative protections, the feasibility of a new entrant into this market and the threat of government intervention.

Aurizon Network believes that the QCA's application of the relevant tests of the declaration criteria for these particular services will result in the criteria not being met. The QCA needs to address these critical factors when considering whether the access criteria is satisfied with respect to these relevant services.

Declaration should not be for longer than 5 years

For the reasons set out in this submission, declaration of the CQCN fails to satisfy the criterion in section 76(2)(d) of the QCA Act and should therefore not proceed. If, contrary to that view, the Minister were to declare parts or all of the services comprising the CQCN, that declaration should not be for longer than 5 years.

Aurizon Network submits that in the case of the CQCN, the very significant regulatory failures identified in section 3 of this submission, fully justify a shorter period before the declaration should be reviewed. On that basis Aurizon Network proposes a duration of five years before review. Regular comprehensive reviews of any declaration are important to ensure that regulation is still meeting its objectives, particularly in markets that are dynamic and subject to rapidly increasing changes in technology and innovation.

There is no sound policy or commercially rational reason, and no precedent that would justify or support indefinite declaration.

1. Overview of the current declared services

Aurizon Network, as the lessee of rail transport infrastructure in the CQCN, is the operator and provider of the following below rail deemed declared services specified in section 250 of the QCA Act:

1. *The use of a **coal system** for providing transportation by rail;*

where,

*a **coal system** means rail transport infrastructure that is –*

a. Part of any of the following –

- i. the Blackwater system, being the railway connecting Gregory, Rolleston and Minerva to Gladstone, including the part of the North Coast Line between Parana and Rocklands, as shown on the diagram in schedule 1;*
- ii. the Goonyella system, being the railway connecting Gregory, North Goonyella and Blair Athol mine to the Port of Hay Point, as shown on the diagram in schedule 1;*
- iii. the Moura system, being the railway connecting Moura mine to Gladstone, as shown on the diagram in schedule 1; and*
- iv. the Newlands system, being the railway connecting Newlands to the Port of Abbot Point, including the part of the North Coast Line between Durroburra and Kaili, as shown on the diagram in schedule 1.*

b. directly or indirectly connected to a system mentioned in paragraph (a) and owned or leased by the owner or lessee, or a related body corporate of the owner or lessee, of the system.

*Also, a **coal system** includes an extension of the coal system that –*

a. is built on or after 30 July 2010; and

b. does not directly connect the coal system to a coal basin to which the coal system was not directly connected on 30 July 2010; and

c. is owned or leased by –

- i. the owner or lessee of the coal system; or*
- ii. a related body corporate of the owner or lessee of the coal system*

The term 'rail transport infrastructure' is defined in the QCA Act as referenced to its meaning in schedule 6 of the *Transport Infrastructure Act 1994*. The rail transport infrastructure connecting the Newlands and Goonyella systems (forming part of the Goonyella to Abbot Point Expansion (**GAPE**) project) was constructed after 30 July 2010 and covered by the declaration as an extension of a coal system.

The declaration of these services, then provided by the Government Owned Corporation, QR Limited, initially commenced in July 1998 by way of declaration by regulation pursuant to the *Queensland Competition Authority Regulation 1997*. Declaration continued on a "deemed" basis from the amendments to the Act in 2010, with the deemed declaration expiring in September 2020.

As the declaration was first made by regulation and then by statutory deeming, the declared services have not been subject to a comprehensive independent assessment against the access criteria in section

76 of the QCA Act. This point was noted by the National Competition Council (**NCC**) in its Final Decision on certification of the Queensland Rail Access Regime (**QRAR**):

Declaration by regulation did not require an assessment of the relevant services against any particular criteria or a report from the QCA or any similar body.

As clause 6(4)(d) of the Competition Principles Agreement (**CPA**) requires access regulation of any particular service to be periodically reviewed, the QCA Act was amended to include:

- transitional and saving provisions for the existing declared services with an expiry date of 10 years from when the section commences (expires 8 September 2020); and
- a new subdivision 4A into part 5, division 2 to provide a process for the pre-expiry review of an existing declaration of a service.

The NCC's Final Decision on the certification of the QRAR accepted that the scope of the declared service applies only to significant infrastructure facilities and that such railways typically exhibit natural monopoly characteristics which are unlikely to be economically feasible to duplicate. However, those judgments were not based on a comprehensive independent assessment but were informed judgements based on prior declaration applications.

As the declared service has not been subject to a comprehensive assessment against the access criteria, the QCA review must ensure that all parts of the declared service satisfy the access criteria before making a recommendation to declare any particular part of the service to the Minister. Such a recommendation would require that the QCA reach an affirmative conclusion, based on the application of sound principles to facts, that each distinct service within the declared service met all of the access criteria.

2. The statutory requirements for the QCA's review of the declared service

On 4 April 2018, the QCA notified Aurizon Network, as the owner of the declared services described in section 250(1)(a) of the QCA Act, that it has initiated a review of the declared services described above in accordance with the requirements of section 87A of the QCA Act and that it has commenced an investigation of that service for making a recommendation on whether:

- the service be declared; or
- part of the service, that is itself a service, be declared; or
- the service not be declared.

A staff issues paper (**QCA Issues Paper**) was published on the QCA's website on the same day to assist stakeholders in making submissions. This document comprises Aurizon Network's submission to the QCA in response to that QCA Issues Paper.

Aurizon Network agrees with the QCA that the QCA Act '*makes no other provision for the QCA to modify the scope of the declared services through this review process*', other than that necessary to reflect that part of the service which should not be declared.

Section 87A of the QCA Act confirms that the review should focus on services which are the subject of an existing declaration. Any consideration of a service which is not part of the declared services described in section 250(1)(a) of the QCA Act could only occur through a separate request for a declaration made under section 77.

The QCA can make a recommendation to declare a service, or part of the service, only where it is satisfied that all of the access criteria for a service have been satisfied. In determining whether the criteria is satisfied, the fact that a service is currently a deemed declared service is irrelevant.

Because the services must be assessed against the access criteria as if those services are not currently declared the QCA must base its conclusions upon an assessment of the likely impacts of declaration. In contrast, the QCA's review of existing declarations starts from the perspective of the service already being declared and so must hypothesise what the likely outcomes would be *without* declaration in order to provide the necessary counterfactual on what effects declaration would then have. Because of the deemed declaration, the QCA must identify the characteristics of a market for the services which was not declared as its base case, and then assess the impacts of declaration. The latter is non-hypothetical as the effects of regulation by the QCA can be seen from recent experience.

In conceiving the market without any declaration, the QCA must consider whether the public interest and economic efficiency could be substantially enhanced by an alternative approach to regulation which is less prescriptive and facilitates negotiated settlement with a primary emphasis on monitoring and enforcement, under existing powers.

That reflects the first two precepts of the Competition Principles Agreement, to which the State is a party and upon which the Act is based. The principal precept is market based: "*Wherever possible third party access to a service provided by means of a facility should be on the basis of terms and conditions agreed between the owner of the facility and the person seeking access.*" and regulated access only follows where agreement cannot be reached.

However, this model of negotiation based access regulation is not one that can be implemented with the current approach to economic regulation under the Act. Therefore, the economic costs of regulation, for the purpose of this declaration review, cannot be benchmarked against a hypothesised light-handed and market based mechanism, where intrusive regulation operates only to deal with market failure, but must be assessed based on how regulation currently applies to access to declared services.

In that analysis, Aurizon Network contends that the QCA should not seek to assess whether a substitute for the service currently exists in determining whether the market for the service is contestable. Rather it should evaluate whether the conditions exist for users to exercise countervailing market power or to promote entry and competition in the market for the declared service. Similarly, even if it was open to the QCA to make a recommendation on that basis, the QCA should not make a recommendation to declare a service which would utilise rail transport infrastructure that is not currently part of a coal system on the basis that the access criteria might be satisfied in some circumstances and not others such as geographical extensions to a coal system. In these circumstances the bias should be towards promoting competition in the market for the service by considering whether the declaration criteria are satisfied and, if they are not, letting the market do its work.

In all this, Aurizon Network notes that:

- the emphasis in access regulation is not upon the service to which access is regulated, but upon the promotion of effective competition in a downstream or upstream market; and
- new protections have been in place since November 2017 against the exercise of market power which causes harm in upstream and downstream markets, through the amendments to s. 46 of the *Competition and Consumer Act 2010 (CCA)*.

Timeframes and submissions

The QCA's notice of review outlines the timeframes for the QCA's review as:

- initial submissions by 30 May 2018;
- a four-week period for submissions on initial submissions; and
- the release of a draft recommendation, anticipated to be released by the QCA in December 2018, subject to the nature of stakeholder submissions.

Aurizon Network considers that the initial consultation period may not provide sufficient time for owners or operators of the declared services to provide the information being sought in the QCA Issues Paper. It is likely that owners and operators may need to provide further data and evidence in their subsequent submissions, or at the request of the QCA.

Aurizon Network also considers that as the statutory framework requires the QCA to be satisfied the service meets all the access criteria it will be necessary for the QCA to obtain the relevant information during the course of its investigation. Therefore, the QCA will need to ensure it seeks to acquire the necessary evidence or facts from relevant stakeholders to inform its investigation.

3. The costs of access regulation exceed the benefits and declaration is not in the public interest

The QRAR comprises various statutory instruments, declarations and access undertakings under the QCA Act in relation to rail infrastructure¹. The state based access regime originates from the Coalition of Australian Government's agreement to allow the relevant State or Territory to establish access regimes for third party access to services provided by means of significant infrastructure facilities subject to those regimes conforming to the principles set out in the CPA.

A key tenet of the principles in the CPA is that access would be provided on the basis of the terms and conditions agreed between the owner of the facility and the person seeking access. Where such agreement cannot be reached then an independent body should be able to resolve the dispute. These principles largely reflect that commercial negotiation for the provision of access to nationally important infrastructure will occur between large sophisticated corporate entities with the access seeker having some countervailing market power. This tenet recognises that commercial negotiation, based on the interplay of market forces, will lead to superior economic outcomes than those obtained from direct regulatory intervention and ex-ante prescription.

Where policy makers must address concerns regarding an imbalance in negotiating power or other market failures this has occurred through bespoke industry regulation, and not generic access regulation. Access regulation is a costly and highly ineffective policy instrument to address issues that are more efficiently resolved through commercial negotiation and alignment of commercial interests. It is also widely recognised that regulation is unable to reach outcomes that can otherwise be obtained through negotiated settlements between the provider and an access seeker for the service².

¹ See the decision on the effectiveness of the access regime under section 44N of the CCA at <http://ncc.gov.au/images/uploads/CERaQldMD-001.pdf>

² Littlechild, S. (2012) *The process of negotiating settlements at FERC*, Energy Policy, Vol. 50 pp 174-191.

Aurizon Network contends that the costs associated with ex-ante prescriptive industry type regulation as applied in the CQCN, significantly exceeds any benefits from increased competition in the rail haulage market and therefore access (or increased access) to the service, on prescribed terms and conditions, as a result of a declaration of the service does not promote the public interest. This conclusion is supported by:

- Economic regulation as it is applied under the QCA Act not being consistent with the objective of access regulation exposed in the CPA;
- The access criteria which require positive demonstration that access declaration will promote the public interest; and
- Economic regulation under the QCA Act involving significant and recurrent material costs.

Objectives of access regulation

Government and regulatory intervention in operation of infrastructure can:

- be costly;
- be theoretical rather than commercially orientated; and
- unreasonably interfere with the property rights of the owner of the facility.

Done poorly, the costs of this intervention can exceed the economic benefit that the policy is intended to realise or it may simply substitute regulatory failure for the assumed market failure it is intended to address. Access regulation should therefore only be applied sparingly and only where overall economic welfare is likely to be improved.

The access criteria is intended to ensure that access regulation addresses only a very narrow economic problem associated with an enduring lack of effective competition due to existence of a natural monopoly affecting other markets. In the absence of conditions which provide a constraint on the behaviour of the service provider, as would occur in a workably competitive market, it is assumed that the service provider will either deny access or charge excessive prices which might induce the inefficient duplication of the facility or otherwise lead to the inefficient allocation of resources

Economic literature recognises that the incentives to deny access to some or all access seekers may be more prominent where the infrastructure owner is also vertically integrated in an upstream or downstream market. In the case of vertical integration, the relevant market failure is the loss of allocative efficiency associated with the integrated monopoly price and the assumed loss of economic output.

In this regard, the Productivity Commission's (PC) review of the National Access Regime (NAR) summarised:

The only economic problem that access regulation should address is an enduring lack of effective competition, due to natural monopoly, in markets for infrastructure services where access is required for third parties to compete effectively in dependent markets. Access regulation should not be used to avoid the duplication of infrastructure per se, or to address wider social and economic issues such as income distribution or environmental concerns³.

³ Productivity Commission (2013) *National Access Regime*, Inquiry Report No. 66, , Canberra, p. 7

Therefore, a fundamental premise of the review of the declaration is that access regulation must be affirmatively demonstrated to be welfare enhancing, and that without regulated access on reasonable terms the output from the CQCN would be lower than it would be with declaration. Whether access regulation will produce these benefits requires that:

- the infrastructure owner, or the vertically integrated operator, would have an incentive to deny access;
- the demand for coal carrying trains services is relatively elastic such that there would be a corresponding reduction in demand associated with either:
 - a price which materially exceeds the long-run marginal cost of the service; or
 - the x-inefficiency arising from lack of innovation and productivity improvement.

In considering whether these outcomes are likely to arise the PC also notes:

Intervention to require access where the infrastructure service provider has no ability to affect prices in downstream markets risks lowering efficiency and, in the long term, adversely affecting incentives to invest in markets for infrastructure services. Access regulation would need to lead to more efficient outcomes than would be achieved through negotiation between the parties, which seems unlikely when neither party has an incentive to see profitable projects left undeveloped and the regulator would be operating with less information than the commercial parties⁴.

Access regulation also imposes costs, in particular where it adversely affects incentives for investment in markets for infrastructure services. There are costs associated with errors in setting access prices. For example, when prices are set too low, this can lead to delayed investment in infrastructure, or the non-provision of some infrastructure services. Regulated third party access can also impose costs on infrastructure service providers from coordinating multiple users of their facilities⁵.

In reviewing the declared services, the QCA should also distinguish between monopoly rents and economic rents as the latter is unlikely to be related to the economic problem which access regulation is intended to address. The PC also raised this point in its review of the NAR:

The existence of economic rents does not, of itself, justify government intervention. Economic rents do not affect supply decisions of existing suppliers and thus will only have an effect on efficiency where there are monopoly rents (as set out above, monopoly rents arise where higher prices for consumers lead to inefficient under-consumption of infrastructure services)⁶.

Overly intrusive and subsequently commercially restrictive access regulation can also produce significantly greater losses of allocative efficiency in terms of both how resources are currently allocated and in the future. This occurs through lower dynamic efficiency which exceeds any allocative efficiency impacts access regulation is intended to overcome.

⁴ Ibid, p. 93.

⁵ Ibid, p. 7

⁶ Ibid pp. 91-92

These adverse economic effects from access regulation therefore require a high degree of confidence that the benefits from regulatory intervention will outweigh the costs it imposes and that the outcomes of regulation are commercially rational.

This is largely reflected in the amendment to the access criteria that requires declaration to be in the public interest⁷. This imposes a positive obligation on the QCA to demonstrate that a recommendation to declare part, or all, of the service will result in improved outcomes for society relative to the potential alternatives. This was acknowledged in the Competition Policy Review which stated:

Given the economic costs that can be caused by this form of regulation, it is important to examine the benefits of the Regime carefully and to ask whether those benefits can be achieved by a [less intrusive form of regulation]⁸.

The Competition Policy Review also opined that:

All factors that bear upon the overall public interest, including the history of the ownership of the asset, should be taken into account in the declaration decision.

Aurizon Network considers the ownership structure to be a factor relevant to the public interest given the access regulation overrides private property rights by requiring it to provide third party access on terms and conditions (including price) effectively determined by the regulator. Aurizon Network notes that an important objective of the privatisation of the CQCN, coupled with amendments to the Act to provide for access regulation was to remove direct government price controls on rail freight and to improve the efficiency of the (formerly) government owned monopolies. Declaration of the services was transitory for that purpose, to facilitate the migration of rail services from fixed and Government determined charges and services standards. This objective has largely been achieved and the future efficiency gains from access regulation are likely to be far less significant.

Access regulation is a means to an end, not an end in itself.

Access regulation which has the effect of lowering prices to users of the service is not a sufficient condition alone to conclude that regulation has yielded improvements in economic efficiency if it simply represents a transfer of economic value from one market participant to another, without increasing that economic value.

Aurizon Network acknowledges that third party entry into the rail haulage market in central Queensland has coincided with substantial productivity improvements in that market. However, those improvements have also come with significant costs of regulation and associated efficiency loss from coordinating multiple users of rail infrastructure and the significant transaction costs associated with vertical unbundling. Overall the level of regulation applied to the below rail infrastructure, substantially reduces

⁷ Queensland Competition Authority Amendment Bill 2018 received assent on 29 March 2018.

⁸ Harper, I et al (2015) *Competition Policy Review: Final Report*, Canberra, p. 424

the ability to work with above rail haulage providers providing minimal overall incentives to improve efficiency.

The industrial organisation literature for railways⁹ has generally concluded that the optimally efficient market structure for railways is vertical integration because of the transaction costs associated with separation and the coordination failure of the below and above rail operations from vertical unbundling. While access regulation can safeguard the inefficient duplication of significant infrastructure, it will prima facie involve lower productive efficiency due to the loss of economies of scope of integrated operations.

These costs of vertical separation mean that regulation of the terms of access will only produce a net benefit to society if regulation produces substantial gains in the form of increased allocative efficiency. This is reflected in the analysis by Bitzan who concludes¹⁰:

Railroads are natural monopolies in providing transport services over their own network, suggesting that multiple-firm competition over such a network would result in increased resource costs. These findings suggest that policies introducing rail competition through “open access” or on bottleneck segments would not be beneficial from a cost perspective. Moreover, the price decreases necessary for the introduction of such competition to be beneficial would be large. Thus, to the extent that rate and service problems exist in the US railroad industry, policies aimed at strengthening rate reasonableness guidelines and service guidelines would be preferred to policies aimed at introducing competition.

The Surface Transportation Board’s 2009 study of competition in the US Freight Railroad Industry evaluated open access policy options and concluded¹¹:

Considering the experiences of the railroad and other industries with legislated access policies, the most challenging and time-consuming aspects of implementing policy changes are working out the details and doing so in a way that enhances, not diminishes, economic efficiency.

These observations recognise that the extent to which access regulation can promote the public interest is highly dependent on the form that regulation takes and the economic costs of imposing a flawed model can have significant negative impacts on economic welfare.

Criterion d) requires a demonstration that the costs of regulation are outweighed by any benefits

Aurizon Network agrees with the QCA’s view that “criterion (d) constitutes an additional positive criterion that the QCA must be satisfied of. In other words, it is not sufficient to demonstrate that access is not contrary to the public interest. Rather, the QCA must be satisfied that access in the relevant sense would promote the public interest.” This is the most significant change in the access criteria and therefore the precedent decisions and analysis of whether declaration is in the public interest is less developed. Nevertheless, the reference to the public interest is the same as in the old criterion.

In the matter of Fortescue Metals Group Limited [2010] ACompT 2, the Tribunal stated at para 1161:

⁹ For example, see studies in Mizutani, F and Uranishi, S (2013) Does vertical separation reduce cost? An empirical analysis of the rail industry in European and East Asian OECD Countries, *Journal of Regulatory Economics*, Issue 43, pp. 33 - 37

¹⁰ John D. Bitzan, “Railroad Costs and Competition, The Implications of Introducing Competition to Railroad Networks,” *Journal of Transportation Economics and Policy*, Vol. 37, Part 2, May 2003, p. 224

¹¹ Christensen Associates (2009) A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition, Volume 3, p. 22-27

The TPA provides no definition of the expression “public interest”. Dr Fitzgerald says that what must be considered is the welfare, particularly the economic welfare, of the Australian community as a whole. This is in line with the views of the NCC. Professor Fels put it that the Tribunal should consider whether the costs of access do not outweigh the benefits, though it must be borne in mind that, apart from the fact that the assessment may at best be robust, the object is to achieve not a state of perfection but a better outcome. We are in broad agreement with these views, but with one important qualification. On close analysis it may be that access will be manifestly unjust to a section of the community while, at the same time, benefiting the community as a whole. In that circumstance access may nevertheless be contrary to the public interest.

In that matter, the Tribunal assessed the public interest on a line-by-line basis. The words and practice of the Tribunal, coupled with the change from a negative to a positive test, suggest that criterion (d) requires that, in order to recommend declaration of any particular service, the QCA must be satisfied that the benefits of declaration outweigh the detriments – when the benefits and the detriments pay particular regard to the economic welfare of the Australian community as a whole.

As we observed in this section, consideration of costs and benefits must be compared with a base case. In this case, the QCA is required to compare the future with declaration with the future absent of declaration. It is always difficult to predict what will happen in the future, however, guidance as to the future with declaration is provided by the recent experience of declaration. The future without declaration must necessarily be somewhat more speculative.

Aurizon Network considers that there are substantial costs from declaration under the QCA Act and that those costs materially exceed the expected benefits from increased allocative efficiency. These costs are largely associated with the design and performance of the current regulatory framework. The public interest could be satisfied where the costs of regulation are substantially reduced through less prescription, increased incentives to invest and less commercial and regulatory rigidity to support increased coordination and supply chain efficiency.

The benefits of declaration

The principal benefit of declaration must derive from increased allocative efficiency. This is increased efficiency with which the relevant facility is utilised. This is likely to arise if in the absence of declaration a line, or a group of lines, would be subject to monopoly pricing and, for that reason, would be under-utilised compared with the economically-efficient rate of utilisation.

In the case of a vertically-integrated below-rail network provider and above-rail service provider, it is possible that freely-negotiated access prices may foreclose entry to above-rail providers and lead to monopoly pricing of rail transport services. Evidence to support that this does not occur, is clear through producers being able to hold their own access rights and subsequently select their haulage provider. There is no incentive for Aurizon Network to deny access or the potential for monopoly based pricing.

In considering the extent to which this creates benefits from declaration, the QCA should consider the extent to which declaration increases economic efficiency by increasing the efficiency with which the relevant below-rail line or network is utilised and the extent to which this increases the efficiency with which coal is produced.

These efficiencies will depend on the relevant elasticities – in particular, the extent to which the use of the below-rail line or network is likely to be restricted by monopoly pricing by Aurizon Network and the extent to which the resultant additional increases in costs of transport are likely to cause inefficiencies in the mining of coal.

The costs of declaration

The costs of declaration are likely to be of three principal kinds:

- productive inefficiency
- allocative inefficiency
- dynamic inefficiency.

Productive inefficiency is likely to take the form of the extra resources involved in administering and complying with the access undertaking compared with the resources required to deal with contractual arrangements resulting from freely-negotiated contracts.

Allocative inefficiency is likely to take the form of mines that fail to be viable because declaration imposes uniform pricing on Aurizon Network and its customers. Mines vary greatly in their ability to bear fixed costs associated with the provision of rail lines or networks. There may be mines that would only be viable if they were to bear only the incremental costs of servicing their needs. Allocative efficiency requires that these mines be commercially viable. However, that cannot occur if declaration imposes uniform prices on all users of the facility.

Dynamic inefficiency is likely to take the form of the removal of incentives for Aurizon Network to invest in economically-efficient practices, projects or technology. This arises when there are errors in setting access prices. If, for example, prices are set too low, investment in infrastructure or technology may be inefficiently delayed or not provided. If prices cannot be differentiated, Aurizon Network has no incentive to differentiate its services to meet a spectrum of service demands from its customers, but must provide a wholly homogenous service offering.

Aurizon Network also contends that coordination costs are also a matter relevant to the public interest where those costs arise from an obligation to provide third party access under a declaration. These costs do not relate to one or more facilities but whether access to the facility is welfare enhancing. This differs from the consideration of coordinating costs under criterion b), (i.e. cost sub-additive in the facility as opposed to cost sub-additive in above and below rail inputs such that demand can be more met more efficiently by an integrated railway relative to an a below rail provider and multiple railway operators.

The PC noted that the public interest ‘*should be a rigorous test which only enables the declaration of infrastructure services where the decision maker is satisfied that declaration is likely to generate overall gains to the community*’. However, this test is an affirmative test and requires an exercise on judgement of the likely orders of magnitude of the costs and benefits:

In principle, there is a compelling case for declaration decisions to be based on an overall assessment of the costs and benefits of regulatory intervention. In practice, explicit cost–benefit assessments are unlikely to provide a sound basis for declaration decisions. As the Tribunal acknowledged in its initial consideration of the Pilbara rail case, ‘many of the alleged costs and benefits of access are esoteric or qualitative in nature [while others] depend upon the occurrence of future events which are necessarily uncertain’ (para. 1169). Consequently, the Tribunal considered that criterion (f) did ‘not require a precise quantifiable cost–benefit analysis’, but could instead provide ‘some order of magnitude value’ to the costs and benefits of access (para. 1305). Such order-of-magnitude approaches may be regarded as reasonable in cases where the net

impacts of access are unambiguous. However, at least some decisions would require contentious judgment calls¹².

Aurizon Network contends that the public interest assessment requires a consideration of the relevant costs imposed by the current system of regulation be properly assessed. Those costs, including productive and dynamic inefficiencies, must not exceed the allocative efficiency benefits.

Those costs are considered in more detail in the following section.

As the allocative efficiency improvements from access regulation are accompanied by losses in productive and dynamic efficiency then the QCA's analysis will need to demonstrate that there is a net public benefit from declaring the relevant services.

In summary, in recommending that the relevant service or part service should be declared, the QCA must be satisfied that the overarching efficiency objectives can be best pursued through access regulation relative to being promoted through other means, including alternate regulatory models. It also requires a positive demonstration that the allocative efficiency gains from access regulation going forward are tangible and not the product of academic constructs in order to conclude that the objectives of access regulation will be realised.

The costs associated with regulation under the QCA Act are substantial

The need for regulatory balance

A fundamental premise of regulation is that it should only be applied where benefits from regulatory intervention substantially exceed the costs from its introduction. By its very nature regulation is intrusive and where it is introduced to disrupt efficient market structures, the costs of regulatory failure may be far more significant than the market failure it is intended to address. Therefore, regulation must be applied sparingly and only to the minimum extent necessary to achieve the desired policy objectives. This was emphasised by Queensland Treasury's recent briefing to the Queensland Parliament's Economic and Governance Committee by stating with respect to the declaration review process:

Reviews of this kind are an important element of the Queensland Government's commitment to regulatory best practice by ensuring that the impacts of regulatory intervention, such as the declaration, are transparently assessed. The review will involve an assessment of the services against the access criteria. The criteria are designed to ensure that access regulation is applied appropriately¹³.

¹² Productivity Commission (2013) *National Access Regime*, Inquiry Report No. 66, Canberra, p. 177

¹³ Queensland Treasury (2018) Briefing note to Economic and Governance Committee on the Queensland Competition Authority Amendment Bill 2018.

Overly prescriptive regulation, such as mandatory access undertakings and detailed mandatory information requests, risk becoming rules based frameworks which involve an excessive focus on processes rather than outcomes. Outcome focussed and best practice regulation, is more closely aligned with principles based approaches where regulation sets the desired outcomes and the relevant constraints and the regulated businesses seek the most efficient means of achieving those objectives. For example, the Australian Law Reform Commission¹⁴ summarised principles based regulation as:

Principles-based regulation can be distinguished from rules-based regulation in that it does not necessarily prescribe detailed steps that must be complied with, but rather sets an overall objective that must be achieved. In this way, principles-based regulation seeks to provide an overarching framework that guides and assists regulated entities to develop an appreciation of the core goals of the regulatory scheme. A key advantage of principles-based regulation is its facilitation of regulatory flexibility through the statement of general principles that can be applied to new and changing situations.

Regulation under the QCA Act as price and terms regulation

Aurizon Network contends that access regulation under the QCA Act has become excessively process focussed with only a tenuous linkage in either objective or outcome to the achievement of the objects clause in the Act and the underlying CPA.

In a simplistic form, the starting point of the regulatory process should consider whether:

- the proposed mechanisms of any access regime are reasonable, in the sense that they are proportional to the value of access to the customer and the commercial circumstances; are unlikely to reduce incentives for upstream or downstream investment;¹⁵ and include appropriate profit based incentives to improve efficiency; and
- the arrangements are consistent with the statutory objective of promoting competition in the rail haulage market.

In practice, the current regulatory task undertaken by the QCA places ever increasing focus on a (likely false) surgical precision to the determination of the efficiency of input costs as a means of ensuring all economic rents or profits are excluded from prices, as opposed to determining whether access is being provided on terms similar to those of a notionally workable competitive market. The significant delays and costs in pursuing these minor perceived technical efficiency gains cannot be demonstrated as achieving the objects of access regulation.

The overly prescriptive regime that is in operation to regulate the CQCN has resulted in allowances and returns being set reflective of particular operating practices that has minimal consideration towards the overall outcome from those operating practices. The prescriptive input focussed regulatory regime, has

¹⁴ Australian Law Reform Commission (2008) Australian Privacy Law and Practice (ALRC Report 108). Vol. 1, p. 234.

¹⁵ See box 2 in Productivity Commission (2013) *Review of the National Access Regime*, Inquiry Report No 66, Canberra, p. 9

overall created an adverse regulatory outcome. A principles based regulatory regime, with a focus on delivering overall value to all stakeholders could be a more effective operating model for the CQCN.

The access undertaking approval process as it is applied, is more closely aligned to industry regulation where the impacts on efficiency in upstream and downstream markets are likely to be far more significant than the allocative efficiency losses that would arise within export infrastructure. The current regulatory model has the objective of avoiding regulatory error within that export infrastructure. This was noted by the PC in its review of the NAR:

In electricity markets, restricting supply and increasing prices will lead to inefficient under-consumption, as consumer demand responds to higher prices. Consequently, an enduring lack of effective competition in the supply of electricity network infrastructure services is likely to lead to allocative inefficiency and costs to the community (as depicted in figure 3.1). As discussed in box 3.8, this can be contrasted with the situation facing operators of commodity export facilities, which have an incentive for efficient use of their facilities where they cannot affect prices in commodity markets¹⁶.

The importance of the distinction between access regulation and industry regulation in assessing whether the benefits of declaration outweigh the likely costs was also considered by the NCC in considering whether the costs associated with access from declaring the Pilbara railway networks would replicate those observed by the east coast coal chains:

In the Council's view, understanding and recognising the differences between the negotiate/arbitrate regime that applies to declared services and the broader, usually significantly more intrusive, forms of industry regulation that apply in most other regulatory situations is essential to properly assessing the potential effects of declaration¹⁷.

This is an important distinction as noted in the introduction, the key objective of the CPA is to promote commercial negotiation in the first instance. In applying that principle negotiated settlement with customers should be the primary basis of an access undertaking (at least where the parties are large, sophisticated and have countervailing power). In contrast, the mandatory undertaking process restricts or hinders constructive engagement between supplier and customer; and the outcomes of that process are closely aligned to the outcomes of industry regulation without the equivalent and appropriate safeguards. In this respect the PC also made the following observations on the use of mandatory access undertakings (in the context of declarations under Part IIIA of the CCA):

*Where mandatory undertakings are used, the relevant government should request that the NCC assess the service against the declaration criteria before the undertaking is implemented and at appropriate intervals after the undertaking is in place, to ensure that the undertaking is used to **target the economic problem** that the Regime should address. Opportunities for **merits review** of ACCC decisions should be preserved, and the safeguards for the provider and other existing users of the infrastructure service should be consistent with those for declared services. These principles should not be departed from lightly, and any departures should not be maintained as an ongoing feature of an access arrangement.*

¹⁶ Ibid, p. 92

¹⁷ National Competition Council (2008) Final Recommendation on application for declaration of the Hamersley railway, August, para 9.118.

The inherent flaw in applying an industry regulation approach to Part 5 of the QCA Act is the excessive levels of regulatory discretion.

This arises because while the QCA Act is closely modelled on Part IIIA of the CCA, the relevant CCA provisions, consistent with the CPA, are primarily focussed on the negotiate/arbitrate approach to regulation when applied to declared services. The access undertaking requirements in the CCA applies only to a voluntary access undertaking. If the regulator overreaches or seeks to go beyond promoting the objects of the CPA, the service provider will withdraw the voluntary undertaking requiring a declaration review and (if declared) defaulting regulation to the negotiate/arbitrate model. This facilitates a more constructive engagement between the service provider and its customers as there is a stronger incentive to negotiate mutually beneficial outcomes rather than imposing inefficient processes through a mandatory access undertaking.

Regulatory determinations under the QCA Act are also not made in a timely manner and typically involve large lags where the commencement date occurs well before the final approval date.

These lags often require material retrospective adjustments involving significant regulatory and financial risks to both the access provider and users. A significant factor in regulatory delays is the search for precision in the inputs to the regulatory decision. The impact of this search for precision was identified by the Exports and Infrastructure Taskforce¹⁸ which stated:

There is therefore a risk that lower prices will be seen as inherently good, with regulators concentrating on securing price falls for infrastructure without sufficient consideration of the long term consequences. The dangers that this poses to investors in infrastructure have been made all the greater by regulators' reliance on mechanisms and approaches for setting allowed prices that are complex and rely on an ability to attain a degree of precision that is not likely to be attainable in practice.

It is understandable that it takes some time for regulators to come to final decisions on complex issues involving very high stakes for the parties and the community. However, it also needs to be recognised that delay has a real cost, and that there comes a point where the search for ever greater accuracy yields steeply diminishing returns. In at least some instances, regulatory processes in Australia seem to have gone well beyond that point, with decisions taking three years or more. For export oriented activities, which are operating in fast changing world markets, these delays can translate into unacceptable losses in competitiveness.

This observation was made in 2005 and subsequent amendments to the regulatory framework, including the inclusion of the objects clause, the pricing principles and the directions to avoid minor and inconsequential matters¹⁹ have had little impact on reducing those timeframes. The impact of regulatory

¹⁸ Fisher, B., Moore-Wilton, M. and Ergas, H. (2005) *Australia's Export Infrastructure: Report to the Prime Minister*, Canberra, May, p. 44.

¹⁹ Minor and inconsequential has not been applied with its intended purpose of addressing only those matters that are likely to have a material effect on achieving the regime objectives and a significant impact on competition.

delays is evident in the summary of access undertakings approved by the QCA since 2004 outlined in the table below. Aurizon Network recognises there are many contributing factors to these delays. However, the key observation is that the delays arise from declaration and the approval of access undertakings.

Table 1 Timeframes for Access Undertaking Processes

| | QRAU1 | DBCTAU1 | DBCTAU2 | DBCTAU2 | ANUT2 | ANUT3 | ANUT4 | ANUT5 |
|--|-------------|------------------------|------------|------------|------------|------------|-------------|------------|
| Prospective Commencement Date | 1-Jul-13 | 1-Jul-04 | 1-Jan-11 | 1-Jul-16 | 1-Jul-05 | 1-Jul-09 | 1-Jul-13 | 1-Jul-17 |
| DAU Lodgement Date | 25-Oct-13 | 20-Jun-03 | 19-Mar-10 | 9-Oct-15 | 30-Apr-04 | 5-Sep-08 | 15-Mar-13 | 2-Dec-16 |
| Draft Decision Date | 8-Oct-15 | 15-Oct-04 | N/A | 19-Apr-16 | 7-Jul-05 | 18-Dec-09 | 30-Jan-15 | 15-Dec-17 |
| Days for Draft Decision | 713 | 483 | N/A | 193 | 433 | 469 | 686 | 378 |
| Approval Date | 11-Oct-16 | 15-Jun-06 [#] | 23-Sep-10 | 24-Mar-17 | 30-Jun-06 | 1-Oct-10 | 11-Oct-16 | N/A |
| Days from Decision to Approval | 369 | 608 | N/A | 339 | 358 | 287 | 620 | N/A |
| Total Days for Approval | 1082 | 1091 | 188 | 532 | 791 | 756 | 1306 | N/A |
| Variance of Actual Commencement from Proposed | 1198 | 714 | 0 | 266 | 364 | 457 | 1198 | N/A |
| Number of DAU Extensions of previous undertaking | 6 | 0 | 0 | 1 | N/A | 4 | 6 | 3 |

[#]The final approval date is not publicly available, therefore the Final Decision date has been listed.

These timeframes involve substantive regulatory and financial risks which take the form of unknown and retrospective adjustments to prices and revenues along with risks associated with the attraction of investment capital. These unpredictable retrospective adjustments impose risks on the access provider which represent real costs to the community as a result of declaration.

In addition to the regulatory risks and uncertainty associated with declaration under the QCA Act, there are further significant costs from regulation that are likely to arise from the following aspects of the regulatory regime:

- the administration and compliance costs of preparing and administering an access undertaking;
- the optimisation and maximisation of supply chain throughput;
- the ability to implement operational improvements;
- incentives to invest in network capacity and reliability improvements; and

- the prospects for significant delays in network expansions.

These costs were considered in significant detail by the NCC and the Australian Competition Tribunal (**ACT**) following representations and submissions from Rio Tinto and BHP that declaration of the Pilbara iron ore railways would have these effects based on direct evidence from east coast coal chains.

Excessive administration and compliance costs of declaration

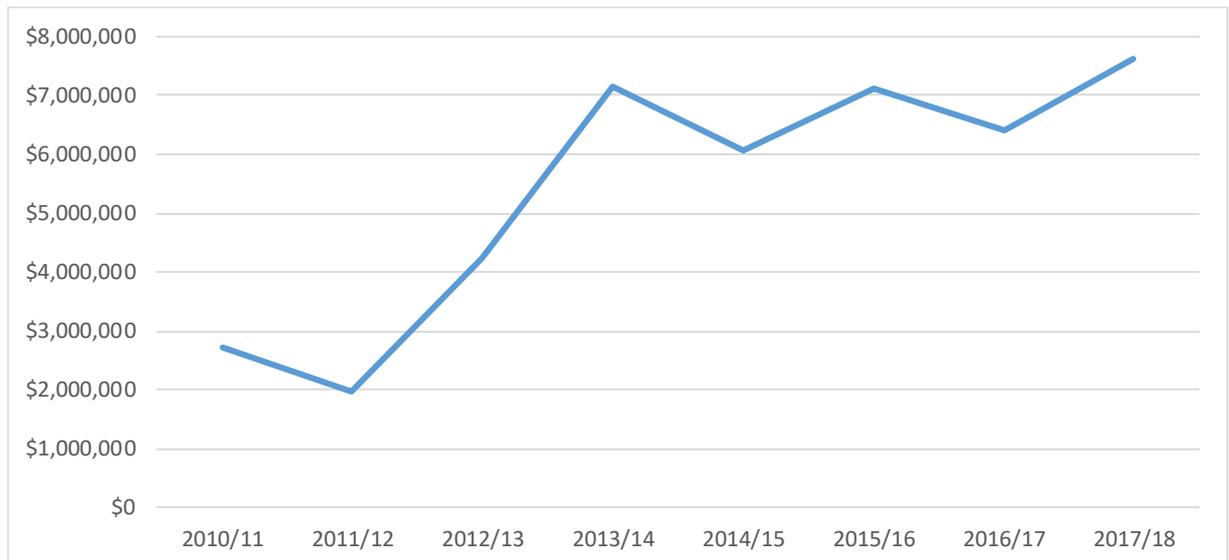
Aurizon Network incurs substantial costs associated with preparing, submitting and administering an access undertaking arising from declaration under the QCA Act. A significant number of internal business activities would otherwise be unnecessary. The activities that would otherwise be reduced or avoided in the absence of declaration include:

- regulatory and legal resources and costs;
- train scheduling and path conflict management;
- compliance and auditing including financial and operational reporting;
- QCA levy;
- Asset condition reporting; and
- Development of a user funding agreement.

Depending on industry structure further costs could otherwise be avoided through avoidance of negotiating and managing access agreements where the service is provided to a related party.

Aurizon Network notes that annual fees paid to the QCA by Aurizon Network have increased significantly since 2012 as shown in Figure 1.

Figure 1. QCA Levy 2010/11 to 2017/18 (Aurizon Network Levy contribution only)



Aurizon Network estimates that its total costs for administration and compliance with regulatory process to be at least \$15 million per annum, excluding third party costs.

The extent of the administration and compliance costs that would be avoided is also dependent on how access is provided in the absence of a declaration. Notwithstanding this, Aurizon Network considers that

administration and compliance costs associated with declaration would be significantly reduced under alternate forms of regulation.

Reduced incentives to invest in network capacity and reliability improvements

The issues associated with the costs of underinvestment in infrastructure exceeding the costs of overinvestment have been canvassed in numerous reviews by the PC into the NAR and the gas access regime as stated:

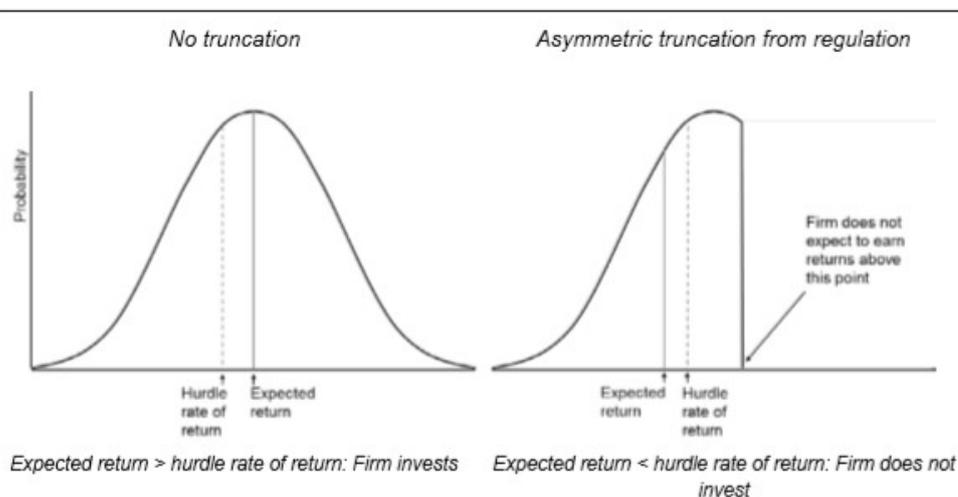
The Commission considers that the consequences for efficiency from setting access prices too low are, all else equal, likely to be worse than setting access prices too high. This is because deterring infrastructure investment (from setting access prices too low) is likely to be more costly than allowing service providers to retain some monopoly rent (from setting access prices too high²⁰).

Aurizon Network considers that concerns about regulatory error, through rates of return incentivising overinvestment, are largely unfounded. Risk aversion to falling into such error should not be a principal determinant in price setting. Overinvestment is unlikely to occur given:

- the long term uncertainty of demand in coal export supply chains and concerns regarding asset stranding risks; and
- the inherent regulatory risk that investments may be deemed imprudent or not justified.

The most prominent effect on investment incentives is the well understood asymmetry or truncation of expected returns as shown in the following figure. In contrast to utility networks, the prospect of asset stranding provides an effective market constraint against incentives to overinvest.

Figure 5 Truncation of returns from regulated investment²¹



^a Asymmetric truncation arises where the access seeker is subsidised by the infrastructure provider (Hausman 2008). It occurs as depicted above where high economic profits (profits beyond the hurdle rate, which represents the opportunity cost of inputs) are constrained to zero under regulation (PC 2004) and are thus excluded from firms' investment decisions. A dampening of the returns to the right of the distribution (without necessarily constraining economic profits to zero) would also reduce the expected return to the investment and could thus jeopardise investment decisions.

²⁰ Productivity Commission (2013) *Review of the National Access Regime*, Inquiry Report No 66, Canberra, p. 104.

²¹ *Ibid*, p.101.

While the economic regulator can, and often will form its own view on the probability of long term demand it is not the regulator which is required to make the investment decision or bear the financial risks arising from long term forecast error.

Inadequate returns from regulation which are lower than the reasonable terms appropriate to the relevant market circumstances reduce incentives to invest in:

- network expansions to expand capacity;
- asset improvement or reliability which improve the efficiency of above rail operations; and
- innovation which improves dynamic efficiency and lowers costs for users of the service in the long run.

In relation to innovation the PC noted:

*The effects of access regulation on incentives to invest in infrastructure facilities will therefore have important implications for innovation. The overall effects of access regulation on the rate of innovation will **depend on how regulation is applied**. For example, access prices that are set too low have the potential to impede innovation due to reduced profit incentives.*

In relation to consideration of criterion d) the costs of access from declaration must be assessed against how regulation is currently applied.

The standardisation of terms and service design also hinders Aurizon Network's ability to provide services which may also be of significant value to our customers or facilitate efficiency outcomes elsewhere in the supply chain. For example, customers may have preferences to surge or peak raiting to reduce stockpile requirements or obtain other benefits. While the objective of standardisation arises from concepts of fairness it is increasingly applied, not to promote competition in the rail haulage market, but to pursue broader equity outcomes in the upstream market for which access provides no improvement in competition. The net effect of these arrangements is to produce suboptimal economic outcomes and losses of allocative efficiency, the very objective access regulation is intended to pursue. It is therefore difficult to conclude that the benefits of access regulation under the QCA Act could exceed the costs.

Aurizon Network also recognises that prices and price certainty can have direct impacts on user incentives to invest in upstream or downstream facilities. However, these impacts are not directly proportional to the incentives to invest in rail transport infrastructure due to the materiality of the below rail cost as an input to a mine.

This can be placed in context through an example of the impact of a 1% increase in the rate of return to the Goonyella Coal system:

- Regulatory asset base: \$1,571 million
- Incremental revenue: \$16 million
- Volume: 120 mtpa
- Price impact: \$0.13 cents

This can be contrasted with the expected operating costs and revenues from a new or expanded coal mine. This is also evident in the price outcomes from the Hunter Valley where the extension of the existing access undertaking included a proposed rate of return of 6.95% which exceeded the ACCC draft decision on the proposed 2017 Hunter Valley Access Undertaking which determined a rate of return of

6.30%. There were no representations from submissions that this increase would have any detrimental effects on incentives to invest in upstream facilities.

In practice, investment in upstream infrastructure is more likely to be dependent on the likelihood of the developer securing rail and port capacity. These prospects are likely to be enhanced where the developer considers the service provider has strong incentives to invest. Such incentives are likely to be more prevalent without access regulation.

Reducing a service provider's incentives to invest also increases the likelihood that the regulator would be required to direct an extension of the network. As evident from the protracted and costly regulatory process to develop a user funding framework this will involve significant transaction costs and uncertainty. The fundamental objective of the user funding framework is to promote the efficacy of the CPA safeguards that the regulator could direct extension of the network while protecting the legitimate business interests of the owner of the facility where commercial negotiation is unable to result in reasonable terms. Therefore, the primary purpose of the user funding arrangements is to support the user's ability to exercise countervailing market power to ensure that those terms would be reasonable as is intended under both criterion a) and criterion d) of the access criteria.

Consistent with the observations on the implications from the excessive focus on precision to get to a hypothetical perfectly competitively neutral outcome rather than a reasonable one results in regulatory prescription and with limited prospect of promoting efficiency or competition. A user funding arrangement should not have the intention of providing competition for investment in the declared facility and place the access seeker in the same legal and economic position as the owner of the facility. It is not within the scope of the declaration for the QCA Act to promote competition for a declared service. The prescriptiveness of a standardised user funding arrangement also restricts the ability for financial and commercial innovation which might produce more efficient approaches to investing in the facility. In this regard, access from declaration will only be in the public interest where investments are able to be made on terms reasonable to both the service provider and the access seeker.

Similarly, the regulatory framework requires Aurizon Network to provide access on terms (including price) as approved by the QCA from time to time. This prevents the service provider from negotiating long term commercial arrangements which provide commercial certainty for developers of upstream facilities. The uncertainty as to the terms and conditions of access would be a relevant concern to incentive for investment in those facilities.

Aurizon Network contends that the regulatory framework, as it is currently operating, does not provide appropriate or sufficient incentives to invest in rail transport infrastructure. For this reason, access through the declaration of the services will not promote the public interest.

Hindering optimisation and maximisation of supply chain throughput

Aurizon Network considers that there are two sources of coordination losses associated with the operation of a railway:

- the losses associated with the need to coordinate a multi-user railway which are likely to be prevalent whether the service is declared or not declared; and
- the losses associated with multiple train operators on the railway.

The provision of rail transportation services requires the complimentary use of both above rail (rollingstock and crew) and below rail (rail transport infrastructure) inputs. Despite this complementarity, the elasticity of substitution of these inputs is not zero and the efficient mix of these inputs is not static.

Figure 2 and 3 provide a conceptual production economics approach to these substitution effects. Figure 2 shows that for a given system throughput of Q this can be achieved through different combinations of

above and below rail resources. Additional rail transport infrastructure can be provided which increases the practical capacity of a system and can therefore reduce train conflicts from lower congestion and thus lowers the above rail resources required to achieve a given output. Alternatively, the amount of below rail infrastructure can be reduced which subsequently requires increases in above rail resource requirements. This increase in above rail resources progressively provides lower marginal throughput due to increased congestion.

The efficient mix of above and below resources is then dependent on the relative price of the two inputs (as represented by the isocost line). For example, the efficient input mix in Figure 2 would require the above rail resources to align with point B on the curve with a corresponding level of system congestion as shown in Figure 3.

Figure 2 Technical and Allocative Efficiency²²

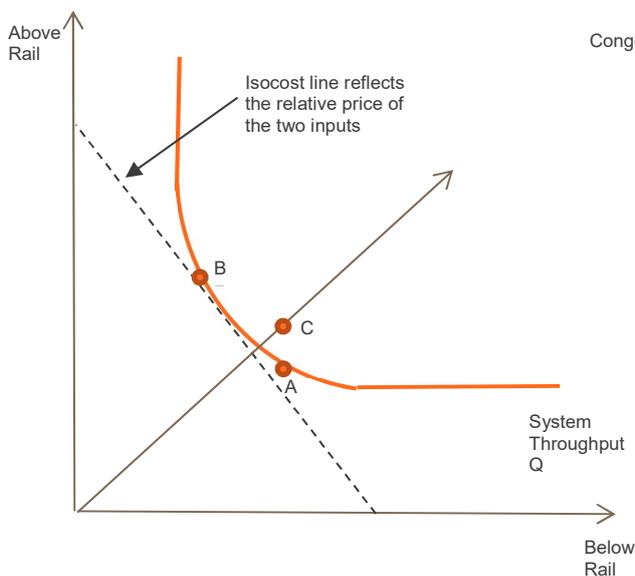
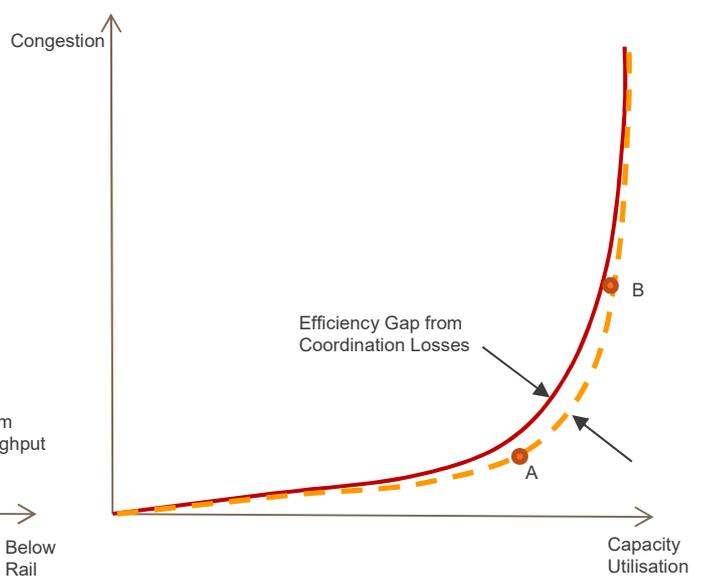


Figure 3 Railway Congestion Costs²³



A practical example of this type of optimisation was the agreement to increase the Newlands below rail transit time to reduce the below rail capital requirements but increase the train and crew resources associated with the increased network congestion.

The most prominent example of this is the vertically integrated iron ore railways which continuously optimise the operational performance of the system as opposed to individual inputs by making appropriate trade-offs in resource allocation and the scheduling of trains and network availability. These efficiencies, or rather the loss of efficiency, associated with multi-operator arrangements for bulk export rail systems was discussed extensively in the Pilbara rail network declaration applications. This point was emphasised by BHP when it submitted the conclusions from the O'Donnell Review²⁴:

²² Adapted from Farrel, M.J. (1957) *The Measurement of Productive Efficiency*, Journal of the Royal Statistical Society, Series A, CXX, APrt 3, 253-290

²³ Adapted from M. Abril, F. Barber, L. Ingloiti, M.A. Salido, P. Tormos and A. Lova (2008) *An assessment of railway capacity*, Transportation Research Part E: Logistics and Transportation Review, Vol 44, Issue 5, September, pp. 774-806

²⁴ Available at: <https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Rail-services-and-infrastructure/Goonyella-Coal-Chain-Capacity-Review.aspx>

Attempts to coordinate multiple users, such as timetabling, have been estimated to reduce system capacity by 10–20 percent [O'Donnell(1)]. additionally, continuously improving operations in a multi-user system requires all parties to align, which is difficult to achieve. [O'Donnell(1)] adds 'the level of continuous improvement described [in the Pilbara] is unlikely to be able to be achieved on a common user system, or on a rail network which is shared by two different train operators²⁵.

The introduction of competition in the rail haulage market and the resultant competition produces a Cournot equilibrium where rail operators choose above rail capacities such that each maximises its own profits. However, this competitive market equilibrium in the rail haulage market is suboptimal in terms of the overall efficiency of the rail system. The derivation of this outcome is straightforward. Where a rail operator prices its services on the assumption of providing resources consistent with Point A in Figure 3 an entrant or competitor can price the service on the basis of providing resources consistent with point B by transferring the costs through a need for increased below rail investment or higher below rail costs than provided by the regulator.

In practice, the imposition of third party access will require above and below rail inputs to achieve a given level of output, Q, which is neither scale nor mix efficient as represented by point C in Figure 2. The scale inefficiency arises from the more pronounced effects of congestion and disruption in a multi-operator supply chain. This is consistent with the empirical findings of Mizutani and Uranishi that the efficiency impacts from vertical unbundling are more pronounced as traffic density increases. This conclusion is intuitive in that increased traffic density will correspond with increased congestion, greater conflicts and variability from disruption.

This conceptual framework also demonstrates that all train paths are usable but the practical capacity of the CQCN is highly dependent on the extent to which users are prepared to contract for additional above rail resourcing or that the regulatory framework provides sufficient operating and cost flexibility to the network operator to reduce the efficiency gap and incentivises investment in below rail infrastructure. These efficiency losses are far more pronounced in a complex multi-operator cyclical closed export supply chain than might occur in a timetabled freight network system with sufficient exit and entry capacity.

System throughput optimisation requires an efficient level of congestion. However, this congestion also increases the risk that practical capacity will be reduced due to variability and the need for competing rail operators to optimise their own resource allocations. This was summarised by the ACT as:

the hypothesis that variability reduces the extent to which a line can be practically used. The contention is that additional variability which the third party brings will reduce system throughput; and

an integrated railway requires buffer capacity to manage variability within the system.

Given the competitiveness of the rail haulage market it becomes increasingly necessary for the access provider to incur the increased costs necessary to manage the operational variability. This requires a far more flexible approach to maintenance and service delivery than is afforded by typical industry regulation where costs are stable, predictable and independent of supply chain dynamics. The flexibility in maintenance practices increases the variance in unit costs to deliver the required maintenance scope while optimising system throughput or "total system efficiency"

²⁵ BHP (2008) *Regulation for the future of Australia's natural resources sector*, White Paper, April. Submitted to National Competition Council. Available at: <http://ncc.gov.au/images/uploads/DeRaRrSu-055.pdf>

Contractual and regulatory obligations also limits the access provider's ability to optimise scheduling to maximise system throughput, as the compliance framework emphasises and prioritises the interests of individual users as opposed to the system performance.

It is neither practical nor commercially feasible to write a complete contract which incorporates rules, adjustments and variations to optimise system throughout. Similarly, the separation of the above and below rail into individual component services increases the difficulty of administering effective performance accountability frameworks, due to the complex interactions within a supply chain and the multiplicity of the various factors influencing variability.

Aurizon Network considers a less prescriptive and more commercially orientated approach to regulation is likely to reduce system losses and is more likely to optimise system throughput. The economic value of a 2% improvement in performance to plan and corresponding increase in system throughput at an average coal price of \$120 per net tonne would be in the order of \$500 million per annum. This excludes any other indirect benefits associated with reduced demurrage and improved above rail asset utilisation. Note these costs are not the same as the coordination costs considered under criterion b) which only addresses the additional infrastructure costs required to offset that throughput, not the opportunity cost of lost throughput.

On the basis of current network throughput, these costs would require an efficiency gain from competition in excess of \$2 per tonne which is highly improbable given the current cost structure of above rail operators and existing and prospective technologies.

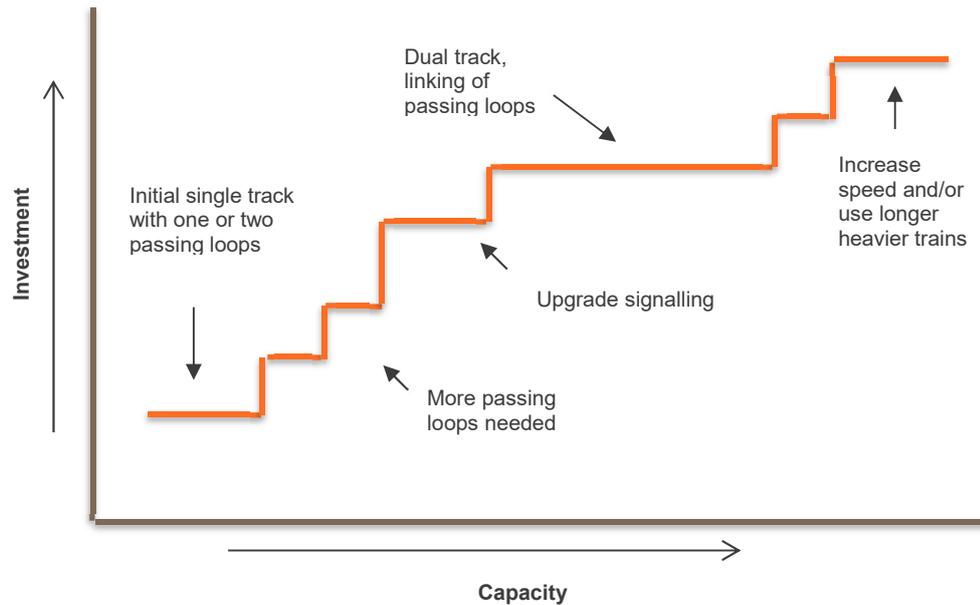
In summary, access on reasonable terms from declaration under the QCA Act involves considerable economic costs associated with the increased variability and lower system throughput for a given set of below rail capital inputs.

Difficulties to implement operational improvements

The unit cost of investment in below rail capacity is also not static over time. The lumpy nature of track investment as shown in Figure 4 means that below rail infrastructure is subject to variable returns to scale, while above rail investment is subject to relative constant returns to scale. As a consequence, the efficient mix of above and below rail inputs will change as the throughput requirements of the railway change. This efficient mix can also vary with:

- a change in the relative costs of rollingstock and train crew; and
- technological changes in railway systems.

Figure 4. Incremental investment of below rail capacity²⁶



In summary, the elasticity of substitution between above and below rail means that, at the margin, investment in above rail inputs can provide an alternative to investment in rail transport infrastructure. When considering the public interest, the QCA must consider the effects of access regulation in producing both X-inefficiency and a sub-optimal mix of above and below-rail inputs.

In its assessment, the QCA must consider that efficient railway operations require dynamic optimisation of both the above and below rail inputs and that the relative mix of these two is not constant over time. The inability to optimise and the associated technical efficiency losses are often referred to as diseconomies of scope. These diseconomies were accepted by the NCC:

The Council accepts that the impact of diseconomies of scope will be influenced by the extent to which arbitrated outcomes allow the provider to retain operational control of its facility. If the ability to make reasonable decisions on capacity expansion, technological change, maintenance and scheduling are left in the hands of the provider, the extent of diseconomies are likely to be minimised²⁷.

However, as acknowledged by Rio Tinto, 'it is most unlikely that access terms would allow the provider to act unilaterally and thereby affect the rights of users to impose costs on users if the action was unreasonable'.

This problem and the associated public detriment was acknowledged by the ACT:

The need to consult with, or even obtain the consent of, a third party will inevitably involve delays, particularly where disputes arise in relation to changes that might have a detrimental impact on the third party (e.g. by increasing access charges).

²⁶ QCA (2001) Working Paper 3. Incremental Capacity of Railways.

²⁷ National Competition Council (2005) Draft Recommendation: Application for declaration of the Mt Newman railway, November, Canberra, para. 6.177

Quite apart from the problem of delay, if the incumbent is required to compensate the third party for detriment caused by a change in operating practices or technology, the incumbent may be dissuaded from pursuing the change.

The problems that may arise cannot, as FMG suggests, be dealt with adequately by terms of access. Whether a change will have a material, negative impact on a third party will be the subject of dispute and, if not resolved, will lead to arbitration. This is likely to be a common occurrence.

The Tribunal is of the view that any delayed or sub-optimal changes to technology or operating practices may cause significant harm to the incumbents and to the public interest generally.

The flexibility to modify operating practices and associated haulage contracts is evident in the capital and opex optimisation approach implemented in the GAPE project. Prior to the GAPE project the below rail transit time for the Newlands system was 118% of the nominal sectional running times. In order to reduce the below rail capital expenditure for the project, the above rail operator and the incumbent user of the coal system agreed to increase the below rail transit time to 160%. This increased network congestion required additional rollingstock and crewing to accommodate the additional congestion delays and increase in cycle time. These arrangements required the consent and agreement of one end user. Aurizon Network considers these arrangements are unlikely to be implemented within the current regulatory environment where the coal system involves multiple rail operators and any compensation for the net financial effect in the change in operating practices requires regulatory approval. A rail operator may also seek to frustrate the operational changes where it considers those changes might be to the benefit of a competitor.

Contract and regulatory obligations also prevent operational changes which would facilitate more efficient utilisation of existing rail infrastructure through scheduling optimisation to allow for longer trains which require scheduling priority and can operate outside of passing loop lengths. In an integrated railway, the relative trade-offs of increased train payloads and any associated delays or additional dwell are internalised. Access interferes with the optimisation process and the net effect is that train schedules and network utilisation are suboptimal.

In the long term, implementing significant technological changes such as automated trains which deliver substantial dynamic efficiency gains by reducing system variability and losses will require complete migration to the new technology. The significant investment required by operators with fixed haulage arrangements with end users will make it almost impossible to coordinate investment in automation.

In summary, the QCA must consider the efficient mix of investment into the railway, as the mix of above and below rail inputs can vary over time. Overall the regulatory framework must support the dynamic nature of this and support varying approach for making this decision within the supply chain.

Costly delays to expansions

Prescriptive and poorly designed regulatory frameworks increase the risk of substantial delays to expansions of a facility with consequential costs to the community of lost economic output and state income. The likelihood of these delays and costs was raised by Rio Tinto in its submission to the NCC which state the delays are inevitable for the following reasons:

*First, even if the third party user does not have the right to participate or be involved in any expansion (an unlikely scenario, as access terms are likely to require the facility owner to consult with co-users about expansion plans and offer participation rights) in practice the co-users consent or acquiescence will be required (a **Consent Requirement**);*

Secondly, if (as usually the case) the access terms require the facility owner to consult with co-users about expansion plans and offer rights of participation, the time taken to agree or determine

all relevant aspects of the expansion is significantly longer than in a single user situation (a Consent Requirement).

Aurizon Network considers that the expansion process currently embedded in the approved access undertaking will substantially contribute to delays in expanding the network. The expansion pricing arrangements and the extensive consultation requirements provide opportunities for parties to hinder an expansion to the network. There is likely to be little incentive for an existing non-expanding miner to support an expansion of facility for the increased production of its competitors where the expanded supply might reduce the price that miner receives for its own output. In relation to delays to expansions the ACT also concluded:

Overall, the Tribunal doubts that time limits, early engagement or the use of master plans will substantially reduce the delays associated with engaging with third parties about an expansion.

While these delays would still arise without declaration the extent to which declaration provides mechanisms which allow a party to 'frustrate' the expansion through 'gaming' the regulatory processes increase the likelihood that these delays will become inordinately excessive. By way of example, Aurizon Network concluded negotiation with Wiggins Island Rail Project on 21 September 2011. The requirement for the QCA to consult with third parties on those terms meant the final project terms were not approved by the QCA until 25 May 2012. In order to avoid delays in construction of the rail project and the complementary investment in the port the parties agreed to proceed subject to the customers underwriting the regulatory risk of those works. This presented considerable regulatory risk to both Aurizon Network and the users and would have involved substantial delays in the project completion if either party had deferred commencement until the regulatory approvals had been obtained.

In summary, a principle based approach to regulation is likely to involve far less risk of delays to expansions than prescriptive rules based processes which are inflexible and unlikely to accommodate changes in conditions and scope that arise during the expansion process.

The benefits of declaration are not substantive and will not exceed the costs

As discussed earlier in this section the benefits of regulation are primarily realised through increased allocative, productive and dynamic efficiencies. The mechanisms, or constraints, associated with improving efficiency through access regulation can be summarised as:

- Access regulation imposes a price constraint;
- Access regulation matches supply with the demand for the service; and
- Access regulation provides incentives for improvement in cost efficiency.

Aurizon Network considers that there is weak academic and empirical evidence to support a theory that the benefits of regulation are material, when applied to privatised enterprises in general and the CQC in particular. There is actual evidence to the contrary, especially in relation to cost efficiency. While substantial benefits have been realised since access regulation commenced those benefits were attributable to:

- the inherent inefficiencies in public owned corporations;

- the existence of surcharges²⁸ in freight rates; and
- the underinvestment and consequential reliability in rollingstock²⁹.

Access regulation is not necessary to obtain access on reasonable terms

In the absence of access regulation there are substantial constraints on the exercise of market power and the availability of alternate forms of regulation to ensure access is provided on reasonable terms, including:

- pricing monitoring of airports, which have similarities to the CQCN given negotiations between large corporate entities with countervailing power, have provided an effective constraint on the prices and returns achieved by airports;
- the threat of regulatory intervention where profits are deemed to be excessive as currently being observed in the Australian Energy Market Commission's inquiry into the scope of regulation of gas services; and
- the amendments to section 46 of the CCA which provides for significant penalties for the misuse of market power that lessen competition in any relevant market³⁰.

Taking into account these alternatives there is a limited prospect that access will not be provided on reasonable terms through a commercial negotiation without declaration under the QCA Act.

Access regulation and uniform pricing is less effective in ensuring there is sufficient capacity made available

Global seaborne thermal and metallurgical export coal markets are highly competitive with coal sourced from multiple export supply chains. This is most pronounced in the thermal coal market where Bowen Basin thermal coal mines are less favourably positioned on the global cost curve. These alternative sources of supply to Bowen Basin thermal coal will be relevant where access regulation is not in the public interest and there are strong commercial incentives, to price rail freight services to maximise throughput of the relevant coal system. These incentives were identified by the ACT in its consideration of the Port of Newcastle³¹:

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.

²⁸ These were often referred to as quasi-royalties.

²⁹ See the 2007 Goonyella Coal Chain Capacity Review – second and final report available at <https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Rail-services-and-infrastructure/Goonyella-Coal-Chain-Capacity-Review.aspx>

³⁰ While the PC's 2013 review of the NAR concluded that s.46 was not an effective substitute for access regulation this conclusion was made on the operation of the CCA prior to the Competition Policy Review and the amendments which introduced the 'effects test';

³¹ Australian Competition Tribunal (2016) Application by Glencore Coal Pty Ltd [2016] ACompT 6 [155]

The PC also acknowledged the incentives to maximise industry value as reflected in the Inquiry Report reference to Aurizon Network's comments to the Commission³²:

Aurizon have a strong commercial incentive to increase utilisation of sunk assets through negotiating commercial access arrangements to maximise throughput. To put it very bluntly, we make more money with greater output, greater throughput, so we want to facilitate greater throughput.

It is in the commercial interests of the access provider to provide the service to reduce the allocative efficiency losses through efficient price and tariff structures, without the need for regulatory intervention. Other forms of regulation may produce more significant welfare gains than access regulation where the service provider has no ability, or incentive to influence the price of the relevant export commodity.

In summary the benefits of access regulation with respect to output being less than the socially optimal levels are likely to be close to or less than zero.

Access regulation is less effective than the market in driving cost efficiency

As a publicly listed company, the management of Aurizon Network has strong incentives to continuously improve business performance and reduce the costs of providing its services in order to increase the value of total shareholder returns.

Regulation is a blunt instrument which is unable to design effective incentive frameworks without the risk of regulatory error or perverse outcomes and unintended consequences. The regulator is also a poor proxy for management given the information asymmetries. If the regulator seeks to overcome these asymmetries, and use intra-investigation information to tune the regulatory regime, the regulator places itself, effectively, in the position of being the operator, and the purpose of the privatisation of infrastructure assets is wholly frustrated.

In summary, Aurizon Network contends that its incentives to pursue cost efficiencies are not dependent on regulatory oversight and the degrees of freedom to pursue these efficiencies are expanded without that oversight³³. Therefore, the benefits from access regulation in driving cost efficiencies in the provision of the service are unlikely to be substantive relative to the cost efficiencies that would continue to be obtained without declaration under the QCA Act.

Summary of costs and benefits of declaration under the QCA Act

Aurizon Network considers that there are substantial costs from declaration under the QCA Act and those costs materially exceed the expected benefits from increased allocative efficiency. These costs are largely associated with the design and performance of the current regulatory framework. The public interest could only be satisfied where the net costs of regulation are substantially reduced through less prescription, increased incentives to invest and less commercial and regulatory rigidity to support increased coordination and supply chain efficiency. An alternate approach to regulation must be considered, as declaration under the current regulatory model does not satisfy the public interest requirements of the QCA Act.

³² Productivity Commission (2013) *Review of the National Access Regime*, Inquiry Report No 66, Canberra, p. 93.

³³ The relative performance of the private and publicly owned electricity network utilities is a prime example of where ownership has had far more pronounced impacts on cost efficiency than economic regulation.

4. A range of services may not satisfy the remaining access criteria

The previous section has concluded that access from declaration would not promote the public interest. Indeed, the costs and inefficiencies of the regime as it is employed is, affirmatively, contrary to the public interest and economic welfare could be improved through substantive changes in how access regulation is applied under the QCA Act. There is also evidence to support the conclusion that various individual services fail to meet other criteria in sections 76(2)(a), (b) and (c).

Interpretation of the access criteria a), b) and c)

The QCA Issues Paper notes that a number of extrinsic materials are available to inform the interpretation of the access criteria, including:

- the explanatory memorandum for the *Queensland Competition Authority Amendment Bill 2018*;
- the NCC's guidelines for assessing applications for declaration; and
- relevant declaration decisions by the NCC and subsequent outcomes from the ACT, the Federal Court of Australia and the High Court of Australia.

Aurizon Network also considers the following additional materials are relevant to informing the interpretation of the access criteria:

- the explanatory memorandum for the *Competition and Consumer Amendment (Competition Policy Review) Act 2017*;
- the Productivity Commission Final Report on the 2013 Review of the National Access Regime³⁴; and
- the Exports and Infrastructure Task Force Report to the Prime Minister on Australia's Export Infrastructure³⁵.

Aurizon Network notes that the recent amendments to criterion a) and criterion b) under the QCA Act have been considered in various appeals on Pilbara rail decisions through the consideration of alternate constructions of the previous criteria.

Criterion a) The promotion of competition test

The QCA should apply the following to its assessment of criterion a):

- identify the relevant dependent (upstream or downstream) markets;
- confirm that the relevant dependent market is separate from the market for the declared services within section 250 of the QCA Act;
- assess whether access (or increased access) to the service, by a declaration, which provided for access to be available on reasonable terms and conditions would promote a materially more competitive environment in the dependent markets, thereby promoting a material increase in

³⁴ Available at <https://www.pc.gov.au/inquiries/completed/access-regime/report>

³⁵ Available at <http://www.baeconomics.com.au/wp-content/uploads/2011/08/Export-Infrastructure-Report-to-PM.pdf>

competition. This would include assessment of arrangements for access which would or might exist, other than as a result of declaration.

Aurizon Network also considers the ACT's decision with respect to Issue 2 in its decision on the Port of Newcastle should be given reasonable weight given its explicit consideration of the whether declaration would promote a material increase in competition. Similarly, the NCC and the designated Minister's decisions considered the impact of competition from increased access to the service.

The QCA Issues Paper also notes that the QCA proposes to:

examine whether declaration under Part 5 of the QCA Act will promote a material increase in competition compared to a future in which the services are not declared and there is no access, or access not on reasonable terms and conditions, or access on reasonable terms and conditions other than as a result of declaration

The consideration of criterion a) requires the QCA to complete an assessment of whether access on reasonable terms as a result of declaration will promote a material increase in competition. That is, the QCA needs to satisfy itself that competition in the relevant dependent market will be promoted. While the terms and conditions without declaration might raise equity issues associated with the transfer of economic rents these issues are relevant to consideration of the public interest as part of criterion d).

Criterion b) The facility for the service meeting total foreseeable demand test

Recent amendments to the access/declaration criteria in the CCA and QCA Act reflect the recommendations from the PC 2013 Review of the National Access Regime that the appropriate test be applied is a 'natural monopoly test'. The approach outlined by the QCA is broadly consistent with that described by the PC. However, there are a number of complexities relevant to how this test should be applied that the QCA must consider as part of its review.

The QCA Issues Paper suggests that "*Having defined the relevant market, criterion (b) invites consideration of whether the facility that provides the service is a 'natural monopoly' in the marketplace.*" Although this step follows the explanatory memorandum that accompanied the Commonwealth Parliament's amendments to the CCA, it is not helpful. The test of a natural monopoly involves a greenfields thought experiment of whether foreseeable demand would be more-efficiently serviced by one facility or by more than one facility. It does not deal with the circumstance where there is an already-existing facility.

It would be quite contrary to public policy to utilise a hypothetical greenfields test. The application of such a test might find that it would have been more efficient to build two networks rather than one. If the test were interpreted as a natural monopoly test, that finding would imply that the service would not be declared – even though it would never be duplicated in fact. Furthermore, a hypothetical greenfields test is quite at odds with the test in sections 76(2)(b), 76(3) and 76(4) of the QCA Act. Those sections clearly provide for a comparison between the costs of using or extending the existing facility with the costs of using additional facilities to meet total foreseeable demand. The reference to a natural monopoly test is at odds both with sound public policy and with plain words of the statute.

The QCA Issues Paper suggests that the QCA considers '*existing tariffs (in particular those approved through a regulatory process) may be an appropriate indicator of the existing cost of service provision*'. Aurizon Network considers this very unlikely to be true. It is unlikely to be true for two principal reasons.

The first is that regulated costs are designed to provide service providers with a fair return on their investment. They have little to do with any economic notion of costs. They are backward looking rather than forward looking. This is quite different from the language of criterion (b) which is forward looking. It has to do with the costs of meeting foreseeable demand.

The second reason existing tariffs (those approved through a regulatory process) are unlikely to be an appropriate indicator of the existing cost of service provision is incremental. The relevant comparison for the purpose of criterion (b) is between the cost of using the existing facility and the cost of using the existing facility supplemented by one or more additional facilities. This means that the relevant cost of using the existing facility is an incremental cost. Sunk costs are not relevant to the comparison. To take notice of sunk costs (of the kind included in the RAB) would be bad economic policy and would be contrary to the public policy that led to the redrafting of criterion (b).

The incremental cost of providing a service may be greater or less than the average cost. If the service is new, the interconnectivity of coal systems may well mean that the expansion of an existing port and coal system can be undertaken at lower cost than the use of an alternative system. However, that need not be the case. Dalrymple Bay Coal Terminal provides an example of a facility whose unit costs of expansion are greater than its average costs.

The QCA Issues Paper notes that it is not relevant to consider hypothetical facilities. This is quite distinct from the whether a facility is economically or technically feasible but is not currently being developed. Hypothetical would generally refer to whether a substitute service relies on a new technology or if it could not be developed due to other constraints such as planning restrictions etc.

The availability of a substitute service need not involve the same type of facility. For example, road, conveyors, pipelines or other facilities can be used for the transportation of freight. Therefore, the economic to duplicate test needs to also consider the alternate facilities which might provide substitutes to the service.

In summary, the relevant comparison for the purposes of criterion (b) is an incremental comparison. It involves a comparison between the cost of using the existing facility (with some expansion if necessary) to service total foreseeable demand with the cost of using the existing facility together one or more alternative facilities. These alternative facilities may be of the same or of a different kind.

Criterion c) The state significance test

The QCA must consider if the facility for the service is significant, having regard to its size or importance to the Queensland economy.

An important consideration for the QCA is that the access criterion is framed such that only one aspect of the criterion need be satisfied to determine whether the facility providing the service is significant:

- size and capability of the facility; or
- the importance of the facility to the Queensland economy.

Where the facility provides part of the declared service then criterion c) should be considered for significance only with respect to that part service.

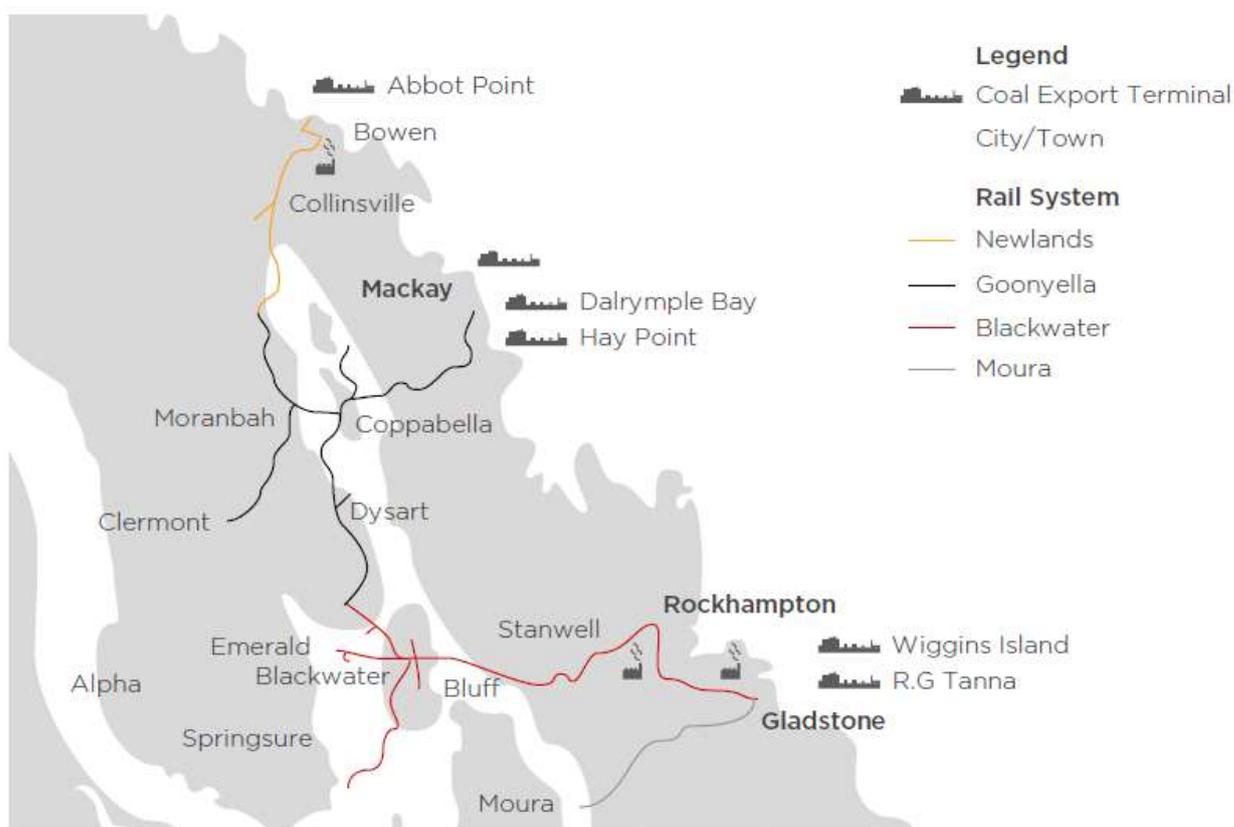
The basis for the assessment should contemplate the impacts associated with the counterfactual of there being no facility, such as in the event of natural disaster which meant the service was no longer able to be provided by the facility. In this regard this would also necessitate consideration as to whether that lost output would be foregone or replaced such that the impact on the state economy is not significant (noting mobility of labour or substitution of outputs).

Specification of the relevant parts of the declared service

The CQCN comprises more than 2,725 kilometres of rail transport infrastructure which is used almost exclusively for coal carrying train services and connects to five coal export terminals. With the exception

of the Moura coal system the coal systems are interconnected and subject to available capacity providing competitive supply chain options for most of the 40+ mines using the CQCN. A map of the CQCN is provided in Figure 6.

Figure 6. Map of the Central Queensland Coal Network



In addition to train services for metallurgical and thermal coal destined for export, the CQCN also supports domestic coal supply to a limited extent. The relatively small amounts of non-coal freight carried on the CQCN is highly concentrated in intermodal services which primarily operate on the North Coast Line for which Aurizon Network operates a fragment of the total transport distance for these services. Table 2 shows the average gross tonne kilometres per system for FY16 and FY17 for the various types of traffic operated on the relevant coal systems with GAPE services being included in the Newlands coal system.

Table 2. Average FY16/17 Gross Tonne Kilometres by System and Traffic Type

| GTK (000s) | Domestic Coal | Export Coal | Agricultural Freight | General Freight | Passenger | Total Freight |
|--------------|------------------|-------------------|----------------------|-----------------|---------------|-------------------|
| Blackwater | 2,839,041 | 32,751,045 | 108,878 | 718,590 | 89,938 | 36,507,491 |
| Goonyella | 533 | 38,011,689 | 42,319 | 569 | 0 | 38,055,110 |
| Moura | 318,864 | 2,956,237 | 2,846 | 53,782 | 10 | 3,331,740 |
| Newlands | 23,325 | 10,924,199 | 512 | 36,989 | 58 | 10,985,084 |
| Total | 3,181,763 | 84,643,169 | 154,555 | 809,930 | 90,006 | 88,879,424 |

The current pathing capacity of each coal system can be obtained from Aurizon Network's 2016 Baseline Capacity Assessment³⁶. The options and indicative costs of expanding the capacity of each coal system is identified in Aurizon Network's 2016-2017 Network Development Plan³⁷.

The geographical footprint of the CQCN, its interconnections and the diversity of traffic types operating over each coal system expands the range of services that use rail transport infrastructure to transport freight. The divergent market conditions and prospective substitute facilities require specification of the relevant parts of the declared services. Under section 87A of the QCA Act the QCA must only recommend a service to be declared where the access criteria for any relevant part of the declared services, have been satisfied.

Aurizon Network considers that access criteria for each of the following discrete services must be satisfied for that service to be declared:

- The use of a coal system for providing transportation by rail for services that originate from a coal basin which the coal system was not directly connected on 8 September 2020 (by way of example, services which originate in the Galilee Basin and would also utilise an existing coal system);
- The use of a coal system for the transportation of intermodal freight by rail;
- The use of a coal system for the transportation of passengers by rail;
- The use of a coal system for transportation of agricultural products by rail;
- The use of the Moura coal system for providing transportation by rail;
- The use of the Newlands coal system [inclusive of the Northern Missing Link] for providing transportation by rail;
- The use of the Blackwater or Goonyella coal system for providing transportation by rail;
- The use of more than one existing coal system (cross system services) for providing transportation by rail.

Aurizon Network has identified these individual part services on the basis that the market conditions, existence or feasibility of substitutes and industry dynamics are sufficiently different to warrant independent consideration against the access criteria.

Specification of the relevant markets

The NCC's Guide to Declaration³⁸ describes their approach to consideration of markets as being 'purposive':

³⁶ Available at http://www.aurizon.com.au/~media/aurizon/files/what%20we%20do/network/network%20downloads/system%20operating%20parameters%20and%20baseline%20capacity%20assessment/2016%20bca_publications.pdf

³⁷ Available at http://www.aurizon.com.au/~media/aurizon/files/what%20we%20do/network/network%20development%20plans/ndp/networkdevelopmentplan_2016-17.pdf

³⁸ National Competition Council (2017) *A guide to declaration under Part IIIA of the Competition and Consumer Act 2010*, December, para 3.7, available at: http://ncc.gov.au/images/uploads/Declaration_Guide_2017.pdf

The particular purposes of market definition in the consideration of applications for declaration are to enable examination of the effect of access or increased access on competition in a dependent market and to ensure that dependent markets are separate from the market for the service for which declaration is sought.

Despite the complementarities of rail transport infrastructure and rollingstock in the joint production of rail transportation services and the associated economies of scope the rail haulage market can be functionally distinct and economically separable from the market for the declared service. Of particular relevance to this issue is the ACT's consideration of identifying the relevant functional markets in vertically integrated supply chains:

An alternative, more precise, test could involve looking at some combination of both transaction costs and service delivery costs. If there was a demand for the service at a price which covered these combined costs, then a market could be said to exist³⁹.

This test effectively assumes a market can exist, despite the cost of separation of the rail service into its functional components, where consumers are prepared to pay the additional transaction costs and loss of productive efficiency from having the component services provided in separate markets.

The rail haulage markets in the CQCN and in the Hunter Valley are workably competitive which provides empirical evidence of the functional market for rail haulage being distinct from the provision of below rail services.

In summary, Aurizon Network considers the rail haulage market as being the relevant functional market for assessing whether access, or increased access to part of the service on fair and reasonable terms from declaration would promote a material increase in competition.

Aurizon Network considers the following markets are also relevant to the service:

- the market for construction and operation of rail transport infrastructure;
- the market for seaborne metallurgical coal;
- the market for seaborne thermal coal;
- the market for transportation of intermodal or containerised freight;
- the market for the transportation of passengers; and
- the relevant market for agricultural products.

Aurizon Network does not consider the following markets to be relevant to the service:

- the market for coal tenements in the Bowen Basin; and
- the market for financing coal projects in the Bowen Basin.

The NCC has previously considered that the market for iron ore tenements in the Pilbara to be a relevant market for consideration of declarations applications for the Pilbara rail networks. However, the relevance of this market is in the context of the owners of the rail networks also being vertically integrated into the market for iron ore extraction and marketing. As Aurizon Network is not vertically integrated into

³⁹ Services Sydney Pty Limited [2005] 227 ALR 140; para 118-119

the market for coal extraction or marketing and would have strong incentives to increase incremental demand for the service then the market for coal tenements in the Bowen Basin is not a relevant market.

In the Final Recommendation on declaration of the services provided by the Port of Newcastle the NCC concluded that the market for financing coal projects in the Hunter Valley was not a relevant market. There is also unlikely to be any cogent argument that can be made that whether the service was declared or not would have any impact on the market for financing coal projects in the Bowen Basin. In this regard the Tribunal stated it:

is not persuaded that there is a separate market for the financing of coal producers in the Hunter Valley. Obviously, financiers broadly speaking are indifferent to particular geographical limitations or to particular industry limitations. There is no evidence that financiers or any particular niche of financiers to industry in Australia have a particular focus on financing coal producers in the Hunter Valley⁴⁰.

Factors relevant to the QCA's assessment of the relevant part service against the access criteria

This section considers the relevant substitutes for the relevant part services and identifies crucial factors the QCA should address when considering whether the access criteria is satisfied with respect to that service.

The use of a coal system for providing transportation by rail by services that originate from a coal basin not directly connected to a coal system as at 8 September 2020

The construction of a greenfield railway from either the Surat or Galilee coal basins may involve a geographical alignment which promotes facilities based competition and effective duplication of the existing facility. These railways, if constructed, will have strong incentives to improve their utilisation to lower their average costs, and raise the costs of the competing railway. Therefore, the proponent of the greenfield railway will be incentivised to ensure the rail corridor alignment supports the prospect of attracting additional demand along the route and to undertake low cost incremental expansions to support those volumes. This additional demand can be sourced from new mine developments or from existing mines through:

- the construction of new loading facilities which are supported through road or conveyor (as currently occurs with many existing mines from the point of extraction to the processor/loadout);
- the dual gauging of privately owned sidings; or
- the declaration of interconnection services (similar to the switching arrangements in US rail regulation).

Aurizon Network has commented on the efficiency and public interest benefits of connecting the Galilee coal basin to an existing coal system. These efficiency and public interest benefits include:

- a reduction in total capital costs of \$1 billion by avoiding duplication of 181 kilometres of rail corridor;

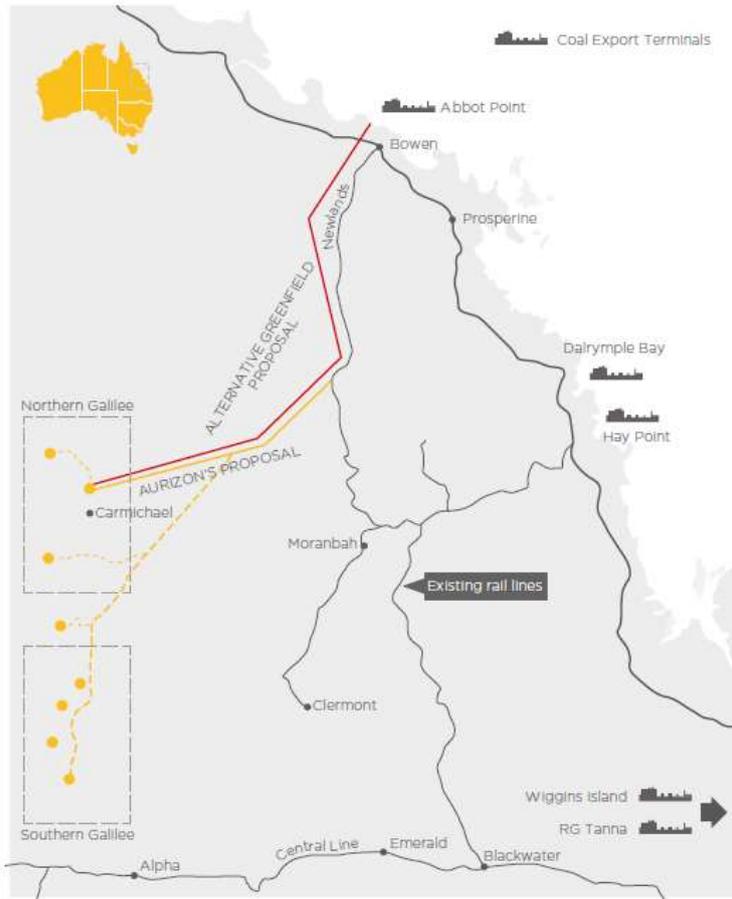
⁴⁰ Application by Glencore Coal Pty Ltd (No 2) [2016] ACompT 6, para 111.

- providing flexibility to staged investment if ramp up is slower than planned, avoiding underused capacity and higher tariffs;
- opening up railings to all coal producers in both the northern and southern Galilee Basin;
- facilitating transport to multiple port operations increasing port competition and export volume resilience; and
- supporting longer trains and increased productivity gains for Bowen Basin mine exports via Abbot Point at no additional below rail cost thus significantly improving the competitiveness of exporting via Abbot Point.

Despite these broader benefits the proponent of the Carmichael Rail Project is continuing to progress a 388 kilometre long greenfield standard gauge bypass of a coal system as shown in Figure 7. While Aurizon Network considers the rail transportation costs of an extension of a coal system to the Galilee basin presents the most economic approach through a lower transportation cost and lower project costs risks than a complete greenfield bypass there are likely to be other factors relevant to the proponent's choice of logistic options.

Aurizon Network considers that a key factor in the proponent's decisions is the inherent regulatory, commercial and operational risks associated with the declaration of the use of an existing coal system. The regulatory risk, transaction costs and uncertainty of the access regime hinders Aurizon Network's ability to enter into long term commercial access arrangements with proponents of the extension.

Figure 7 Alignment of the alternative Galilee Basin rail options.⁴¹



In summary, the QCA's assessment needs to consider the extent to which:

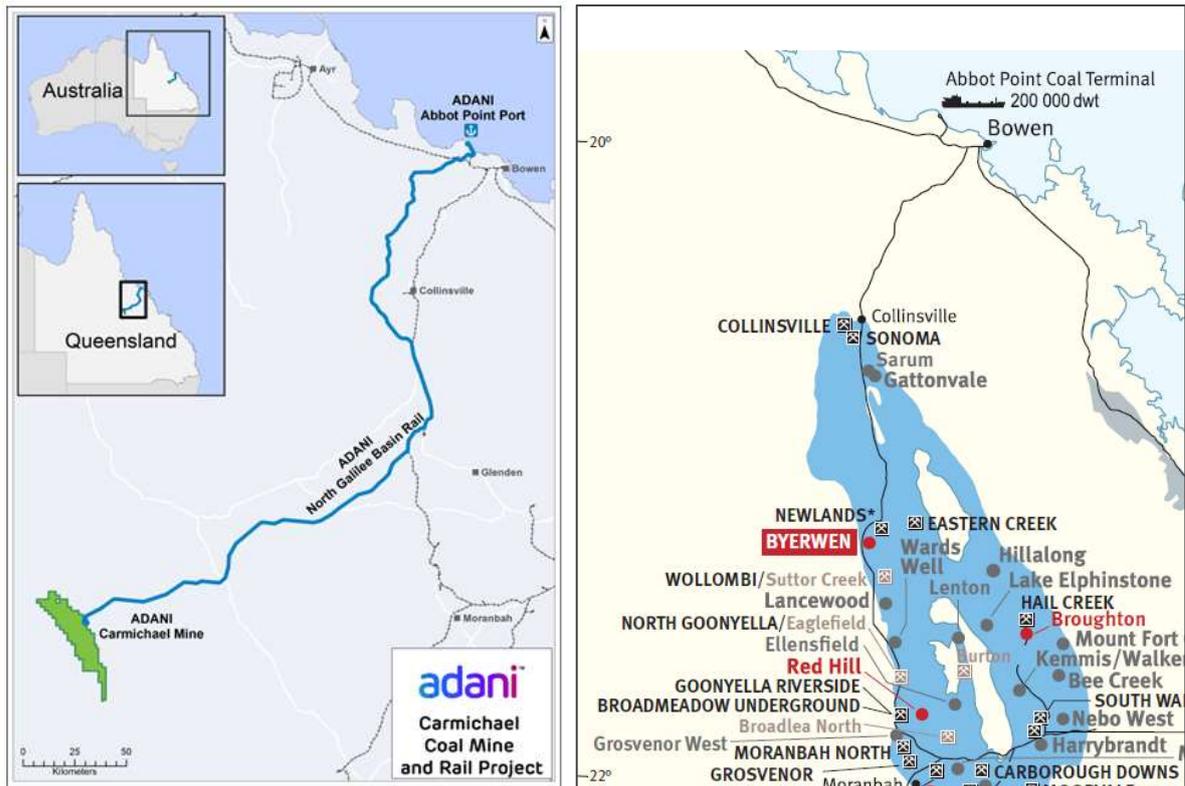
- the ability to duplicate an existing facility through a greenfield bypass satisfies the economic to duplicate criterion; or
- access regulation impairs Aurizon Network's ability to effectively negotiate long term access arrangements to promote the public interest of connecting a new coal basin to an existing coal system.

The use of the Newlands coal system

The construction and operation of the Northern Galilee Basin Rail Project (**NGBR**) and its proposed alignment would provide direct facilities based competition for the use of the Newlands coal system for current and future mines geographically located between Collinsville and Byerwyn. Depending on project economics the economic catchment could extend further south to capture mines operating in North Goonyella through extension. The proposed project alignment and the current mines and deposits relevant to the NGBR are shown in Figure 8.

⁴¹ Aurizon (2017) Sustainability Report, p. 20

Figure 8 Galilee Rail Project Alignment and Location of Existing Mines and Deposits



Sources: Adani, Queensland Department of Natural Resources and Mines.

Interconnection to, or use of, the competing railway is likely to be economically feasible through development of common user loading facilities serviced by conveyor, trucking, overpass or through dual-gauging of existing or new loading facilities. Given the significant capital costs of the project and the obligation to be provide open access the owner of the competing facility may have strong incentives to attract additional volumes to lower its average costs if it cannot secure additional mine developments in the Galilee Basin.

Once constructed, the ability to incrementally expand the competing railway would significantly constrain prices and the need to retain economies of scale will promote strong incentives for Aurizon Network to provide a competitive and efficient service offering to customers. This would also require the ability to price differentiate to maintain revenue adequacy, avoid asset stranding risk and maximise the efficient utilisation of the facility with mark-ups reflecting the relative contestability of the competing railway.

Aurizon Network recognises that there is some uncertainty as to the development timeframes for the NGBR and that the proponent has not financially committed to proceeding. It is also probable that this uncertainty may be resolved between the date of this submission and the expiry of the current declaration. In this regard, the likelihood of the project proceeding may evolve over the course of the QCA's review.

Aurizon Network considers that if the NGBR project was to proceed then the use of the Newlands coal system for the transportation of coal would be subject to direct competition with a competing facility. Access on uniform terms from declaration would not be in the public interest as regulation would materially and adversely affect Aurizon Network's ability to compete in the market for the declared service.

In summary, the QCA's assessment needs to consider, in the event that the NGBR progresses, the extent to which:

- it would provide facilities based competition for the Newlands coal system and therefore whether criterion b) is satisfied; and
- access regulation would interfere with Aurizon Network's ability to directly compete with the alternative service to the use of the Newland's coal system.

The use of the Moura coal system

Of the four systems that together constitute the CQC, the Moura system is regarded as the smallest operated by Aurizon Network in terms of:

- Total track length being 275km (including yards, sidings and passing loops) relative to 1,171km in Blackwater and 1,021km in Goonyella and 325km in Newlands/GAPE;
- Two operating coal mines, relative to a total of 42 operating mines in the Bowen Basin⁴²;
- Total volumes (net tonnes) transported being on average 4.5% per annum of the total volumes transported across the CQC. This compares to 24% in Blackwater, 47% in Goonyella and 11% in Newlands/GAPE.

In addition, the current operation of the RG Tanna and Wiggins Island coal terminals are not dependent on the continued operation of the Moura system. Both these terminals are supplied via Aurizon Network's Blackwater and Goonyella coal system. Further, in FY2017, the value of Queensland coal exports represented approximately 35% of total exports for the state.⁴³ Those exports from the Moura system alone comprised approximately 1% - 2% of the total value of exports from the state during the financial year.⁴⁴ Based on the Queensland Government's own projection of coal exports from Queensland for the period FY2018 – FY 2021 Aurizon Network estimate the total net exports from the Moura system to contribute between 4.0% and 4.9%.⁴⁵ Applying an average royalty per tonne as forecast by the Queensland Government, this corresponds to total crown royalties paid from those mines operating in the Moura System to range between \$91m and \$135m per annum.⁴⁶

In applying the access criteria to the use of the Moura coal system the QCA will need to consider the impact the loss of the Moura coal system would have on the Queensland economy given:

- the likely substitution effects of coal exports from other mines in Blackwater and Goonyella to export through the Gladstone coal terminals; and
- the labour mobility and employment impacts of increased or expanded production from alternate mining operations in other coal systems.

The use of more than one coal system

Where an individual coal chain has excess capacity or the system capacity can be expanded at a cost which is lower than the total logistics costs of an existing alternate coal supply chain then that existing supply chain may be subject to bypass through inter-port competition.

⁴² See https://www.dnrm.qld.gov.au/_data/assets/pdf_file/0011/238079/coal-mines-advanced-projects.pdf, pp. 7-8

⁴³ DFAT. Trade Statistics – Queensland <<https://dfat.gov.au/trade/resources/Documents/qld.pdf>>

⁴⁴ Or 3% – 6% of the total value of coal exports.

⁴⁵ Coal export projections taken from the Queensland Government 2017/18 Mid-Year Fiscal and Economic Review (MYFER).

⁴⁶ This estimate is likely to overstate the total crown royalties paid given thermal coal exports from the Moura System make up almost 50% of total exports.

Alternatively, where two coal systems have excess capacity and the user has the choice of port options then the total logistics costs of one supply chain will provide an effective price constraint on the other. In this circumstance, the regulation of the lower cost supply chain would provide effective facilities based competition.

The competitiveness of alternative export options is dependent on the aggregate logistics costs of below rail, above rail and port. Additional factors such as product blends and joint marketing will also influence producer choice of supply chain and export ports.

The services most likely to be subject to supply chain substitution effects are:

- the use of the Newlands coal system, inclusive of GAPE services, which can be substituted by the use of the Goonyella coal system for export via the coal terminals at Hay Point; and
- coal carrying train services which export via the coal terminals at Gladstone which can be substituted by the use of the Goonyella coal system for export via the coal terminals at Hay Point.

In assessing whether the use of the Newlands (including GAPE) and Blackwater coal systems satisfy access criteria a to c the QCA needs to:

- establish the relative economic catchment for incremental expansions of the coal terminals at Hay Point to establish the extent to which there is effective supply chain competition and whether that competition would provide an access seeker with substantial countervailing market power; and
- consider the prospects for the total foreseeable demand excluding GAPE access agreements to utilise the Newlands system having regard to access cost and distance relativities and the incremental expansion options to meet the foreseeable demand from the Hay Point coal terminals;

The use of a coal system for the transportation of intermodal or agricultural freight

The most prominent substitute for the transportation of freight is road haulage. The productivity improvements made in road transportation, including permitted increases in truck size and investment in road networks to improve capacity and transit time has significantly eroded the competitiveness of rail and increased the distance for which rail maintains a cost advantage. This loss of competitiveness is also largely a function of the implicit geographical distortions associated with road infrastructure pricing. In this regard, many regional road corridors which represent alternate facilities to a coal system have extremely low levels of cost recovery relative to the costs imposed by the road haulage operations using them. The substitution of road and rail was discussed in the PC 2006 inquiry report on Road and Rail Infrastructure Pricing:

For much of the freight task, there is no alternative to road transport, as the rail network is far less extensive than the road network. Even where two modes are available, as is especially the case on the major inter-capital corridors, scope for intermodal substitution will, in part, reflect different service characteristics of each mode:

- *Rail is suited to transporting bulk commodities with regular, large volumes and is less suited to servicing industries with low and/or irregular output, and regions with low levels of freight demand.*
- *Perishable or fragile, time sensitive freight (which tends to be non-bulk) is better suited to road given its flexibility. Also, road is more suited to just-in-time stock management systems and door-to-door delivery, which require more frequent, shorter-haul deliveries and involve more dispersed origins and destinations.*

Highlighting this, the major commodities transported by rail (in terms of tonnages carried) include minerals and metals (particularly coal and metal ores), unprocessed materials, grain and general freight in containers. While road also transports large tonnages of unprocessed materials, it carries much larger tonnages of manufactured goods, food and livestock and non-containerised general freight.

Road transportation remains the predominant mode of transport for most agricultural products with rail freight concentrated on livestock and grain movements. The overwhelming majority of the national freight task for these two commodities is being serviced by road haulage as reflected in the CSIRO's modelling of actual agricultural freight movements shown in Table 3.

Table 3. Summary of origin to destination trips for major agricultural commodities⁴⁷

| Commodity | Number of O-D Paths | Number of Vehicles | Number of Rail Wagons | % of Rail |
|-----------|---------------------|--------------------|-----------------------|-----------|
| Beef | 61,066 | 420,778 | 11,916 | 3% |
| Grains | 111,209 | 2,718,806 | 341,296 | 11% |

Source: CSIRO (2017) TraNSIT: Unlocking options for efficient logistics infrastructure in Australian agriculture, p. 18.

In relation to intermodal freight, the use of a coal system for the transportation of intermodal freight is highly contestable with other transport modes and therefore both the service and facility have direct alternatives. The foreseeable demand for intermodal freight is primarily associated with the market for freight between Cairns and Brisbane with various intermediate locations.

Aurizon Network expects relevant market information on the contestability of road and rail in relation to this service will be included within the Queensland Rail submission. However, there are several issues specific to Aurizon Network which are relevant to the operation of intermodal services on the CQCN, including:

- Importantly, Aurizon Network manages 113 kilometres of the North Coast Line between Parana and Rocklands which comprises approximately:
 - 7% of the total trip length between Brisbane and Cairns; and
 - 9% of the total trip length between Brisbane and Townsville.
- The services do not originate or terminate on a coal system;
- The access charges represent a small proportion of the overall cost base for Intermodal services;
- The capacity allocation is controlled by Queensland Rail;
- The capacity for foreseeable demand for intermodal freight services is preserved under section 266A of the *Transport Infrastructure Act 1994*; and
- The expansion of preserved paths will most likely require agreement with Government and the access seeker given the service would be unlikely to meet the full incremental costs of the expansion and NCL is subject to management via the Transport Services Contract.

⁴⁷ Available at <https://publications.csiro.au/rpr/download?pid=csiro:EP174081&dsid=DS2>

Aurizon Network also notes the QCA's position that it should exclude hypothetical alternative facilities in its assessment of the economic to duplicate test. In this regard, it would therefore not also be open to the QCA to consider hypothetical future policy changes around road infrastructure pricing.

In assessing whether the use of a coal system for the transportation of intermodal and agricultural freight markets satisfies criterion a to c, the QCA needs to:

- obtain the necessary information and analysis to determine the relevant scale of the market for these services which is not contestable with other transport modes;
- have regard to the factors described above to determine whether access, or increased access, would promote a material increase in the competition in the rail haulage market; and
- demonstrate that access to the service would promote a material increase in competition in the rail haulage market given the high level of contestability with road haulage.

The use of a coal system for the transportation of passengers

Long distance passenger services in Queensland are operated exclusively by the Government owned TravelTrain. These services are subject to multimodal competition and are not provided on a cost recovery basis.

The allocation of capacity and the scheduling and prioritisation of passenger services is subject to the passenger priority obligations in section 266 of the TIA. In addition, clause 266(6) includes restrictions on access charges that can be charged for passenger services.

In assessing whether the use of a coal system for the transportation of passengers satisfies access criteria a to c the QCA should have regard to:

- the extent of competition between rail and other transport modes for passenger movements;
- the relevant protections in the TIA;
- the economic and commercially feasibility of entry of a competitor to TravelTrain in the long-distance rail passenger market; and
- the threat of Government intervention.

5. Term of the Declaration

Clause 87A(4) of the QCA Act requires that if the authority recommends that the service, or part of the service, be declared with effect from 8 September 2020, then the QCA must also recommend the period for which that declaration should operate.

For the reasons set out in section 3 of this submission, it is not appropriate for the QCA to recommend, or the Minister to declare services in the CQCN as the criterion in section 76(2)(d) of the QCA Act is not satisfied.

In light of that, a recommendation as to the duration of the declaration is not relevant.

If despite the material shortcomings and failings of the regulatory processes under the current declaration the QCA proposes to recommend, or the Minister decides to declare services in the CQCN, then a recommendation as to duration would be relevant. In that case, for the reasons discussed below, Aurizon Network submits that an appropriate duration before review would be five years from expiration of the

current declaration. That period would cover the anticipated duration of the UT6 Access Undertaking that will follow the currently proposed UT5 Access Undertaking.

In relation to the duration of a declaration the QCA Issues Paper argued the following to be relevant to the duration:

- the importance of long-term certainty to access seekers who may engage in significant investments as part of gaining access to a declared facility;
- the period of time for which users may seek access to the facility (for example considering average mine lives);
- the foreseeable timing of potential changes in the market environment, including the likelihood that the service no longer satisfies the natural monopoly test in criterion (b); and
- the need for periodic reviews of declaration arrangements.

Aurizon Network also considers the following matters to be relevant:

- the likely duration of access agreements for the declared services (consideration of mine lives with the option of market exit needs to be balanced with the asymmetric risks to the access provider of shorter period access arrangements);
- the prospect of technology or market disruption including the prospect of development of competing facilities;
- the uncertainty of the relative competitiveness of parts of the declared services; and
- the very significant issues raised in section 3 of this submission relating to the shortcomings and failings of the regulatory processes under the current declaration.

Long term certainty for access seekers is not a material consideration to the duration of the declaration where the declaration can be revoked in the event of a material change in circumstances. That is, the certainty a long-term declaration is assumed to provide would not survive a material change in circumstances. Therefore, if there is a reasonable degree of certainty there will be no material change in circumstances then there is also a reasonable belief that the declaration would be extended from a subsequent declaration review. This is consistent with the views of Queensland Treasury⁴⁸ who stated:

A legislative extension of the declaration may not provide the regulatory certainty the proponents seek given there is a declaration revocation process set out under the QCA Act which allows access providers to seek revocation of a declaration at any time.

Aurizon Network's most significant business and regulatory risk is asset stranding in providing the declared service over multiple coal systems in the event of a material reduction in the total foreseeable demand. The regulatory framework has no defined remedy for this uncompensated risk as is typically found in other industry regulation. Therefore, a longer period of declaration provides limited certainty to the access provider in respect of asset stranding risk where the regulatory framework fails to provide adequate safeguards.

⁴⁸ Queensland Parliament (2018) Economics and Governance Committee: Inquiry into the Queensland Competition Authority Amendment Bill 2018, p. 7.

Aurizon Network considers there is sufficient uncertainty with respect to the following matters to support a relatively short declaration period:

- the long-term demand for thermal coal;
- the prospects of supply chain substitution from a reduction of long term demand;
- the prospects for development of competing facilities; and
- the technological disruption of the railway industry through increasing levels of autonomous vehicles.

Similarly, on a principled basis, any regulatory regime founded upon assumptions as to utility and efficacy requires periodic review of the performance of that regulatory framework. The CPA itself contemplated a review of its own efficacy after 5 years. The current declaration of the regulatory regime under Part IIIA of the CCA is effective for only 10 years. There is no principled basis to support a duration beyond 10 years. The typical timeframe for review of legislation that can have direct impacts on competition as reflected in the Queensland Productivity Commission's guidance note on assessing competition impacts⁴⁹:

- *Markets can change a lot in ten years due to technology and innovation, changes in customer preferences and other factors. For this reason, legislative restrictions on competition should be reviewed every 10 years to ensure that these restrictions are still achieving their intended objective, and that benefits of the restriction continue to outweigh the costs.*

However, in the case of the CQCN, the very significant regulatory failures identified in section 3 of this submission, coupled with the matters identified as being relevant by the Queensland Productivity Commission, fully justify a shorter period before the declaration should be reviewed. On that basis Aurizon Network proposes a duration of five years before review.

Another justification for this approach is found in the fact that the QCA has quasi-statutory rule making functions in the QCA Act to require an access provider to amend its proposed undertaking or impose its own. This too supports a review of the declaration not less than every 5 years.

Aurizon Network also considers there is a significant distinction between the basis for the 20 year declaration of a relevant Pilbara railway line and the services provided by the CQCN. Declaration of the Pilbara rail network is intended to support development of a limited number of third party mines with significant long lives which is dependent on continuing to obtain access from a service provider with weak incentives to provide access. These conditions do not prevail in the CQCN as access would continue to be provided without declaration.

Aurizon Network anticipates that some stakeholders may seek an indefinite period for declaration. That would be contrary to sound public policy and would demonstrate a profound misunderstanding of the role of access regulation given the substantive justification provided by the PC and Queensland Treasury of the need for periodic review to ensure regulatory intervention in markets continues to be valid and in the public interest.

For the reasons outlined above Aurizon Network considers that if the access criteria for the relevant service, or part of the service, is satisfied, then the duration of the declaration should not exceed five years.

⁴⁹ Available at <https://qpc.blob.core.windows.net/wordpress/2018/03/Assessing-Competition-impacts.pdf>