



**Submission to the Productivity
Commission on the National Access
Regime**

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EXECUTIVE SUMMARY

The Queensland Competition Authority welcomes the opportunity to provide this submission to the Productivity Commission regarding its inquiry into the National Access Regime.

The Authority has a particular interest in how the National Access Regime changes and develops over time, as the Queensland Access Regime, for which the Authority is the jurisdictional regulator, is very similar to the National Access Regime. In that regard, the Authority notes that Part 5 of the *Queensland Competition Authority Act 1997* (the QCA Act) closely mirrors Part IIIA of the *Competition and Consumer Act 2010* (the CCA). The Authority believes that a key to the current regime is that it provides state governments, facility owners and access seekers with some choice about whether access is governed by a state regime or by the national regime.

The Authority considers that the National Access Regime, and the similar Queensland Access Regime, have been of benefit to the Queensland economy, as they have acted to encourage competition, efficiency, growth and development in key sectors reliant on infrastructure of national or state significance, especially including rail and port infrastructure.

However, the Queensland economy has changed significantly since the Competition Principles Agreement, which established the principles on which the National Access Regime is based, was signed in 1995. In particular, the Authority notes that, in 1995, infrastructure services were dominated by government ownership and characterised by excess capacity. Much has changed since then – privatisation has led to diminished government involvement in provision of infrastructure services, while growth in the economy has meant that the excess capacity previously enjoyed is now being utilised and there are significant demands for increased investment to further expand capacity and improve the reliability of service provision.

In this submission, the Authority offers its comments on two specific aspects of the National Access Regime that have, in its view, either moved in the wrong direction or not kept pace with the changes in the economy that have occurred since the early 1990s.

The first aspect relates to the High Court's recent *Pilbara Rail decision* and, particularly, the potential impact of the interpretation placed by the High Court on the 'uneconomical to duplicate' declaration criterion contained in Part IIIA of the CCA (and mirrored in Part 5 of the QCA Act).

Prior to the High Court decision, the consensus view was that the uneconomical to duplicate criterion was best interpreted as applying a 'natural monopoly test' to assessment of declaration applications, thereby allowing the issue of whether duplication of a facility would be economically wasteful (from a society-wide perspective) to be considered in the assessment. The High Court decision has changed the interpretation to a 'private profitability test', which focuses the criterion on the issue of whether it would be economically feasible (i.e. privately profitable) for anyone, including an incumbent facility owner, to duplicate a facility.

The Authority considers that the private profitability test is not consistent with general economic principles as it does not address the problem of natural monopoly. In addition, it does not seem to be consistent with the objects clauses contained in both Part IIIA of the CCA and Part 5 of the QCA Act, which indicate that the objects of the National and Queensland access regimes include promoting the economically efficient operation of, use of and investment in the infrastructure by which services are provided, thereby promoting effective competition in upstream and downstream markets.

The change to the interpretation of the uneconomical to duplicate criterion is likely to make it significantly harder for the services of facilities to be declared, as it is more difficult to demonstrate that a facility would not be privately profitable (for anyone) to duplicate than that it would be economically inefficient to do so. Conversely, revocation of existing declarations is likely to become easier. This has particular implications for the current declarations under the Queensland Access

Regime, where plans for future rail and port developments may be used to argue that duplication of facilities can be demonstrated to be privately profitable.

As a consequence, the Authority requests that the Productivity Commission consider recommending amendment to the ‘uneconomical to duplicate’ criterion to restore the ‘natural monopoly test’ for assessment of declaration and revocation applications under the National Access Regime.

The second aspect commented on relates to constraints on the regulator’s ability, under both the National and Queensland access regimes, to make access determinations, particularly with regard to requiring facility owners to make investments to expand facilities.

In the past, the Authority’s experience has been that access undertakings, provided in accordance with Part 5 of the QCA Act (and which underpin any access determinations that would be made by the Authority), have been reasonably effective in promoting the economically efficient operation of, use of and investment in infrastructure. However, recent experience has called into question whether incentives and obligations for investment in infrastructure expansions are strong enough where capacity is constrained. For example, under both Part IIIA of the CCA and Part 5 of the QCA Act, a monopoly service provider has the ability and right not to invest in expansion of its facility. Given a capacity constrained facility, the right to not expand the facility provides a natural monopoly service provider with an incentive to exert its market power and seek higher prices for access.

Moreover, both access regimes prohibit the regulator from making an access determination that would require a facility owner to expand a facility where that would provide for the facility owner to pay some, or all, of the costs involved or result in the facility, or any part of the facility, becoming owned by a third party. In this context, the Authority has been attempting to put in place a workable and effective standard user funding agreement (SUFA) to allow for third-party investment in expanding rail infrastructure in Queensland, where a facility owner may be unable or unwilling to do so. However, the restrictions in the legislation, as well as difficulties in reaching agreement between the relevant parties, mean this is proving problematic.

The Authority thus requests that the Productivity Commission consider recommending amendments to the restrictions on access determinations by the regulator under the National Access Regime, to allow determinations that would better facilitate expansions of facilities, including through user-funded investments.

The Authority believes that the continued growth and development of the resources sector will be fundamentally important to the ongoing health of the Queensland economy. In that regard, the Authority considers that the regulatory arrangements that govern the provision of services of the infrastructure facilities, both ports and rail, which underpin the sector’s operation will be vital for its future. This includes ensuring that the criteria for declaration under the National Access Regime are appropriate and that the regime includes sufficient incentives, and opportunity, for investment.

The Authority supports the current initiative to examine and improve the National and Queensland access regimes in order that they are effective in achieving the objectives that relate to efficient investment in, and use of, infrastructure, and promoting competition in other markets. The regimes need to be effective in addressing the circumstances that exist in the Australian economy today, where significant infrastructure facilities are commonly privately owned and where new capacity will be needed in the near future. The Productivity Commission inquiry, approximately 20 years after the release of the Hilmer report, represents an opportunity to ensure these objectives can be achieved.

GLOSSARY OF TERMS

ACCC	Australian Competition and Consumer Commission
ATO	Australian Taxation Office
Aurizon Network	below-rail subsidiary of Aurizon Holdings Limited
Aurizon Holdings Limited	vertically-integrated parent company of Aurizon Network
Authority	Queensland Competition Authority
BMA	BHP Billiton Mitsubishi Alliance
CCA	<i>Competition and Consumer Act 2010</i>
COAG	Council of Australian Governments
Competition Principles Agreement	Agreement made between the Commonwealth and all State and Territory Governments on 11 April 1995
CQCN	central Queensland coal network
DBCT	Dalrymple Bay Coal Terminal
GAPE	Goonyella to Abbot Point expansion
Hilmer Report	Report by the Independent Committee of Inquiry into a National Competition Policy (1993)
National Access Regime	Part IIIA of the CCA
NCC	National Competition Council
Pilbara Rail Decision	<i>The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal 2012</i>
QCA Act	<i>Queensland Competition Authority Act 1997</i>
Queensland Access Regime	Part 5 of the QCA Act
Queensland Rail	Queensland Rail Limited
SUFA	Standard User Funding Agreement
WACC	weighted average cost of capital
WIRP	Wiggins Island Rail Project

1. INTRODUCTION

1.1 National Consistency

The National Access Regime and the Queensland Access Regime both originated from the Competition Principles Agreement signed by all jurisdictions in 1995.

Those arrangements provided for access to the services of essential infrastructure to be regulated either through a state based regime or through the national regime embodied in Part IIIA of the *Competition and Consumer Act 2010* (CCA), in particular:

- (a) Part IIIA of the CCA provides for anyone to seek declaration for the services of a facility that is nationally significant;
- (b) such a facility can be declared under Part IIIA of the CCA, and subsequently be regulated by the Australian Competition and Consumer Commission (ACCC), provided that the services of that facility are not already governed by an access regime as set out in a:
 - (i) state based regime that has been certified as effective by the National Competition Council (NCC); or
 - (ii) voluntary undertaking approved by the ACCC.

A key feature of the current regime is that it provides state governments, facility owners and access seekers with some choice about whether access is governed by a state regime or by the national regime.

It also provides each of the governments and the facility owners with a set of checks and balances to ensure that this choice does not result in any party easily avoiding the commitments to access, as set out in the Competition Principles Agreement. For example:

- (a) a state government that contemplates introducing an access regime that could be seen as ineffective runs the risk that the services of a particular facility would be declared, and regulated, under Part IIIA of the CCA; and
- (b) as there are similar criteria for assessing:
 - (i) declaration applications (in the National and state regimes); and
 - (ii) the effectiveness of a state based regime (NCC) and access undertakings (the Authority and the ACCC);

the scope for a facility owner or access seeker to go “regulator shopping” (i.e. in search of an access regime that most suits their interests) is muted as the consistent application of similar criteria by different regulators, should result in broadly consistent outcomes.

Consistency between the National Access Regime and the state regimes is also important as it:

- (a) makes it possible for there to be a seamless division of responsibilities between those facilities that are regulated nationally and those that are regulated by the states; and
- (b) limits the possibility that a facility could simultaneously be regulated by both a national and a state based access regime.

There is, therefore, good reason to maintain consistency between the access regimes administered by the states and by the Commonwealth – and it would be an undesirable outcome if national consistency was lost as a result of the current review. There are, however, large question marks over the effectiveness of the National Access Regime and an effective access regime is important for Queensland. For instance, there is a question whether the current Queensland access regime provides adequate incentives for a privatised natural monopoly to increase network capacity through its own investment dollars.

It is in this context that it is noted that the Queensland access regime, as embodied in Part 5 of the *Queensland Competition Authority Act 1997* (QCA Act), has a large number of elements that are similar to the National Access Regime that the Productivity Commission is now reviewing.

Part IIIA of the CCA and Part 5 of the QCA Act are similar in many key respects as the QCA Act:

- (a) has an objects clause that emphasises that the access regime should seek to promote the economically efficient and safe operation of, use of, and investment in, infrastructure by which services are provided – with the effect of promoting effective competition in upstream or downstream markets (similar to section 44AA of the CCA);
- (b) provides for persons to request that the services of a facility be declared (or revoked) with similar assessment criteria – but where the service must be state (not nationally) significant and where the Authority has the recommendatory role to the relevant Queensland Minister (similar to sections 44F and 44G of the CCA);
- (c) allows a facility owner to voluntarily lodge an access undertaking with the Authority for approval setting out the terms and conditions for access to a non-declared service – whereby the assessment criteria are similar (including details such as the pricing principles – similar to section 44ZZCA of the CCA);
- (d) establishes an access regime that is a negotiate-arbitrate regime whereby if an access provider and an access seeker are unable to agree to the terms of an access agreement, either party can refer the matter to the Authority for determination (similar to section 44S of the CCA);
- (e) provides for a dispute determination: to require the access provider to provide access; to require the access seeker to pay for access; to specify the terms and conditions of access; and to require the access provider to extend the facility (similar to section 44V of the CCA);
- (f) places limits on the content of an access determination, including that the access provider should not bear the costs of extending the facility and that a third party should not become an owner of the facility (similar to section 44W of the CCA); and
- (g) prohibits the owner of a vertically integrated facility from seeking to prevent or hinder access of a third party (similar to section 44ZZ of the CCA).

1.2 Is the National Access Regime truly national?

Despite the various attempts to maintain national consistency, it is somewhat of a misnomer to describe the National Access Regime as national. There are many access arrangements that sit outside of that “national” framework. Access to the services of the electricity, gas and telecommunications networks are all governed by national regimes separate from the

National Access Regime. Water infrastructure largely remains the preserve of state-based regulatory regimes.

This experience suggests that the main role of the National Access Regime is as a safety net – that is, it is the access regime that applies where neither of the following applies:

- (a) a facility is national in nature and special enough to have its own access regime; or
- (b) the owner of the facility has been able to agree to reasonable terms with an access seeker without the influence of an external arbitrator with determinative powers.

This is supported by the evidence provided in the NCC's initial submission¹ that shows that despite numerous declaration applications, there are very few services currently regulated by the National Access Regime. Rather, the main achievement of the National Access Regime seems to have been either to bring facility owners back to the negotiation table to agree reasonable terms or to incentivise state governments to put into place effective state-based access regimes.

1.3 Is the National Access Regime effective in providing access?

It seems evident that the National Access Regime has been well tested in terms of the meaning of the declaration criteria but less well tested in terms of giving effect to an access regime on a day-to-day basis.

The reverse is true of the Queensland Access Regime. To date, the Authority has only received one application for declaration under Part 5 of the QCA Act.² Therefore, while the declaration criteria in Part 5 of the QCA Act are similar to those in Part IIIA of the CCA, those criteria are largely un-tested in the context of the Queensland Access Regime.

Nevertheless, the Authority does regulate access to the services of three entities in accordance with Part 5 of the QCA Act and with access undertakings approved by the Authority.³ These are:

- (a) the handling of coal at the Dalrymple Bay Coal Terminal (DBCT);
- (b) the use of rail transport infrastructure of Aurizon Network for the transportation of coal in the central Queensland coal network (CQCN); and
- (c) the use of rail transport infrastructure of Queensland Rail.

In this context, the Authority wants to comment on two aspects of the National Access Regime.

First, on the recent High Court's decision relating to the declaration (i.e. uneconomical to duplicate) criterion in the National Access Regime. In this regard, the High Court's decision has particular impact on the outcomes of the Queensland Access Regime given the degree of consistency between the National and the Queensland Access Regimes.

¹ http://www.pc.gov.au/data/assets/pdf_file/0003/120378/sub001-access-regime.pdf

² This was an application from the Federal Chamber of Automotive Industries for the declaration of the motor vehicle import services at Fisherman Islands cargo terminal at the Port of Brisbane. In April 2011, the Authority determined that it did not have the power to make a declaration recommendation given the way Part 5 of the QCA Act was drafted at the time the application was made.

³ The services of these facilities have been declared by the Queensland Government through a statutory declaration in section 250 of the QCA Act. These declarations have been certified as effective access regimes by the National Competition Council for the purposes of Part IIIA of the CCA.

Second, on the nature of the criteria that governs the arbitration of access disputes. Again, these are criteria that are consistent between the National and the Queensland Access Regimes and are relevant to the Productivity Commission's current inquiry – they have not been tested within the context of the National Access Regime, but may be tested in the near future in regards to the Queensland Access Regime.

These are two matters that go to the heart of the effectiveness of both the National Access Regime and the Queensland Access Regime.

2. PILBARA RAIL DECISION

The Authority notes that the High Court's *Pilbara Rail decision* substantially changed the interpretation of the uneconomical to duplicate criterion in Part IIIA of the CCA.

The High Court broadly reaffirmed the Federal Court's earlier decision on this matter. In doing so, the High Court has changed the interpretation of the uneconomical to duplicate criterion for declaration in Part IIIA of the CCA from a test that considered whether the service was supplied by a natural monopoly, such that it was uneconomical from a society's perspective for the facility providing the service to be duplicated.

Rather, the new test considers whether it would be uneconomical for anyone to develop an alternative facility on the basis of whether it is *privately profitable* (i.e. economically feasible) for another *firm* to develop a separate facility.

A private profitability test is not a novel idea – for instance, it is the basis of some access regimes overseas (e.g. Europe). The High Court also clearly believed that there should be a high hurdle where the private property rights of a company were (in effect) going to be expropriated.

However, governments often choose to intervene in markets to enhance economic efficiency. We have many laws designed to address externalities, public goods and costly information. There are environmental laws based on a polluter-pays criteria (e.g. a carbon tax) and to address the “problem of the commons” such as open access fisheries. There are corporations laws to address principal-agent problems and consumer protection laws (e.g. food labelling laws), both of which are associated with costly, and asymmetric, information. Governments continue to provide policing and national defence services to address the public good aspects of those community services.

And then we have the National Access Regime to address the monopoly problem.

2.1 What are the trade-offs between the different approaches to criterion (b)?

The Authority believes it would be obliged to follow the High Court's interpretation of the uneconomical to duplicate criterion as the provisions in Part IIIA of the CCA and Part 5 of the QCA Act are similar and both stem from the same source – the National Competition Policy reforms and the Competition Principles Agreement.

As a result, the Authority could not recommend, and the relevant Queensland Minister could not decide, to declare a facility where, *inter alia*, it would be profitable for another party to build a duplicate, albeit potentially wasteful, facility rather than either accessing spare capacity at an existing facility or requiring expansion of such a facility.

As noted above, the objectives of both Part 5 of the QCA Act and Part IIIA of the CCA are broadly similar and focus on:

- (a) promoting the economically efficient operation of, use of, and investment in, significant infrastructure by which services are provided; with the effect of (thereby)
- (b) promoting effective competition in upstream and downstream markets.

The Authority considers that a significant objective of an access regime should be to improve economic efficiency. There are clearly cases where the objectives of efficient allocation of resources, efficient operation, innovation and investment would not be served by application of the private profitability test because the underlying problems created by natural monopoly would not be addressed. In particular, natural monopoly means that it may

be more efficient to provide access to an existing facility rather than duplicating it. Therefore, the Authority does not support the private profitability test.

The Authority notes that a predecessor to the Productivity Commission, the Industry Commission, commented with regard to this issue that “Where facilities have natural monopoly characteristics (the lowest costs of supply are achieved when there is only one facility in the relevant market) it is more efficient for competitors to use the same facility than it would be for them to each construct and operate their own.”⁴

Consideration of economic efficiency in this context is discussed in greater detail in the appendix to this submission.

It would also seem that the private profitability test is not consistent with the objects of either Part IIIA of the CCA or Part 5 of the QCA Act, both of which are to promote the economically efficient operation of, and investment in, significant infrastructure.

The Authority considers that the underlying purpose of an access regime should be to improve economic efficiency by improving the allocation of resources. This is consistent with linking the concept of economic efficiency to whether the infrastructure in question is a natural monopoly, meaning that it may be cheaper to provide access to an existing facility rather than duplicating it.

Better utilisation of existing facilities can improve productivity. Productivity growth is one of the key ways in which the living standards of Australians can be improved and in which the competitiveness of Australian industries can be maintained; in particular in the context of a historically and persistently high Australian dollar. These are issues that the Productivity Commission would understand better than any other organisation in Australia.

2.1.1 What are the implications for state and territory regimes of the High Court’s decision on criterion (b)?

The migration of the private profitability test onto Queensland is likely to have substantial implications for both new declarations for access and revocations of existing declarations for access.

Harder to get access

The *Pilbara Rail decision* will substantially raise the hurdle for a third party to satisfy before access is granted. To require third party access now requires it to be shown that it would not be privately profitable for a third party to construct a duplicate facility. There could be any number of circumstances where it could be privately profitable for a party to duplicate a facility but it would be far less expensive to expand an existing facility. Relevantly, this may change with market conditions, creating uncertainty for all parties as to when a facility may potentially be declared.

The private profitability test has implications for potential third party access to a range of current and planned infrastructure projects in Queensland, including those related to rail and export terminal infrastructure. It will now be easier for a facility owner to argue that they should not be required to provide third party access on the basis that it is privately profitable for a competing party to develop duplicate infrastructure. However, the development of multiple and duplicate pieces of infrastructure are likely to impact on the development costs of an access seeker and significantly impact the investment decisions of small miners who

⁴ *Implementing the National Competition Policy: Access and Prices Regulation*, Industry Commission (1995), p.11.

may not have the resources to fund the development of mine supporting infrastructure (like railway lines or terminals) themselves.

The unnecessary duplication of facilities is likely to increase the cost of developing new mines which may have long term impacts on economic activity and employment in Queensland more generally.

Unnecessary duplication of infrastructure may also cause environment or social dislocation costs. These may include unnecessary clearing of land, approvals of rail line easements, noise pollution, land resumptions, water flows and run-off.

Easier to revoke access

As the criteria for declaration apply equally to removal of declaration, the High Court's decision also means declaration may be revoked where it is privately profitable to duplicate infrastructure which currently provides a declared service.

Given this, the Authority may also receive revocation applications for the facilities, or parts of the facilities, that are currently declared, for example:

- (a) Dalrymple Bay Coal Terminal (DBCT) – given there are a range of current and planned coal terminals which could be argued to duplicate the coal handling services at DBCT, including the expanded Abbot Point terminal and the planned development at Dudgeon Point (adjacent to DBCT); and
- (b) portions of the below-rail infrastructure of Aurizon Network in the central Queensland coal network – given BHP Billiton Mitsubishi Alliance (BMA) has proposed a railway line from its Goonyella mine to Abbot Point which could be considered to duplicate Aurizon Network's Goonyella-Abbot Point expansion and Newlands lines.

In both cases, it will be open for the declared service provider to argue that, as it may be privately profitable to develop a competing facility, it is therefore not uneconomical to duplicate the infrastructure that provides the declared service – i.e. revocation of declaration should occur.

Relevantly, satisfaction of the private profitability test is not limited to potential access seekers, but can also include the incumbent operator. This could potentially enable an incumbent infrastructure owner to develop a business case contending that it is privately profitable for it to duplicate the existing facility that it owns. It is also conceivable that the business case could incorporate the monopoly rents that the access holder would be likely to achieve from revocation.

It is also noted that both of the aforementioned facilities are common user facilities catering for the whole range of mining customers, from the relatively small to large. However, the new facilities proposed to be developed are either for a relatively small number of dedicated customers or relate to a single mining company vertically integrating its operations into the transport chain. Under these circumstances, it is difficult to envisage how facility on facility competition could occur as many of the existing users of the rail infrastructure and of DBCT would have no other choice than to agree terms with their existing facility operator.

Both Aurizon Network's rail network and the DBCT facility were privatised (via a long term lease) on the basis that an effective access regime would apply following privatisation. Many coal miners in Queensland have made significant investments on the basis that they would continue to receive access, on reasonable terms, to former government owned infrastructure facilities. The revocation of declaration, particularly to the service provided

by aspects of Aurizon Network's infrastructure, would mean these miners would have no choice but to negotiate with a monopolist (i.e. be price takers), with the alternative being the potential stranding of these mine assets.

The Authority considers that such an outcome would clearly be against the intent of all of Part IIIA of the CCA, Part 5 of the QCA Act and the Competition Principles Agreement. More particularly, it is hard to believe that this should be the intention of the National Access Regime going forward.

2.1.2 Legislative amendment to the Criterion (b) of Part IIIA

Given the Authority's concerns on the application of the private profitability test, it supports legislative amendment to the declaration provisions in Part IIIA of the CCA, and in a consistent manner to Part 5 of the QCA Act, such that the uneconomical to duplicate test considers economic efficiency at the economy-wide level.

The Authority considers that the natural monopoly test satisfies this requirement as it considers whether access can be provided at lower cost at a single facility (or an expanded facility), rather than through duplication of an existing natural monopoly facility.

The Authority considers that the natural monopoly concept could be relatively simply provided for in a legislative amendment to Part IIIA, namely by adding the following words after section 44G(2) (the uneconomical to duplicate criterion) of the CCA:

In interpreting the access criterion mentioned in subsection G(2), the duplication will be uneconomical if, for the likely range of reasonably foreseeable demand for the service, the capital and operating costs for the facility (including any expansion of the facility) to provide the service are likely to be less than the capital and operating costs for the service to be provided by more than one facility.

3. NETWORK INVESTMENT FRAMEWORK – RESTRICTIONS ON ACCESS DETERMINATIONS

The Competition Principles Agreement was signed, and Part IIIA was introduced into the CCA, at a time when infrastructure services were dominated by government ownership and were characterised by excess capacity.

The 1990s was also a time when governments were reforming their government owned businesses, their budgets were becoming increasingly more reliant on the dividend stream from those businesses and privatisation was seen as a way of addressing public debt issues. The Australian economy was increasingly being exposed to competition from overseas markets; in part due to the deregulation of the exchange rate and the financial sector that had occurred 10 years earlier, but also because of the subsequent program of reductions in tariff protection.

It is no wonder then that industry was particularly interested in the costs of the services provided by the government sector over which they had very little control. Exposing those industries to competition was the obvious way of addressing those cost and lack of choice concerns.

Much has changed in the 20 years since the Hilmer Report was delivered. Growth in the economy has meant the excess capacity previously associated with many infrastructure facilities is now being utilised and there are significant demands for increased investment to further expand capacity and improve reliability.

The National Access Regime clearly has a continued role in promoting competition in markets dependent on the services of bottleneck facilities. However, as reflected in the objects clause, it also must play a significant role in promoting the efficient operation of, and investment in, the bottleneck facility itself.

In this context, the economic problem, or market failure, that the National Access Regime is seeking to address is the issue of monopoly, and natural monopoly in particular. The owners of natural monopoly facilities have an incentive to limit capacity to create scarcity in order to push up prices and earn rents⁵. Governments can no longer rely on public ownership to deal with the natural monopoly issue, given the extent to which the private sector is now involved in the provision of infrastructure services.

The Productivity Commission's review is an opportune time to contemplate whether the statutory framework as set out in the National Access Regime is sufficient to satisfactorily address the central economic problems associated with the provision of services by bottleneck facilities. In particular, is it sufficiently robust to deal with circumstances where the owner of a monopoly facility declines to expand the facility in a timely manner?

Set out below is a discussion on how the Authority is seeking to address matters associated with major new investments in the context of Part 5 of the QCA Act, which largely mirrors Part IIIA of the CCA. At this stage, it is too early for the Authority to conclude that the arrangements in the National Access Regime are ineffective. Nevertheless, it is evident that the solution is likely to be complex, which may have a significant impact on the timely and efficient delivery of future capacity expansions.

⁵ National Access Regime – Productivity Commission Issues Paper; Productivity Commission (November 2012); p.5-6

3.1 Statutory Framework

Part IIIA of the CCA and Part 5 of the QCA Act are similar in that they both set out a negotiate-arbitrate model for providing access to a declared service.

Part 5 of the QCA Act requires the access provider of a declared service to negotiate an access agreement with an access seeker (section 99). In doing so, the access provider must negotiate in good faith, not unfairly differentiate between access seekers and must make all reasonable efforts to satisfy the access seeker's reasonable requirements (sections 100 and 101).

In the event that an access provider and an access seeker cannot agree on an aspect of access, either party can refer the matter to the Authority for dispute resolution (section 112) – either by mediation or arbitration (sections 115B-G and sections 117 – 127).

The Authority can make an arbitration determination that deals with any access related matter, including that it can require the access provider to:

- (a) extend, or permit the extension of, the facility; or
 - (b) permit another facility to be connected to the facility (section 118),
- but any such determination must not:
- (c) be inconsistent with an approved undertaking; nor
 - (d) have the effect of:
 - (i) requiring the access provider to pay some or all of the costs of extending the facility (section 119(2)(c)); or
 - (ii) resulting in an access seeker, or someone else, becoming the owner, or one of the owners, of the facility without the existing owner's agreement (section 119(2)(b)).

It is within the context of this statutory framework that Aurizon Network, the coal industry and the Authority have been seeking to develop and introduce a workable and effective investment framework into Aurizon Network's 2010 access undertaking. In particular, this should be an investment framework that provides an effective option for the coal industry to fund the expansion of the coal network in central Queensland in the circumstances where Aurizon Network has indicated it is unwilling to fund the expansion itself.

Aurizon Network's current access undertaking

In 2009, Aurizon Network submitted a draft access undertaking to the Authority for approval. In it, Aurizon Network sought to change the way it managed access applications and infrastructure expansions for a 'major project'. Aurizon Network noted that for major network expansions it required the ability to:

- (a) request conditions on access designed to address additional risks associated with major new investment projects; and
- (b) only undertake what it considered to be commercially justifiable infrastructure enhancements.

Aurizon Network's customers were concerned that Aurizon Network did not have the proper incentive to complete new major projects at the appropriate time and at a reasonable cost. Aurizon Network's customers said that Aurizon Network should be obliged to expand the network within the timeframes necessary to meet the needs of its users, as it was believed that Aurizon Network was prolonging access negotiations and stalling investments in order to strengthen its bargaining position. At that time, Aurizon Network's customers felt they had a choice between project delays or accepting (possibly onerous) conditions on access.

Aurizon Network said it should not be 'obliged' to extend the network and noted that section 119 of the QCA Act restricted the Authority from making an access determination that would result in the access provider paying some or all of the costs of extending a facility.

It was in this context that an investment framework was introduced into Aurizon Network's 2010 access undertaking. The 2010 access undertaking provides for:

- (a) a regulated return on assets of 9.96% (equivalent to the types of return provided to other regulated entities in Australia);
- (b) Aurizon Network to undertake and fund all main-line capacity expansions:
 - (i) needed to rectify differences between actual and contracted capacity; or
 - (ii) expected to cost less than \$300 million;
- (c) Aurizon Network to negotiate additional conditions (called access conditions) with users if it believes a significant investment (i.e. one that is greater than \$300 million) exposes it to additional risks that are not compensated for by other means; and
- (d) users of its network to fund the costs of a network expansion.

Aurizon Network's commitment to fund certain types of expansions (i.e. (b) above) is a voluntary commitment and could change (i.e. broader or narrower) from one undertaking to another – based on the section 119 limitations mentioned above.

For any significant investments (as described above), users have the option either to fund the expansion themselves or to negotiate access conditions.

Access conditions

Access conditions provide for Aurizon Network to receive additional returns to match proven additional risks to ensure that it still retains an incentive to undertake new projects and/or continue to invest in the network.

The access undertaking requires Aurizon Network to seek approval of the access conditions prior to imposing them on users. This requirement was included in the undertaking at the request of access seekers because of concerns that Aurizon Network would refuse to expand, or delay expansion, unless it was paid additional fees (amounting to monopoly profits).

A number of the access seekers submitted to the Authority that there may be circumstances where it may be appropriate for the access provider to earn a return on capital that is greater than its approved weighted average cost of capital (WACC) to reflect increased risks of a project. The concern was and is where the return is not reasonable, nor supported.

Access seekers told the Authority that the access provider would initiate negotiations on access, but would only reveal its conditions on investment at a later stage of the negotiations, acting to prolong negotiations.

To address these concerns, the 2010 access undertaking requires Aurizon Network to issue a report (access conditions report) to provide more transparency over the proposed access conditions. The access conditions report is required to set out the:

- (a) access conditions being sought;
- (b) additional risks it is being exposed to which it is seeking to mitigate through access conditions;
- (c) reasons these risks could not be mitigated through other means; and
- (d) reasons why it believes the proposed access conditions would not be in contravention of its undertaking or the QCA Act.

Since the approval of Aurizon Network's 2010 access undertaking, the Authority has received and approved access conditions for one major project (i.e. for the rail infrastructure required to support the development of the new Wiggins Island Terminal at the Port of Gladstone – known as the Wiggins Island Rail Project (WIRP)).

User funding

The 2010 access undertaking also includes a number of broad principles to guide the development of projects to be funded (either partially or in total) by users of the network. The key principles include:

- (a) users may opt to fund extensions, even in circumstances where Aurizon Network is willing to do so;
- (b) users need not provide the funding themselves directly but may involve other parties (users may seek debt funding);
- (c) if users intend to fund an extension, all potential users of the capacity to be created must be given an opportunity to participate in the funding of the extension in proportion to the share of the additional capacity they are seeking;
- (d) if users fund an extension, they will be compensated for their investment by receiving an amount equal to the return on and of the capital component of access charges from users of the capacity created by their investment who did not participate in user funding (with Aurizon Network being entitled to receive an amount equal to the components of access charges based on operation and maintenance costs); and
- (e) where smaller users have difficulties in providing user funding at reasonable terms from reputable financial institutions, Aurizon Network must fund up to 30% of a user-funded significant investment.

The 2010 access undertaking also provided for the future development and approval of a Standard User Funding Agreement (SUFA). It was envisioned that the SUFA would detail how Aurizon Network would extend its facility (network) at the cost of its access seekers. The purpose of the SUFA is to address as many of the detailed issues associated with user funding in advance of the time when the network needs to be expanded – which is a period where users are often subject to tight deadlines to get mining projects and the associated infrastructure developed.

Evolution of a Standard User Funding Agreement (SUFA)

Since the approval of the 2010 access undertaking, Aurizon Network has submitted two distinct SUFA draft amending access undertakings to the Authority for approval.

Aurizon Network submitted an initial draft of the SUFA to the Authority in late December 2010, which was comprised of two draft agreements. This preliminary model was subsequently set aside, as there were significant concerns over a number of key issues, including:

- (a) *tax ineffective* – it was considered that the Australian Taxation Office (ATO) would treat the user funds as income to Aurizon Network and therefore subject them to income tax (for which user-funders would be required to indemnify Aurizon Network). Users were concerned that this would make the user funding model commercially unattractive relative to the alternative of paying Aurizon Network an uplift over and above the regulated rate of return;
- (b) *cost control* – users were concerned that, as they had little control over managing the construction of the expansion, they would have little control over ensuring that the works were undertaken efficiently, but would have to fund whatever cost was incurred; and
- (c) *security* – users, or third party financiers, had limited security over the return of the contributed funds, in particular that they would be treated as unsecured creditors in the event that Aurizon Holdings Limited (Aurizon Network's parent company) became insolvent.

Given the various concerns, Aurizon Network began work on an alternative model intended to address issues raised with the first model. Aurizon Network subsequently withdrew its initial model and released a revised SUFA for stakeholders' comment in late 2011. Under this revised model, user funders would contribute the necessary funds by purchasing preference shares in a unit trust. The trust would engage contractors to construct the infrastructure and would own the assets. This proposal comprised six draft agreements.

Aurizon Network consulted widely on the unit trust model, and associated agreements, with the coal industry, from around February 2012 onwards⁶. Aurizon Network and its stakeholders have indicated to the Authority that this consultation focussed on both the key points of difference as well as the detailed drafting in the various agreements, with a view to getting a better balance of the rights and obligations of the different parties.

Stakeholders have said to the Authority that they consider that the revised proposal has resolved the tax problems associated with the earlier proposal. This view is supported by Aurizon Network's latest SUFA submission⁷, although there can be no certainty on this point until the ATO has made a binding ruling on the tax treatment of the proposed scheme. It is apparent, however, that the revised proposal does not address the two other key points of difference (i.e. cost control and security) and that at least two other significant points of difference have emerged, namely:

- (a) *the identity of the trustee for the unit trust* – Aurizon Network said it had to be the trustee for operational purposes, whereas users want an independent trustee; and

⁶ Letter from QR National to the Queensland Competition Authority; 30 April 2012. <http://www.qca.org.au/files/R-QR-Letter-2011-DAAU-Withdrawal-5012.pdf>

⁷ <http://www.qca.org.au/files/R-Aurizon-Submission-Vol3RegNotes-AurizonSUFADAAU2012-1212.pdf>; (p.18)

- (b) *certainty on the return of the contributed funds to users* – Aurizon Network says that under its proposal it has a very significant incentive to return the contributed funds to users (via distributions from the trust to the preference unit holders) but that the decision to make these distributions must be discretionary to ensure that the contributed funds are not treated as debt in Aurizon Network’s financial accounts. In contrast, users say that there must be certainty in the return of the funds in order for their Boards to approve any such contributions and to have any realistic possibility that third party investors (e.g. infrastructure funds) might be interested in being a party to the arrangements.

On 20 December 2012, Aurizon Network submitted a new SUFA to the Authority for approval. The SUFA consists of a suite of nine separate draft agreements now totalling over 700 pages.

The Authority is in the preliminary stage of its consideration of the revised SUFA as submissions on Aurizon Network’s draft amending access undertaking (which is intended to give effect to the SUFA) are not due to the Authority until 29 March 2013. Nevertheless, it is apparent that, while Aurizon Network has made some compromises on its earlier proposal, significant key points of difference between Aurizon Network and users remain outstanding.

3.2 Effectiveness of the access regime

The Authority considers that its experience in administering access undertakings approved by it in accordance with the Queensland Access Regime has raised questions over whether the current access framework is effective in managing a monopolists’ underlying incentive to limit capacity (by restricting or delaying investment in expansions) in order to push up prices and/or returns.

For example, coal industry participants have made submissions to the Authority arguing that Aurizon Network should be obliged to expand its network within the timeframes necessary to meet the needs of its users⁸. These stakeholders clearly believe that Aurizon Network has sought to prolong access negotiations and stall investments in order to strengthen its bargaining position. Aurizon Network’s customers have been of the view that they have been presented with a choice between project delays or accepting (possibly onerous) conditions on access.

In this context, the Authority notes that, when it was considering the 2010 undertaking, stakeholders submitted that Aurizon Network had unnecessarily lengthened the time taken to negotiate the terms and conditions of access on the new infrastructure that linked the Goonyella and Newlands coal systems in central Queensland (known as the Goonyella to Abbot Point expansion – GAPE)⁹. Customers said the protracted negotiations led them to accept access conditions (with a return higher than the regulated WACC) as coal project deadlines were fast approaching and access to the network needed to be secured. Customers also noted that, as their own project deadlines were approaching, there was no time to submit the matter to the Authority for arbitration.

As the Authority was not privy to these negotiations, it cannot comment on the conduct of the negotiations per se, and notes that no party at the time of negotiations formally disputed the terms and conditions of access that Aurizon Network proposed. Nevertheless, customers

⁸ Stakeholder Submissions on QR Network’s 2010 Draft Access Undertaking: <http://www.qca.org.au/files/R-2010DAU-QRC-QRN2010DAU-MinMonopPower-0610.PDF>; <http://www.qca.org.au/files/R-2010DAU-Xstrata-QRN2010DAU-0610.PDF>; <http://www.qca.org.au/files/R-2010DAU-RioTinto-QRN2010DAU-0610.PDF>; <http://www.qca.org.au/files/R-2010DAU-Anglo-QRN2010DAU-0610.PDF>
⁹ <http://www.qca.org.au/files/R-2010DAU-Anglo-QRN2010DAU-0610.PDF>; (p.10).

were clearly concerned about the efficacy of the processes involved in negotiating for network expansions.

While the 2010 access undertaking seeks to address these concerns in a manner consistent with the existing statutory framework, the missing plank in this framework is an effective SUFA.

In the time it has taken to develop a draft SUFA to the stage it is currently at, coal industry participants have again had to agree to access conditions to get Aurizon Network's agreement to proceed with the WIRP. Again, participants in this negotiation process have indicated to the Authority that Aurizon Network acted to unnecessarily lengthen the time taken to negotiate the access conditions, which resulted in customers agreeing to accept the conditions proposed so as to meet deadlines attached to associated projects¹⁰.

The WIRP access conditions provide Aurizon Network with an opportunity to earn a rate of return that is materially above its regulated WACC. While the extent of this return will be reduced if Aurizon Network is unable to deliver the project on-time and on-budget, it is also the case that Aurizon Network has not been able to fully articulate or calibrate the additional risks that justify the additional return.

This is at the same time that many other regulated businesses, such as the electricity networks and the privately owned DBCT, have proven to be more than willing to make significant investments at their regulated WACC.

The Authority is attracted to the SUFA proposal as an alternative mechanism for investment as it is consistent with the existing statutory framework and, in theory at least, also provides participants with a choice.

It provides an avenue for industry to fund an investment that will support growth; that is, it introduces contestability into the funding of expansions in an otherwise monopoly activity.

It provides a company like Aurizon Holdings Limited with an opportunity to free up funds, that could then be used to invest in a rail network elsewhere (whether that be overseas, inter-state or to a new coal basin in Queensland), in an above-rail activity or in any other activity it so chooses.

It also provides the Authority with a choice as to how interested it should be in regulating tariffs on infrastructure that has been developed in a contestable environment.

It may reasonably be assumed that the submitted SUFA proposal is effective from Aurizon Network's perspective. So these choices depend on whether Aurizon Network's proposed SUFA will be effective in providing coal industry participants with an efficient funding solution; that is, one where construction costs are effectively controlled and where the costs of finance are minimised and not exaggerated by undue complexity and uncertainty.

It is now two years since the initial SUFA model was submitted to the Authority and the new model now before the Authority for approval consists of nine agreements totalling over 700 pages. While some key matters have seemingly been resolved, a significant number of other key matters, and a myriad number of other minor matters, remain unresolved.

If this is the outcome of the statutory framework, then one must question whether there is a better way to create incentives to drive the parties together to forge a commercial solution.

¹⁰ Stakeholder submissions: <http://www.qca.org.au/files/R-2010DAU-Anglo-QRN2010DAU-0610.PDF>; (p.11); <http://www.qca.org.au/files/R-2010DAU-Xstrata-QRN2010DAU-0610.PDF> (p. 4-5)

Or indeed for a regulator to have determinative powers to effectively address the underlying monopoly problem.

The monopoly issue aside, the private sector already has well established contractual arrangements to address the construction, funding and operation of major projects of commercial parties with shared interests, but separate shareholders. Project financing principles emphasise security over funds invested and certainty on the repayments of funds invested – which may not require security over the ‘hard’ asset (i.e. the facility itself) but simply security over the income stream generated, which may be via a ‘soft’ charge that has no effect until the occurrence of a crystallising event, such as appointment of an administrator.

As elementary as these principles may sound, there is significant doubt as to whether they can be implemented effectively in the context of the National Access Regime as:

- (a) security over funds invested may, in the event of insolvency of the access provider, result in the ownership of the asset being transferred to the user funder, without provision for any type of charge, ‘hard’ or ‘soft’; and
- (b) it has been suggested to the Authority that certainty over the funds invested may result in the contributed funds being treated, for accounting purposes, as debt – which may have an adverse impact (i.e. cost) on the access provider, which would in turn be in contravention of the prohibition that an expansion should be at no cost to the access provider.

Moreover, for a user funding framework to be effective it needs to have access to sources of finance at the lowest possible cost and this may well involve third party financiers, who are not access seekers, dealing directly with the facility owner.

User funding should fit in with standard commercial practice, such as project finance, but it seems that the structure proposed in the current SUFA model does not fit with a classic project finance model, with the likely result that it becomes a costly alternative (and, hence, it may prove to be an unviable alternative).

There are a number of provisions in Part 5 of the QCA Act which restrict the actions that can be required of an access provider and in some ways limit the ability of the regulator to incentivise investment. For instance:

- (a) an access provider cannot be required to extend its network at its own cost;
- (b) the Authority cannot make an access determination that would result in another party, other than the owner of the facility, owning infrastructure; and
- (c) an access provider cannot be required to negotiate terms and conditions of access with a party that is not an access seeker.

Each of these provisions appear to be perfectly reasonable in principle as they act to protect the interests of an access provider. However, when looked at in terms of facilitating investment, each seems to create a hurdle in the development of a user funding arrangement. These issues are discussed below.

Cost and ownership restrictions

Aurizon Network accepts that the QCA Act obliges it to extend its network should another party fund that extension. However, it has also argued that the QCA Act does not allow for

it to be commercially disadvantaged (i.e. to be any costs involved) as a consequence of an infrastructure investment financed by users.

In its Issues Paper, the Productivity Commission noted that the discretion given to the regulator in making determinations allows the regulator to have a role in directing investment. In particular, the Productivity Commission notes that the regulator may ‘require the provider to extend the facility’. However, there are restrictions placed on that ability – namely, that the provider will not bear any of the costs of extending the facility, nor may the regulator make a determination that results in a third party owning any part of the facility or its extensions without the consent of that provider.

The Productivity Commission posed the following questions:

- (a) how does the capacity of the regulator to direct a provider to extend a facility assist in achieving efficient investments in infrastructure? Do the restrictions on ownership and allocation of the costs of extension set out in Part IIIA make it difficult for the ACCC to direct providers to undertake extensions?
- (b) what are the practical implications of this capacity for the funding of extensions to infrastructure?

In this context, the Authority notes that, under clause 6(4)(j) of the Competition Principles Agreement, a State or Territory access regime should incorporate the following principle:

The owner may be required to extend, or permit the extension of, the facility that is used to provide a service if necessary but this would be subject to:

- (a) the extension being technically and economically feasible and consistent with the safe and reliable operation of the facility;
- (b) the owner’s legitimate business interests in the facility being protected; and
- (c) the terms of access for the third party taking into account the costs borne by the parties for the extension and the economic benefits to the parties resulting from the extension.

The Authority considers that these principles are fair and reasonable for all parties.

However, the constraints that have been incorporated into the National Access Regime (and mirrored in the Queensland Access Regime) on the regulator’s ability to require a facility owner to expand or extend a facility, go much further than envisaged by the Competition Principles Agreement. Specifically, Part IIIA of the CCA prohibits the ACCC from making an access determination that would have, amongst other things, the effect of requiring the provider to bear some or all of the costs of extending the facility or maintaining extensions of the facility (section 44W(1)(e) of Part IIIA of the CCA, which is similar to section 119(2)(c) of Part 5 of the QCA Act).

In its 2010 draft access undertaking, Aurizon Network objected to stakeholder proposals that it should be obliged to place its own capital at risk by being compelled to invest at the regulatory cost of capital. It pointed to both sections 44W of Part IIIA of the CCA and section 119(2) of Part 5 of the QCA Act as restricting a regulator making a determination that would require the access provider to bear some or all of the costs associated with extending a facility or result in any part of the facility becoming owned by a third party.

These provisions of the legislation may prove problematic in the process of developing and implementing a proposal like a SUFA, because of the constraints they place on the ability of the regulator to make access determinations that would require a facility to be expanded. As

the Authority believes that having a workable and effective SUFA in place will be important for the continued development of the resources sector in Queensland (and, no doubt, key sectors in other jurisdictions as well), it considers that the Productivity Commission should closely look at this issue. In particular, the Productivity Commission should assess the extent to which the current legislative arrangements in this area properly reflect the wording and intent of the Competition Principles Agreement.

In particular, as noted above, the Competition Principles Agreement included the principle that a facility owner could be required to extend, or permit the extension of, a facility, with this obligation limited only by feasibility, operational requirements, the owner's legitimate business interests and fair account being taken of the costs and benefits involved. The limitations on this obligation that are now incorporated in both Part IIIA of the CCA and Part 5 of the QCA Act, especially in the areas of costs borne by the facility owner and ownership of the facility, are significantly more constraining than envisaged by the Competition Principles Agreement. The Authority considers that the Productivity Commission should investigate whether these additional limitations are acting to stifle investment in bottleneck infrastructure facilities, something that was clearly not intended by the Competition Principles Agreement.

Negotiations with a non-access seeker

An additional issue that arises under the QCA Act is that it provides for negotiations to occur between an access provider and an access seeker. This limits the potential for third party funding of an infrastructure investment. Third parties such as banks must sit behind an access seeker. Other third parties, such as port owners/operators, have expressed interest in funding infrastructure investment (as it aligns with their business interests) but would also be restricted from directly participating in access negotiations under the QCA Act as they are not access seekers.

This clause also acts to limit other forms of financing, such as the use of a special purpose vehicle to finance the project that may be a viable option for users of the network that do not have the ability to fund off their balance sheet. In other words, there may be financial options taken off the table that could act to allow all users, whether financial giants or small starter coal companies, to have the ability to finance an infrastructure investment.

The Authority considers that this also may act as a hurdle to implementation of a workable SUFA for the rail sector in Queensland.

3.3 Way forward

As the earlier discussion indicated, the Authority's experience to date with the development of SUFA has indicated that there may be some deficiencies in the way in which the existing National Access Regime deals with issues concerning investment and the willingness of access providers to invest in expansion of infrastructure facilities.

In particular, it seems that the establishment of the National Access Regime, as a response to the Hilmer review of the early 1990s, occurred in an environment whereby bottleneck infrastructure facilities were predominantly characterised by government ownership and significant excess capacity. In this environment, issues relating to incentives for facility owners to invest, and potential alternatives where they are unwilling to invest, were not high priority.

This is no longer the case, and the National Access Regime must clearly and effectively address the circumstances where a monopoly facility owner acts, as economic theory

suggests, to limit investment in new capacity to create scarcity and thereby drive up prices and returns.

The National Access Regime currently attempts to deal with this problem by providing the regulator with the power to require a facility owner to invest to expand the facility. However, this power is limited by the cost and ownership constraints discussed earlier.

Aurizon Network's SUFA has been developed in this context. The Authority's assessment of the SUFA is ongoing, and it is not yet clear whether it will prove to be workable or effective in practice.

There is, therefore, a possibility that an effective user funding arrangement cannot be developed within the framework of the National Access Regime as it currently applies. It would, therefore, seem prudent for the Productivity Commission to investigate the nature of potential changes to the National Access Regime that may be needed to better facilitate an effective user-funding mechanism for new investment. Such changes may involve:

- (a) omitting paragraph (e) from section 44W(1) of Part IIIA of the CCA (and the similar paragraph (c) from section 119(2) of Part 5 of the QCA Act), to allow the regulator to make an access determination that would provide for a facility owner to pay some of the costs of extending / expanding a facility (with a proviso that those costs be recoverable on a net present value basis);
- (b) amending paragraph (d) of section 44W(1) of Part IIIA of the CCA (and the similar paragraph (b) of section 119(2) of Part 5 of the QCA Act), so as to allow the regulator to make an access determination that would provide for a third party to become an owner of part of a facility in certain circumstances (for example, where an extension to a network is funded by a third party and connected via a connection agreement agreed in accordance with an access undertaking);
- (c) including a provision in the relevant pieces of legislation requiring a facility owner to invest in extending or expanding the facility at the regulated return in certain circumstances (perhaps incorporating a set of threshold criteria that would need to be met before any investment obligation could be enforced by the regulator);
- (d) including a provision in the relevant pieces of legislation requiring a facility owner to appropriately facilitate third party investment on fair terms and conditions where the facility owner is unable or unwilling to invest itself; or
- (e) broadening the scope of circumstances in which access disputes can be brought in relation to access intended to be provided by new capacity delivered through extension or expansion of a facility - to ensure that persons other than access seekers can bring disputes to the regulator (such as, for example, third party financiers who may invest in the development of user-funded assets).

The Authority is concerned that, in the absence of a SUFA or similar arrangement, future investment in expansion of the infrastructure needed to support continued growth and development of industries, like the Queensland coal industry, may occur at less than the optimal level. This could be because facility owners elect to invest in other businesses or because they use their monopoly power to extract higher than regulated returns for new investments.

A SUFA-type arrangement would reduce the potential for monopoly behaviour to adversely impact on the development of upstream and / or downstream industries by generating contestability in the funding for infrastructure expansions.

The Authority notes that, while potential growth in the Queensland coal sector, and the need for associated infrastructure expansions to proceed in the short term, has ameliorated recently in the face of reduction in demand from China and elsewhere, this is not expected to be the long term scenario. For example, the Interim Report of the recent Queensland Commission of Audit¹¹ identified coal royalties as a significant source of projected future revenue growth for the State – revenues are forecast to grow by an average 5.6% per annum across the Queensland Government's forward estimates, with any moderation in coal prices expected to be offset by increases in volumes.

Future growth in the coal sector can also be expected to bring significant additional economic benefits to Queensland, in the form of higher economic growth and greater levels of job creation than would otherwise be the case. However, these benefits may not be achieved if future increases in coal volumes produced do not meet forecasts because of domestic supply chain constraints. The Authority considers that a key supply chain constraint on coal export growth would be insufficient investment in necessary infrastructure caused by inadequate institutional or regulatory structures to allow investment to proceed, including those associated with the National Access Regime.

The Authority anticipates that, when the Productivity Commission releases its draft report for its inquiry into the National Access Regime, the Authority will be significantly more advanced in its assessment of the SUFA proposal that has been submitted to it by Aurizon Network, and should be in a position to provide more detailed information on these issues in a response to the draft report. Indeed, stakeholders' submissions to the Authority on the submitted SUFA are due at the end of March 2013, and the Productivity Commission may want to rely on that material to inform its draft report.

The Authority appreciates the opportunity to provide input to the Productivity Commission's review. The review is timely, coming, as it does, approximately 20 years after the release of the Hilmer report. The Hilmer report set the foundations for the establishment of the National Access Regime, a regime which the Authority believes has been of benefit to the Australian and Queensland economies. However, as time has gone on, it has become apparent that some elements of the regime, such as the investment matters discussed above, may need to be amended to make them more relevant to the structure of the Australian economy and, in particular, the changing nature of the businesses whose facilities are regulated in accordance with the regime.

The Authority considers that regulatory regimes should not be fixed in stone, but rather should evolve over time to reflect the nature of the industries being regulated and advances made in best practice regulation. One of the Authority's key roles is regulating infrastructure assets providing services to the Queensland resources industry, the future of which is fundamentally important to the future economic health of the state. In this context, the Authority is committed to ensuring that it remains on the leading edge of economic regulatory practice. The Authority views its work in attempting to facilitate more effective investment outcomes in vital export infrastructure as a prime example of this approach, and looks forward to the Productivity Commission further investigating and commenting on these issues.

¹¹ *Queensland Commission of Audit: Interim Report*, June 2012.

APPENDIX A: ECONOMIC EFFICIENCY AT THE ECONOMY-WIDE LEVEL

As noted in section 2.1.2 of this submission, the Authority:

... supports legislative amendment to the declaration provisions in Part IIIA of the CCA, and in a consistent manner to Part 5 of the QCA Act, such that the uneconomical to duplicate test considers economic efficiency at the economy-wide level.

This appendix reviews the relevant economic efficiency considerations for application of this test. The discussion below is focused on simplified hypothetical examples from rail. Similar considerations apply to the regulation of port monopolies.

Economic Efficiency

The National Access Regime was designed to address issues associated with monopoly, vertical integration and competition in markets. These are all economic concepts that should be considered within an economic framework, the focus of which is economic efficiency.

Three types of economic efficiency are relevant to any such consideration.

Allocative efficiency requires that prices accurately reflect costs. If prices accurately reflect costs, resources are produced and consumed in optimal amounts. Prices that exceed costs are inefficient because there are consumers that value the service and are willing to pay what it costs society to produce it, but are excluded from the market by the high prices. Prices below cost are inefficient because resources are used to produce the service for consumers that value the service less than the cost of resources used.

Marginal costs (the additional resources required to produce the last unit) are the relevant cost measure for assessing allocative efficiency in most markets. An unregulated monopolist could restrict output, and charge prices in excess of both average total cost and marginal cost, resulting in excess profits and an allocative efficiency loss. In the context of access, an unregulated firm vertically integrated into markets upstream or downstream from the monopoly could deny access to unaffiliated actual or potential competitors, thus preventing competition in the related markets and distorting prices further.¹²

Regulation can deal with these problems by controlling the prices charged and mandating that access be provided to the monopoly services. In markets that exhibit significant scale economies, marginal costs will be below average costs. If the price is set at marginal cost, the monopolist will be unable to recover its total costs. If price discrimination is not possible, setting prices at average total cost produces the best possible allocation of resources, given the constraint that the firm must recover its full costs (revenue sufficiency).

If price discrimination is possible, more sophisticated price structures such as two part tariffs or inverse elasticity pricing (Ramsey pricing) could allow recovery of fixed costs. These approaches seek to minimise the distortions associated with a move away from a universal marginal cost pricing rule as at least some customers would pay prices at or closer to marginal costs. In the context of

¹² The efficiency effects of leveraging a monopoly from one market to another are uncertain. Under certain (restrictive) assumptions, monopoly profits would not be enhanced if the unregulated monopolist extends its monopoly through vertical integration. This reflects the concept that there is only one monopoly profit to be captured. The monopolists would generally prefer competitive prices in adjacent markets to encourage demand for the monopoly service. However, by foreclosing upstream or downstream competition through vertical integration and denial of access, future competitive entry into the monopoly market itself may be deterred. Potential competitors in the adjacent markets are often the best positioned to enter and compete in the monopoly market when technology, cost or demand conditions change. Moreover, the best way to encourage a competitive result is through competition itself. Multiple firms rather than a single regulated firm may have the better ability to stimulate demand in adjacent markets.

access, it is important that price discrimination is not used by the monopolist to favour affiliated companies.

Productive efficiency means that goods and services are produced at the lowest possible cost. Resources are not wasted in the delivery of the service. Competitive markets achieve productive efficiency because inefficient suppliers will be driven out of the market by more efficient firms. Monopolists may operate inefficiently simply because they do not face competitive pressures to control costs. That is, a monopolist is unlikely to be driven from the market simply because it has adopted strategies that seek to do things other than minimise costs. This is not an optimal outcome from society's perspective, as its scarce resources may be wasted, and it is not optimal from the monopoly's owner's perspective, as profits will not be maximised.

Dynamic efficiency refers to the timely introduction of new products, services and cost-reducing innovations. Allocative and productive efficiency are typically assessed with a given set of products and services and current technology. Dynamic efficiency essentially refers to achieving allocative and productive efficiency over time. Achieving efficiency over time will ordinarily require firms to invest in new facilities or new technologies. In competitive markets firms are required to improve productivity by introducing new ideas and better ways of producing their output and delivering that output to their customers. Firms that can do these things will enter the market and grow, firms that are unable to do these things will stagnate, lose market share and maybe even exit the market.

Left to its own devices, a monopolist will not be exposed to the normal pressures of a competitive market to drive allocative, productive and dynamic efficiencies. Government intervention, either by regulation and/or ownership, can seek to address these issues and thereby to maximise economic efficiency. However, any decision to regulate (or own) a monopoly must consider the costs of regulation (ownership) and the potential for regulatory (ownership) failure.

Application to Rail Access

Allocative and Productive Efficiency

Below-rail infrastructure exhibits substantial economies of scale, making it a natural monopoly in many cases in Queensland. Other forms of transport are generally not competitive with rail, especially for coal or other bulk minerals, which cannot be economically transported by road.

A single, unregulated below-rail provider could charge prices in excess of cost and earn monopoly profits, which leads to a loss of allocative economic efficiency. Entry by a second below-rail provider would not guarantee competition. Two providers are generally not sufficient to stimulate a competitive result. Oligopolists may cooperate rather than compete. If the second provider is a vertically integrated upstream or downstream provider, it may refuse to grant reasonable access to other actual or potential upstream or downstream competitors.

There may be cases where a second below-rail provider may enter in spite of the natural monopoly conditions. For example, an upstream minerals producer might find it necessary to build its own facility if the first entrant refuses to carry its shipments, charges high prices or provides inferior service. In this case there is a loss of productive efficiency as the full benefits of scale economies are not realised in the market.

If there are vertical economies, it may be inefficient to provide service to independent firms upstream or downstream from the below-rail monopoly. For example, the costs of coordinating above-rail movements with the downstream firm may be significant. However, claims of vertical economies must be considered carefully. Experience in other sectors (for example, telecommunications) suggests that claims of vertical or systems economies are often overstated. Hypothetical problems are solved when firms have an incentive to cooperate.

If there are true significant vertical economies, this may imply that the natural monopoly encompasses two stages of production. Regulated access upstream or downstream from this extended monopoly is necessary to prevent the exercise of market power.

Dynamic Efficiency

Regulating access may have either positive or negative dynamic efficiency consequences, depending on circumstances. An important argument in favour of requiring access to natural monopoly facilities is that the competition that is enabled upstream or downstream from the monopoly may stimulate more innovation and investment at those levels. Firms in adjacent markets are often the most likely potential entrants into the monopoly market if technology changes or the market grows.

On the other hand, investing in infrastructure with significant sunk costs is often risky.¹³ Risky investments require a high potential return. These investments may not be made if the upside benefits to such investments are subject to a regulatory cap.¹⁴ Therefore, subjecting a firm considering a risky investment to the added risk of access regulation may deter investment.

If regulation limits or prevents investment, all of the potential economic efficiency enhancements from that investment will be reduced or lost. There will also be efficiency losses if the investment would have resulted in lower production costs. Finally, if investment in new products and services is not made because of regulatory risk, there are negative implications for dynamic efficiency.

In some cases there may be a trade-off between allocative and productive efficiency on the one hand and dynamic efficiency on the other. In general, dynamic efficiency investments that create new markets or expand existing ones will have large efficiency benefits that in many cases outweigh allocative efficiency losses.

Regulators should have the flexibility to weigh these dynamic considerations in considering whether access should be granted. However, as discussed above, the simple possibility of such regulation may deter efficient investment. One solution to this problem is to establish a policy of not subjecting investments by new entrants or new investment by currently unregulated firms to the possibility of immediate access regulation.¹⁵

Investments by existing regulated monopolists are more problematic. A firm subject to regulation through undertaking may not be able to capture the full upside benefits of a risky investment, but at the same time may have some downside risk protection. These downside risks can be addressed by establishing a formal regulatory compact whereby prudent investments are not stranded – these regulatory arrangements can also be supported by long-term take-or-pay contracts with the facility's customers.

Incremental investments by established regulated infrastructure firms are generally less risky than investment by new entrants. These firms already have an established customer base and in many cases also have reasonable surety of 'revenue adequacy' for a large portion of operating costs and capital expenditure.

¹³ Sunk costs are those costs associated with investment in long-lived physical or human assets whose value in alternative uses (that is, for different products or at different locations) is lower than its intended use. If an entrant is unsuccessful, the sunk costs cannot be recovered.

¹⁴ The expected value of a risky investment is the range of potential profit outcomes multiplied by the probability of occurrence. Access regulation, or the threat of access regulation, puts a ceiling on potential returns. See King, S. (2000), Access: what, where and how, in Productivity Commission, Achieving Better Regulation of Services, Conference Proceedings, pp.63-93, June.

¹⁵ See Gans, J and King (2003), 'Access holidays for network infrastructure investment', Agenda, 10 (2), pp. 163-78.

As noted in section 2.1.1 of the submission, changing one of the bases for access regulation from a ‘natural monopoly test’ (which considers economic efficiency) to a ‘private profitability test’ may provide an opportunity for existing regulated access providers to challenge the declarations under which they currently operate. The ‘economic efficiency in all markets test’ proposed here would require investigation into upstream or downstream impacts.

The upstream customers of a railroad could be negatively impacted by revocation of a declaration. As noted in section 2.1.1, ‘many coal miners in Queensland have made significant investments on the basis that they would continue to receive access, on reasonable terms, to former government owned infrastructure facilities.’ The presence of access regulation has reduced the risk of upstream exploration and development. Changing the rules mid-course could be seen as unfair given the reliance these miners have placed on regulation, with long term negative implications for mineral exploration and development markets.¹⁶

Denying access or charging monopoly access rates will restrict output in the upstream market, thus reducing economic efficiency. Some might argue that the major impact of this change would be to shift economic rents from miners to the below-rail operator with little or no allocative efficiency effect. However, even if demand is highly inelastic, higher transport costs cause some output reduction from existing mines and restrict exploration and development for new sites.

Implications for the National Access Regime

Prior to the High Court’s decision the uneconomic to duplicate criterion was interpreted as a monopoly test; that is, is it more cost effective to have, and to expand, one facility or to have two separate facilities? As a result, that earlier test focussed narrowly on productive efficiency.

Issues associated with dynamic efficiency (e.g. cost of regulation and impact on investment) could be dealt with through the public interest criterion. Issues associated with allocative efficiency (e.g. pricing behaviour) tended not to be considered at the declaration stage but at the subsequent stage whether that be negotiation/arbitration or through the consideration of an access undertaking.

As a result, the way the declaration criterion were previously considered was largely consistent with an expansive view of economic efficiency, including its various allocative, productive and dynamic aspects.

As a facility can only be declared if all of the criteria are met, the introduction of a private profitability test for the uneconomic to duplicate criterion means that the National and Queensland access regimes are no longer based on economic efficiency as the primary objective.

¹⁶ See Biggar, D. (2010), “Fairness in Public-Utility Regulation: A Theory”, *Agenda*, v.17(1). These issues will be dealt with at greater length in a forthcoming Authority Discussion Paper on regulatory objectives and the design and implementation of pricing principles.