

# Queensland Competition Authority

Final recommendation

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## Part A: Aurizon Network declaration review

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March 2020

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# 1 INTRODUCTION

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## 1.1 The existing declaration

The service that is 'the use of a coal system for providing transportation by rail' is taken to be declared under Part 5, division 2 of the QCA Act (see Box 1). This service is provided by Aurizon Network Pty Ltd (Aurizon Network) and is referred to as a 'below-rail' service.

As set out in Box 1, the service is the use of rail transport infrastructure that is part of any of the Blackwater, Goonyella, Moura and Newlands railway systems, as well as specified connections and extensions, for providing transportation by rail. These systems, connections and extensions, as defined in ss. 250(3) and (4) of the QCA Act, are collectively referred to as the central Queensland coal network (CQCEN).

### Box 1: The declared service

Section 250(1)(a) provides that 'the use of a coal system for providing transportation by rail' is taken to be a service declared under Part 5, division 2 of the QCA Act.

Section 250(3) provides that:

'For this section, **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;
  - (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; or
- (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.'

Section 250(4) provides that:

'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.'

Section 250(5) provides that '**North Coast Line** means the railway running the length of the coast of Queensland from Brisbane to Cairns'.

For the meaning of 'rail transport infrastructure' see *Transport Infrastructure Act 1994*, schedule 6 (schedule 2 of the QCA Act).

The regulatory framework for the existing declaration is the QCA Act, and currently the 2017 access undertaking (UT5). UT5 was approved by the QCA and came into effect on 21 February 2019.<sup>1</sup>

UT5 sets out the terms and conditions under which Aurizon Network provides access to the service. It also outlines the process required for an access seeker to negotiate access to the service and the way in which any disputes in relation to access are to be resolved.

In May 2019, Aurizon Network voluntarily submitted a draft amending access undertaking (the 2019 DAAU) to the QCA for approval pursuant to the QCA Act. The 2019 DAAU proposed amendments to the currently approved UT5 access undertaking. These amendments were developed by Aurizon Network 'in consultation with a significant number of Aurizon Network's customers'.<sup>2</sup> Aurizon Network described it as a 'package of agreed financial and operational modifications to UT5'.<sup>3</sup>

The consideration of a draft amending access undertaking under the QCA Act is a process that is separate from this declaration review.

In November 2019, the QCA made a final decision to refuse to approve the 2019 DAAU pursuant to the QCA Act. In doing so, the QCA said:

It is our view that Aurizon Network's UT5 DAAU would be appropriate to approve subject to the amendments identified in this decision that are consolidated in the 'Revised UT5 DAAU' at Appendix 1 as it would meet all relevant requirements of the QCA Act.<sup>4</sup>

On 4 December 2019, Aurizon Network lodged a revised 2019 DAAU with the QCA for approval, which it considered complied with the QCA's final decision (proposing two changes).<sup>5</sup>

The revised 2019 DAAU, which was approved by the QCA on 19 December 2019, extends the term of the existing access undertaking (UT5) to 30 June 2027 (unless the term ends earlier in identified circumstances, including that the service or part of the service is not declared by the Minister with effect from the expiry date of the existing declaration).

## 1.2 Aurizon Network's below-rail network

Aurizon Network is responsible for operating the CQCN, including developing and maintaining the network infrastructure (e.g. construction, maintenance and renewal) and network operations

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<sup>1</sup> More information on UT5 is available on the QCA's website, at <https://www.qca.org.au/project/aurizon-network/2017-access-undertaking-ut5/>. UT5 replaced the previous undertaking (UT4), which was due to expire on 30 June 2019.

<sup>2</sup> Aurizon Network, sub. 54, p. 2. According to the QRC, customers that signed 'the agreements' with Aurizon Network represent more than 90% of railed tonnes in the CQCN and include Anglo American, BHP, Coronado, Glencore, Idemitsu, Jellinbah, Kestrel, Middlemount, Peabody, QCoal and Yancoal (QRC, sub. 53, p. 1).

<sup>3</sup> Aurizon Network, sub. 54, p. 2.

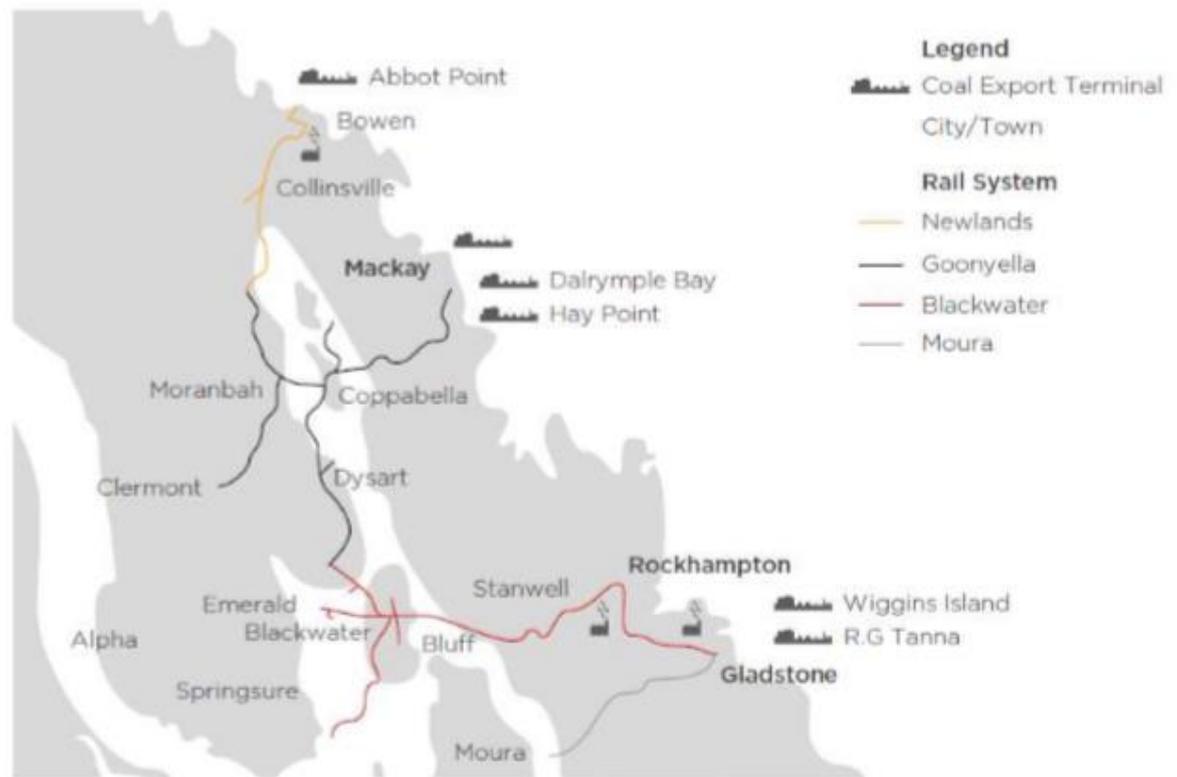
<sup>4</sup> Queensland Competition Authority, *Aurizon Network's 2019 draft amending access undertaking*, decision, November 2019, p. ii, <https://www.qca.org.au/wp-content/uploads/2019/05/ut5-daau-decision.pdf>.

<sup>5</sup> Aurizon Network, *Revised UT5 Draft Amending Access Undertaking*, letter to the QCA, 4 December 2019, <https://www.qca.org.au/wp-content/uploads/2019/05/aurizon-network-cover-letter.pdf>.

(e.g. train control and scheduling<sup>6</sup>). Rail infrastructure is governed by 99-year lease arrangements with the State of Queensland, expiring on 30 June 2109.<sup>7</sup>

The CQCN comprises approximately 2,725 km of rail network connecting over 40 mines in central Queensland to five export coal terminals, and also provides services directly to domestic coal consumers (see Figure 1).<sup>8</sup>

**Figure 1 CQCN coal systems**



Source: Aurizon Network, sub. 6, p. 37. See also schedule 1 of the QCA Act.

The CQCN includes:

- the Newlands system—311 km of track connecting Newlands with the port of Abbot Point<sup>9</sup>
- the Goonyella system—1,021 km of track connecting a number of mines in the region with the Dalrymple Bay Coal Terminal and the Hay Point Coal Terminal<sup>10</sup>
- the Blackwater system—1,171 km of track connecting mines with the Port of Gladstone (includes track between Parana and Rocklands that forms part of the North Coast Line)<sup>11</sup>

<sup>6</sup> Aurizon Network, *Below Rail Services provided by Aurizon Network Financial Statements for the year ended 30 June 2017*, December 2017, p. 3, <https://www.aurizon.com.au/-/media/project/aurizon/files/what-we-do/network/network-downloads/financial-information/an-brfs-fy17-signed.pdf>.

<sup>7</sup> QR National, *Share Offer*, 8 October 2010, p. 90, [http://media.corporate-ir.net/media\\_files/irol/23/235329/share\\_offer\\_document.pdf](http://media.corporate-ir.net/media_files/irol/23/235329/share_offer_document.pdf).

<sup>8</sup> Aurizon Network, sub. 6, pp. 36–37.

<sup>9</sup> Aurizon Network, *Newlands System Information Pack*, March 2017, p. 9.

<sup>10</sup> Aurizon Network, *Goonyella System Information Pack*, March 2017, p. 9.

<sup>11</sup> Aurizon Network, *Blackwater System Information Pack*, March 2017, p. 8; BITRE, *Freightline 4*, p. 13; Geoscience Australia, *Australian Operating Mines Map 2017*.

- the Moura system—315 km of track<sup>12</sup> connecting mines with the Port of Gladstone and servicing the industrial and rural communities of the Dawson and Callide Valley to intrastate destinations (via the North Coast Line)<sup>13</sup>
- the Goonyella to Abbot Point Expansion (GAPE)—connecting the Goonyella system and Newlands system. GAPE was built and commissioned in late 2011.<sup>14</sup>

In 2015, the Wiggins Island Rail Project (WIRP) was completed. It provided rail infrastructure enhancements to part of the Blackwater coal system to allow the transportation of coal to the Wiggins Island Coal Export Terminal (WICET).

More than half of Australia's coal exports pass over Aurizon Network's CQCN. Around two thirds of this is metallurgical coal, and the balance is thermal coal.<sup>15</sup>

Aurizon Network is a subsidiary of Aurizon Holdings Limited (the parent company). The organisational structure facilitates the separation of the management of below-rail infrastructure from the above-rail operation of train services (undertaken by Aurizon Operations). Aurizon Operations competes with other above-rail haulage operators and currently hauls around 70 per cent of the coal transported over the CQCN.<sup>16</sup>

In the 2019 financial year, 232.7 million tonnes (mt) of coal was transported over the CQCN.<sup>17</sup> In addition to the train services for coal, the CQCN supports relatively small amounts of non-coal freight, primarily operating on the North Coast Line (for these services, Aurizon Network operates a fragment of the total transport distance). On a gross tonne kilometre (gtk) basis, these traffics account for around 1 per cent of the traffic using the CQCN and include agricultural, general freight and passenger services.<sup>18</sup>

The rights for use of the CQCN are contracted with Aurizon Network through access agreements, typically entered into directly by miners with above-rail coal haulage demand requirements. However, coal haulage providers can (and do) directly enter into contracts for use of the CQCN.<sup>19</sup>

### 1.3 Overview of stakeholder submissions

During the QCA's investigation, submissions specific to the assessment of Aurizon Network's below-rail services were received from Anglo American, Australian Rail Track Corporation (ARTC), Aurizon Network, Linfox, Pacific National, Peabody Energy (Peabody) and the Queensland Resources Council (QRC).

Before the draft recommendation, submissions were received from Anglo American, ARTC, Aurizon Network, Pacific National, Peabody and the QRC. After considering these submissions,

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<sup>12</sup> Aurizon Network, *Moura System Information Pack*, March 2017, pp. 6, 9. 'Total track' includes the length/total as set out in the information pack, inclusive of track, yards, sidings and passing loops.

<sup>13</sup> Aurizon, *Moura System Information Pack*, March 2017, p. 9; BITRE, *Freightline 4*, p. 13; Geoscience Australia, *Australian Operating Mines Map 2017*.

<sup>14</sup> Aurizon Network, sub. 6, p. 37, figure 6.

<sup>15</sup> Aurizon, *2018 Sustainability Report*, p. 26, <https://www.aurizon.com.au/-/media/project/aurizon/files/sustainability/sustainability-reports/fy2018-sustainability-report.pdf>.

<sup>16</sup> QRC, sub. 7, p. 18.

<sup>17</sup> Aurizon Network, *FY2019 Maintenance Cost Report*, 31 October 2019, p. 9, <https://www.aurizon.com.au/-/media/project/aurizon/files/what-we-do/network/network-downloads/maintenance-costs/aurizon-network-annual-maintenance-cost-report-2018-2019.pdf>.

<sup>18</sup> Aurizon Network, sub. 6, p. 37.

<sup>19</sup> QRC, sub. 7, p. 31.

the QCA published a draft recommendation that Aurizon Network's service be declared for a 15-year period and set out the reasons for the recommendation.

Following the draft recommendation, further submissions and cross-submissions were received from Aurizon Network, Pacific National and the QRC.<sup>20</sup>

In June 2019, Linfox provided a late submission confirming details of its train services in Queensland and briefly provided its views in relation to the rail network owned by Aurizon Network.<sup>21</sup>

In the same month, after Aurizon Network submitted the 2019 DAAU to the QCA for approval, Aurizon Network and the QRC provided supplementary submissions primarily in relation to the impact of the 2019 DAAU on the declaration review. Both said the development of the 2019 DAAU (see section 1.1) reflected a material change in circumstances and it was relevant to consider as part of the declaration review.

In particular, Aurizon Network said the 2019 DAAU addressed a number of concerns it had raised in relation to declaration of the service and, as a consequence, it now supported declaration of its service for a period of 20 years:

The package of financial and operational benefits negotiated as part of the 2019 DAAU address a number of matters that are relevant to declaration of the service, including concerns that Aurizon Network raised in its Response Submission [submission of 11 March 2019 in response to the draft recommendation]. As a consequence of the matters agreed with industry in the 2019 DAAU, Aurizon Network is now able to support the declaration of the service for a term of 20 years until 8 September 2040.<sup>22</sup>

Aurizon Network submitted that three aspects of its submission on the draft recommendation were affected by the 2019 DAAU:

- the period of declaration, with the 2019 DAAU supporting the certainty provided by a longer-term declaration period (20 years rather than 10 years)
- the promotion of the public interest, efficient investment in rail transport infrastructure, and effectiveness of the access regime—all which would occur in the context of the 2019 DAAU, which would deliver access on reasonable commercial terms, and coupled with a 20-year declaration period would create longer-term certainty for investment
- the direct and indirect costs of regulation, with the concerns raised by Aurizon Network in its submission on the draft recommendation overcome by the 2019 DAAU, particularly the proposed financial return over the proposed longer term of the 2019 DAAU.<sup>23</sup>

Similarly, the QRC said:

Overall, the UT5 DAAU will provide greater commercial and operational certainty for Aurizon Network and for all users of the CQCN. The UT5 DAAU also includes cornerstone provisions that will likely extend beyond the term of the UT5 DAAU, including provisions in relation to capacity, maintenance, asset renewals and expansions. Accordingly, the QRC considers that the UT5 DAAU is relevant to the Aurizon Network declaration review ...<sup>24</sup>

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<sup>20</sup> Aurizon Network, sub. 32; Pacific National, sub. 28 and sub. 37; QRC, sub. 29 and sub. 45.

<sup>21</sup> Linfox, sub. 50.

<sup>22</sup> Aurizon Network, sub. 54, p. 2.

<sup>23</sup> Aurizon Network, sub. 54, pp. 2–3.

<sup>24</sup> QRC, sub. 53, p. 1.

In the context of the 2019 DAAU, the QRC maintained its view that the access criteria are satisfied for a 20-year declaration period.<sup>25</sup>

As set out in section 1.1, in November 2019, the QCA made a final decision to refuse to approve the 2019 DAAU pursuant to the QCA Act. However, the QCA considered it would be appropriate to approve the 2019 DAAU subject to amendments made to it as identified in the decision and consolidated in the revised 2019 DAAU<sup>26</sup>. The QCA noted the consensus position of stakeholders (and its approach to those positions in the context of its statutory role):

Overall, the Revised UT5 DAAU reflects the consensus positions that have been developed in consultation with a diverse and overwhelming number of coal users.<sup>27</sup>

On 4 December 2019, Aurizon Network lodged with the QCA for approval, a revised 2019 DAAU which it submitted complied with the QCA's final decision (proposing two changes).<sup>28</sup> It was approved by the QCA on 19 December 2019.

#### The QCA's assessment of the supplementary submissions

The issue is not whether a particular party agrees that a service should be declared, but rather whether or not the QCA is satisfied on the information before it that each of the access criteria are met for the service or part of the service.

In assessing whether or not the access criteria are met for the service or part of the service, the QCA has taken all submissions provided by interested parties into account in the relevant stages of the review, including the supplementary submissions. Summaries of submissions set out in the draft recommendation are cross-referred in this recommendation where indicated.

## 1.4 Summary of key positions and final recommendation

The QCA's final recommendation for the Aurizon Network service and an overview of the QCA's position in relation to the access criteria are summarised below (Table 1).

Having considered all the information provided, the QCA remains of the view the access criteria are met with respect to Aurizon Network's service and therefore the QCA recommends that the service described in s. 250(1)(a) of the QCA Act be declared.

Much of the analysis and reasoning in the QCA's draft recommendation is still applicable in reaching this conclusion. Where the QCA's analysis set out in the draft recommendation is unchanged, and is still applicable to this recommendation, that analysis is referred to. However, for the reasons set out here in Part A, the QCA recommends a period of declaration of 20 years, rather than 15 years as indicated in the draft recommendation.

**Table 1 Summary of key positions and final recommendation**

<i>QCA Act, s. 76</i>	<i>Final recommendation and overview of position in relation to each criterion</i>
	The QCA is satisfied all criteria are met and recommends declaration of the service as described in s. 250(1)(a) of the QCA Act The QCA recommends a period of declaration of 20 years
Criterion (b)	Criterion (b) is satisfied

<sup>25</sup> QRC, sub. 53, pp. 2–4.

<sup>26</sup> The revised DAAU included revisions proposed by the parties by consensus during the process.

<sup>27</sup> QCA, *Aurizon Network's 2019 draft amending access undertaking*, decision, November 2019, p. iii.

<sup>28</sup> Aurizon Network, *Revised UT5 Draft Amending Access Undertaking*, letter to the QCA, 4 December 2019.

<b>QCA Act, s. 76</b>	<b>Final recommendation and overview of position in relation to each criterion</b>
	<p>The CQCN could meet total foreseeable demand in the market over the period for which the service would be declared and at the least cost compared to any two or more facilities. The QCA is satisfied of this as:</p> <ul style="list-style-type: none"> <li>• no other service provider exists</li> <li>• there are no close substitutes for the service</li> <li>• the CQCN can satisfy total foreseeable demand at least cost</li> </ul>
Criterion (a)	<p>Criterion (a) is satisfied</p> <p>Access (or increased access) to the use of the CQCN, on reasonable terms and conditions as a result of declaration would promote a material increase in competition in at least one dependent market, namely the above-rail haulage market</p>
Criterion (c)	<p>Criterion (c) is satisfied</p> <p>The CQCN is of significance, having regard to its size and importance to the Queensland economy</p>
Criterion (d)	<p>Criterion (d) is satisfied</p> <p>Access (or increased access) to the use of the CQCN on reasonable terms and conditions, as a result of declaration would promote the public interest</p> <p>The QCA has balanced the costs and benefits of declaration and considers that:</p> <ul style="list-style-type: none"> <li>• regarding investment <ul style="list-style-type: none"> <li>– declaring the service is likely to have no adverse impact on Aurizon Network's incentives to efficiently invest in the CQCN</li> <li>– declaration would promote efficient investment in the above-rail market as well as other markets that depend on access to the below-rail service</li> </ul> </li> <li>• significant public benefits arise from the conclusions drawn for criterion (a)</li> </ul> <p>The costs associated with regulation and compliance under declaration are not likely to be excessive such as to impact on the public interest. On balance, the benefits of regulation outweigh these costs</p> <p>As the CQCN does not extend outside Queensland, the QCA has not considered s. 76(5)(a) any further</p>

## 2 CRITERION (B)—MEET TOTAL FORESEEABLE DEMAND AT LEAST COST

### 2.1 Introduction

Section 76(2)(b) of the QCA Act is expressed as follows:

that the facility for the service could meet the total foreseeable demand in the market—

- (i) over the period for which the service would be declared; and
- (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service)

Sections 76(3) and (4) of the QCA Act further state:

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

(4) Without limiting subsection (2)(b), the cost referred to in subsection (2)(b)(ii) includes all costs associated with having multiple users of the facility for the service, including costs that would be incurred if the service were declared.

The key matters in respect of s. 76(2)(b) for the below-rail service provided by Aurizon Network are summarised in the table below.

**Table 2 Summary of key positions—s. 76(2)(b) of the QCA Act**

<i>Criterion (b)</i>			
<i>Issue</i>	<i>Aurizon Network</i>	<i>Other stakeholders</i>	<i>QCA final recommendation</i>
The service and facility	The CQCN is a single facility with respect to the downstream rail haulage market. <sup>29</sup> However, a number of parts of the service have been identified and should be assessed separately	A single service as specified in s. 250(1)(a) and the facility is the CQCN	The service is a single service as defined in s. 250(1)(a) of the QCA Act The facility is the CQCN as defined in ss. 250(3) and (4) of the QCA Act On the evidence, it is not necessary to assess any part of the CQCN service separately See section 2.2
The market	Discrete services have individual market characteristics and should be assessed separately	The market is the market for below-rail services on the CQCN	The relevant market is the market for access to rail infrastructure in the coal basins served by the CQCN See section 2.3
Period for assessing total foreseeable demand	Differing periods throughout the process but in the most recent	At least 20 years, taking into account various factors, including the	20 years See section 2.4

<sup>29</sup> Aurizon Network, sub. 32, p. 14.

<b>Criterion (b)</b>			
	submission, that the QCA should not be precluded from recommending 20 years	nature of the service and the low likelihood of market, technological or other changes	
Total foreseeable demand	The CQCN is able to meet demand of 260 to 300 mtpa. No material change in demand is expected. Demand exceeding existing capacity can be met efficiently by the CQCN in expanded form	A maximum of 298.3 mtpa over the 15-year period The scope of available CQCN expansions far exceeds likely increases in demand over 20 years (including relative to 15 years)	260 mtpa to 300 mtpa over the period, although the precise level of demand does not impact the QCA's conclusions See section 2.5
At the least cost	The CQCN is likely to be able to meet demand at least cost. In any event, it is unlikely that a competing facility would be developed Criterion (b) would be satisfied	The CQCN (with moderate expansions) will meet foreseeable demand at the least cost over at least 20 years	The CQCN could meet total foreseeable demand at least cost compared to any two or more facilities See section 2.6

## 2.2 The service and facility

In order to assess Aurizon Network's service against the access criteria, the relevant service and facility subject to the assessment must be identified. In respect of Aurizon Network, the existing declaration provisions in the QCA Act set out descriptions of the:

- service (s. 250 (1)(a))—'the use of a coal system for providing transportation by rail'
- facility (ss. 250(3) and (4))—'rail transport infrastructure' that is part of the Blackwater, Goonyella, Moura or Newlands railway systems, as well as specified connections and extensions, for providing transportation by rail (e.g. GAPE is an extension of the type provided for within this provision).<sup>30</sup>

The facility—that is, the systems, connections and extensions as set out above—is collectively referred to as the CQCN. For the sake of brevity, the QCA describes the service outlined above as the 'CQCN service'.

### 2.2.1 Stakeholder submissions

Stakeholders did not dispute that the service is defined in s. 250(1)(a) of the QCA Act and the facility for the service is defined in ss. 250(3) and (4) of the QCA Act. However, Aurizon Network had different views to other stakeholders on whether the CQCN service should be analysed as a single service or a series of smaller services (or 'parts').

Aurizon Network acknowledged use of the CQCN would comprise use of a single facility with respect to the downstream rail haulage market.<sup>31</sup>

<sup>30</sup> 'Rail transport infrastructure' is defined by reference to schedule 6 of the *Transport Infrastructure Act 1994*. GAPE was completed in late 2011 and connects the Goonyella and Newlands systems.

<sup>31</sup> Aurizon Network, sub. 32, p. 14.

However, Aurizon Network said each part of the CQCN service must be considered in order to declare the service:

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.<sup>32</sup>

Aurizon Network also said:

[A]ccess 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.<sup>33</sup>

In addition, following the draft recommendation, Aurizon Network said geographical extensions to the facility should be excluded from the scope of the declaration and were unlikely to satisfy the access criteria:

Aurizon Network considers that including geographical extensions of the network is inconsistent with promoting facilities-based competition and would be contrary to ensuring the scope of the declaration narrowly applies only to those services for which the access criteria are satisfied.<sup>34</sup>

Aurizon Network provided further reasons in support of its approach to part services:

- All relevant (upstream and downstream) markets and the part services applicable to those markets should be assessed separately.
- Given the substantial direct and indirect costs of regulation, the policy objectives of the review are to ensure declaration applies only to a very narrow scope of services that continue to satisfy the access criteria.

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<sup>32</sup> Aurizon Network, sub. 6, p. 8.

<sup>33</sup> Aurizon Network, sub. 6, p. 38.

<sup>34</sup> Aurizon Network, sub. 32, pp. 3, 12.

- The existing regulatory framework is inconsistent with a single declared service—for example, prices are set on the basis of discrete regulatory coal systems.<sup>35</sup>

Other stakeholders did not agree and considered the CQCN as a whole should be assessed against the access criteria.<sup>36</sup> The QRC said nothing in the QCA Act requires the QCA to deconstruct the service into a series of smaller services, and then apply the access criteria to each one. Further, there is no evidence in relation to the CQCN that demonstrates any part of the service is either itself a service or has characteristics that require different or further consideration from that given to the service as a whole.<sup>37</sup>

Notwithstanding its views on assessing the 'part services' it had identified, Aurizon Network said that criterion (b) is satisfied for its service (that is, use of the CQCN).<sup>38</sup>

### QCA analysis

The QCA's task and approach to undertaking the assessment of criterion (b) are discussed in Overview—Chapter 2. The QCA's view is that:

- the necessary starting point for its analysis is to consider whether the service defined in s. 250 satisfies the access criteria
- there is no requirement to separately consider and determine whether each 'part' of the CQCN service satisfies the access criteria before it can recommend that the service be declared.

Under this approach, the QCA did not preclude considering whether only part of the service satisfies the access criteria. However, in considering this, the task is not to separately apply the access criteria to each 'part' of the CQCN service identified by Aurizon Network. Rather, the QCA has considered whether there is any part of the CQCN service that exhibits characteristics that suggest it may not satisfy one or more of the access criteria. Only where such characteristics are identified is it necessary to consider whether only part of the CQCN service satisfies each of the access criteria.

The QCA has considered Aurizon Network's views and supporting information, as well as the views of other stakeholders, and does not consider it is appropriate to assess any part of the CQCN service separately against the access criteria. No new information was raised in response to the draft recommendation that caused the QCA to reconsider its view that it is appropriate to assess the CQCN service as a whole, including in relation to use of 'geographical extensions' falling within the scope of the service pursuant to s. 250(4) of the QCA Act. Section 2.2.1 of Part A of the QCA's draft recommendation provides a discussion of Aurizon Network's 'part services' and the reasons why the QCA does not consider it is appropriate to assess any of these parts separately against the access criteria.

The QCA therefore does not consider it necessary to categorise separate services based on the purpose for which a customer uses the service (i.e. the type of goods transported) or by individual coal systems as suggested by Aurizon Network. Certain matters outside the scope of this

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<sup>35</sup> Aurizon Network, sub. 32, pp. 3, 5–8, 13–14.

<sup>36</sup> Anglo American, sub. 14, p. 2; Pacific National, sub. 9, p. 13; QRC, sub. 20, pp. 5–6, sub. 29, p. 4, sub. 45, p. 2.

<sup>37</sup> QRC, sub. 29, p. 4. See also QRC, sub. 20, pp. 6–7; QRC, sub. 20, attachment 1, p. 5, paras 13–14.

<sup>38</sup> Aurizon Network, sub. 32, p. 3, sub. 54, pp. 1, 3.

declaration (e.g. future connections to the CQCN from new coal basins) have not been considered further.

Aurizon Network itself appears to view the service more broadly as the use of an 'integrated and interconnected heavy haul rail transport network'.<sup>39</sup>

Accordingly, the QCA is satisfied it is appropriate to proceed on the basis that:

- the service is a single service (as defined in s. 250(1)(a) of the QCA Act)
- the facility is the CQCN (as defined in ss. 250(3) and (4) of the QCA Act)
- it is not necessary to assess any part of the CQCN service separately.

## 2.3 The market

### 2.3.1 Background

Aurizon Network operates and manages the CQCN. The CQCN is Australia's largest coal rail network, with 2,725 km of multi-user rail infrastructure. It comprises four major coal systems and connects more than 40 mines to five major export ports, plus domestic coal consumers.<sup>40</sup> The CQCN is a pivotal component to Queensland's coal industry, transporting more than half of Australia's coal exports.<sup>41</sup>

The CQCN is also used by a small number of non-coal-carrying services (including services that primarily use the Queensland Rail infrastructure but traverse sections of the CQCN as part of their overall journey).<sup>42</sup>

Three haulage operators currently operate on the CQCN:

- Aurizon Operations—the largest haulage provider operating on the CQCN. The company is a related body corporate of Aurizon Network
- Pacific National—commenced operations in 2005 as a provider of haulage services<sup>43</sup>
- BMA Rail—commenced operations in 2014 and provides haulage services exclusively to related coal producer, BHP Billiton Mitsubishi Alliance (BMA).<sup>44</sup>

Aurizon Operations' share of the CQCN above-rail haulage task is around 70 per cent, with the balance reflecting Pacific National's share of around 25 per cent and BMA Rail's share of 5 per cent.<sup>45</sup>

Aurizon Network enters into access agreements for the supply of CQCN services with haulage operators or mining companies (in which case haulage operators use the access rights under separate train operator agreements to provide haulage services to mines).

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<sup>39</sup> Aurizon Network, *2017 Draft Access Undertaking*, 30 November 2016, p. 3, [https://www.qca.org.au/wp-content/uploads/2019/05/31166\\_Aurizon-Network-submission-on-the-2017-DAU-1.pdf](https://www.qca.org.au/wp-content/uploads/2019/05/31166_Aurizon-Network-submission-on-the-2017-DAU-1.pdf).

<sup>40</sup> Aurizon Network, *What we deliver/Network*, <https://www.aurizon.com.au/what-we-deliver/network>.

<sup>41</sup> Aurizon Network, *2017 Draft Access Undertaking*, 30 November 2016, p. 16.

<sup>42</sup> Pacific National, sub. 9, pp. 2–3.

<sup>43</sup> Pacific National, sub. 9, pp. 3, 7.

<sup>44</sup> Pacific National, sub. 9, p. 7.

<sup>45</sup> These percentages are based on Pacific National FY17 55 mt (Pacific National, sub. 9, p. 7, figure 1), Aurizon Operations FY17 143.5 mt and CQCN FY17 210.8 mt (Aurizon, *Appendix 4E*, ASX announcement, 13 August 2018, pp. 8, 11, <https://www.aurizon.com.au/investors/asx-announcements>).

The demand for haulage services comes predominantly from the coal mines, spread across central Queensland, for the transport of coal from mine to port for export (95%). The remaining demand relates to the transport of coal for domestic customers (4%), other freight (e.g. intermodal) and passengers.<sup>46</sup>

### 2.3.2 Stakeholder submissions

Most stakeholders agreed that the relevant market relates to the use of a below-rail service. However, stakeholders expressed different views on the nature of this market:

- Aurizon Network submitted that each of the CQCN 'part services' it identified had unique characteristics and a range of markets were relevant, all of which should be assessed against the access criteria to positively affirm the access criteria for each of those services are met.<sup>47</sup>
- Other stakeholders submitted that the relevant market is the market for use of the below-rail infrastructure that makes up the CQCN as a whole (the below-rail market). In this market, stakeholders said there are no substitutes for the CQCN service—for example, there are no alternative below-rail facilities and, for a number of reasons, road haulage is not considered a viable option.<sup>48</sup>

Stakeholders, including Aurizon Network, broadly agreed it is unlikely any competing facilities will be developed based on current information and market projections.<sup>49</sup> Also, Pacific National said that given fixed costs of construction, the CQCN would have large cost advantages over new facilities.<sup>50</sup>

### 2.3.3 QCA analysis

Consistent with the approach outlined in Overview—Chapter 2, the QCA has considered the market in which the service is provided, including any other service able to be substituted for, or otherwise competitive with, the service.

Stakeholders' views differed in respect of what the relevant market was for the assessment. However, stakeholder views were largely aligned on other factors relevant in defining the market.

As outlined in section 2.2, the QCA is of the view that it is appropriate to consider the CQCN service as a whole. The QCA considers the market in respect of this service is properly characterised by the interaction between:

- Aurizon Network—as the entity providing access to, and coordinating the use of, its rail infrastructure, and
- access seekers/holders using Aurizon Network's rail infrastructure.

The QCA tested the merits of Aurizon Network's views and, based on its own analysis and other stakeholder comments, does not consider it is appropriate to separate the market for the CQCN service into smaller parts. Aurizon Network's views on there being discrete markets for the below-rail service go to the nature of demand for use of the CQCN and, in particular, the fact that demand for above-rail services is a derived demand. However, the underlying nature of the market in which use of the CQCN is provided is the same. In this market, Aurizon Network

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<sup>46</sup> Aurizon Network, sub. 6, p. 37, table 2.

<sup>47</sup> Aurizon Network, sub. 19, pp. 30–31, 35.

<sup>48</sup> QRC, sub. 7, p. 31; Pacific National, sub. 9, p. 13; Peabody, sub. 2, pp. 3, 13. Anglo American, sub. 14, p. 3.

<sup>49</sup> Aurizon Network, sub. 54, p. 3; Peabody, sub. 2, p. 4; QRC, sub. 53, p. 3.

<sup>50</sup> Pacific National, sub. 9, p. 13.

provides the use of below-rail infrastructure for transportation by rail on the CQCN (the CQCN service).

The QCA therefore considers that the relevant market is the market in which access is provided to the whole of the CQCN.

### CQCN service substitutes

Generally, stakeholders did not dispute the fact there are no close substitutes for the CQCN service—road transport is not a close substitute to using the CQCN for coal transportation, and there are no competing rail facilities (and this is unlikely to change in the future).

The CQCN service is a service involving the use of rail infrastructure to provide transportation *by rail*. In terms of function and capability, road infrastructure cannot be substituted for rail infrastructure for the transportation of coal, nor does the QCA consider road transportation constrains the operation of rail infrastructure. It is evident from stakeholders' submissions that, while it may be possible to use road transport temporarily or in response to an unforeseen event, customers have not availed themselves of this option in the past and are unlikely to do so in future (particularly on an ongoing basis). The QRC highlighted customer responses to Cyclone Debbie, where customers relied on stockpiling until the service came back online, providing further evidence in support of this view.<sup>51</sup>

Due to the nature and scope of the task carried out on the CQCN, rail transport is the only mode of transport capable of meeting the requirements of coal miners that involve, for the most part, transporting large quantities of coal, over considerable distances, on an ongoing and regular basis.

Moreover, there are no competing railway facilities and, on the information available, this appears unlikely to change over the proposed period of declaration. Consistent with the views put forward by stakeholders, there is no information to suggest any future rail projects would constrain or compete with the CQCN service (or parts of it).<sup>52</sup>

Accordingly, the QCA considers that the relevant market, for the purpose of applying criterion (b), is the market for access to rail infrastructure in the coal basins served by the CQCN. Further, in this market there are no other services that can be substituted for, or are otherwise competitive with, the CQCN service provided by Aurizon Network.

## 2.4 Period for assessing total foreseeable demand

Aurizon Network and its users initially had different views on what period was appropriate for assessing foreseeable demand in the market.

Peabody considered that a declaration period of 15 to 20 years was appropriate:

Consistent with all multi-user railways, foreseeable demand over this period will be satisfied at lowest cost by expanding the CQCN. The economics of railway infrastructure ... makes this economic fact almost axiomatic. While there may be a need for modest expansion of the CQCN

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<sup>51</sup> QRC, sub. 7, p. 32.

<sup>52</sup> Also see QRC, sub. 7, p. 33; Pacific National, sub. 9, p. 13. In addition, Adani released revised project plans more recently stating it no longer intended to construct its own rail line, but instead would connect to the existing (CQCN) network. See Adani's project update at <https://www.adaniaustralia.com/en/projects-businesses/rail>.

over the next 15-20 years there is no viable likelihood of duplication (or provision of a commercially sensible alternative to the service at lower cost of production).<sup>53</sup>

Similarly, Pacific National considered that a declaration period of 15 to 20 years was justified:

PN considers the benefits of a longer declaration period are clear, in circumstances where investments required to support new entry and competition are very large, long-lived and sunk. Such investments cannot be justified unless there is long-term certainty around the framework for determining terms of access to monopoly infrastructure, and the structural and behavioural constraints that will apply to the monopoly service provider.

The key economic features of Aurizon Network and the CQCN which give rise to the need for regulation – i.e. its natural monopoly characteristics, significance to the Queensland economy, and the potential for exercise of monopoly power to damage competition in dependent markets – are unlikely to change any time in the foreseeable future.

...

Given this, PN considers that a declaration period of at least 15 years is justified. Indeed, we consider that a 15 year term would be highly conservative, and the QCA could comfortably recommend declaration for at least another 20 years. This more closely aligns with Aurizon's network plan development which goes beyond 15 years.<sup>54</sup>

Prior to the QCA's draft recommendation, the QRC contended that the service provided by Aurizon Network should be declared for a minimum of 15 years, although it considered that a longer declaration period would also be appropriate for a number of reasons, including the unlikelihood of technological or other significant changes occurring.<sup>55</sup>

Following the release of the QCA's draft recommendation, the QRC stated its view that the access criteria are satisfied for at least a 20-year declaration period:

The QRC considers that the access criteria would also be satisfied over at least a 20 year declaration period, including because:

- such a period would provide significant certainty for users of the Service, who lack the protections offered by evergreen renewal rights enjoyed by Dalrymple Bay Coal Terminal users, while balancing the interest of Aurizon Network in having the CQCN subject to declaration only as long as is necessary;
- mining operations typically have an economic life of 20-30 years, during which access to the Service will be required. As a result, declaration of rail access services has typically been for long periods of time. For example, as noted by the QCA, the service provided by the Goldsworthy Railway (Western Australia) was declared for 20 years;
- the QCA's conclusions that substantial changes in the market for the Service are unlikely over a 10 to 15 year timeframe are equally applicable to a 20 year (or longer) timeframe. No other service provider is likely to enter the market due to the breadth of the service offered by Aurizon Network; and
- a 20-year (or longer) declaration period allows the QCA to make sufficiently robust predictions about the future market conditions, while also providing an opportunity for review. The QCA should consider total foreseeable demand and factors that may affect this over the proposed (at least) 20 year declaration period. The QRC agrees with the QCA's analysis that these factors are relatively certain. The QCA can therefore predict future market conditions over a 20-year declaration period with a reasonable degree of

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<sup>53</sup> Peabody, sub. 2, p. 4.

<sup>54</sup> Pacific National, sub. 37, p. 23.

<sup>55</sup> QRC, sub. 7, pp. 10–11, sub. 20, pp. 16–17.

certainty. In any event, as noted by the QCA, the level of demand should not impact the QCA's conclusions.<sup>56</sup> [footnotes omitted]

Subsequently, the QRC provided a supplementary submission in the context of the 2019 DAAU (in June 2019), which reiterated its view that the access criteria are satisfied for a period of 20 years, and that the CQCN is able to meet total foreseeable demand at least cost for a 20-year period. In relation to criterion (b), the QRC said:

- Aurizon Network, based on its own network development plan (NDP), has significant scope and a wide range of options to expand the CQCN.
- The capacity that would be delivered if Aurizon Network fully exercised its scope to expand the CQCN would far exceed the capacity required to address the likely increase in total foreseeable demand when assessed over a 20-year period relative to a 15-year period.
- It is likely to be more economical for Aurizon Network to incrementally expand the CQCN than for an alternative facility to be developed.
- An alternative service provider for the provision of below-rail services is unlikely to enter the market given the scale required for a competing service to be commercially viable.<sup>57</sup>

Prior to the draft recommendation, Aurizon Network submitted that the period for declaration should not exceed 5 years, on the basis of the very significant regulatory failures it identified and the necessity for regular comprehensive reviews to ensure regulation is meeting its objectives.<sup>58</sup>

Following the release of the QCA's draft recommendation, Aurizon Network submitted (in March 2019) that while it might be expected that the service will be declared for a period beyond 10 years, this should not preclude reviewing the declaration within 10 years to ensure that market conditions may not be expected to change:

Aurizon Network also considers that once a service has been effectively reviewed against the access criteria, as the QCA is currently doing, then it is reasonable to expect that the service will continue to satisfy the access criteria in the absence of any material change in market conditions. In this regard, while it might be expected that the service will be declared for a period beyond 10 years this should not preclude reviewing the declaration within ten years to ensure that market conditions may not be expected to change in the period beyond ten years. This is important as the access criteria requires consideration of the expected market conditions to prevail over the period.

Aurizon Network considers that while it might be expected that the access criteria would be satisfied for a period beyond 10 years the Draft Recommendation does not establish the economic principles for extending the period for 'review' of the declaration beyond ten years.<sup>59</sup>

However, Aurizon Network also said that total foreseeable demand proposed by the QCA of 260 to 300 mtpa for the period of 15 years can likely be satisfied at least cost from the existing CQCN.<sup>60</sup>

Subsequently, in Aurizon Network's supplementary submission (June 2019), Aurizon Network submitted the CQCN is able to meet foreseeable demand for a period of 20 years:

Aurizon Network's Response Submission agreed that the total foreseeable demand proposed by the QCA of 260 to 300 million tonnes per annum for the recommended term of 15 years can likely be satisfied at least cost from the existing CQCN facility.

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<sup>56</sup> QRC, sub. 29, p. 3. See also QRC, sub. 45, p. 4.

<sup>57</sup> QRC, sub. 53, p. 3.

<sup>58</sup> Aurizon Network, sub. 6, pp. 6, 49, sub. 19, pp. 32–33.

<sup>59</sup> Aurizon Network, sub. 32, pp. 8–9.

<sup>60</sup> Aurizon Network, sub. 54, p. 3. See also sub. 32, p. 3.

While there is uncertainty as to the likely foreseeable demand for the period beyond 15 years, Aurizon Network is not aware of any relevant market projections which involve a material change in demand above the current capacity of the CQCN which could promote the development of a competing below rail service.

If the demand in the additional 5-year period was to be lower than that within the initial 15 years, then there would be sufficient available capacity to meet that demand.

Alternatively, if the total foreseeable demand was to exceed the capacity over the initial 15-year term of the CQCN then that incremental demand for the transportation of coal by rail to the coal export terminals connected to the CQCN would likely be met at least cost by the CQCN through an economically and technically feasible expansion to the facility.

On this basis, the uncertainty of the total foreseeable demand in relation to the additional five years from the draft recommendation should not preclude the QCA recommending a period of declaration of 20 years.<sup>61</sup>

In the context of the 2019 DAAU, Aurizon Network also supported a longer declaration period of 20 years.<sup>62</sup>

### 2.4.1 QCA analysis

The QCA recommended a period for declaration of 15 years in the draft recommendation. Based on the evidence before it at the time, including stakeholders' submissions made prior to the draft recommendation, the QCA was satisfied that the facility for the service could meet total foreseeable demand in the market over the proposed 15-year declaration period.

Based on the stakeholder submissions received following the draft recommendation and on all of the evidence before the QCA, the QCA is now satisfied that the period for assessing total foreseeable demand should be 20 years.

In assessing a 20-year declaration period, the QCA has taken into account a range of matters including:

- the interests of all parties to have certainty over the period of declaration, while providing for the declaration to be periodically reviewed to account for new and relevant information<sup>63</sup>
- expected developments impacting demand and other changes in the market for the service<sup>64</sup>
- the ability of the CQCN to satisfy total foreseeable demand at least cost, either in existing or expanded form
- the nature of the investments that rely on the CQCN, for example, companies who made significant investments in long-life assets in expectation of access, such as investments in rollingstock and mining operations<sup>65</sup>
- Aurizon Network's planning horizon, which is up to 15 years (and beyond)<sup>66</sup>

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<sup>61</sup> Aurizon Network, sub. 54, p. 3.

<sup>62</sup> Aurizon Network, sub. 54, p. 2.

<sup>63</sup> See also section 2.4.2 of Part A of the draft recommendation (Periodic review of declarations).

<sup>64</sup> See also section 2.4.2 of Part A of the draft recommendation (Timing of future market changes).

<sup>65</sup> See also section 2.4.2 of Part A of the draft recommendation (Long term certainty and asset lives).

<sup>66</sup> Aurizon Network, *Network Development Plan 2016–17*, pp. 3–4.

- all submissions from stakeholders, including those which provided additional information that support a view that a longer period for declaration than that recommended in the draft recommendation was appropriate.

In particular, the QCA notes the submission from Aurizon Network (in June 2019) that it considered the facility for the service has sufficient available capacity (either in existing or expanded form) to meet total foreseeable demand in the market over a 20-year declaration period, and at the least cost compared to any two or more facilities.<sup>67</sup> Aurizon Network's position is supported by stakeholders including the QRC, which also considered that the facility for the service could meet the total foreseeable demand in the market over a 20-year period at least cost, compared to two or more facilities.<sup>68</sup>

Having had regard to these matters, the QCA is satisfied that it is able to form a view on total foreseeable demand over a 20-year period and that it is appropriate to do so in all the circumstances.

## 2.5 Total foreseeable demand over the declaration period

### 2.5.1 Stakeholder submissions

The QRC submitted total foreseeable demand estimates (Table 3) for the below-rail market over a 15-year period, based on the expert report by RBB Economics.

**Table 3 QRC's total foreseeable demand estimate for the below-rail market**

<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
248.6	257.4	258.7	259.3	260.8	268.5	256.1	257.2
<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>	<b>2034</b>	<b>2034[sic]</b>
271.1	276.0	271.4	278.1	279.2	292.9	298.3	281.0

Source: QRC, sub. 7, p. 12.

The QRC said total foreseeable demand in the below-rail market was expected to reach a peak of 298.3 mtpa (excluding outliers) during the 15-year period.<sup>69</sup>

While the QRC did not provide demand estimates over a 20-year period, it said under any reasonable estimate of demand over at least a 20-year period, the CQCN will be able to meet demand at least cost.<sup>70</sup>

Aurizon Network did not provide demand estimates, noting there was considerable uncertainty in foreseeable demand beyond UT5 (one of the reasons it initially supported a shorter declaration period).<sup>71</sup> It observed that the QRC's total foreseeable demand estimates assume a modest 1.3 per cent annual growth rate and had mixed views on RBB Economics' approach to determining the total foreseeable demand estimates, saying some adjustments were reasonable and others flawed.<sup>72</sup>

<sup>67</sup> Aurizon Network, sub. 54, p. 3.

<sup>68</sup> QRC, sub. 53, p. 3.

<sup>69</sup> QRC, sub. 7, pp. 12, 24, 36.

<sup>70</sup> QRC, sub. 7, pp. 12, 24, 36, sub. 29, p. 3. See also QRC, sub. 54, pp. 2–3.

<sup>71</sup> Aurizon Network, sub. 19, pp. 34, 37.

<sup>72</sup> Aurizon Network, sub. 19, p. 37.

Aurizon Network subsequently said that total foreseeable demand proposed by the QCA of 260 to 300 mtpa for the recommended term of 15 years can likely be satisfied at least cost from the existing CQCN.<sup>73</sup>

Finally, Aurizon Network said while there is uncertainty in likely foreseeable demand beyond 15 years, even if foreseeable demand falls outside of the range proposed (between 260 and 300 mtpa), this should not preclude the declaration period being extended to 20 years.<sup>74</sup>

### 2.5.2 QCA analysis

The QCA has considered the QRC's estimates of total foreseeable demand over a 15-year period as outlined in Table 3.

In doing so, the QCA accepts that the QRC's expert report (prepared by RBB Economics) is sufficiently detailed and robust. It uses and analyses information from QRC members (estimates of coal production) and other sources (including Wood Mackenzie) and draws on its own independent analysis—all of which form the basis for the estimate of total foreseeable demand the QRC proposed.<sup>75</sup>

Moreover, Aurizon Network's initial concerns do not appear to raise any significant issues with the overall demand estimate the QRC proposed, which assumes a modest growth rate of 1.3 per cent over the period.

Having reviewed the detailed report provided by the QRC and other stakeholder comments, and in the absence of contrary information, the QCA is satisfied the QRC's 15-year demand estimate in Table 3 is reasonable and reflective of market information. The QCA is further satisfied, based on the submissions from stakeholders, that total foreseeable demand is likely to remain within the range proposed for a further five years—such that a declaration period of 20 years is appropriate. There is no new or updated information to suggest a different range is more appropriate, or that suggests total foreseeable demand may materially change over a 20-year period, relative to a 15-year period. The QCA also notes Aurizon Network's views that, in the event demand were to exceed the capacity of the CQCN, this capacity would likely still be met at least cost by the CQCN (via expansions).

## 2.6 At the least cost compared to two or more facilities

### 2.6.1 Stakeholder submissions

While there is broad stakeholder consensus that the CQCN can satisfy total foreseeable demand in the market at least cost, stakeholders initially did not agree on a number of inputs considered in forming this view, including the existing capacity of the CQCN and whether expansions may be required to satisfy demand.

The QRC said it was clear the CQCN can satisfy a range of demand scenarios at least cost. Based on expert information (prepared by Calibre), the QRC believed the CQCN is likely to require moderate expansion over the period. It estimated:

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<sup>73</sup> Aurizon Network, sub. 54, p. 3. See also sub. 32, p. 3.

<sup>74</sup> Aurizon Network, sub. 54, p. 3.

<sup>75</sup> The QRC's estimate does not include demand relating to non-coal traffic. However, according to Aurizon Network's estimates the volumes associated with this traffic are not material, or expected to become material in future (Aurizon Network, sub. 6, p. 46).

- around 90 mtpa of additional capacity is likely to be required
- the required additional capacity would cost around \$695 million, involving a mix of operational changes (e.g. a decrease in headway on the Goonyella system) and capital (e.g. construction of a fourth balloon loop at RG Tanna and a second balloon loop at WICET).<sup>76</sup>

In comparison, the QRC said, the cost of developing a new facility as an alternative to the CQCN would be significant—around \$20 billion. Further, it is not possible to develop a smaller facility simply to meet the excess demand requirements.<sup>77</sup>

Aurizon Network initially had reservations on various elements of the QRC's estimate; however, it did not provide an alternative set of estimates and pointed to existing reports (such as the 2016–17 Network Development Plan (NDP) and Baseline Capacity Assessment Report) to inform the review.<sup>78</sup>

Aurizon Network subsequently submitted that total foreseeable demand of 260 to 300 mtpa for the 15-year term is likely to be satisfied at least cost from the existing CQCN facility.<sup>79</sup> It also said that if demand in the additional five-year period to 2040 was to exceed the capacity over the initial 15-year term, then this could likely be met at least cost by the CQCN through an economically and technically feasible expansion to the facility.<sup>80</sup>

### 2.6.2 QCA analysis

The task of the QCA is to form a view as to whether the CQCN could meet total foreseeable demand in the market over the period for which the service would be declared at the least cost compared to any two or more facilities.

The QCA notes Aurizon Network's view that total foreseeable demand of 260 to 300 mtpa is likely to be satisfied at least cost by the existing CQCN facility.<sup>81,82</sup>

In contrast, various stakeholders considered that the CQCN would require expansions to meet total foreseeable demand in the market.<sup>83</sup> Given this, the QCA has considered the situation where total foreseeable demand exceeds the existing capacity of the CQCN. The QCA is of the view that the facility for the service could be expanded incrementally to meet demand in the market at least cost compared to any two or more facilities.

The QRC's consultant (Calibre) identified a range of incremental expansion options, including the construction of balloon loops at DBCT, RG Tanna and WICET (further information is provided in section 2.6 of Part A of the draft recommendation). The expansion options identified by Calibre are not necessarily the only expansions that could be undertaken. However, they do provide an estimate of the likely cost of expanding the CQCN. In addition, the QCA notes Calibre has been guided by Aurizon Network's NDP and identified options Aurizon Network itself has set out as possibilities for expansion.

In this context, the expansion options identified by the QRC's consultant (Calibre) appear reasonable if required. The QCA's own review of the NDP shows that CQCN capacity can be

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<sup>76</sup> QRC, sub. 7, pp. 12–13.

<sup>77</sup> QRC, sub. 7, p. 13.

<sup>78</sup> Aurizon Network, sub. 19, pp. 37–39.

<sup>79</sup> Aurizon Network, sub. 54, p. 3. See also sub. 32, p. 3.

<sup>80</sup> Aurizon Network, sub. 54, p. 3.

<sup>81</sup> Aurizon Network, sub. 54, p. 3. See also sub. 32, p. 3.

<sup>82</sup> No further information has been provided by Aurizon Network to support this conclusion.

<sup>83</sup> QRC, sub. 7, p. 12; Peabody, sub. 2, p. 4.

expanded incrementally using infrastructure and operational improvements (see Appendix A). The NDP shows the CQCN can be expanded to meet foreseeable growth over the period—with existing capacity shown to be 310 mt across the CQCN, and possible growth scenarios provided for up to 630 mt, which is well in excess of the total foreseeable demand estimates being considered over the declaration period.

Even if Calibre's estimate or some other mix of options and costs identified by Aurizon Network in the NDP were adopted, it would be less costly to incrementally expand the CQCN facility than develop an alternative facility (or part facility).

Further, Aurizon Network confirmed that the CQCN can satisfy total foreseeable demand in the market, including through expansions, at a lower cost than through alternatives.

## 2.7 Conclusion on criterion (b)

Given the above considerations, including stakeholder submissions, the QCA considers the CQCN could meet total foreseeable demand in the market over a 20-year period for which the service would be declared, at the least cost compared to any two or more facilities. The QCA is satisfied in respect of criterion (b).

## 3 CRITERION (A)—PROMOTE A MATERIAL INCREASE IN COMPETITION

### 3.1 Introduction

Section 76(2)(a) of the QCA Act is expressed as follows:

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

Stakeholders made comments in respect of the assessment of criterion (a) for Aurizon Network's below-rail service.

**Table 4 Summary of key positions—s. 76(2)(a) of the QCA Act**

<i>Criterion (a)</i>			
<i>Issue</i>	<i>Aurizon Network</i>	<i>Other stakeholders</i>	<i>QCA final recommendation</i>
That access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration of the service would promote a material increase in competition in at least 1 market, other than the market for the service	Declaration is likely to promote competition in the above-rail haulage market	Declaration of the service promotes competition in dependent markets, including in the above-rail haulage market	Criterion (a) is satisfied
Identify markets other than the market for the service (dependent markets)	The above-rail haulage market is the relevant functional market for assessment	The above-rail haulage market is a dependent market which is functionally separate to the below-rail market Other markets include the market for coal exploration, coal handling services, export of coal globally and a variety of specialist mining services	The key dependent market is the above-rail haulage market. This market is separate from the market for below-rail services See section 3.2
Aurizon Network's ability and incentive to exercise market power	Aurizon Network initially submitted there are factors which constrain its ability and incentive to exercise market power	Aurizon Network's behaviour demonstrates it is willing to exercise market power in the interests of maximising value for its shareholders	There is sufficient evidence that Aurizon Network has the ability and incentive to exercise market power See section 3.3
Promote a material increase in competition in at least one market, other than the market for the service	Access on reasonable terms from declaration is likely to promote competition in the	Declaration is necessary to maintain protections for access seekers and access holders, and to promote competitive	Access (or increased access) on reasonable terms and conditions as a result of declaration would promote a

<b>Criterion (a)</b>			
	above-rail haulage market	entry to the above-rail haulage market	material increase in competition in the above-rail haulage market See section 3.4

### 3.2 Market(s) other than the market for the service

Criterion (a) requires identification of markets other than the market for the service.

The service is the use of Aurizon Network's below-rail infrastructure for transportation by rail (section 2.2), and the market for the service is the market for access to rail infrastructure in the coal basins served by the CQCN (section 2.3).

Therefore, this section is about the identification of other markets (which may be referred to as dependent markets) and whether each market is separate from the market for using Aurizon Network's service.

Stakeholders identified a range of markets as separate from the market for Aurizon Network's service, including the:

- above-rail (haulage) market
- coal tenements market
- coal exports market
- financing of coal mining tenements market
- mining related services market (e.g. operation and construction of rail infrastructure)
- other transport services markets, including passenger, freight and agricultural user markets.

Of these markets, stakeholders focused on the effect of declaration on competition in the above-rail haulage market. This too has been the primary focus of the QCA's assessment.

#### 3.2.1 Above-rail haulage market

##### Stakeholder submissions

Stakeholders identified the above-rail haulage market as the most relevant dependent market in which to assess the effect of declaration. There was consensus that this was the key market where competition is likely to be materially affected by access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration.<sup>84</sup>

Pacific National and Peabody supported this view, pointing to Pacific National's own entry and growth in this market as an example of the type of competition facilitated by declaration and effective regulation of the CQCN.<sup>85</sup>

Stakeholders also agreed the above-rail haulage market was separate to the market for Aurizon Network's below-rail service.<sup>86</sup>

<sup>84</sup> QRC, sub. 7, pp. 15–16; Pacific National, sub. 9, p. 4; Aurizon Network, sub. 6, p. 39.

<sup>85</sup> Pacific National, sub. 9, pp. 2, 11; sub. 37, p. 23; Peabody, sub. 2, p. 14.

<sup>86</sup> QRC, sub. 7, pp. 15–16; Pacific National, sub. 9, pp. 4, 11; Aurizon Network, sub. 6, p. 39.

Aurizon Network further submitted that the proper consideration of the access criteria requires a complete assessment of all relevant markets and the availability of substitutes for rail transport services within those markets.<sup>87</sup> Other stakeholders did not agree that the QCA Act requires this approach.<sup>88</sup>

### QCA analysis

The QCA is satisfied, based on the information before it, including stakeholder comments, that the above-rail haulage market is the key market relevant to the assessment and that this market is separate from the market for Aurizon Network's below-rail service. The QCA considers that with respect to:

- the above-rail haulage market:
  - haulage operators are directly dependent on access to Aurizon Network's below-rail service to compete in the above-rail haulage market
  - changes in the terms and conditions of access (including availability of access) to Aurizon Network's below-rail service could, depending on the terms imposed, have a direct impact on competition in the above-rail haulage market
- separation of the above-rail haulage market from the market for the service:
  - separate functions exist within Aurizon Holdings for the above- and below-rail functions, undertaken by separate business entities (subsidiaries of Aurizon Holdings)
  - assets required for the operation of haulage services are distinct from the provision of the service for using below-rail infrastructure
  - Aurizon Network provides its below-rail service to its related haulage operator as well as other (third party) operators (Pacific National and BMA Rail).<sup>89,90</sup>

Stakeholders agreed that the above-rail haulage market is separate from the market for the service. Aurizon Network and the QRC provided detailed evidence to support this, including legal advice and relevant precedents.

From the information presented, the QCA is satisfied the above-rail haulage market is a key dependent market and is a market separate from the market in which Aurizon Network's below-rail service is supplied.

The geographic dimension of the above-rail haulage market is likely to extend to the Bowen Basin—that is, the region serviced by the above-rail haulage operators that utilise the CQCN. However, as the QCA's conclusions on criterion (a) do not depend on the geographic dimension of the market, the QCA does not propose to define the geographic boundaries of the market with further precision.

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<sup>87</sup> Aurizon Network, sub. 32, pp. 5–6.

<sup>88</sup> QRC, sub. 45, p. 2; Pacific National, sub. 37, p. 21.

<sup>89</sup> Peabody (sub. 2, p. 4) noted Genesee & Wyoming Australia as a prospective market entrant.

<sup>90</sup> The QCA understands that Linfox, in using the North Coast and Central West systems (as it defined them), also traverses across Aurizon Network-owned rail track. Linfox engages Aurizon to perform 'hook and pull' services for the Linfox rail wagons and rail containers, using Aurizon owned locomotives. See Linfox, sub. 50, p. 1.

### 3.2.2 Other markets

In the draft recommendation, the QCA discussed a number of other markets that might also be viewed as dependent markets for the purpose of criterion (a), including:

- the coal tenements market
- the markets for the sale of thermal and metallurgical coal
- other markets, including the market for financing of coal mining developments and the market for specialist mining services.<sup>91</sup>

The QCA considers that each of these markets is separate from the market for below-rail services provided by Aurizon Network.

#### Coal tenements market

The QCA considers that the environment and conditions for competition in the coal tenements market in Queensland may be affected by declaration of Aurizon Network's below-rail service. The ability (perceived or actual) to secure access to Aurizon Network's below-rail service on reasonable terms and conditions may affect investment decisions in the coal tenements market, given that participants in this market rely on other coal chain participants when the mine enters the production phase in order to transport product from mine to port.<sup>92</sup>

#### Markets for the sale of thermal and metallurgical coal

The CQCN is estimated to transport around 260 mt of coal in 2020–21, which is broadly 20 per cent of demand for global seaborne coal.<sup>93</sup> For this reason, the QCA considers that markets for the sale of thermal and metallurgical coal are dependent markets for the purpose of this assessment.

#### Other markets

There are other markets that are separate to the market for below-rail services provided by Aurizon Network, including the market for financing of coal mining developments and the market for specialist mining services. However, given the nature of stakeholder comments and their focus on the above-rail haulage market, the QCA has not considered these markets further.

### 3.2.3 Conclusion

The QCA is satisfied that the above-rail haulage market is a dependent market for present purposes, and that access (or increased access) to Aurizon Network's service on reasonable terms and conditions as result of declaration would promote a material increase in competition in that market (section 3.5).

Therefore, despite identifying other markets that may also be dependent markets, the QCA does not consider it necessary to undertake further analysis of these other markets to reach a final view on whether criterion (a) would be satisfied with respect to such markets. The following sections outline the QCA's analysis of criterion (a) with respect to the above-rail haulage market.

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<sup>91</sup> See section 3.2.2 of Part A of the QCA's draft recommendation for further discussion.

<sup>92</sup> The coal tenements market is also discussed in detail in Part C, Chapter 4 of the final recommendation in relation to DBCT.

<sup>93</sup> G Cochrane & A Todd, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, prepared by Resource Management International for the QCA, May 2017, p. 5. See also Part A, Chapter 2.

### 3.3 Constraints on exercising market power in the absence of declaration

In considering the environment for competition in the dependent market in a future with and without declaration, the QCA has assessed whether there would be any effective constraints on Aurizon Network's ability and incentive to exercise market power in the absence of declaration.

The starting point for this analysis is to recognise that Aurizon Network:

- faces no competition from other rail networks in providing rail infrastructure access
- provides a service that is essential to enable transportation by rail, mainly to transport coal from mine to port for export
- is the only service provider in this market and is vertically integrated with its above-rail operations.

If Aurizon Network is not constrained by direct competitors, the question is whether there are factors, other than declaration, that would constrain Aurizon Network in the above-rail haulage market.

#### 3.3.1 Stakeholder submissions

Initially, Aurizon Network raised a range of concerns with the operation of the existing regulatory regime under declaration, including that it is costly and is an ineffective instrument to address issues that are more efficiently resolved through commercial negotiations.<sup>94</sup> It outlined the substantial constraints on its ability to exercise market power in the absence of declaration, including under alternate forms of state or national regulation, the threat of regulatory intervention and the operation of competition legislation more broadly (s. 46 of the CCA).<sup>95</sup> Aurizon Network initially pointed to an alternate regulatory environment.<sup>96</sup> Further, Aurizon Network considered it already has incentives and ability to negotiate mutually beneficial terms and conditions and maximise access to the CQCN and would be acting against its own interests to deny access or offer access on uneconomical terms.<sup>97</sup>

Aurizon Network and the ARTC said users of their services have sufficient countervailing power:

- Aurizon Network said access is likely to continue to be provided on reasonable terms in the absence of declaration, due to the ability of large end users to exercise countervailing market power by seeking authorisation from the ACCC to exchange information and collectively negotiate terms and conditions.<sup>98</sup>
- The ARTC submitted similar views, noting that the rail industry consists of a small number of highly informed, well-resourced and large counterparties who can exercise significant bargaining power against infrastructure owners.<sup>99</sup>

Stakeholders disagreed that any of the factors Aurizon Network raised would effectively constrain its behaviour absent declaration, and said third parties:

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<sup>94</sup> Aurizon Network, sub. 6, p. 10.

<sup>95</sup> Aurizon Network, sub. 6, p. 32. Aurizon Network primarily discussed its counterfactual in the context of criterion (d). However, the QCA has also considered it as relevant to criterion (a).

<sup>96</sup> See the summary in section 3.3.1 of Part A of the draft recommendation (Stakeholder comments).

<sup>97</sup> Aurizon Network, sub. 6, pp. 5, 20.

<sup>98</sup> Aurizon Network, sub. 19, p. 15.

<sup>99</sup> ARTC, sub. 22, p. 9.

- would not have any countervailing power—with no credible threat of bypass, Aurizon Network would be able to take advantage of its position in dealing with potential competitors of its related above-rail business<sup>100</sup>
- would not be able to rely on regulatory protections—given the vertically integrated structure, Aurizon Network would have incentives to prevent entry and discriminate against competitors in favour of its own above-rail operations; maximise its own commercial position; and use its control over access to an essential bottleneck facility.<sup>101</sup>

In addition, the QRC said the constraints identified by Aurizon Network (other regulatory or legal constraints) were not likely to be an effective alternative to the access regime under declaration.<sup>102</sup>

Notwithstanding Aurizon Network's initial views that its ability and incentive to exercise market power was constrained, following the draft recommendation, Aurizon Network agreed that access on reasonable terms from declaration is likely to promote competition in the above-rail haulage market.<sup>103</sup> Moreover, Aurizon Network's views of the completeness of the QCA's analysis and what was reasonable with declaration (having regard to the existing regulatory framework) changed in the process (see section 3.4.1 below).

### 3.3.2 QCA analysis

The QCA has considered whether there are any factors, other than declaration, which would prevent Aurizon Network from exerting market power in the above-rail haulage market.

Stakeholders had different views on whether, absent declaration, Aurizon Network would be incentivised to exert market power, or face any constraints. Aurizon Network said mining or haulage companies had countervailing power and there were also regulatory or legal constraints on its behaviour.<sup>104</sup> In contrast, stakeholders such as Peabody and Pacific National said the presence of vertical integration meant Aurizon Network had substantial market power.<sup>105</sup>

On the basis of the information provided, the QCA considers Aurizon Network would have commercial incentives to exert market power by favouring its related entity above-rail service provider, and would not be constrained by:

- countervailing power of mining companies and haulage operators—as they are not able to create a credible threat of bypass. Whether negotiations occur with Aurizon Network individually or collectively (as suggested by Aurizon Network), access to the below-rail network is the only viable way for coal from the Bowen Basin to be transported to a coal handling port and Aurizon Network is the only provider of a below-rail service in the Bowen Basin<sup>106</sup>
- other regulatory or legal constraints—the application of alternate forms of regulation, such as price oversight regimes, are uncertain, and in the circumstances that are expected to prevail in the absence of declaration, such regulatory alternatives are likely to provide a

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<sup>100</sup> QRC, sub. 7, p. 20.

<sup>101</sup> Peabody, sub. 2, pp. 13–14; QRC, sub. 7, p. 21; Pacific National, sub. 9, p. 11.

<sup>102</sup> QRC, sub. 20, p. 11.

<sup>103</sup> Aurizon Network, sub. 32, p. 3.

<sup>104</sup> Aurizon Network, sub. 6, p. 2.

<sup>105</sup> Peabody, sub. 2, pp. 13–14; Pacific National, sub. 9, p. 11.

<sup>106</sup> See section 3.3.2 of Part A of the draft recommendation.

lesser constraint than declaration. Similarly, the QCA does not consider general competition laws provide effective ongoing constraints (see section 2.4.7 in Overview—Chapter 2).

See section 3.3.1 of Part A of the draft recommendation for further information on this issue.

The QCA's view is that in the absence of declaration Aurizon Network would have the ability and incentive to exercise market power. Aurizon Network's ability and incentive to exert market power in the absence of declaration would not be constrained by either:

- the countervailing power of users (particularly potential entrants), or
- the counterfactual environment outlined by Aurizon Network, including a regulatory environment under Part IIIA of the CCA, general competition law and prices oversight under Part 3 of the QCA Act.<sup>107</sup>

## 3.4 Environment for competition in dependent markets

### 3.4.1 Future with declaration

When considering the future with declaration, the QCA Act's third party access regime provides a credible constraint on Aurizon Network's exercise of market power.

Part 5 of the QCA Act (which governs access to declared services) includes the power of the QCA to require Aurizon Network to submit a draft access undertaking for approval. Collectively, the QCA Act and any related undertakings approved under the QCA Act can provide important detail and obligations on behavioural and other relevant requirements with respect to Aurizon Network's operations, including recognising the vertical integration issues that arise (see section 3.3.3 of Part A of the draft recommendation).

### 3.4.2 Above-rail haulage market

#### Stakeholder submissions

Stakeholders initially disagreed on whether the environment for competition would be enhanced in a future with declaration.

Initially, Aurizon Network said that the current regulatory regime resulted in a number of inefficiencies and was not necessary in order to obtain reasonable terms and conditions of access.<sup>108</sup> However, it acknowledged third party entry into the rail haulage market in central Queensland has coincided with substantial productivity improvements in that market.<sup>109</sup> Aurizon Network said if competition and efficiency benefits of access can be both retained and enhanced through effective principles-based access rather than by declaration, the access criteria will not be satisfied.<sup>110</sup>

Other stakeholders contended that declaration was necessary to obtain access on reasonable terms, including in light of concerns stemming from Aurizon Network's vertical integration, which make the protections afforded by the QCA Act and the related access regime so important.<sup>111</sup>

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<sup>107</sup> See section 3.3.1 of Part A of the QCA's draft recommendation for further information.

<sup>108</sup> Aurizon Network, sub. 6, p. 32.

<sup>109</sup> Aurizon Network, sub. 6, p. 13.

<sup>110</sup> Aurizon Network, sub. 19, p. 7.

<sup>111</sup> Peabody, sub. 2 pp. 4, 14; Pacific National, sub. 9, pp. 3, 7, 11, sub. 37, p. 21; QRC, sub. 7, p. 19.

The QRC noted a high level of investment is required to support entry into the above-rail haulage market and, as a result, a high level of certainty about gaining reasonable access is required to make that investment. Factors affecting investment in the above-rail haulage market include:

- The asset life of rollingstock is about 25 years, while the weighted average length of a rail haulage contract is 10 years.
- Specific rollingstock are obtained to operate on the CQCN narrow-gauge track. This means the equipment/assets are effectively stranded and cannot easily be transferred to another jurisdiction.
- Rail haulage rollingstock are industry-specific and cannot easily be converted to other freight.
- New entry requires one or more significant initial haulage contracts to justify the level of investment required.<sup>112</sup>

Pacific National said the growth in its share of coal freight volumes on the CQCN (from 10 to 30 per cent) was enabled by certainty in the pricing, terms and conditions underpinning the provision of services on the CQCN.<sup>113</sup> Peabody said market entry and expansion by Pacific National and others can only reasonably be viewed as being a result of the effectiveness of declaration and oversight of the access regime by the QCA.<sup>114</sup>

The QRC noted the benefits from competition to date, including productivity gains and competitive haulage market price pressure.<sup>115</sup>

Aurizon Network noted that the QRC's submissions were based on whether, in the absence of declaration, there would be ongoing rights of access to the CQCN and assurance that access continues to be provided on a non-discriminatory basis, including behavioural controls proportional to those that currently exist in the undertaking.<sup>116</sup>

Following the draft recommendation, Aurizon Network said it agreed that access to the service on reasonable terms from declaration is likely to promote competition in the above-rail haulage market.<sup>117</sup> However, it said the QCA's analysis was incomplete. Further, Aurizon Network submitted that the terms of access with declaration under UT5 were not reasonable.<sup>118</sup>

Aurizon Network subsequently submitted that the 2019 DAAU represented access on reasonable commercial terms.<sup>119</sup> Aurizon Network said that position, coupled with a longer declaration period of 20 years, creates longer-term certainty for investors and promotes efficient investment.<sup>120</sup> The 2019 DAAU, as amended to meet the QCA's requirements, was approved by the QCA on 19 December 2019.

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<sup>112</sup> QRC, sub. 7, p. 19.

<sup>113</sup> Pacific National, sub. 9, p. 7. See also Pacific National, sub. 37, pp. 22–23.

<sup>114</sup> Peabody, sub. 2, p. 4.

<sup>115</sup> QRC sub. 7, p. 18.

<sup>116</sup> Aurizon Network, sub. 19, p. 35.

<sup>117</sup> Aurizon Network, sub. 32, p. 3.

<sup>118</sup> Aurizon Network, sub. 32, pp. 3, 5–6.

<sup>119</sup> Aurizon Network, sub. 54, p. 2.

<sup>120</sup> Aurizon Network, sub. 54, p. 2.

### QCA analysis

The QCA concludes that declaration would constrain Aurizon Network's market power such that the opportunities or conditions for competition in the above-rail haulage market would be materially better than they would be without declaration.

Aurizon Network and stakeholders initially had opposing views on whether access (or increased access) to the service as a result of declaration would promote a material increase in competition in the above-rail haulage market:

- Industry stakeholders considered a future with declaration would promote a material increase in the environment for competition. In comparison, a future without declaration would have adverse impacts on competition as a consequence of dealing with a profit-maximising, vertically integrated monopolist providing a service without effective constraints.
- Aurizon Network considered that the factors raised by stakeholders focused on access, not declaration, and that declaration was unnecessary to obtain reasonable terms and conditions of access and realise benefits.

### Ability to compete in the above-rail haulage market

The above-rail haulage market currently consists of three active above-rail haulage providers, including an incumbent operator—Aurizon Operations (an Aurizon Network related entity)—and two third party operators—BMA Rail and Pacific National. Of the third party operators, Pacific National competes with Aurizon Operations to service mines on the CQCN, while BMA Rail exclusively supplies haulage services to its own (related) mines.

Pacific National's entry into the above-rail haulage market provided competition for haulage services on the CQCN. While Aurizon Operations has maintained its dominant position in terms of market share (currently around 70 per cent), Pacific National's current market share is double the level it was in 2013.<sup>121</sup>

The QCA considers that changes in the terms and conditions of access to Aurizon Network's service are likely to materially impact the competitive environment, particularly with regards to ongoing rivalry and the potential for efficient entry by other third party above-rail haulage operators, as explained below.

### Matters raised in connection with vertical integration

Aurizon Holdings' below-rail and above-rail services are part of a vertically integrated business. It would be consistent with Aurizon Network's commercial incentives to increase profits and maximise shareholder value by ensuring its related above-rail haulage operator is the operator of choice on the CQCN. Also, absent declaration, Aurizon Network would not be effectively constrained from exerting its market power to provide its related above-rail haulage provider with an advantage over existing or new entrants into the above-rail haulage market (section 3.3).

Aurizon Network could use a range of potential means to cause a third party operator to be an unattractive option compared with its related haulage provider (for example, price or conditions offered for access, and scheduling of train services)—all of which have the potential to materially impact the competitive environment. Even the perception that this may occur is likely to impact the ongoing above-rail market conditions for existing haulage operators (or new entrants).

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<sup>121</sup> QRC, sub. 7, p. 18.

### Factors affecting the competitive environment in the dependent market

Based on evidence submitted by stakeholders, the QCA is satisfied that a potential new entrant to the above-rail haulage market would have to incur significant sunk costs to enter the market, such as through the need to invest in long-life rollingstock assets (which cannot readily be switched to alternative uses elsewhere). Similarly, existing operators on the CQCN face ongoing decisions to re-invest in the above-rail haulage market, for example through the need to replace aging rollingstock. Assets such as rollingstock typically have a useful life of 25 years, compared to below-rail access agreements with Aurizon Network, which typically have a duration of 10 years. Therefore, at some point during the useful life of the rollingstock, the below-rail access agreement would need to be renewed.

In a future without declaration, the presence of sunk investments at the time of contract renewal gives rise to the 'hold-up problem' commonly discussed in the economic literature on monopoly regulation. The QRC referred to a statement by the Chairperson of the ACCC in 2016 in relation to the hold-up problem in the context of mining investment:

One needs to understand that, in order to produce or extract a commodity like coal, this requires a major sunk investment in mining equipment and infrastructure. These sunk investments give rise to what are known as 'quasi-rents' which are subject to the threat of hold-up.

The threat of expropriation of rents by a monopoly service provider in such a situation would only in extreme circumstances result in a pure transfer. More likely, even the threat of such expropriation can limit future investment and innovation by the upstream firms.

What miner would invest in reducing its extraction costs if it knew that the lower extraction costs would simply be met by higher port charges? More generally, what miner would invest in its mines knowing that the benefits of that investment could be expropriated by a monopoly somewhere else in the supply chain?<sup>122</sup>

In a future without declaration, market participants in the above-rail haulage market (existing and potential entrants) would face uncertainties relating to price and non-price access terms at the time of market entry or contract renewal, as Aurizon Network would be relatively unconstrained in its ability to exercise market power. This is particularly the case as access agreements with Aurizon Network do not contain evergreen renewal rights<sup>123</sup>; therefore, any existing protections or favourable clauses in current contracts (possibly secured as a result of the present regulated access regime) may not necessarily be replicated in a new contract at the time of contract renewal. In a future without declaration, Aurizon Network may seek to raise prices and/or offer less favourable non-price terms—for example, in order to favour its own above-rail operator.

It is arguable that any such monopolistic pricing may nevertheless amount to a pure transfer of economic rents between market participants, with little impact on competition. However, the QCA considers that the crucial issue is that above-rail operators can foresee the risk that any sunk investments they make would be exposed to the risk of expropriation by the monopolist in a future without declaration. The QCA considers that this risk is sufficiently material that market participants (or a potential new entrant) would delay, or be deterred from making, the investment in the first place. Furthermore, all market participants in the above-rail haulage market are likely to face this risk<sup>124</sup>, including more efficient firms. Therefore, the QCA considers that the risk of hold-up associated with future terms and conditions of access would discourage

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<sup>122</sup> QRC, sub. 20, p. 14.

<sup>123</sup> QRC, sub. 29, p. 3.

<sup>124</sup> Except perhaps Aurizon Network's related above-rail operator.

efficient entry and efficient investment by market participants over time. Where efficient high-value firms are discouraged from entering or continuing to participate in the market, there would likely be a material adverse impact on competition.

Conversely, the QCA considers that the protections offered in a future with declaration would materially improve the environment for competition, by encouraging efficient entry and operations (through a stable and predictable environment).

The QCA considers that the credible constraint on the risk of hold-up in the presence of substantial sunk investments would promote a non-trivial, material improvement in the environment for competition in the above-rail haulage market. The environment for competition in a future with declaration is likely to promote efficient entry (and efficient investment) by market participants, such that competitive outcomes in the above-rail haulage market are materially more likely to occur. A key aspect of the QCA's reasoning in this respect is that in the absence of declaration, Aurizon Network would not be constrained from exerting market power in the above-rail haulage market so as to favour its above-rail entity. The QCA considers that the substantial increase in Pacific National's market share while the declaration has been in effect is a clear demonstration of the impact of declaration in materially improving the environment for competition in the above-rail haulage market.

Accordingly, the QCA is satisfied that access (or increased access) as a result of declaration would promote a material increase in competition in the above-rail haulage market.

#### The effect of declaration

The QCA has compared the potential constraints on Aurizon Network's market power, both in a future with and without declaration, and concluded that Aurizon Network's ability and incentive to exercise market power:

- would not be constrained in the absence of declaration
- would be effectively constrained by declaration under Part 5 of the QCA Act.

### 3.5 Conclusion on criterion (a)

The QCA has made the following conclusions, in considering a future with and without declaration:

- Use of Aurizon Network's below-rail service is essential for rail haulage operators on the CQCN, who transport predominantly coal from mines in the Bowen Basin for export.
- In the absence of declaration, Aurizon Network as a vertically integrated entity would have the ability and incentive to exercise market power in providing access to its service, such that third party haulage operators (existing or new entrants) would be deterred from or be unable to effectively participate in the above-rail haulage market. The environment for competition in that market would be adversely affected in a material way.
- Declaration would constrain Aurizon Network's market power such that the opportunities or conditions for competition in the above-rail haulage market would be materially better than they would be without declaration.

As there is at least one market—the above-rail haulage market—where access (or increased access) on reasonable terms and conditions as a result of declaration of the service would promote a material increase in competition, criterion (a) is satisfied.

## 4 CRITERION (C)—STATE SIGNIFICANCE

### 4.1 Introduction

Section 76(2)(c) of the QCA Act is expressed as follows:

that the facility for the service is significant, having regard to its size or its importance to the Queensland economy

Stakeholders made limited submissions on this criterion (Table 5).

**Table 5 Summary of key positions—s. 76(2)(c) of the QCA Act**

<i>Criterion (c)</i>			
<i>Issue</i>	<i>Aurizon Network</i>	<i>Other stakeholders</i>	<i>QCA final recommendation</i>
Size or importance to the Queensland economy	State significance should be assessed for each part of a facility, in which case Moura would not be significant  The CQCN is an integrated coal network that is of significance to the Queensland economy	Facility (as a whole) is of state significance	Criterion (c) is satisfied  The facility as a whole is of significance. It is not necessary to consider each part of the facility separately  See section 4.2

### 4.2 Size and importance to the Queensland economy

#### 4.2.1 Stakeholder submissions

All stakeholders considered the facility (as a whole)—that is, the CQCN—is of state significance, including because it is the largest of its kind in Australia and is a vital component of the Queensland mining industry and economy.<sup>125</sup>

The QRC provided information to show the CQCN directly stimulates the Queensland economy by facilitating coal industry employment, spending, government payments and community contributions. According to the QRC, during 2016–17, access to the CQCN enabled the Queensland coal industry to:

- directly contribute \$16,649 million to the Queensland economy
- directly contribute to the employment of 18,927 people on a full-time basis, resulting in \$2,450 million in salaries being paid
- provide \$7.1 million in local government payments and \$3,392 million in state government payments
- purchase \$10,716 million worth of goods and services, which directly supported 7,997 Queensland businesses

<sup>125</sup> QRC, sub. 7, pp. 41–42, sub. 29, pp. 1–2; Pacific National, sub. 9, p. 12; Aurizon Network, sub. 32, p. 8.

- contribute \$7.1 million to 387 community organisations around Queensland.<sup>126</sup>

The QRC said the spillover benefits of the CQCN are also substantial. According to the QRC, the CQCN (through the Queensland coal industry) indirectly contributed to the full time employment of 162,917 employees and added \$19,786 million worth of value to the Queensland economy in 2016–17.<sup>127</sup>

Aurizon Network considered the CQCN is an integrated coal network of significance to the Queensland economy.<sup>128</sup> However, it also said the Moura system, use of which as a part service, may not be significant, given it is the smallest of all systems and makes a small contribution to the value of total coal exports for the state.<sup>129</sup>

Stakeholders did not agree it was appropriate to measure the significance of the Moura system, by reference to the other systems.<sup>130</sup> The QRC said the royalties provided by mines on the Moura system are significant.<sup>131</sup>

#### 4.2.2 QCA analysis

The QCA considers Aurizon Network's facility as described in ss. 250(3) and (4) of the QCA Act is significant, having regard to both its size and importance to the Queensland economy.

##### Size

Aurizon Network noted the CQCN comprises around 2,725 km of rail network<sup>132</sup> and is Australia's largest export coal rail network.<sup>133</sup> Over the central Queensland region, the CQCN links over 40 mines to export terminals and provides services for domestic customers.

Additional information on the CQCN is provided in information packs on Aurizon Network's website, including on the physical track length of coal systems (including connections and extensions) forming part of the CQCN, notably:

- the Newlands system—311 km of track connecting Newlands with the Port of Abbot Point. Also, the Goonyella to Abbott Point Expansion (GAPE) connects the Newlands and Goonyella system, allowing travel to the Port of Abbott Point from the Goonyella system<sup>134</sup>
- the Goonyella system—1,021 km of track connecting a number of mines in the region with the Dalrymple Bay Coal Terminal and the Hay Point Coal Terminal<sup>135</sup>
- the Blackwater system—1,171 km of track connecting mines with the Port of Gladstone (includes track between Parana and Rocklands which forms part of the North Coast Line)<sup>136</sup>

<sup>126</sup> QRC, sub 7, p. 23.

<sup>127</sup> QRC, sub. 7, p. 23.

<sup>128</sup> Aurizon Network, sub. 32, p. 8.

<sup>129</sup> Aurizon Network, sub. 6, p. 6.

<sup>130</sup> QRC, sub. 19, pp. 27–28. Anglo American, sub. 14, p. 4.

<sup>131</sup> QRC, sub. 19, p. 27.

<sup>132</sup> Aurizon Network, sub. 6, p. 36.

<sup>133</sup> Aurizon, What we deliver, <https://www.aurizon.com.au/what-we-deliver/network>.

<sup>134</sup> Aurizon, *Newlands System Information Pack*, March 2017, pp. 8–11.

<sup>135</sup> Aurizon, *Goonyella System Information Pack*, March 2017, p. 8.

<sup>136</sup> Aurizon, *Blackwater System Information Pack*, March 2017, p. 8; BITRE, *Freightline 4*, p. 13; Geoscience Australia, *Australian Operating Mines Map 2017*.

- the Moura Coal system—315 km of track<sup>137</sup> connecting mines with the Port of Gladstone and servicing the industrial and rural communities of the Dawson and Callide Valley to intrastate destinations (via the North Coast Line).<sup>138</sup>

The QCA considers the CQCN is significant having regard to the large geographic coverage and physical length of the CQCN track.

The QCA has considered the matter of a 'part of the service' in section 2.2 and is satisfied there is no basis to support consideration of the Moura system separately. However, the QCA notes that Aurizon Network considered Moura the smallest coal system<sup>139</sup> relative to other coal systems. In any event, the QCA does not consider this fact is determinative. The portion of the CQCN serviced by Moura is significant, providing rail infrastructure from inland central Queensland to the Port of Gladstone.

### Importance to the Queensland economy

The CQCN facilitates the operation of a significant proportion of Queensland's coal industry, which in turn makes a sizeable economic contribution to Queensland.

Stakeholders agreed the CQCN was significant with regard to its importance to the Queensland economy. The QRC's information shows that the direct contributions together with the spillover benefits are substantial and directly stimulate the Queensland economy via employment, spending, government payments and community contributions.

The QCA's view is therefore that the CQCN is of significance having regard to its importance to the Queensland economy.

Aurizon Network considered the Moura system represented a small percentage of overall coal industry contributions to the Queensland economy and on its own was not significant. The QCA does not consider the portion of contribution made by Moura (as compared with other coal systems) is determinative. The Moura system (even if considered individually) makes a significant contribution to the Queensland economy.<sup>140</sup> As stated above, the QCA has considered the matter of a 'part of the service' in section 2.2 and is satisfied there is no basis to support consideration of the Moura system separately.

## 4.3 Conclusion on criterion (c)

Criterion (c) is satisfied. The QCA considers Aurizon Network's facility as described in ss. 250(3) and (4) of the QCA Act is significant, having regard to both its size and importance to the Queensland economy.

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<sup>137</sup> Aurizon Network, *Moura Information Pack*, March 2017, pp. 6, 9. 'Total track' includes the length/total as set out in the information pack, inclusive of track, yards, sidings and passing loops.

<sup>138</sup> Aurizon, *Moura System Information Pack*, March 2017, p. 9; BITRE, *Freightline 4*, p. 13; Geoscience Australia, *Australian Operating Mines Map 2017*.

<sup>139</sup> Aurizon Network's submission indicates that the total track for Moura is 275 km. This differs from the 315 km outlined by Aurizon Network in the Moura Information Pack and used above.

<sup>140</sup> For example, annual coal tonnages on the Moura system were forecast to be around 10.18 million tonnes per year over the financial year 2018 to 2021 period. See G Cochrane & A Todd, *Assessment of Coal Volume Forecasts for Aurizon Network's 2017 Draft Access Undertaking*, prepared by Resource Management International for the QCA, May 2017, [https://www.qca.org.au/wp-content/uploads/2019/05/32481\\_Resource-Management-International-Assessment-of-coal-volume-forecasts-for-Aurizon-Network-s-20171275889\\_1-1.pdf](https://www.qca.org.au/wp-content/uploads/2019/05/32481_Resource-Management-International-Assessment-of-coal-volume-forecasts-for-Aurizon-Network-s-20171275889_1-1.pdf).

## 5 CRITERION (D)—PROMOTE THE PUBLIC INTEREST

### 5.1 Introduction

Section 76(2)(d) of the QCA Act is expressed as follows:

that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest

Section 76(5) of the QCA Act further states:

In considering the access criterion mentioned in subsection (2)(d), the authority and the Minister must have regard to the following matters—

- (a) if the facility for the service extends outside Queensland<sup>141</sup>—
  - (i) whether access to the service provided outside Queensland by means of the facility is regulated by another jurisdiction; and
  - (ii) the desirability of consistency in regulating access to the service;
- (b) the effect that declaring the service would have on investment in—
  - (i) facilities; and
  - (ii) markets that depend on access to the service;
- (c) the administrative and compliance costs that would be incurred by the provider of the service if the service were declared;
- (d) any other matter the authority or Minister considers relevant.

The key matters in respect of s. 76(2)(d) for the CQCN service provided by Aurizon Network are summarised in the table below.

**Table 6 Summary of key positions—s. 76(2)(d) of the QCA Act**

<i>Criterion (d)</i>			
<i>Issue</i>	<i>Aurizon Network</i>	<i>Other stakeholders</i>	<i>QCA final recommendation</i>
That access (or increased access) on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest	Differing views in the review process, but in the most recent submission in the context of the 2019 DAAU, declaration of the service would promote the public interest	Declaration of the service would promote the public interest	Criterion (d) is satisfied
The effect that declaring the service would have on investment in facilities	Differing views in the process, but in the most recent submission in the context of the 2019 DAAU, the nature and application of the regulatory framework incentivises investment	Declaration provides certainty and opportunities for attracting capital from long-term investors	Declaring the service is likely to have no adverse impact on Aurizon Network's incentives to efficiently invest in the CQCN See section 5.3

<sup>141</sup> As the CQCN does not extend outside Queensland, the QCA has not considered s. 76(5)(a) any further.

<b>Criterion (d)</b>			
	in long-term rail infrastructure		
The effect that declaring the service would have on investment in dependent markets	In the most recent submission, in the context of the 2019 DAAU, access on reasonable terms as a result of declaration will incentivise investment in mining operations	Declaration provides certainty for investment in above-rail markets and in the coal supply chain, from mine to port	Declaration would promote efficient investment in the above-rail haulage market as well as other markets that depend on access to the below-rail service See section 5.4
Administrative and compliance costs incurred by the service provider	There are administration and compliance costs associated with declaration	Regulatory costs are passed through to industry	Administrative and compliance costs are not likely to be excessive such as to impact on the promotion of the public interest. Aurizon Network can propose amendments to the regime at any time to seek to reduce compliance costs associated with an undertaking See section 5.5

## 5.2 Approach to criterion (d)

Criterion (d) requires satisfaction of a positive test; that is, the requisite access as a result of declaration 'would promote the public interest'.

The QCA has adopted the approach to criterion (d) explained in Overview—Chapter 2. Accordingly, this section addresses each of the matters the QCA is required to have regard to under s. 76(5) of the QCA Act in considering this criterion, before setting out the QCA's view on whether it is satisfied about criterion (d).

## 5.3 Investment in facilities

The QCA has considered the effect of declaring the service on investment in the CQCN as well as in other coal supply chain facilities.

### 5.3.1 Stakeholder submissions

Aurizon Network and other stakeholders initially had opposing views in relation to criterion (d).

Aurizon Network said the existing access undertaking (UT5) was an example of where declaration would not promote the public interest or investment in rail infrastructure, including by hindering its ability to strike commercial arrangements, providing insufficient returns and creating regulatory risks (e.g. error and delays).<sup>142</sup>

Other stakeholders did not agree. The QRC acknowledged declaration may create some disincentives to invest, but said the impact was minor and, overall, stakeholders agreed there are

<sup>142</sup> See QCA's draft recommendation (Part A, section 5.2) for a full account of Aurizon Network's initial concerns.

a range of features associated with the regulatory environment (e.g. guaranteed return on regulated assets and reduced uncertainty) that encourage investment and provide opportunities to attract capital, including from investors with long-term investment mandates.<sup>143</sup>

Following the draft recommendation, Aurizon Network maintained that the existing access undertaking (UT5) did not represent access on reasonable commercial terms and it was an example of a scenario where declaration would not promote the public interest. Further, Aurizon Network maintained that there are substantial direct and indirect costs, and the QCA had failed to fully assess the impact of those costs when considering whether declaration would promote the public interest.<sup>144</sup>

In contrast, following the draft recommendation, the QRC reiterated that 'industry is willing to bear reasonable administrative and compliance costs, which reflects the efficiency of these costs (i.e. they lead to significant benefits to industry and the broader economy)'.<sup>145</sup> The QRC rejected Aurizon Network's submissions that UT5 did not represent access on reasonable terms, as both a matter of fact and appropriateness.<sup>146</sup> The QRC maintained its submission that the benefits of declaration clearly outweigh the costs (which are borne by industry).<sup>147</sup>

Separately, Pacific National said the costs and outcomes of recent undertaking processes are not relevant, and a key cause of the delay has been Aurizon Network itself.<sup>148</sup>

Subsequently, Aurizon Network and the QRC said there had been a material change in circumstances in the context of the 2019 DAAU process, and this was relevant to consider as part of the declaration review of Aurizon Network's service.<sup>149</sup>

In respect of the effect on investment, Aurizon Network said the 2019 DAAU (i.e. proposed UT5 modifications) reflect commercial terms and deliver a number of benefits, including increased financial returns to Aurizon Network and reduced regulatory risk, as well as operational improvements for stakeholders. Access on these terms with a 20-year declaration period creates long-term certainty for investors and promotes efficient investment in rail infrastructure. Further, Aurizon Network said the ability to secure long-term financial returns overcomes the concerns it initially raised with respect to the direct and indirect costs of regulation. Aurizon Network considered therefore that access as a result of declaration would have a positive effect on investment and the public interest.<sup>150</sup>

As set out in section 1.3, the QCA did not approve the 2019 DAAU. Aurizon Network subsequently submitted a revised DAAU—said to be consistent with the QCA's final decision (proposing two changes)—to the QCA for approval. The QCA approved the revised DAAU on 19 December 2019.

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<sup>143</sup> QRC, sub. 7, pp. 25, 42; Anglo American, sub. 14, p. 6. Peabody and Anglo American also considered that criterion (d) was satisfied (Peabody, sub. 2, p. 4; Anglo American, sub. 14, p. 6).

<sup>144</sup> Aurizon Network, sub. 32, pp. 3–4, 15–19.

<sup>145</sup> QRC, sub. 29, p. 2.

<sup>146</sup> QRC, sub. 45, p. 3.

<sup>147</sup> QRC, sub. 45, p. 3.

<sup>148</sup> Pacific National, sub. 37, p. 24.

<sup>149</sup> QRC, sub. 53; Aurizon Network, sub. 54.

<sup>150</sup> Aurizon Network, sub. 54, p. 2.

### 5.3.2 QCA analysis

Criterion (d) requires the QCA to consider, among other things, the effect of declaring the service on investment in the CQCN and other facilities (section 5.4 considers the effect on the above-rail market).

There is a general view among stakeholders that criterion (d) is met with respect to Aurizon Network's service.<sup>151</sup> However, in the case of Aurizon Network, its change of position that criterion (d) is satisfied was adopted in the context of submitting the 2019 DAAU. As set out above, the 2019 DAAU was not approved in those terms but a revised 2019 DAAU was approved by the QCA on 19 December 2019.

The QCA has considered the merits of stakeholder comments. In particular, Aurizon Network initially raised concerns and factors that may weigh against, or have the potential to adversely impact its incentives to invest in the CQCN and, more broadly, not promote the public interest. Mostly these related to issues Aurizon Network said it had with particular aspects of the current access undertaking (UT5)<sup>152</sup>—including according to Aurizon Network, receiving insufficient returns, and aspects of the regulatory process (such as the costs of regulation, delays in regulatory decisions and regulatory error) leading to investments being delayed.

Having considered these matters, the QCA is not convinced the impact of these would weigh heavily against the effect of declaration on investment. In particular:

- It is not evident that the existing regulatory environment has impeded significant investments in the CQCN to date<sup>153</sup> and access undertakings can be approved and amended (as the 2019 DAAU process demonstrates) over time.
- A range of potential factors may result in expansions being delayed, and while the regulatory process requires the interests of all parties to be considered (including via public consultation), the potential for delays is unlikely to be materially greater under declaration. Factors such as reaching agreement on the terms and conditions of the cost, timing and specifics of expansions are complex and inevitably take time and may cause delays whether the service is declared or not.
- The QCA acknowledges the possibility of regulatory error can impact investment incentives. That said, Part 5 provides controls on the QCA's approval and amendment of access undertakings that requires it to balance a range of factors as well as to engage in consultation.

Further information is provided at section 5.2.2 of Part A of the draft recommendation.

The QCA has also had regard to the submissions that Aurizon Network made in the context of the 2019 DAAU process regarding the positive impact of a longer period of declaration, creating long-term certainty for (relevantly) Aurizon Network's investment in rail infrastructure.<sup>154</sup> The QCA considers that the 2019 DAAU process, which resulted in the approval of the revised 2019 DAAU, shows that declaration is capable of producing access on reasonable terms, which in the QCA's opinion would have no adverse impact on efficient investment in rail infrastructure.

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<sup>151</sup> Including submissions from QRC, Peabody and Anglo American.

<sup>152</sup> Aurizon Network, sub. 19, p. 6, sub. 32, p. 4.

<sup>153</sup> Significant investments were made in the CQCN in the past (under declaration), for instance the GAPE and WIRP expansions and upgrades.

<sup>154</sup> Aurizon Network, sub. 54, p. 2.

### Investment in other facilities

In an integrated supply chain, it is essential that investment in capacity is aligned. In the past, the rail network was expanded to support the development of coal export terminals—such as GAPE infrastructure (to support AAPT) and WIRP infrastructure (to support WICET).

Stakeholders did not comment directly on this, but many agreed declaration would have a positive impact on investment in the coal industry and the related upstream and downstream markets. Several stakeholders said declaration, and undertakings that are established under regulation, provide protections and greater certainty over infrastructure costs, including via standard terms, efficient pricing and ring-fencing, which generates certainty for investors.<sup>155</sup> Aurizon Network subsequently made comments regarding a positive impact of declaration on certainty for investment in mining operations, albeit in the context of the 2019 DAAU process.<sup>156</sup>

Demand for the CQC service derives from demand for above-rail haulage services, which is chiefly driven by requirements of users to transport coal by rail to port facilities. To the extent declaring the service would promote efficient investment in the above-rail market (see section 5.4), the QCA considers it may positively impact on investments in related supply chain facilities.<sup>157</sup>

## 5.4 Investment in markets that depend on access to the service

### 5.4.1 Stakeholder submissions

Stakeholders generally agreed about the positive effects of declaration on markets that depend on accessing the CQC service, particularly in the above-rail market.

Pacific National said regulation has been critical to its entry and growth in the above-rail market:

Put simply, PN's ability to grow its business in Queensland has been critically dependent on the stable operation of Queensland's regulatory framework under part 5 of the QCA Act.<sup>158</sup>

[The benefits of declaration] extend well beyond simply constraining the exercise of market power and ensuring that a balanced risk profile underpins the setting of terms and conditions for access. Declaration has facilitated the introduction of important structural and behavioural constraints ... and has underpinned the growth of competition in related upstream and downstream markets.<sup>159</sup>

... continued declaration is critical to promoting competition and freight transport supply chain investment moving forward.<sup>160</sup>

Pacific National also said regulated access has supported its strong investment in the above-rail haulage market, and effective regulatory oversight is important to facilitate continued above-rail investment, and investment by coal supply chain participants more broadly.<sup>161</sup>

Various stakeholders said there would be broader benefits in the above-rail haulage market as a result of declaration, including:

<sup>155</sup> QRC, sub. 7, pp. 25–26; Anglo American, sub. 14, p. 6; Peabody, sub. 2, p. 4.

<sup>156</sup> Aurizon Network, sub. 54, p. 2.

<sup>157</sup> Refer to section 5.2.2 in Part A of the draft recommendation.

<sup>158</sup> Pacific National, sub. 9, p. 6.

<sup>159</sup> Pacific National, sub. 9, p. 4.

<sup>160</sup> Pacific National, sub. 9, p. 3.

<sup>161</sup> Pacific National, sub. 9, pp. 13–14, sub. 28, p. 1, sub. 37, p. 22.

- continuation of current competitive dynamics, which also encourages greater cost efficiency and productivity improvements<sup>162</sup>
- strong incentives to invest due to increased certainty for investors (including in the Queensland coal industry) as a result of the protections under declaration (and the access undertaking), including reduced volatility in transport costs<sup>163</sup>
- increased innovation in above-rail rollingstock, which 'would not have been justified, absent a stable regulatory environment'.<sup>164</sup>

Aurizon Network acknowledged third party entry into the above-rail haulage market had coincided with substantial productivity improvements. It initially said those improvements had come with significant costs of regulation, efficiency loss and transaction costs.<sup>165</sup>

Aurizon Network also said that the benefits achieved should be properly weighed against the significant direct and indirect costs associated with regulation. It said benefits were likely to be marginal when properly weighed against the significant direct and indirect costs associated with access under the current regime (which include regulatory risk, efficiency losses associated with coordinating multiple users and additional transaction costs associated with vertical unbundling).<sup>166</sup>

In its supplementary submission, Aurizon Network indicated that many of its earlier concerns around the costs associated with the current regulatory regime had been addressed with the 2019 DAAU. It said the UT5 modifications (in the 2019 DAAU) represents access on reasonable commercial terms and, together with a longer period of declaration, would create long-term certainty for investors in mining operations and for Aurizon Network for investment in rail infrastructure, and would promote efficient investment in rail transport infrastructure.<sup>167</sup> As set out above, the 2019 DAAU was not approved as initially submitted by Aurizon Network, but a revised 2019 DAAU was approved by the QCA on 19 December 2019.

In the context of the 2019 DAAU, the QRC also said that declaration would promote investment in facilities, including facilities that rely on access to the below-rail infrastructure. It said:

A 20 year declaration period is also consistent with the economic life of coal mines in Queensland (which is typically 20 to 30 years) during which period access to the CQCN is generally required. A declaration period of 20 years (as opposed to 15 years) provides a level of certainty that will further incentivise long term investment in rail transport infrastructure, coal projects, and coal mines in Queensland.<sup>168</sup>

#### 5.4.2 QCA analysis

The impact of declaration on investment in dependent markets depends, in part, on the extent to which declaration impacts on competition in those markets. In particular, the perceived ability to effectively compete in the dependent market underpins investment incentives and investor confidence.

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<sup>162</sup> QRC, sub. 7, p. 25.

<sup>163</sup> QRC, sub. 7, pp. 25–26; Peabody sub. 2, p. 4; Anglo American, sub. 14, p. 6, QRC, sub. 45, p. 4.

<sup>164</sup> Pacific National, sub. 9, p. 6.

<sup>165</sup> Aurizon Network, sub. 6, p. 13.

<sup>166</sup> Aurizon Network, sub. 6, pp. 25–26, sub. 32, p. 4.

<sup>167</sup> Aurizon Network, sub. 54, p. 2.

<sup>168</sup> QRC, sub. 53, p. 3.

The QCA's conclusion on criterion (a), as set out in section 3.5, is that declaration of the service would promote a material increase in competition in the above-rail haulage market. This reflects the QCA's assessment that in the absence of declaration, Aurizon Network:

- is unlikely to be effectively constrained in terms of its ability and incentive to exercise market power
- as a vertically integrated business of Aurizon Holdings, would have an incentive to discriminate to favour its related above-rail haulage operations.

There is broad stakeholder consensus that declaration would positively impact on investment incentives in other markets, notably the above-rail haulage market. Stakeholders provided information to support this, which suggests:

- Long-term certainty of access terms and conditions is a key factor impacting incentives to invest, including efficient entry and investment in the above-rail haulage market and in the development of coal mines. Pacific National submitted declaration provides more certainty in terms of the return on their investments (e.g. investment to improve rollingstock efficiency) and the pricing arrangements that would apply in future (e.g. application of consistent pricing principles, non-discrimination principles and dispute resolution processes). Likewise, the QRC said a longer declaration period is consistent with the economic life of coal mines.
- The benefits of regulatory certainty on investment are particularly pronounced for investment in long-life assets such as rollingstock and maintenance facilities, which require long-term planning and construction timeframes and significant sunk costs.

The QCA considers all of the factors raised are important and, on balance, supports the view that declaration is likely to have a positive impact on investment conditions in dependent markets. Pacific National in particular highlighted these positive effects in respect of its entry and the ongoing competitive conditions in the above-rail market.

Further, the market for above-rail haulage is likely to be of sufficient size and importance to support the conclusion that incentivising efficient investment in this market would promote the public interest. Rail haulage services for coal export and other sectors of the Queensland economy directly support Australia's largest coal export rail network (which is also considered to be of state significance—see section 4.2).<sup>169</sup>

The QCA reaffirms its view in the draft recommendation that investment in markets that depend on access to the service would be promoted by declaration. These views are also reinforced by the longer declaration period of 20 years that has been recommended in this final recommendation.

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<sup>169</sup> The same considerations would also apply in respect of the development of coal tenements.

## 5.5 Administrative and compliance costs incurred by the provider of the service

### 5.5.1 Stakeholder submissions

Aurizon Network and other stakeholders initially had opposing views in relation to criterion (d), including on the significance and materiality of the administrative and compliance costs incurred under declaration.

Aurizon Network submitted there were significant costs arising from preparing, submitting and administering an access undertaking which would not be incurred absent declaration.<sup>170</sup> It also noted regulatory costs under the QCA levy had increased over time (to just under \$8 million in 2017/18)<sup>171</sup> and the costs it incurred in administration and compliance costs were at least \$15 million per year (excluding third party costs).<sup>172</sup> ARTC also submitted the cost of the regulatory process from its perspective is significant and includes resources to develop undertakings, respond to data requests and provide annual compliance reviews, as well as independent expert advice and legal expertise.<sup>173</sup>

Other stakeholders did not agree. While acknowledging the regulatory process imposes costs (also on Aurizon Network), the QRC said these were mitigated by a number of factors—for example, not having to individually negotiate terms of access (and resolve disputes) with customers (given these are governed by the access undertaking). Also, the regime allows Aurizon Network to recover the reasonable costs associated with compliance (which industry pays for via access charges) and has processes that govern the approval of access undertakings and other aspects that govern the relationship with Aurizon Network—these factors provide certainty to existing users (and potential users).<sup>174</sup>

Further, the QRC submitted the costs of regulation (whether the QCA's, Aurizon Network's or the industry's) are borne by industry and '[i]ndustry is willing to incur these costs because of the collective public interest in regulated access. These costs are also marginal when compared with the significant costs that would be borne by the industry outside of a regulated access regime'.<sup>175</sup> The QRC reiterated similar views following the draft recommendation.<sup>176</sup>

Following the draft recommendation, Aurizon Network submitted that the QCA's analysis had failed to fully consider the costs of over-regulation or the economic costs associated with reduced investment incentives.<sup>177</sup>

Subsequently, Aurizon Network and the QRC said there had been a material change in circumstances due to the 2019 DAAU and this was relevant to consider as part of the declaration review of Aurizon Network's service.<sup>178</sup>

In this context, Aurizon Network said the commercial terms in the 2019 DAAU provide it with greater certainty and lower regulatory risks on past and future investments. For Aurizon Network,

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<sup>170</sup> Aurizon Network, sub. 6, p. 22.

<sup>171</sup> Aurizon Network, sub. 6, p. 4.

<sup>172</sup> Aurizon Network, sub. 6, p. 22.

<sup>173</sup> ARTC, sub. 22, pp. 3–4.

<sup>174</sup> QRC, sub. 7, p. 26.

<sup>175</sup> QRC, sub. 20, p. 3.

<sup>176</sup> QRC, sub. 29, p. 2.

<sup>177</sup> Aurizon Network, sub. 32, pp. 3–4.

<sup>178</sup> QRC, sub. 53, p. 3; Aurizon Network, sub. 54, p. 2.

this overcomes the concerns it raised with respect to the direct and indirect costs associated with regulation.<sup>179</sup>

As set out above, the 2019 DAAU was not approved in those terms as initially submitted by Aurizon Network, but a revised 2019 DAAU was approved by the QCA on 19 December 2019.

### 5.5.2 QCA analysis

Criterion (d) requires the QCA to consider the administrative and compliance costs that would be incurred by Aurizon Network if the service was declared, as one of the factors relevant in determining whether access (or increased access) as a result of declaration would promote the public interest. These costs are taken into account when weighing the costs and benefits in determining if criterion (d) is satisfied.

The QCA considers the administrative and compliance costs that would be incurred by Aurizon Network if the service was declared are not excessive. Stakeholders have submitted they bear most of the costs associated with regulation and are willing to do so (in light of the higher costs stakeholders submit would be incurred under the alternative of no declaration).

To the extent that the incidence of costs is relevant to this assessment, it is evident that users of the service bear some of the costs associated with regulation. For example:

- The cost of the QCA levy is not a cost borne by Aurizon Network—the QCA levy is recovered from users under a straight pass-through arrangement in the pricing arrangements of the access undertaking. As the full amount of this levy is passed through to users, the incidence of this cost is borne by users, rather than by Aurizon Network.<sup>180</sup>
- The current regime provides for the reasonable cost of compliance, as well as the full cost of some compliance activities undertaken (e.g. the condition-based assessment) to be recovered from users via access charges.

Aurizon Network said the administrative and compliance costs likely to be incurred by it in a future with declaration are expected to be around \$15 million per year.<sup>181</sup>

Other stakeholders have not indicated the estimated costs are excessive, and have shown a willingness to pay the costs associated with administering and complying with the regulatory regime, incurred by industry via the QCA levy and through access charges. In addition, the QCA's analysis shows Aurizon Network's estimate of \$15 million per year (made prior to the subsequent UT5 DAAU processes) equates to around 1.5 per cent of the current total approved maximum allowable revenue (on an annual basis).

The QCA considers the administrative and compliance costs that would be incurred by Aurizon Network as a result of declaration are, on balance, not likely to be excessive such as to adversely impact the public interest.

It is also open to Aurizon Network to reduce compliance costs by improving its regulatory performance and submitting proposals that include measures to reduce compliance costs.

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<sup>179</sup> Aurizon Network, sub. 54, p. 2.

<sup>180</sup> That said, the QCA notes that irrespective of incidence, it is a cost to the economy. In any event, the QCA notes that the levy only amounts to a small subset of the administration and compliance costs incurred by the service provider under declaration.

<sup>181</sup> Aurizon Network, sub. 6, p. 4.

## 5.6 Other relevant matters

Aurizon Network raised a number of concerns in its initial submissions, based on its views of the UT5 access undertaking (and its perceived deficiencies) which it said gave rise to significant direct and indirect costs. It said these, on balance, outweighed the benefits of declaration.

The QCA considered these concerns in detail in the draft recommendation, taking into account stakeholder comments.<sup>182</sup> The QCA also considered a range of other benefits. See section 5.5 of Part A of the draft recommendation.

Since the draft recommendation, no further information was raised which warranted further assessment of these matters. Moreover, Aurizon Network's supplementary submission in the context of the 2019 DAAU suggests its concerns no longer remain.

## 5.7 Conclusion on criterion (d)

The QCA has weighed the relative costs and benefits in the evidence submitted by all stakeholders in relation to assessing whether access (or increased access) to the CQCN service, on reasonable terms and conditions, as a result of declaration would promote the public interest.

Based on the information available, declaration is likely to have no adverse impact on Aurizon Network's incentives to efficiently invest in the CQCN. In contrast, the QCA is of the view that declaration is likely to have a positive impact on incentives to efficiently invest in the above-rail market, which depends on access to the service and may further impact on investment in related supply chain infrastructure.

The administrative and compliance costs incurred by Aurizon Network are not considered excessive such as to have an adverse impact on the public interest.

Accordingly, the QCA is satisfied that access (or increased access) to the CQCN service on reasonable terms and conditions as a result of declaration, would promote the public interest. Criterion (d) is satisfied.

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<sup>182</sup> QRC, sub. 7, p. 26, sub. 20, p. 10, sub. 20, att. 2, pp. 3–4, 14, 16–17; Pacific National, sub. 9, p. 14.

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## 6 DECLARATION PERIOD

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The QCA recommends a declaration period of 20 years.

The QCA is satisfied about all of the access criteria for this period.

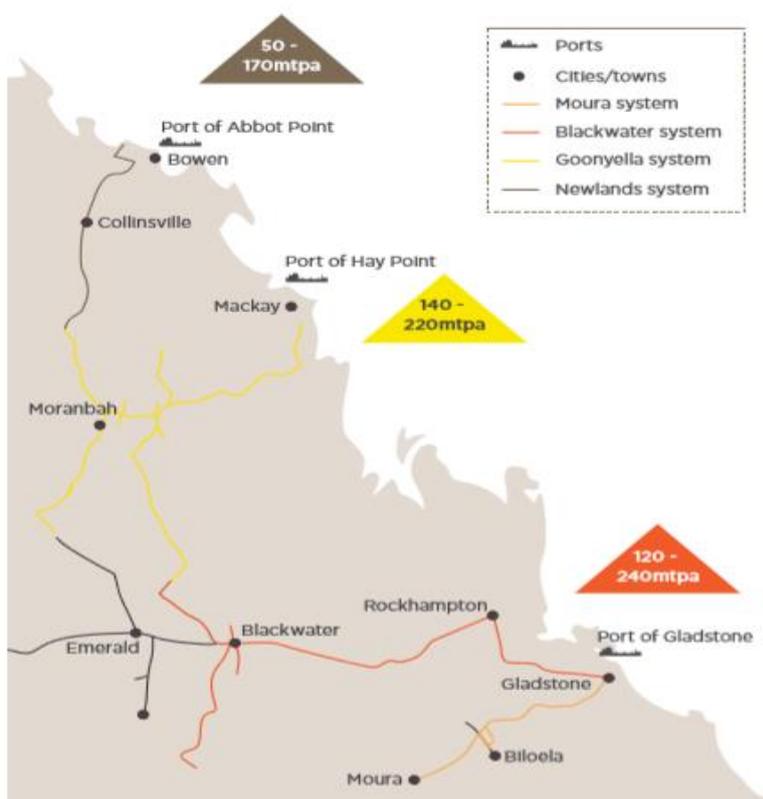
The matters to which the QCA has had regard in determining that 20 years is the appropriate period to recommend for declaration are set out chiefly in the QCA's analysis of the period for assessing total foreseeable demand for the purpose of criterion (b) (section 2.4).

## APPENDIX A—SUMMARY OF AURIZON NETWORK’S NETWORK DEVELOPMENT PLAN

Aurizon Network’s Network Development Plan (NDP)<sup>183</sup> identifies and evaluates options to meet future demand scenarios on the CQC. Aurizon Network stated that it provides a cost-effective solution using a holistic integrated approach, engaging all parts of the supply chain.<sup>184</sup>

The NDP assumes the potential tonnages at future capacities that form the basis for CQC expansion options covered in the plan. Collectively, starting capacities shown are 310 mt, with future CQC capacity scenarios for up to 630 mt (Figure A.1).

**Figure A.1 Future capacities scenarios**



Source: Aurizon Network, *Network Development Plan 2016–17*, p. 4.

<sup>183</sup> Aurizon Network, *Network Development Plan 2016–17*, [https://www.aurizon.com.au/-/media/project/aurizon/files/what-we-do/network/network-development-plans/ndp/networkdevelopmentplan\\_2016-17.pdf](https://www.aurizon.com.au/-/media/project/aurizon/files/what-we-do/network/network-development-plans/ndp/networkdevelopmentplan_2016-17.pdf). This plan is updated by the Network Development Plan 2019 (contents update pages of previous plan) at <https://www.aurizon.com.au/-/media/project/aurizon/files/what-we-do/network/network-development-plans/ndp/2019-network-development-plan.pdf>.

<sup>184</sup> Aurizon Network, *Network Development Plan 2016–17*, p. 2.

To achieve these future tonnages, the NDP identifies various medium- to long-term corridor expansion options. The options are suggested for each system and vary 'as a result of their capacity, condition and varying levels of current development'.<sup>185</sup>

It also provides the net present cost associated with the development options, using various planning tools to enable comparison of the different options.<sup>186</sup> For the Newlands system, the NDP assesses options for expanding from 50 mt to 170 mt. Key projects identified in this CQCN expansion scenario include development of the Galilee, North Goonyella and Blair Athol branches. The net present cost of the particular expansion options suggested by Aurizon Network ranges from around:

- \$1.8 billion to \$2.2 billion in 2020
- \$6.6 billion to \$7.9 billion in 2029
- \$9.2 billion to \$11.5 billion in 2039.

Aurizon Network's comparison shows the suggested 3-loco and 4-loco configuration options achieve lower cost bases over this timeframe.<sup>187</sup>

For the Goonyella system, the NDP identifies options for expanding from 140 mt to 220 mt. To provide this capacity, Aurizon Network suggested projects relating to the North Goonyella, South Goonyella and Blair Athol branches. The net present cost of the expansion options to provide capacity ranges from around:

- \$1.1 billion to \$1.9 billion in 2020
- \$4.5 billion to \$5.2 billion in 2029
- \$6.3 billion to \$7.4 billion in 2039.

A 3-loco improved headway and 4-loco configuration option appear the lowest-cost options.<sup>188</sup>

For the Blackwater and Moura systems, the NDP assesses options for expanding from 120 mt to 240 mt. Aurizon Network provided combined expansion options relating to both systems collectively, securing capacity from the Blackwater trunk, as well as the South Goonyella, Rolleston and Moura branches. When comparing the various options, the net present cost ranges from around:

- \$1.7 billion to \$2 billion in 2020
- \$6.6 billion to \$8 billion in 2029
- \$9.1 billion to \$10.3 billion in 2039.<sup>189</sup>

In the longer term, a 4-loco configuration appears to involve the lowest net present cost.<sup>190</sup>

While the NDP identifies these expansion options and undertakes comparisons to determine those with the lowest cost base, it notes the outcomes presented are not determinative and the plans act as a guide for further, detailed studies where capacity is insufficient to meet demand.<sup>191</sup> In addition, the NDP does not attempt to prioritise any of the corridors when considering growth, instead considering various potential future tonnages that could be realised at each of the major ports. Aurizon Network noted that it does not

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<sup>185</sup> Aurizon Network, *Network Development Plan 2016–17*, p. 3.

<sup>186</sup> Aurizon Network, *Network Development Plan 2016–17*, p. 6.

<sup>187</sup> Aurizon Network, *Network Development Plan 2016–17*, p. 40, figure 30.

<sup>188</sup> Aurizon Network, *Network Development Plan 2016–17*, p. 52, figure 38.

<sup>189</sup> Aurizon Network, *Network Development Plan 2016–17*, p. 64, figure 46.

<sup>190</sup> Aurizon Network, *Network Development Plan 2016–17*, p. 64, figure 46.

<sup>191</sup> Aurizon Network, *Network Development Plan 2016–17*, p. 24.

expect all of these demand increases to occur simultaneously, evidencing the hypothetical approach taken. However, the NDP can assist in identifying Aurizon Network's preferred expansion approaches in response to future increased demand for each of the relevant rail systems.<sup>192</sup>

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<sup>192</sup>Aurizon Network, *Network Development Plan 2016–17*, p. 4.