



Dr Malcolm Roberts
Chairman
Queensland Competition Authority
Level 19, 12 Creek Street
BRISBANE QLD 4000

3 October 2014

Dear Dr Roberts,

Aurizon Operations welcomes the opportunity to respond to the 2014DAU. We have limited our comments on the 2014DAU to two specific areas.

In particular, Aurizon Operations submits that:

- by imposing relinquishment fees in certain circumstances, the 2014DAU will inefficiently penalise Access Holders which improve the efficiency of below-rail infrastructure by improving the productive capacity of network paths; and
- additional reporting of electric/diesel performance differentials would be desirable, given that the pricing differentiation provisions in section 6.2.2(d) appear to have been amended to remove the performance multiplier that was proposed in the 2013DAU.

1. Relinquishment penalties and the efficient utilisation of infrastructure

1.1. Background

Aurizon is currently undergoing a transformation program which aims to increase value through sustainable, replicable and continuous improvement.

As part of that process, we are revisiting our service designs with the objective of better utilising our rollingstock fleet. We aim to improve the productive efficiency of our fleet by using fewer supply-chain resources to haul more coal. For example, we are in the process of increasing train length to the maximum extent permitted under infrastructure constraints, in order to maximise the productive capacity of every train path we consume.

One result of our transformation program has been to improve the utilisation of below-rail infrastructure. By reducing network congestion and increasing the productive capacity of each path, Aurizon Operations' rollingstock optimisation program is proving to have a broader system

benefit. It has resulted in increased system capacity, freed up ad hoc paths, and increased productive efficiency.



Aurizon submits that its rollingstock productivity initiative are clearly consistent with the statutory objective, in that they promote an efficient, productive, cost-effective and competitive supply-chain. As shown in Table 1, Aurizon’s activities are consistent with the statutory criteria, and are thus consistent with the objective of the Queensland regulatory framework.

Table 1: Operation of Longer Train Services

Statutory Criteria	Assessment
<p>Objects Clause (s 69) Promote the economically efficient use of, and investment in significant infrastructure</p>	<p>Increased train lengths improve the productivity of existing train paths (<i>more tonnes per train path</i>); and Increased train lengths make paths available for other purposes, reducing the need for below rail investment (<i>the most efficient expansion path</i>).</p>
<p>..... with the effect of promoting competition in upstream and downstream markets.</p>	<p>Increased train lengths are consistent with a competitive above rail market (<i>the most efficient price and service</i>).</p>
<p>Pricing Principles (s 168A) Prices should provide incentives to reduce costs or otherwise improve productivity.</p>	<p>Increased train lengths are an efficient response to the AT2 train path charge (<i>responsive to LRMC</i>).</p>
<p>Public Interest (s 138) Improve the competitiveness of Queensland coal export industry.</p>	<p>Increased train lengths enhance the competitiveness of the entire coal chain (<i>lower total cost of ownership through improved technical efficiency</i>).</p>

1.2. Relinquishment penalties

Aurizon submits that the operation of Schedule F in the 2014DAU will inefficiently (and inadvertently) penalise its productivity initiatives, contrary to the objectives of the QCA Act.

Historically, a rail operator which improved the productive capacity of its contracted access rights and that did not need any resultant ‘freed up’ capacity itself, would obtain the benefit of its efficiency initiative by selling surplus train paths via a transfer. The operator (being the access holder) would not incur below-rail costs as a consequence of pursuing productivity improvements



(and would likely obtain a below-rail benefit), and the system would benefit from additional capacity and reduced congestion. No relinquishment fees would be payable.

However, in the current market environment, there is a low overall demand for contracted train paths. This has increased the difficulty of transferring network capacity to a third party, and meant that any 'freed up' path is much more likely to be relinquished to the network provider.

Where relinquishment occurs, the access holder is subject to a large financial penalty. This is because relinquishment is treated under the access agreements as akin to 'reneging' on a binding take-or-pay commitment, the effect of which is to transfer cost to the rest of the system through higher reference tariffs.

This possibility of a relinquishment fee means that Aurizon (and other operators) have no incentive to pursue more efficient operations, where the financial cost of below-rail penalties exceeds any operational savings.

Aurizon Operations considers that this is a perverse and unintended consequence of the relinquishment provisions. In particular:

- The relinquishment provisions contained in access agreements executed after 30 June 2006 reflects a fee that is approximately half¹ of the net present value of the nominal take or pay liability. This is a material payment (equivalent to the AT2, AT3 and AT4 access charges the access holder would expected to pay over the remaining duration of the access agreement).
- The materiality of this payment is directed at ensuring the integrity of the take or pay framework. Relinquishment is intended to penalise access holders that fail to achieve contracted volume (NT/ NTK) in order to protect other users of the network from an increase in reference tariffs.
- However, applying such a large penalty on an access holder which has simply made more productive use of existing paths is fundamentally flawed. Unlike an access holder 'reneging' on a take or pay contract, more productive use of train path does not materially change reference tariffs. While more productive use of train paths will result in a marginal reduction in required train paths, it results in no net change in either the contracted net tonnes or net tonne kilometres.

The result is that the relinquishment fee associated with longer trains becomes grossly disproportionate to the expected cost of the relinquished paths to the system.

As an example, all other things being equal, if the entire Goonyella system migrated from 120 to 124 wagon consists:

- There would be approximately a 3.3% reduction in the required number of train paths. This is equivalent to one less train path being used per day (unless recontracted or made available for ad hoc services). Aurizon Network would collect less AT2 revenue.
- There would be no change in net tonnes or net tonne kilometres - Aurizon Network would therefore collect the same AT3 and AT4 revenue (which accounted for approximately 77% of Aurizon Network's MAR in 2013-14). This is because the same overall number of tonnes would still be railed, albeit in few paths.
- The reduction in AT2 revenue would be reallocated to the AT3 and AT4 tariff components. We calculate that this would result in less than \$2 million being recovered

¹ The discount is intended to remove the incentive to hoard capacity, by holding onto under-utilised access rights.



via those tariff components, equivalent to less than \$0.02 per net tonne. To place this in context, a \$0.02 cost per net tonne is equivalent to a mere 500,000 tonne difference in the system forecast.

- In contrast, the applicable relinquishment fees levied on operators for moving from 120 to 124 wagon trains would be in the order of \$7-8 million per annum – well in excess of the revenue impact on Aurizon Network (making the relinquishment fee, effectively, a penalty payment).

Aurizon submits that a tariff impact of less than \$0.02 per net tonne is negligible relative to the broader efficiency benefits of allowing above rail operators to improve the productive use of train paths. The benefits of increases train lengths include:

- A reduction in system congestion, whilst still satisfying the same amount of aggregate demand. Reduced congestion can reduce trains delays and scheduling conflicts, in turn, improving transit times, increasing system velocity and maximising fuel efficiency.
- Additional train paths might be used for increased maintenance access, potentially reducing any deficient opportunity to access the track by providing greater flexibility around the timing of maintenance possessions.
- Latent train paths can increase system surge capacity, particularly assisting the performance of cargo-assembly supply-chains.
- Improves opportunities for ad-hoc services (including non-coal freight services).
- Available train paths can reduce the scope and cost of subsequent capacity expansions.

Aurizon Operations considers the benefits of longer trains are substantially in excess of the costs of negligibly higher system tariffs. Moreover, the size of the relinquishment itself is so manifestly in excess of the actual impact is to be equivalent to a penalty, which alone ought to be a reason to reform its current operation.

1.3. Minor amendment to Schedule F is required

Resolving the inefficiencies caused by the relinquishment fee requires a minor drafting change to Schedule F.

Aurizon Network is free to waive relinquishment fees for any access holder (provided it does so non-discriminatorily), in the same way it is free to forego a benefit to which it is entitled under any contract. No involvement by the QCA in such a waiver is necessary (or appropriate).

However, in exercising this discretion, Aurizon Network is exposed to the prospect of financial loss through the determination of a revenue cap adjustment amount. This is because Schedule F counts revenue which Aurizon Network is 'entitled to earn' under the relevant standard access agreement, rather than revenue it in fact does earn. The result is that Aurizon Network's 'Total Actual Revenue' will assume relinquishment fees are collected, whether or not they actually are. This does not allow for waiver, as the Network may be "entitled" to a fee but elect to waive it.

Aurizon therefore considers a simple amendment can be made to the determination of Total Actual Revenue definition in Schedule F, Clause 3.3(c)(ii) through the insertion of a new subclause 3.3(c)(ii)(C):

'the amount of any Relinquishment Fees Aurizon Network may have been entitled to earn but did not collect where those Relinquishment Fees were attributable to an agreed

increase in the maximum payload under any relevant access agreement and there is no net change in the aggregate nt and ntk associated with the reduction in Train Services’.

The effect of such an amendment would be to allow operators with a UT2 or UT3 access agreement to undertake productivity improvement initiatives.

1.4. Reduction of Nominated Monthly Train Services

In relation to the UT4 standard access agreements, it may also be appropriate to include additional provisions in relation to increasing the nominal train payload. As an example, an access holder request to increase maximum payload can be administered by deleting clause 11.2(a)(ii)(D):

‘The Relinquishment Fee that would be payable under clause 13 in respect of the relinquishment of the Surplus Access Rights by the Operator’.

Aurizon Operations observes that this amendment would have the same effect as when Aurizon Network issues a notice for a Revised Maximum Payload under clause 12.1(c) – a situation where no relinquishment fee is payable.

The revised SOAA includes an additional Section 11 titled ‘End User initiated increase in Maximum Payload’. Aurizon considers these provisions a duplication of the provisions in Section 10 titled ‘Reduction of Nominated Monthly Train Services if Maximum Payload exceeded’. There is scope for consolidating section 10 and 11 into a single process of increasing maximum train payload without relinquishment fee.

2. Performance Accountability for Diesel Services

The pricing differentiation provisions in section 6.2.2(d) have been amended to remove the performance multiplier which was proposed in the 2013DAU. Aurizon understands that the removal of the performance multiplier proposal was due to:

- Aurizon Network’s current information systems not accurately capturing the amount of green light running; and,
- the complexity of integrating an access surcharge within the current billing system.

The intention of the performance multiplier was to ensure services which are unable to traverse a track section within the longest section run time for the reference service were subject to a price surcharge that reflected the *actual* consumption of network capacity, as opposed to the *expected* consumption currently captured by the train path multiplier.

The most prominent example of where Aurizon Network envisaged this might occur is in the Blackwater System, where Aurizon Network has previously noted that the performance of diesel services reduces system capacity. As noted in a 2011 submission:²

“The critical factors constraining the Blackwater system capacity are in fact the ruling grades, and the resulting requirements for headway separation between trains operating on these sections. These factors are significantly impacted by the operation of trains as electric or diesel ...

This is readily apparent in the Southern Bowen Basin Supply Chain Operating Assumptions which clearly show in section 3.6.7 the planned variations in section run times associated with the reduction in headway separation to 20 minutes. Following the

² Aurizon Network (2012) Response to Draft Decision – Electric Traction Services Pricing, September, p. 23

planned infrastructure enhancements, the most critical section will be the Westwood to Windah section, which shows expected section run times (SRT) of loaded electric and diesel train services of 13 minutes and 23 minutes respectively ...

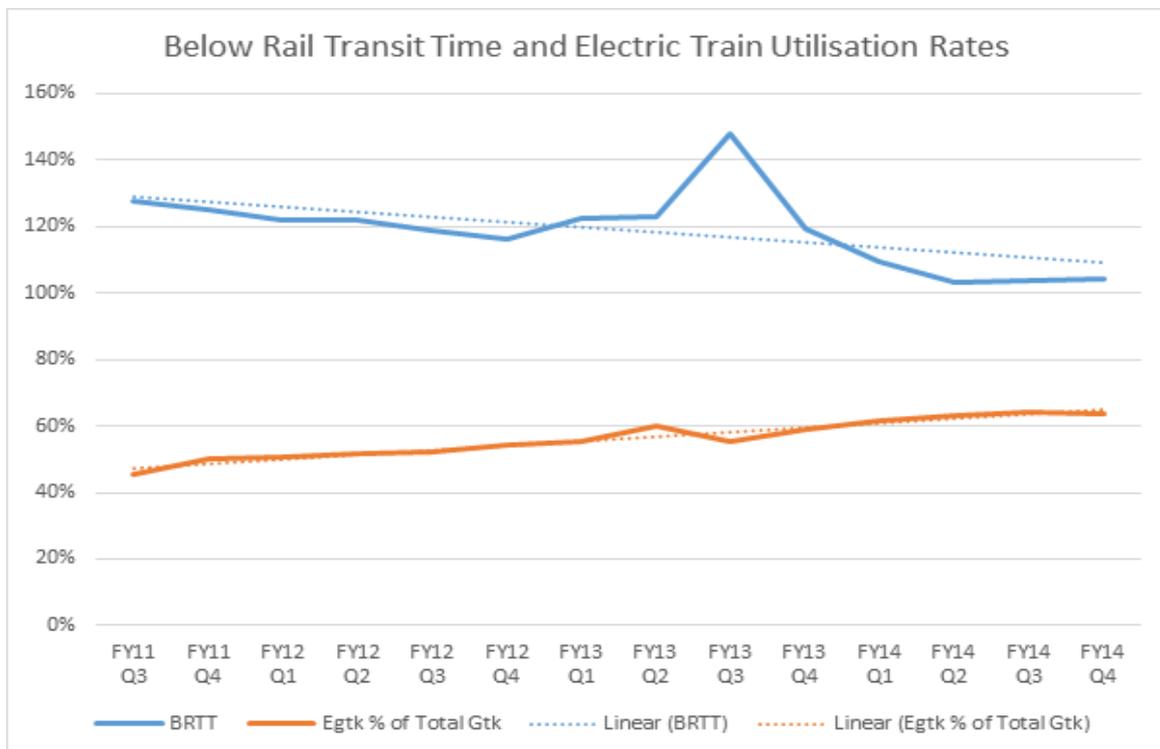
The diesel service achieves the required SRT of 20 minutes only through the use of 4x4000 diesel locomotives (which in other circumstances may be considered to be overpowering the diesel train). It is also clear from this that the driver of the required 20 minute train separation on this section is in fact the diesel train, given that the electric train is expected to clear this ruling grade section in 13 minutes. The practical effect is that where a diesel service fails to clear this section in 20 minutes it will sterilise an additional network path”.

An area of substantial debate among stakeholders in the consideration of the electric pricing DAAU was the relative performance of diesel versus electric trains in Blackwater. At the time, the relative performance of the two traction modes was difficult to establish because:

- the system was operating to a substantially longer headway separation of 30 minutes in track sections where the system was not fully duplicated; and
- the substantial proportion of diesel train services within the system had reduced system velocity such that train schedules were developed to reflect the longer diesel transit times.

More recent data suggests that an increased penetration of electric traction train services has, as anticipated by Aurizon Network and Aurizon Operations in 2011, reduced below-rail transit time. Figure 1 below shows a strong negative correlation between BRTT and electric utilisation rates.

Figure 1: Blackwater System Performance



Aurizon expects that BRTT will continue to progressively reduce following electrification of the Rolleston branch line, which will increase the proportion of electric trains operated.



Given the above, it is important that appropriate data is captured and reported by Aurizon Network. This reporting must be able to show the relative performance of electric and diesel services in order to provide effective signals to the market on the traction mode which maximises system throughput and velocity. In this respect Aurizon recommends that the Quarterly Performance Report be expanded to include:

- the reinstatement of BRTT performance on a quarterly basis by system;
- the separate reporting of average train speed for diesel and electric train services by system; and
- the separate reporting of the percentage of diesel and electric train services in the Blackwater System which exceed the Nominated Separation Time over the Constrained Section.

The reporting of average train speeds provides a more relevant metric for assessing system performance and represents a more holistic measure on above rail performance than BRTT alone.³ The reporting of average train speeds also avoids the need to consider the causality of delays.

We are happy to provide any further information in relation to the above. We will continue to work with both customers and Aurizon Network in relation to the 2014DAU. Please do not hesitate to contact Dean Gannaway (Dean.Gannaway@aurizon.com.au) or myself in relation to the above.

Yours faithfully,



Prue Mackenzie
VP Marketing

³ As an example the Performance Measurement requirements in Schedule D of the Hunter Valley Access Undertaking includes system performance reporting on Transit Time as measured by average train speed.