



Charles Millstead
Chief Executive Officer
Queensland Competition Authority
Level 27
145 Ann Street
Brisbane QLD 4000

Response to QCA's Consultation Paper on Aurizon Network Maintenance and Operational Matters

22 June 2018

Dear Mr Millstead,

Aurizon Coal welcomes the opportunity to respond to the Queensland Competition Authority's (QCA's) Consultation Paper (29 May 2018), seeking comments on certain maintenance related issues arising from the Draft Decision on the 2017 Draft Access Undertaking (UT5).

This submission is intended to be read in conjunction with Aurizon Coal's previous submissions on the QCA's draft decision on UT5 and in response to the QCA's UT4 Compliance Notice on maintenance.

Aurizon Coal maintains its view that the new maintenance and operating practices, which place primacy on maintenance over the operation of train services, have had a direct and detrimental impact on the efficient utilisation of the infrastructure by Aurizon Coal. As such, the expeditious resolution of this issue remains essential. Whilst Aurizon Coal considers there is possible value in some of the QCA's suggested policy options, for example, an incentive regime for maintenance, these must not come at the expense of a timely decision.

Accordingly, in Aurizon Coal's submission, the QCA must focus its consideration initially on determining the prudence of Aurizon Network's maintenance allowance. This must be done in conjunction with ensuring that the service and maintenance obligations on Aurizon Network balance cost efficiency and total supply chain efficiency. Further, we believe that reform of the current planning and scheduling process must be simultaneously undertaken, such to enduringly restore supply chain efficiency and throughput.

1. Network Performance Incentive and Accountability Mechanisms

Maintenance and other essential network services must be delivered in a way that maximises the ability of producers and rail operators to sustainably and efficiently transport coal. Greater availability and useability of the infrastructure to meet end user demand and generate revenue in the form of coal sales and royalties is clearly of greater economic benefit to the supply chain and produces a more efficient outcome than any cost savings that can be realised from changes to, or improvements in, maintenance regimes.

This does not mean that Aurizon Network should not be incentivised to make improvements or changes to its maintenance regime, nor that it should not be robustly tested by both its regulators and

its customers to reduce its costs. Rather, simply, that primacy must always be given to designing a maintenance regime that produces the overall greatest economic benefit – which in Aurizon’s submission, will generally always entail a regime which maximises the productive efficiency of the overall supply-chain.

(a) Train services prioritised over maintenance activity

In Aurizon Coal’s view, the recent impact of network maintenance on the efficient operation of the system, clearly highlights the value which be unlocked by a reorganisation of the scheduling and planning process.

At present, Aurizon Network has first rights to pathing for network maintenance, regardless of the scope, urgency or nature of the maintenance activity. Aurizon Network prepares its maintenance plan before customers place orders with their operator(s), and before those operators then develop a train schedule to meet (as best as they are able) the orders they receive. The supply chain, in effect, is structured each week around the below rail maintenance work program and weekly variation in demand fulfilment is, in part, a function of the level and type of network maintenance activity being undertaken.

The changes made by Aurizon Network in response to the UT5 Draft Decision, together with an apparent trend towards work being undertaken in higher frequency single-line or 12-hour blocks, have highlighted the obvious drawbacks inherent in setting all network maintenance before trains are scheduled. Producers see this in the level of variation in scheduling outcomes, week-to-week, and a clear difficulty in forecasting supply-chain capability. These issues are very apparent in more constrained parts of the network, such as highly-utilised single-line branches.

The issue with planning maintenance before trains has always existed, but had previously been masked by Aurizon Network’s preparedness to reprogram its track possessions to promote throughput, a relatively low demand environment, and an assets program that was weighted to major system closures. That appears to be no longer the case.

As set out in Aurizon Coal’s previous submission, the losses which arise from planning around below rail maintenance represent an opportunity cost. These costs are often not readily observable, because not every train path consumed by a maintenance event can be scheduled into (i.e. some paths are usable, and others are not). It often occurs that apparently major maintenance has little impact on throughput, but that minor works have a serious impact, if the latter disproportionately affects usable paths over the former.

Aurizon Coal believes that the opportunity cost of this lost throughput would be dramatically reduced, where the scheduling of maintenance and train services during the weekly Intermediate Train Plan (ITP) process prioritises train services ahead of those network maintenance activities that can be flexibly planned and / or are less time sensitive. In effect, operators would be given the maximum opportunity to prepare a schedule which maximally utilised available rollingstock, before maintenance was planned.

This reorganisation of the scheduling and planning process can be facilitated within and is consistent with the existing Network Management Principles. Additionally, it incentivises the continued use by Aurizon Network of operational constraints and Temporary Approved Non-Compliance authorisations (where appropriate) to allow continued throughput in times of high demand.

Aurizon Coal recognises that such an approach would require more detailed consideration of its practical application and the potential increase in maintenance costs arising due to the need to have maintenance staff and equipment available, but potentially not used, due to the nature of opportunistic maintenance work. These costs would then need to be weighed against the benefit received by the

supply chain in increased network availability and ability to meet demand for revenue services. Judged on the relative costliness of mechanised maintenance, it may be that only mechanised maintenance activities are planned in the Monthly Train Plan (**MTP**) process with all other maintenance occurring opportunistically and with the aim that demand for revenue services is met.

(b) Financial incentive mechanisms

In principle, there is value in a mechanism that incentivises Aurizon Network to deliver its maintenance program at an efficient cost, and in a manner that ensures an optimal throughput outcome for the supply chain. A market-mechanism is preferable always to an administrative one. Clearly, however, the design of any such mechanism is critical – a poorly designed market-based mechanism may very well incentivise suboptimal behaviour, or simply increase access charges without an associated improvement in network performance.

More broadly, an incentive mechanism must be carefully designed to complement the broader suite of regulatory controls which apply to Aurizon Network. We do not believe there is any point in an incentive mechanism if that mechanism is not coupled with a reorganisation and reprioritisation of activity in the planning phase, as outlined above.

Aurizon Coal would welcome the opportunity to engage with Aurizon Network and other supply chain users on an incentive mechanism which considers the appropriate metrics and strikes the right balance between the trade-offs for the entire supply chain.

(c) Measures of Network Availability and Network Performance

The QCA noted several metrics on which it would be appropriate to base an incentive mechanism. These suggested metrics are, by and large, known and understood by the supply chain but are not necessarily precise and are not, in Aurizon Coal's view, clearly applicable for use in an incentive mechanism.

As an example, train path availability or system availability as it is commonly referred to, is measured by Aurizon Network as the proportion of system (loaded export) paths available in any system. Aurizon Coal does not consider this a useful measure as it does not accurately reflect the impact the specific location of maintenance (i.e. proximity to port) has to one or a group of users; the balance of loaded and empty pathing, or the impact of the 'spacing' of maintenance on train scheduling, or any impact arising from branch-line maintenance.¹ It is entirely possible and indeed common, for system availability to be within a 'normal' range, whilst simultaneously observing maintenance being conducted by Aurizon Network that has a negative throughput impact.

If system availability is a measure used in any incentive mechanism, Aurizon Coal would seek it to be measured at a more granular origin to destination or mine cluster level, as opposed to total system level. This will ensure regard is had to the 'useability' of available pathing and incentivise the planning of maintenance works in a way that optimises the use of the infrastructure, and is aligned with demand.

The above represents Aurizon Coal's preliminary comments on the suggested measures and elements of any incentive mechanism. We reserve the right to provide further more detailed comments as part of a broader engagement with Aurizon Network and other supply chain users.

¹ This was outlined in Aurizon Coal's submission in response to the QCA's UT4 Compliance Notice.

(d) Administrative controls and reporting requirements

Aurizon Coal supports greater transparency on maintenance planning, however, such transparency needs to be timely, insightful and designed to allow supply chain users to utilise and act on information. After the fact reporting is of little value in an operational context, and would likely not be effective at promoting efficient maintenance practices.

As an operator, Aurizon already receives considerable information on Aurizon Network's maintenance plans to assist in its scheduling and planning. This information however is not presented in a way that allows operators to readily discern what the impact of those maintenance plans (specific constraints and possessions) have on train path availability, and more importantly specific hauls. This is because the information is presented on the basis of sectional locations as opposed to a form that clearly identifies the specific hauls and the hours in a day or days that such hauls cannot operate as a result of the planned maintenance activity. This information is also provided on a rolling 3-week basis and is in effect the detailed implementation of the Critical Asset Alignment Calendar (CAAC) that set outs the indicative hours of maintenance activity per day over the next 12-month period. Increasing transparency of this type of information and the timeframe for which it is provided (i.e. 12 weeks rather than 3 weeks) would assist operators in improved planning and scheduling.

Non-operator access holders and supply chain users may benefit from the provision of such information in an insightful and manageable way and Aurizon Coal supports the provision of such information to non-operator access holders and supply chain users.

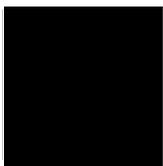
Administrative controls which require additional reporting or certification of decisions are seem unlikely to produce an operational benefit, relative to establishing the maintenance planning process in a way that is inherently more transparent, as is proposed above. For instance, Aurizon Coal considers there is little value to be gained from Aurizon Network Board certification of maintenance outcomes after the fact, or from further reporting/notification of operational constraints. These controls do not provide timely and valuable information which assists in assessing infrastructure availability for the purposes of the deployment of resources.

(e) Other matters

Aurizon Coal would also like to reiterate that the new maintenance and operating practices, in addition to the effects outlined above, also resulted in important supply chain productivity improvements ceasing, including the operation of longer trains. It is imperative that the QCA also considers Aurizon Network's incentive to consider above rail productivity improvements given that they are significant enablers of competition in above rail markets.

Should you wish to discuss the information provided please do not hesitate to contact me on (07) 3019 2223.

Kind regards,



Louisa Chung
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Aurizon Coal