



Clotilde Bélanger
Program Manager
Queensland Competition Authority
Level 27
145 Ann Street
BRISBANE QLD 4000

Aurizon Network Pty Ltd (Aurizon Network) – Annual System Rules Review for the Central Queensland Coal Network (CQCN)

30 November 2018

Dear Clotilde

In accordance with clause 7A.2.4 of Aurizon Network's 2016 Access Undertaking (UT4) (**Access Undertaking**), Aurizon Network must review the System Rules at least annually, as well as upon Aurizon Network becoming aware of the occurrence of a number of events, including that a new loading facility, port terminal or unloading facility becomes connected to a relevant Coal System.

Following the connection of new loading facilities in the CQCN at each of Blair Athol, Baralaba and Byerwen locations and coinciding with the Annual Review, Aurizon Network in consultation with Central Queensland Coal Network (**CQCN**) stakeholders has conducted a review of the System Rules.

Capitalised terms in this letter have the meaning given to those terms in the Access Undertaking, unless otherwise indicated.

2018 System Rules Annual Review

Summary

The System Rules were approved by the Queensland Competition Authority (**QCA**) on 14 September 2017, with the approval taking effect from 6 November 2017 (**Approval**). Given the relatively short period in which the System Rules have been in place, and the lack of impact resulting from the addition of new loading facilities, Aurizon Network is not proposing, at this time, to make any changes to the current approved System Rules. Aurizon Network however has agreed to work with all CQCN stakeholders on improving the scheduling and planning functions through a joint workshop process over the course of Q2FY19. If this results in proposed changes to the System Rules, these will be referred to the QCA for approval.

New loading facilities impact

In accordance with the requirements of clause 7A.2.4(b)(iii) of the Access Undertaking, Aurizon Network reviewed the impact of the new loading facilities in the CQCN and determined that the connections do not impact or change the way Aurizon Network plans, schedules and controls the operation of Train Services in the CQCN. Specifically, the Intermediate Train Planning (incl.

train order timeframes, planning considerations & scheduling horizon) and Daily Train Planning processes remain unimpacted.

The current System Rules were developed in consultation with Access Holders, Ports and other CQCN Stakeholders. As the planning processes continue to operate equitably between Access Holders and are consistent with the Access Undertaking (including the Network Management Principles and System Operating Parameters), Aurizon Network does not propose to amend the System Rules.

Stakeholder Consultation

Aurizon Network notified CQCN stakeholders, including Train Operators, Access Holders, Access Seekers and their Customers, on the preliminary outcome of the System Rules review and proposed no amendments on 14 September 2018. In accordance with clause 7A.2.4(d) of the Access Undertaking, the notification letter provided CQCN stakeholders with twenty (20) Business Days to provide feedback for consideration (**Consultation**).

Consultation has identified several matters to be considered as part of the ongoing improvements of Aurizon Network's scheduling and planning functions via the System Rules. A full list of matters raised by stakeholder is **attached** to this letter (**Matters Raised**), together with a copy of relevant correspondence

In balancing the needs of all stakeholders, Aurizon Network intends to conduct a joint workshop and to address all Matters Raised over the Q2FY19 period as part of Aurizon Network's commitment for continuous improvement to enable the best outcome for the supply chain. This approach has been discussed with all stakeholder who responded to Aurizon Network's consultation, each of whom has agreed to participate in the workshop process.

Other matters

In the Approval letter, the QCA requested Aurizon Network consider the following matters in Aurizon Network's next review of the System Rules. Specifically, whether:

- *"There is scope to improve clarity by defining the term 'TSE consumption' and explain its relevance for the access undertaking rights and obligations for the relevant parties; and*
- *Relatedly, given the 8am – 8pm operating hours of the Aurizon Network Service Designers, Aurizon Network should consult on a potential means to provide flexibility in calculating TSE consumption."*

Is there scope to improve clarity by defining the term 'TSE consumption' and explain its relevance for the access undertaking rights and obligations for the relevant parties

Aurizon Network considers 'TSE consumption' is already clearly dealt within the Access Undertaking, in respect of calculation aligned with contracted Access Holder's Train Service Entitlements (TSE), and does not propose to provide more detail in the System Rules.

TSE's are taken to be used¹ as determined by applying the principles set out in clause 8.2(b) and (c) of Schedule G of the Access Undertaking. Specifically, the extent to which an Access Holder's TSE was used in respect of a particular origin to destination pair for the relevant period is calculated as the greater of:

¹ For clarity, TSE consumption rules for scheduling purposes do not affect or apply in relation to the calculation of Take or Pay

- (i) the number of the Train Services operated in accordance with the TSE for that origin to destination pair for the Relevant Period; and
- (ii) the number of System Paths scheduled for Train Services in accordance with TSE for that origin to destination pair for the Relevant Period.

Whereby the principles used to determine the number of System Paths scheduled or operated include:

- (i) the point at which a schedule for Train Services is considered final (24 hours prior to the day of operations);
- (ii) the number of System Paths scheduled will be reduced by the number of scheduled System Paths not provided due to Aurizon Network Cause or a Force Majeure Event affecting Aurizon Network in the period to which the schedule applies;
- (iii) Where the scheduled time of the Train Path is varied in accordance with clause 5, that variation is not taken to involve the scheduling of more than one Train Path unless, for clarity, that variation is a cancellation of the Train Path in which case the TSE is taken to be operated in respect of that cancelled Train Path; and
- (iv) To the extent an Access Agreement requires Aurizon Network to provide to an Access Holder a reasonable alternative Train Path or to determine whether infrastructure has not been made available due to Aurizon Network Cause or a Force Majeure Event affecting Aurizon Network, a Train Path will be deemed to be a reasonable alternative Train Path where it is within the same period to which the schedule applies and it is practical for the Access Holder to use it (acting reasonably).

Relatedly, given the 8am – 8pm operating hours of the Aurizon Network Service Designers, Aurizon Network should consult on a potential means to provide flexibility in calculating TSE consumption.

For the purpose of the planning and scheduling of train orders, all requests in relation to TSE consumption are timestamped via electronic mail to ensure that if a request is sent outside of hours, it is still treated as received at the time of electronic timestamp. This timestamp record keeping process is applied at all times (including both operating hours and outside of operating hours).

As a result, if an operator wishes to cancel a service prior to the 24-hour period, but outside operating hours, an email notification will be treated as received as marked by the electronic timestamp, rather than upon recommencement of operating hours. In the interests of transparency, we have provided a copy of this letter to each of the parties who responded to Aurizon Network's consultation.

Should you have any questions on the System Rules, please contact me or Richard Boardman at Richard.Boardman@aurizon.com.au.

Sincerely,



Donna Bowman
Manager Network Regulation
Aurizon Network

Attachments

1. Proforma Notification Letter
2. Stakeholder Notification List
3. Matters Raised by Stakeholders

Proforma Notification Letter



[Contact Name]
[Company Name]
[Street address]
[Suburb STATE Pcode]
[Country]

Aurizon Network Pty Ltd (Aurizon Network) – System Rules Review for the Central Queensland Coal Network (CQCN)

14 September 2018

Dear [Name],

The Queensland Competition Authority (QCA) approved Aurizon Network's System Rules on 14 September 2017, with the approval taking effect from 6 November 2017 (**Approval**).

The System Rules specify in greater detail than that already set out in Aurizon Network's 2016 Access Undertaking (UT4) (**Access Undertaking**), the way in which Aurizon Network must plan, schedule and control the operation of Train Services across the CQCN.

Aurizon Network must review the System Rules at least annually, as well as upon Aurizon Network becoming aware of the occurrence of a number of events, including that a new loading facility, port terminal or unloading facility becomes connected to a relevant Coal System.¹

Following the connection of new loading facilities in the CQCN at each of Blair Athol, Baralaba and Byerwen locations and coinciding with the Annual Review, Aurizon Network has conducted a preliminary review of the System Rules.

Capitalised terms in this letter have the meaning given to those terms in the Access Undertaking.

Summary of Review Findings

In summary, given the relatively short period in which the System Rules have been in place, and the lack of impact resulting from the addition of new loading facilities, Aurizon Network does not propose to make any changes to the current approved System Rules.

New loading facilities impact

In accordance with the requirements of clause 7A.2.4(b)(iii) of the Access Undertaking, Aurizon Network reviewed the impact of the new loading facilities in the CQCN and determined that the connections do not impact or change the way Aurizon Network plans, schedules and controls

¹ Clause 7A.2.4 of the Access Undertaking

the operation of Train Services in the CQCN. Specifically, the Intermediate Train Planning (incl. train order timeframes, planning considerations & scheduling horizon) and Daily Train Planning processes remain unimpacted.

The System Rules were developed in consultation with Access Holders, Ports and other CQCN Stakeholders. As the planning processes continue to operate equitably between Access Holders and are consistent with the Access Undertaking (including the Network Management Principles and System Operating Parameters), Aurizon Network does not propose to amend the System Rules.

Other matters

In its Approval letter, the QCA requested Aurizon Network consider the following matters in Aurizon Network's next review of the System Rules. Specifically, whether:

- *“There is scope to improve clarity by defining the term ‘TSE consumption’ and explain its relevance for the access undertaking rights and obligations for the relevant parties; and*
- *Relatedly, given the 8am – 8pm operating hours of the Aurizon Network Service Designers, Aurizon Network should consult on a potential means to provide flexibility in calculating TSE consumption.”*

Is there scope to improve clarity by defining the term ‘TSE consumption’ and explain its relevance for the access undertaking rights and obligations for the relevant parties

Aurizon Network considers that the term ‘TSE consumption’ is already clearly dealt with in the Access Undertaking and does not propose to provide more detail in the System Rules.

Train service entitlements (TSE) are taken to be used (consumed) as determined by applying the principles set out in clause 8.2(b) and (c) of Schedule G of the Access Undertaking.² Specifically, the extent to which an Access Holder's TSE was used in respect of a particular origin to destination pair for the relevant period is calculated as the greater of:

- (i) the number of the Train Services operated in accordance with the TSE for that origin to destination pair for the Relevant Period; and
- (ii) the number of System Paths scheduled for Train Services in accordance with TSE for that origin to destination pair for the Relevant Period.

Whereby the principles used to determine the number of System Paths scheduled or operated include:

- (i) the point at which a schedule for Train Services is considered final (24 hours prior to the day of operations);
- (ii) the number of System Paths scheduled will be reduced by the number of scheduled System Paths not provided due to Aurizon Network Cause or a Force Majeure Event affecting Aurizon Network in the period to which the schedule applies;
- (iii) where the scheduled time of the Train Path is varied in accordance with clause 5, that variation is not taken to involve the scheduling of more than one Train Path unless, for clarity, that variation is a cancellation of the Train Path in which case the TSE is taken to be operated in respect of that cancelled Train Path; and

² For clarity, TSE consumption rules do not affect or apply in relation to the calculation of Take or Pay

- (iv) to the extent an Access Agreement requires Aurizon Network to provide to an Access Holder a reasonable alternative Train Path or to determine whether infrastructure has not been made available due to Aurizon Network Cause or a Force Majeure Event affecting Aurizon Network, a Train Path will be deemed to be a reasonable alternative Train Path where it is within the same period to which the schedule applies and it is practical for the Access Holder to use it (acting reasonably).

Relatedly, given the 8am – 8pm operating hours of the Aurizon Network Service Designers, Aurizon Network should consult on a potential means to provide flexibility in calculating TSE consumption.

For the purpose of the planning and scheduling of train orders, all requests in relation to TSE consumption are timestamped via electronic mail to ensure that if a request is sent outside of operating hours, it is still treated as received at the time of electronic timestamp. This timestamp record keeping process is applied at all times (including both operating hours and outside of operating hours).

As a result, if an operator wishes to cancel a service prior to the 24-hour period, but outside operating hours, an email notification will be treated as received as marked by the electronic timestamp, rather than upon recommencement of operating hours. Given this mechanism is already operating effectively, Aurizon Network does not consider any further measures are required.

Should you have any comments or feedback, please provide these to Aurizon Network via email to Access.Services@aurizon.com.au by 12 October 2018. Aurizon Network will consider any comments received prior to finalising this review and submitting it to the QCA.

Should you have any questions on the System Rules, please contact me or Richard Boardman at Richard.Boardman@aurizon.com.au.

Sincerely,

[Insert Name]

Customer Account Manager
Aurizon Network

Stakeholder Notification List

Stakeholders
BMA
BMA Rail
Queensland Rail
Fitzroy
Queensland Alumina Limited
Peabody
Bounty
Sojitz
Rio Tinto
Pacific National
Glencore
Middlemount
Jellinbah
Batchfire
Anglo American
Aurizon Operations
QCoal
Baralaba Coal
TerraCom
Kestrel Coal
Pembroke Resources
Idemitsu
Dalrymple Bay Coal Terminal
DBCT Management
Hay Point Coal Terminal
Adani Abbot Point Coal Terminal
Wiggins Island Coal Export Terminal
Gladstone Ports

Matters Raised by Stakeholders

Matters Raised – Extracts provided by Stakeholders	Aurizon Network's Comments
<p>Train Service Entitlement (TSE) Consumption within 24-hour window</p> <p>Section 2.3 of the System Rules has the effect that a change in schedule in the 24 hours prior to operation may result in the consumption of a TSE. The Operator believes that this does not necessarily align with either contractual arrangements or section G of the 2016 Access Undertaking which does outline a TSE consumption rule. TSE consumption should align with contractual arrangements</p>	<p>To be included as an agenda item in the joint workshop.</p> <p>In accordance with Schedule G part 8.2(b) of Aurizon Network's 2016 Access Undertaking (UT4), a schedule for Train Services is considered to be final within 24 hours prior to the Day of Operations. As the schedule is considered final, changes to the schedule may result in the affected TSE's to be considered as 'consumed' for scheduling purposes only. For clarity, TSE consumption rules for scheduling purposes do not affect or apply in relation to the calculation of Take or Pay. However, in the event of a scheduling change, Aurizon Network train control and traffic management processes must consider the Train Service Entitlements of Access Holders, with the objective of an equitable outcome maximising the ability of each Coal System to meet contractual entitlements (Part 7.3(iv) of Schedule G).</p>
<p>Leading Performance Measures</p> <p>Section 5.2 of the System Rules focuses on lagging indicators such as on-time running and delays. The Operator believes that leading indicators such as Below Rail Transit Time percentages based on planned services should also be used. The use of leading indicators provides an opportunity for Aurizon Network to work with stakeholders to adjust plans prior to departure.</p>	<p>To be included as an agenda item in the joint workshop to discuss leading indicators (i.e. train cycle velocity) to optimise scheduling processes and align assumptions.</p> <p>Note - BRTT percentage is reported separately in accordance with clause 10.3.4 of Aurizon Network's 2016 Access Undertaking (UT4). Aurizon Network are required to develop a quarterly performance report for the average actual Below Rail Transit Time Percentage for each System published on Aurizon's website.</p>
<p>Misalignment of scheduling assumptions</p> <p>The CQCN is a dynamic system which necessitates the need to constantly review and evaluate existing planning assumptions in order to ensure scheduling outcomes are optimised. There is no existing process (beyond ad hoc requests) by which Operators are able to engage Aurizon Network in order to update planning assumptions within the bounds of Access Agreements (i.e. without requiring a change to an Access Agreement). As an example, the Operator has been experiencing issues with the misalignment of planning assumptions across Aurizon Network systems and processes (including misalignment within Aurizon Network between the ITP process and 96 hour process and their associated Aurizon Network systems). This misalignment has significant downstream effects on the Operator's other planning processes, including for fleet and crew resourcing, and causes cancellations for which it is difficult to determine the root cause. Instituting a bi-monthly review of planning assumptions as between Aurizon Network and Operators with the ability to realign assumptions would enable better optimisation of the planning processes. It would ensure that there is a disciplined review of planning performance and opportunities for better alignment, enabling issues to</p>	

be caught and rectified in a more timely and transparent manner.

Aurizon Network Cause Pathing Loss

The System Rules should include a process whereby Aurizon Network uses its best endeavours to provide additional paths to access holders following instances where Aurizon Network has not met its monthly contractual TSE obligations due to an Aurizon Network cause.

To be included as an agenda item in the joint workshop. The System Rules 'Intermediate Train Planning' process provides Access Holders with a rolling 4-week pathing availability plan each Monday at 2pm, inclusive of System operational constraints, for Access Holders to plan and schedule train services. Following the submission of final train orders at 12:00pm on Wednesday/s, the System Rules specifically state; *"Changes to Train Orders, or requests for additional Train Services submitted after 12:00 hours on the Wednesday prior to the ITP period of operation, will be scheduled by Aurizon Network on a best endeavours basis only. This means that additional Train Services or changes will be scheduled around those Train Services that have already been ordered and allocated a System Path."*

ITP planning process

The current ITP planning process produces poor quality plans which are often provided late. The Operator understands that the current ITP planning process is being undertaken by a single person manually planning the schedule for all the CQCN. The Operator believes that this issue could be addressed by the System Rules requiring that the planning process be commenced earlier in combination with other solutions which are outside the System Rules, but which address this issue (for example increased resources or process automation).

To be included as an agenda item in the joint workshop to discuss solutions to improve the ITP process. There may be a combination of factors that possibly can be contributing to the Operator's concern. Including and in addition to matters raised (but not limited to); late submission of ITP Train Orders, and submission of ITP Train Orders through different systems).

Improved Stakeholder Involvement

Once the immediate issue of poor quality plans being provided late is addressed, stakeholder engagement on the planning and scheduling process needs to be improved. This engagement should be in the form of regular reviews between stakeholders and the Aurizon Network planning team. The Operator suggests these reviews could commence with a series of workshops between key stakeholders in the scheduling process and the Aurizon Network planning team to improve understanding of current processes and investigate areas for improvement. Following these initial workshops, the regular reviews could then focus on continuous process improvement, improved transparency and regular reviews of scheduling assumptions.

To be included as an agenda item in the joint workshop. Aurizon Network has in the past invited Operators to attend a workshop in Rockhampton & frequently engage with Operators in the planning and scheduling functions. However, further discussion to be conducted as part of the workshop on setting up on regular reviews and improved Stakeholder engagement.

Working Hour Alignment

The Operator understands that the Aurizon Network Service Designers operate between 8am and 8pm. The System Rules do not appear to contemplate these working hours. For example: if there is a cancellation or diversion made between 8pm and 8am for a service it would not be actioned until 8am the following morning; and the rolling development of the Daily Train Plan is 96 hours in advance of the day of operation, this means the working shift finishes at 8pm when 96-hour schedule is due. This often results in the Daily train plan being returned more than 12 hours late as a result of it not being complete in time for 8pm) with impacts cascading through the supply chain to end users

To be included as an agenda item in the joint workshop. For the purpose of the planning and scheduling of train orders, all requests in relation to TSE consumption are timestamped via electronic mail to ensure that if a request is sent outside of hours, it is still treated as received at the time of electronic timestamp. This timestamp record keeping process is applied at all times (including both operating hours and outside of operating hours). As a result, if an operator wishes to cancel a service prior to the 24-hour period, but outside operating hours, an email notification will be treated as received as marked by the electronic timestamp, rather than upon recommencement of operating hours.

Aurizon Network Service Designer (NSD)**Operating Hours**

NSD's operating hours of 8am – 8pm mean that should delays occur in 96 hour scheduling process which put its delivery beyond the 8pm shift end, NSD will not pick it back up until new shift starts at 8am meaning that the 96 hour schedule is delivered more than 12 hours later than the System Rules dictate. This has cascading impacts on our planning processes, including crew rostering and customer communications. Although the Operator recognises that there are reasonable explanations that schedules and processes can be delayed, the result that such events could delay the delivery of the 96 hour schedule by more than 12 hours is not acceptable.

System Availability

The Access Undertaking (System Rules definition) requires the System Rules to include a methodology for defining path and path use and similarly the Access Undertaking (Schedule G Section 4 e)) requires the Aurizon Network (via the ITP) to provide information to allow access holders to make an informed assessment as to the availability of system paths

To be included as an agenda item in the joint workshop. In accordance with Schedule G part 4(e) of Aurizon Network's 2016 Access Undertaking (UT4) and as part of the System Rules ITP process, Aurizon Network provide Access Holders with a rolling 4-week Pathing Availability Plan each Monday at 14:00.

ITP Change Proposal – Rolling 7 Day Schedule

The System Rules currently require a static 7-day ITP to be scheduled the week prior. This static process is not aligned with the other dynamic planning processes (namely, the rolling 96 hour process and the rolling DTP) as it requires an ITP to be agreed for a period 3 to 10 days out. In reality, there is significant variance from the ITP down to the 96 hour and the flow on effect from this is that it requires Aurizon Network and Operators' scheduling teams to process a large volume of services in condensed timeframes leaving little ability for the teams to optimise and build the best schedule. The Operator believes that a 7 Day Rolling ITP scheduling process should be considered by Aurizon Network as part of its System Rules review. Such a process would enable the process to reflect and respond to the dynamic supply chain and align to existing processes. For instance, this process would overcome the current misalignment between the ITP process and the 96

To be included as an agenda item in the joint workshop. The ITP proposal is to be further discussed during the workshop, due to the proposed significant change to the current process.

hour process whereby DTP requests to alter the ITP for Monday must be put in by Thursday at 2pm when in fact the ITP is not agreed until 4pm that day. The Operator additionally believes that it would increase the ability to optimise the schedule driven by scheduling teams dealing with a lower volume of services in each period. Such a process would operate as the current rolling processes do (adding a day as each day passes to ensure that the schedule always has 7 days scheduled) and all ITP processes (including the contested train path decision making process) could be incorporated. This would also allow greater collaboration between Aurizon Network and Operators throughout the scheduling process, rather than a black box approach to developing the ITP which is provided back to Operators with limited ability to further amend, optimise or query the scheduled provided back, This has been particularly exacerbated by the misalignment in scheduling assumptions used by Aurizon Network in their planning process which is resulting in sub-optimal outcomes in the scheduling space. The Operator recognises that this would be a significant step change to the ITP process, and we would be happy to workshop this further with Aurizon Network; other Operators and relevant supply chain *parties*.

Cross-System Reporting

Aurizon Network's reporting and planning is based on intra-system traffic for individual systems and so does not incorporate connectivity constraints of connecting systems for cross-system traffic. This flows into planning processes where constraint summaries for Blackwater may not contemplate load out constraints for contracted mines which are located in the Goonyella system, or there is only availability reporting on destination systems despite the origin system also affecting that haul's ability to operate. Improvements to reporting and other planning documentation that are utilised by The Operator to plan and analyse our operations would be beneficial.

To be included as an agenda item in the joint workshop. Cross System reporting is dealt with outside of the System Rules. Aurizon Network develops and provides Access Holders with the Critical Asset Alignment Calendar (CAAC) report to identify System constraints. The CAAC is developed for all Systems and in the event of a System Closure incorporates cross system pathing.