

Aurizon Network System Rules Central Queensland Coal Network



Preamble

The Aurizon Network System Rules (**System Rules**) provide additional details of the processes and systems used to plan and schedule Train Services in Aurizon Network's Central Queensland Coal Network (**CQCN**).

The System Rules are an important tool for Aurizon Network to transparently demonstrate the equitable allocation of Access to the CQCN in accordance with Access Agreements. The System Rules also fulfil Aurizon Network's regulatory obligations and are an ancillary document to Aurizon Network's Access Undertaking 2017 (**Access Undertaking**).

These rules have been developed in consultation with our Customers, Ports and other CQCN Stakeholders with the objective of balancing the need for train ordering flexibility and the certainty of disciplined scheduling rules.

The System Rules are a baseline to facilitate Aurizon Network's strategy of continuous improvement of the planning and scheduling function. They are periodically reviewed in accordance with the provisions of the Access Undertaking.

Readers should refer to Section 6.0 of this document for definitions to ensure correct interpretation of these System Rules.

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01. Introduction

1.1 Context

The System Rules for the CQCN are an ancillary document to the Access Undertaking. They provide accompanying detail to the Network Management Principles contained within Schedule G of the Access Undertaking, describing the planning and scheduling processes for Train Services in the CQCN.

Figure 1 below sets out Aurizon Network's train planning process, identifying each discrete process and respective time horizon.

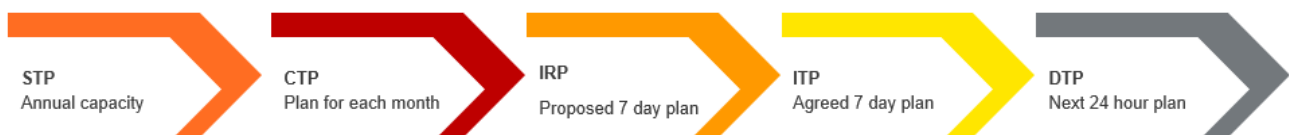


Figure 1: Aurizon Network train planning process

The System Rules relate directly to the following planning processes:

- Integrated Rail Plan (**IRP**)
- Intermediate Train Plan (**ITP**)
- Daily Train Plan (**DTP**)

Aurizon Network publishes a number of documents that provide information about system operating parameters and long-term planning within the CQCN. Those which directly relate to the Train planning process are as follows.

- System Operating Parameters
- Strategic Train Plan (**STP**)
- Capability Train Plan (**CTP**)

These documents are made available at www.aurizon.com.au/what-we-deliver.

1.2 Governance and Transition

The System Rules have been developed in accordance with and are governed by the Access Undertaking¹. Following the approval of these System Rules for the CQCN by the Queensland Competition Authority (**QCA**), Aurizon Network will put in place a change management process and proposed timeframes for implementation. Supply Chain Stakeholders will be given a summary of their responsibilities under the System Rules via email. These System Rules will apply to all Train Services operating in the CQCN.

The approved System Rules (as amended from time to time) for the CQCN are made available at: www.aurizon.com.au.

¹ AU, Part 7A, clause 7A.7

1.3 Key Interfaces

The following table outlines key interfaces for train operations at Aurizon Network.

Key Interface	Key Interface Responsibility
Head of Planning and Scheduling	Responsible for supporting the delivery of contracted tonnages across the CQC
Integrated Rail Planning Manager	Management of operational integrated planning from IRP to the ITP
Integrated Rail Scheduling Manager	Responsible for the rolling 96-hour schedule and development of the DTP
Manager Train Control	Responsible for execution of the DTP

1.4 Communications

The planning and scheduling process generally requires the exchange of information between Aurizon Network and Train Operators and Infrastructure Service Providers. The form of this communication is subject to change as process, systems and technological improvements are made.

Prior to making changes to the form and method of communication under these System Rules, Aurizon Network will consult and obtain agreement from relevant Train Operators and Infrastructure Service Providers where such agreement cannot be unreasonably withheld.

1.5 Train Cycle Components

A Train Cycle is composed of several components as detailed below. For the avoidance of doubt, the System Rules applies to the entire Train Cycle.

Mainline Paths

Mainline Paths are determined based on the run between:

- Callemondah and Bluff for the Blackwater System²;
- Callemondah and Dumgree for the Moura System;
- Jilalan and Coppabella for the Goonyella System; and
- Pring and Collinsville for the Newlands System.

Aurizon Network will provide information on how it calculates dispatch intervals to Train Operators, Access Holders and Access Seekers requesting such information.

Port Unloading Slot

The time at an unloading facility for a Train Service is contained in the relevant Access Agreement. The time at the unloading facility is inclusive of unloading time and time taken for pre and post unload activities (**Port Unloading Slot**).

² Mainline Path comprises the path between Callemondah and Kabra and the path between Kabra and Bluff
Aurizon Network's System Rules – Central Queensland Coal Network – effective 5 December 2022

Port Unloading Slots are determined by the Port Operator and are based on the sustainable capability of the unloading facility. Aurizon Network schedules Train Services to align with these Port Unloading Slots.

Mine Loading Slots

Arrival slots at a mine for a Train Service are based on the recharge capability of the loadout for the mine, and the number of Train Services that can be loaded per day (**Mine Loading Slot**).

Aurizon Network will schedule Train Services to align with these Mine Loading Slots from the Mainline Path to the relevant mine loadout.

Dwells

The dwells for a Train Service are taken into account and included in the cycle time for that Train Service and consequently in the scheduling process. The dwell may include provisioning activities, crew changes, meal breaks, maintenance, and examination of the Train. Specific dwells are identified in the Access Agreement and Operating Plan for the Train Service.

Reference Train Service

Aurizon Network's assumptions for pathing arrangements rely on, among other things, the characteristics of the Reference Train Services as specified in Schedule F of the Access Undertaking.

02. Integrated Rail Planning & Intermediate Train Planning processes

The Intermediate Train Plan (ITP) is produced by Aurizon Network in consultation with Train Operators and in accordance with the Access Undertaking³. The ITP is the process by which Train Operators submit Train Orders and Aurizon Network allocates Train Paths to the Train Orders in accordance with the timeframes set out in the Access Undertaking and these System Rules.

Integrated Rail Planning is a supplemental process that uses optimisation-based planning technology to develop plans using weekly demand assumptions and other relevant planning inputs provided by the Train Operators. Acceptance of the IRP by Train Operators is voluntary. Where the IRP is fully accepted by all Train Operators, it forms the basis of the draft ITP. Where the IRP is not unanimously accepted by all Train Operators, any resulting Train Cycle conflicts will be resolved using the Contested Train Path principles set out in clause 8.3(a) of Schedule G of the Access Undertaking.

In the event the Integrated Rail Planning process cannot be completed for any Relevant Period, Aurizon Network will notify Train Operators that no IRP will be published for that Relevant Period and Aurizon Network will proceed with drafting the ITP per the ITP Timeframes detailed below.

2.1 Timeframes

The relevant forms and contact details, as updated from time to time, are available on the Aurizon Network Customer Portal at www.aurizon.com.au/portals/existing-customers.

It is the responsibility of the Train Operator to coordinate relevant planning inputs with their Customers (if any).

IRP Timeframes

- Aurizon Network collates load point, dump station and track possession maintenance data which is provided to Train Operators by 15:00 hours on the Monday prior to the next Relevant Period of operation.
- Train Operators are to submit demand assumptions⁴ and other relevant planning inputs for the next Relevant Period to Aurizon Network by 17:00 hours on the Tuesday prior to the next Relevant Period of operation.
- On or before the Wednesday prior to the next Relevant Period of operation:
 - Aurizon Network will publish the IRP for all systems across the CQCN by 10:00 hours;
 - Train Operators will inform other Train Operators and Aurizon Network whether they accept the IRP for each system by 11:00 hours; and
 - Train Operators may submit substitution requests (i.e. replacing 'Train Cycle A' from the IRP with another 'Train Cycle B') to Aurizon Network by 14:00 hours.

³ AU, Schedule G, Clause 4

⁴ Train Operators can prioritise their demand assumptions by modifying their inputs to occur at or below the Aurizon Network tiered contract position (which, similar to the Contested Train Path principles contained in Schedule G of the Access Undertaking, is based on factors such as year to date and/or month to date contract utilisation).

ITP Timeframes

- > On the Wednesday prior to the next Relevant Period of operation Train Operators will submit Train Orders (via Journey Order Request (**JOI**) files) to Aurizon Network by 14:00 hours. Should a Train Operator require Stowage for a Train, a Stow Location Request form must also be submitted.
- > Aurizon Network will compile the draft ITP using the IRP Rights and Obligations detailed in section 2.2 of these System Rules and, where necessary to determine the allocation of any Train Cycle conflicts, apply the Contested Train Path principles set out in clause 8.3(a) of Schedule G of the Access Undertaking.
- > On the Thursday prior to the next Relevant Period of operation;
 - o Aurizon Network will provide the draft ITP to Train Operators by 14:00 hours;
 - o Train Operators may submit change requests (i.e. modifying components of a Train Order) to Aurizon Network by 15:00 hours;
 - o Aurizon Network will incorporate final agreed alterations and distribute the final draft ITP;
 - o Train Operators will receive the ITP and provide acknowledgement of receipt by 16:00 hours; and
 - o The ITP is deemed accepted at 16:30 hours.

The following flow chart (Figure 2) provides an overview of the IRP and ITP processes.

Integrated Rail Planning and Intermediate Train Planning Processes

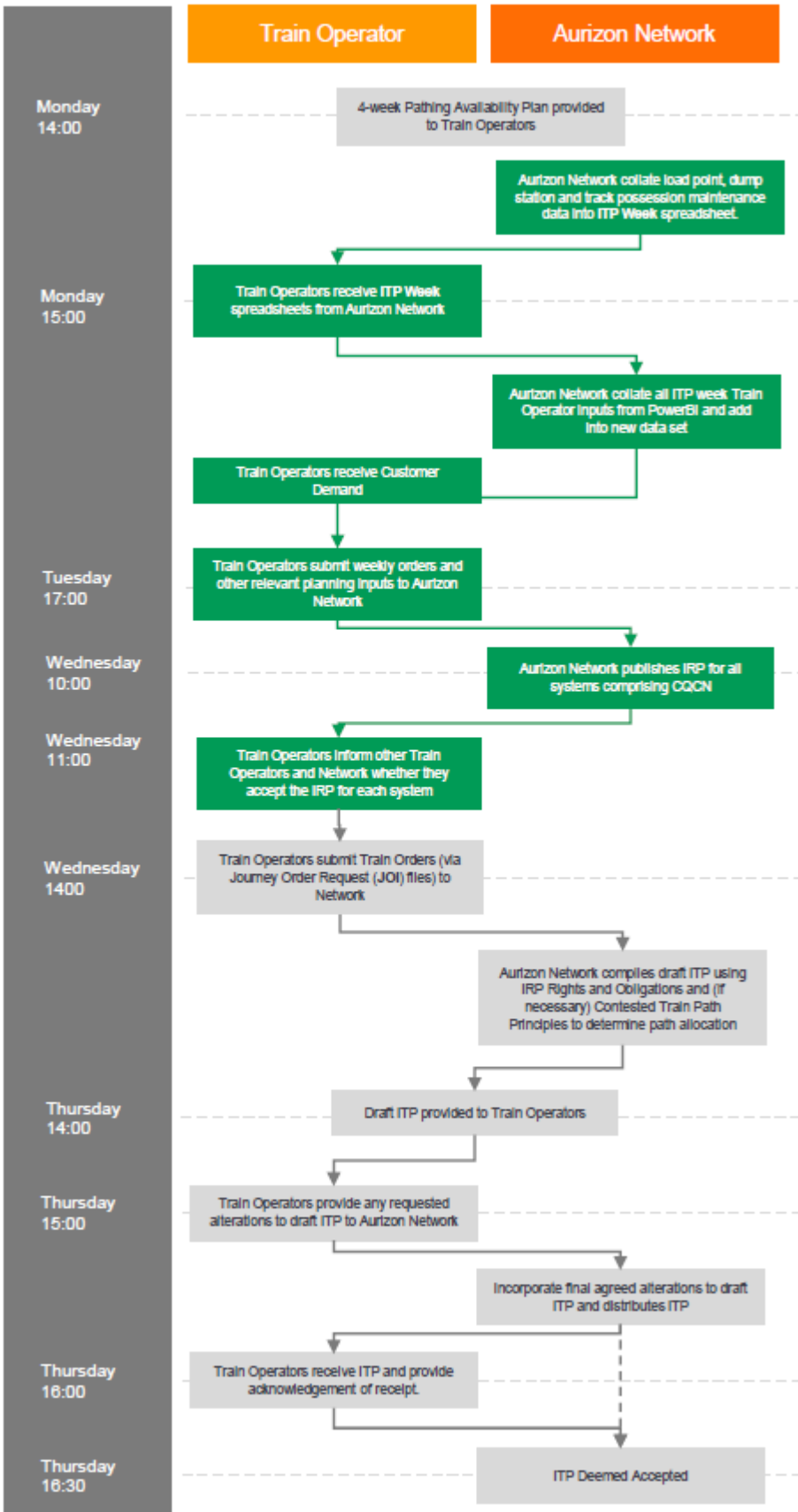


Figure 2: Integrated Rail Planning and Intermediate Train Planning Process for the CQCN

2.2 Planning Considerations

Key Considerations

Aurizon Network's key considerations when developing the ITP are as follows:

- As the principal objective, Aurizon Network will aim to ensure delivery of Access Holders' contracted TSEs with the objective of an equitable outcome maximising the ability of each coal system to meet contractual entitlements.
- Timetabled Traffic will be scheduled before Cyclic Traffic unless the unloading destination is a domestic power station and Aurizon Network has a legal obligation to prioritise these services.
- The ITP will be developed in accordance with appropriate Safety Standards and Safeworking Procedures.

Cross System Traffic

In the event that the ITP planning process identifies that there is congestion at a specific mine loadout as a result of a requested Cross System Train Service(s), in absence of express agreement between the mine management and train operators, the Contested Train Path Principles in the Access Undertaking will be used to determine path allocation.

IRP Rights and Obligations

The following IRP Rights and Obligations will apply after Aurizon Network publishes the IRP for all systems across the CQCN (which will occur by 10:00 hours on the Wednesday prior to the next Relevant Period of operation).

- Where the IRP is fully accepted by all Train Operators it forms the basis of the draft ITP;
- Substitution requests (i.e. replacing 'Train Cycle A' from the IRP with another 'Train Cycle B') will only be accepted if:
 - Train Cycle B formed part of the weekly orders submitted by the Train Operator to Aurizon Network; and
 - Train Cycle B, as submitted by the Train Operator to Aurizon Network, is a contracted Train Service Entitlement.
- Change requests (i.e. modifying components of a Train Order) will be accommodated on a best endeavours basis;
- Conflicts are defined as clashes at any point in the Train Cycle. Conflicts will be identified by Aurizon Network when drafting the ITP and will be resolved using the Contested Train Path principles set out in clause 8.3(a) of Schedule G of the Access Undertaking;
- In the case that a change or substitution request ultimately conflicts with the change or substitution request of another Train Operator, the Contested Train Path principles set out within Schedule G of the Access Undertaking will be used to resolve the conflict at the relevant point of the Train Cycle.

ITP Acknowledgement and Acceptance

The ITP is to be communicated to Train Operators and Infrastructure Service Providers electronically, or subject to section 1.4 in a format advised by Aurizon Network by 1400 hours on the Thursday prior to the Relevant Period of operation.

- The Train Operator must provide written acknowledgment of receipt and acceptance of the ITP by 1600 hours on the same Thursday to Aurizon Network electronically, or subject to section 1.4 in a format advised by Aurizon Network.
- Once confirmation is received by Aurizon Network, the ITP forms the basis for the DTP.

Note: Where documented acknowledgement of receipt and acceptance does not occur by 1600 hours on that Thursday, the relevant Train Operator is deemed to have accepted the ITP.

2.3 Scheduling Horizon

Aurizon Network will schedule Train Services for the Train Operator in accordance with the ITP.

Aurizon Network develops the schedule, at a minimum, 96 hours in advance of the day of operation. This is referred to as the rolling 96 hour schedule. The 96 hour schedule includes 24 hours of finalised train schedules and a pathing plan for train services departing in the >24 to 96 hour period.

The 96 hour schedule will be communicated daily to all Train Operators and Infrastructure Service Providers electronically, or subject to section 1.4 in a format advised by Aurizon Network at 2000 hours. For the purpose of clause 8.2(c)(i)(A) of Schedule G changes made outside of 24 hours prior to the day of operation will not result in TSE consumption.

Train Schedule finalisation

Aurizon Network will confirm and finalise the next 24 hours of train schedules daily at 14:00 hours⁵. To request access to the relevant scheduling system, please email access.services@aurizon.com.au.

⁵ Aurizon Network acknowledges the finalisation period is actually 34 hours, given the cut-off time is 14:00 hours and the 24-hour period starts from 00:00 on the next day.

03. Daily Train Plan

The ITP, along with agreed schedule alterations (as applicable) will form the DTP, specifying:

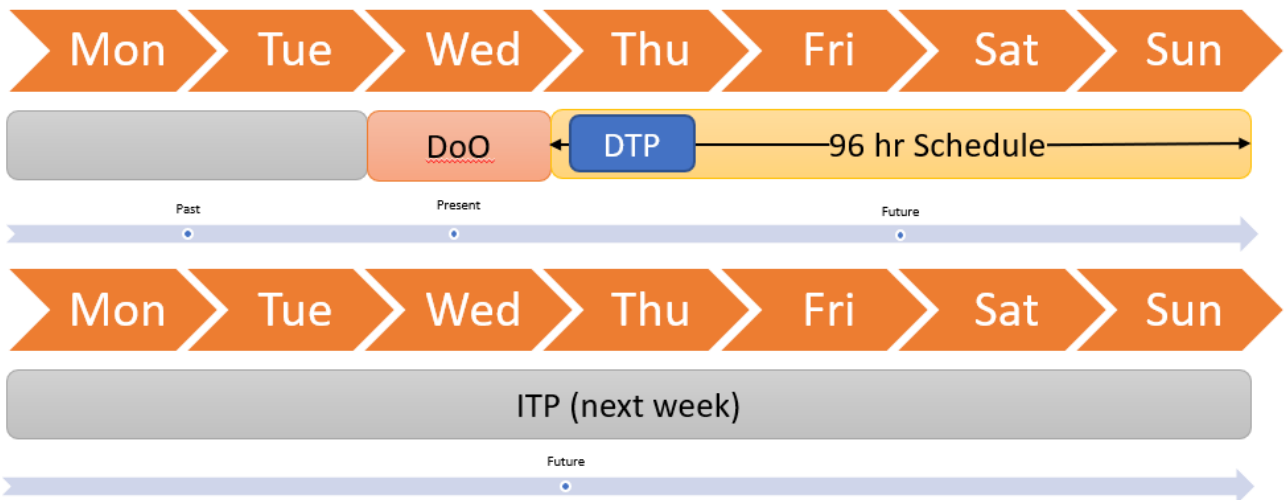
- > departure and arrival times for Train Services at depots, stations, loading and unloading facilities,
- > planned Dwells, and
- > the Loading and Unloading schedules,

in a form that indicates the time/distance (location) relationship of all activities on that part of the Rail Infrastructure to which the DTP relates.

The finalisation and handover of the DTP to the Manager Train Control will occur at 14:00 hours on the business day prior to the day of operation (**DOO**). Following finalisation of the DTP Aurizon Network will release a copy of the DTP subject to compliance with its confidentiality obligations under the Access Undertaking.

The DTP development flow chart below (Figure 4) outlines the process:

Figure 3: Daily Train Plan Development Flow Chart



04. Schedule Alterations

Train Operators are able to request alterations to their Train Orders in variation to the ITP. Requests will only be considered by Aurizon Network if submitted electronically, or subject to section 1.4 in a format advised by Aurizon Network (contact details are available on the Aurizon Network Customer Portal at www.aurizon.com.au/portals/existing-customers).

Any submitted requests to alter a Train Service will be assessed in accordance with the Schedule Alteration Rules in section 4.1 of these System Rules.

The types of alterations that can be requested are as follows:

- > **Additional Train Services** – A Train Operator may request to add a Train Service to the Schedule.
- > **Cancelled Train Services** – A Train Operator may choose to cancel a Train Service. Aurizon Network will remove that Train Service from the Schedule upon request by the Train Operator. Cancelled paths return to the pool of paths available to all Train Operators. Train Operators can access this information on Aurizon Network’s scheduling system.
- > **Rescheduled Train Services** – A Train Operator or Aurizon Network may request to reschedule the date or time of a scheduled Train Service to another date or time within the Relevant Period. Where a request to reschedule a Train Service cannot be accommodated or is not accepted by the Train Operator or Aurizon Network, the Train Operator must either cancel the Train Service, or keep the originally scheduled path. If the request to reschedule a Train Service can be accommodated, the Schedule will be amended and this Schedule will be the one against which the Train Service is measured as being an ‘on time’ Train Service.
- > **Diverted Train Services** – A Train Operator may request to divert a Train Service from its original origin – destination to a new origin or destination that it has an entitlement to operate to/from under its Access Agreements, or another Access Holder’s Access Agreement that it has authority to operate. Where a request to divert a Train Service cannot be accommodated, the Train Operator must either cancel the Train Service, or keep the original scheduled Train Service. In the instance when a requested change to the origin of a scheduled Train Service that is able to be accommodated utilises the same Mainline Path, the diversion will not be an additional TSE Consumption for the relevant Access Holder.
- > **End User (EU) Access Holder variation to Operators** – Where an EU Access Holder holds Access Rights under an EU Access Agreement, it is entitled to vary or withdraw its nominations of an Operator operating its Train Services in accordance with its EU Access Agreement. Accordingly, where an EU Access Holder notifies Aurizon Network that it wishes to change the Operator of a scheduled Train Service, Aurizon Network will assess whether the change can be accommodated within the Schedule (e.g. changes to Operating Plans may affect performance of the Schedule). In this paragraph, “Operator” has the meaning given under the relevant EU Access Agreement.

4.1 Schedule Alteration Rules

The Schedule Alteration Rules detailed below governs how Aurizon Network considers each requested Train Order alteration submitted by Train Operators.

1. Train Operators must contact the appropriate Aurizon Network personnel (see Rule 2) to discuss any alterations prior to submitting a request for a schedule alteration (**Change Request**). Aurizon Network will assess the contractual requirements of the proposed alteration and provide initial assessment of the capacity requirements for the proposed alteration.
2. Change Requests can be submitted to Aurizon Network at any time for consideration. Each Change Request must be submitted electronically, or subject to section 1.4 in a format advised by Aurizon Network and will be assessed in order of the time stamp noting receipt attached to each submission. Aurizon Network will assess alteration requests received for the DTP each day. For all other scheduling alterations, Aurizon Network will assess during business hours or within the agreed planning and scheduling timeframes.
3. Aurizon Network will determine the availability of a Port Unloading Slot as part of the process of reviewing a submitted Change Request.
4. For each submitted Change Request, Aurizon Network will alter the Schedule where the requested alteration:
 - a. does not result in any other Train Operator's scheduled Train Services not being met, or the only adversely affected Train Services are for the same Train Operator and that Train Operator consents to those Train Services being adversely affected; and
 - b. can be accommodated within the current Schedule.
5. In the event that a requested alteration by a Train Operator conflicts with a Planned Possession, the request will not be met and, where possible, Aurizon Network may offer an alternative path if available.
6. In the event of an Emergency Possession by Aurizon Network, Aurizon Network will notify affected Train Operators. Where possible, Aurizon Network will endeavour to offer an alternate path to reschedule affected Train Services. Where this is not possible, the Train Operator will be required to cancel the affected Train Service.
7. In the event of a relevant Port Operator or operator of a loading facility requesting alterations to the Schedule, Aurizon Network will manage requests in accordance with 7a. or 7b. as appropriate:
 - a. If the alteration is required due to an emergency (e.g. equipment fault) the Port Operator or operator of a loading facility may notify Aurizon Network via phone, email, or subject to clause 1.4 in a format advised by Aurizon Network; or
 - b. If the alteration is required for any other reason, the Port Operator or operator of a loading facility will be required to submit any Change Request via the relevant Train Operator as per rule 1 above. The Port Operator or operator of a loading facility may inform Aurizon Network of a proposed Change Request electronically or subject to section 1.4 in a format advised by Aurizon Network.

Where possible, Aurizon Network may endeavour to consult with affected Train Operators and offer an alternative path to reschedule affected Train Services. Where this is not possible, the Train Operator will be required to cancel the affected Train Service.

8. Aurizon Network will keep records of all decisions made in regard to submitted Change Requests.

4.2 Schedule Alterations for Possessions

There may be situations where Aurizon Network requires an alteration to the DTP due to Possessions, including for:

- the modification of an existing Planned Possession;
- the creation of an Urgent Possession; or
- any other Operational Constraint affecting the DTP.

Where any of the above alterations result in any Train Operator's Train Services not being met, the change will only be made following consultation with, and the agreement of, those affected Train Operators. Where any of the above alterations affect a Planned Possession, Infrastructure Service Providers will also be consulted.

Where Aurizon Network requires an alteration to the DTP to accommodate an Emergency Possession, Aurizon Network will follow the procedure set out in rule 6 of the Schedule Alteration Rules in section 4.1 of these System Rules.

Any consultation with Train Operators required as a result of DTP alterations due to Possessions will occur between Train Operators, Port Operators and Aurizon Network. Aurizon Network will provide advice as to how Possessions are progressing against the DTP, and an indicative time of when the network will become available.

Aurizon Network will provide information to Train Operators as soon as it is available on any expected delay to the scheduled end of a Possession. Aurizon Network will cooperate with Train Operators' efforts to mitigate the associated disruptions, subject to the Access Undertaking, any relevant Access Agreement, any applicable Law and this document.

Aurizon Network will notify all affected Train Operators of changes in temporary speed restrictions which would result in a time service change to any scheduled Train Services in the DTP from the ITP, electronically, or subject to clause 1.4 in a format advised by Aurizon Network, prior to finalisation of the DTP.

Consistent with the requirements of clause 5.5(c) of Schedule G, any changes to the plan due to the application or removal of a temporary speed restriction once the DTP has been finalised will be reflected as deviations to the DTP.

05. Plan Implementation

5.1 Train Control and Operations Procedures

All Train Control Services, including but not limited to Train running, crossings and Dwells, are managed by Aurizon Network's Train Control Centre. In providing these Train Control Services, Aurizon Network will comply with the Traffic Management Decision Making Matrix in Schedule G of the Access Undertaking to the extent applicable. Train Control Procedures and Train Operations Procedures are detailed in the Interface Coordination Arrangements contained in Schedule 9 of the Standard Train Operations Deed.

5.2 Performance Measurement

Train Service Performance

Train Service performance on a particular day, including on-time running and delays, will be measured against the DTP published for that day unless such changes have been agreed between Aurizon Network and the relevant Train Operator (s).

Delay Cause Identification

For a delay to a Train Service that has occurred in exception to the DTP, Aurizon Network will identify and consult with the relevant Supply Chain Stakeholders to determine the cause of the delay. Consultation will occur between Train Operators, the Port Operators and Aurizon Network.

For a Train Service that is Cyclic Traffic, the review process will be limited to reviewing possible causal incidents that occurred within a 48 hour time period prior to the delay. For a Train Service that is Timetabled Traffic, this process will be limited to reviewing possible causal incidents that occurred on or after the commencement of that Train Service. A delay cause will be classified to one of the following:

- > Aurizon Network
- > Adjoining Network Manager
- > Port
- > Mine
- > Operator A- Z
- > FM Event
- > Other

Where no decision can be reached collectively, Aurizon Network will determine the cause for the delay. Where a dispute arises with the determined cause, affected Access Holders can escalate the dispute through the dispute resolution mechanisms of their relevant Access Agreements.

Cancellation Cause Identification

For the cancellation of a Train Service from the DTP, Aurizon Network will identify and consult with relevant Supply Chain Stakeholders to determine the cause of the cancellation. Consultation will occur between Train Operators, Port Operators and Aurizon Network.

For a Train Service that is Cyclic Traffic, the review process will be limited to reviewing possible causal incidents that occurred within a 48 hour time period prior to the cancellation. For a Train Service that is Timetabled Traffic, this process will be limited to reviewing possible causal incidents that occurred on or after the commencement of the relevant Train Service. A cancellation cause will be classified to one of the following:

- > Aurizon Network
- > Adjoining Network Manager
- > Port
- > Mine
- > Operator A- Z
- > FM Event
- > Other

Where no decision can be reached collectively, Aurizon Network will determine the cause for the cancellation. Where a dispute arises with the determined cause, affected Access Holders can escalate through the Network Customer Service Lead.

06. Definitions and interpretation

Unless otherwise specified:

- a term that is defined in the Access Undertaking has the same meaning in this document; and
- the interpretation provisions of the Access Undertaking⁶ apply to this document.

Where there are public holidays that impede on any timeframes outlined in this document, Aurizon Network will discuss the required alteration to the timeframes with the Train Operators in advance.

All timeframes listed in this document are subject to change. Consultation will be undertaken with Train Operators prior to the implementation of any timeframe changes.

If this document is inconsistent with the Access Undertaking, then the Access Undertaking prevails to the extent of that inconsistency.

Other definitions specific to this document include:

Access Undertaking	The access undertaking prepared by Aurizon Network and approved by the QCA pursuant to the Act in force and as amended, from time to time.
Adjoining Network Manager	A Railway Manager in relation to a railway (including proposed railway) connecting to any Individual Coal System.
Integrated Rail Plan (IRP)	An optimised or ideal rail plan for each system based on weekly orders and other relevant planning inputs provided by Train Operators and considering all known system constraints.
Integrated Rail Planning	A process that uses optimisation-based planning technology to develop an ideal rail plan (the Integrated Rail Plan or IRP) for each system based on weekly orders and other relevant planning inputs provided by Train Operators.
Train Cycle	A Train Cycle is composed of several components including mainline Train Paths (one loaded and one empty), a mine loading slot, a port unloading slot and dwells (as required).
TSE	Train Service Entitlement

⁶ As at the date of this document, see clause 12.2 of the AU