#### Statement in Relation to Declaration Request

#### North Queensland Export Terminal (NQXT)

#### Declaration request from QCoal Pty Ltd and Byerwen Coal Pty Ltd (QCoal Users)

Statement of: David Moore

Address:

40 Creek St, Brisbane City QLD 4000

Occupation:

Infrastructure Manager

Date:

20 October 2025

I David Moore, Infrastructure Manager of QCoal, 40 Creek Street, Brisbane City QLD say that:

- 1. I am the Infrastructure Manager for QCoal and I am authorised to make this affidavit on behalf of QCoal Ptv Ltd (ACN 010 911 234) (QCoal) and Byerwen Coal Ptv Ltd (ACN 133 357 632) (the QCoal Users).
- 2. I have been employed by the QCoal Group since January 2024 when I was appointed Infrastructure Manager. Over the past 20 years I have held senior commercial roles across mining operations and infrastructure development.
- 3. Where I refer to documents in this statement I identify those documents by their page numbers in Exhibit DM-1.
- 4. I have reviewed a redacted version of NQXT's submissions put to the QCA. In those submissions NQXT refers to the "interconnected" nature of the Central Queensland Coal Network (CQCN).
- 5. In my experience, while it is theoretically possible to haul coal to the Dalrymple Bay Coal Terminal (DBCT) from mines that connect directly to the Goonyella to Abbot Point extension (GAPE), the Newlands system or the Carmichael rail line (collectively, Northern Mines), it is not practically possible for them to do so. That is because:
  - (a) railing to DBCT from the Byerwen and the Northern Mines could not be undertaken as a regular service and could only be performed as an ad hoc service;
  - (b) having regard to the costs I describe below, the cost of the ad hoc service would be prohibitively expensive;
  - (c) having regard to the matters I describe below such as the cycle time, "Haul / Journey", and the complexity around cross system coordination the operational requirements to run anything other than an ad hoc service are unworkable;

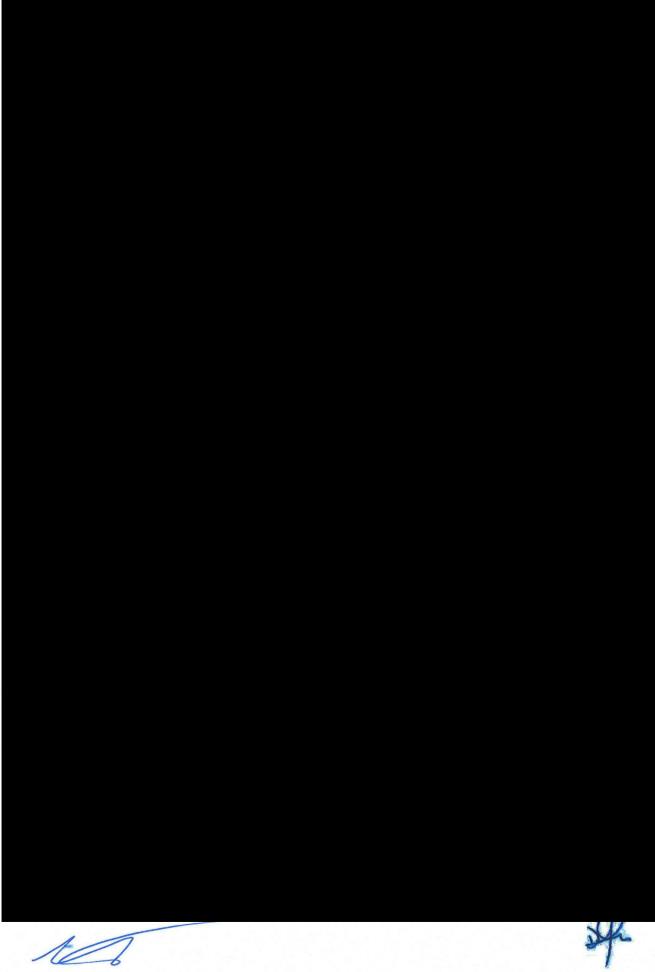
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- (d) there is limited available capacity in the Goonyella rail system, as highlighted in the recent ACAR25 Annual Capacity Assessment Report (a copy of that report is set out at pages 8 to 72 of **Exhibit DM-1**);
- (e) a queue currently exists for capacity in the Goonyella rail system;
- (f) the volumes that the QCoal Users would require to rail to DBCT could only be obtained via a transfer from an existing access holder (and it is unlikely that existing access holders would be willing to transfer their Goonyella access rights including their associated renewal right);
- (g) DBCT is fully contracted and has limited capacity to take any coal that the QCoal Users could theoretically haul to DBCT; and
- (h) the Carmichael, Newlands and GAPE systems are not designed to run coal haulage services from Byerwen (or the Northern Bowen Basin) to DBCT.
- 6. As a result of the above, it is not accurate to say that the CQCN is interconnected or that the Northern Mines have genuine alternatives to NQXT.



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#### Additional rail infrastructure required

22. Railing coal south from Newlands and GAPE to DBCT on a permanent basis would also require modifications to existing rail infrastructure at the relevant mines, as these rail loops are all currently north facing and unidirectional. This orientation and set up is in contrast to other systems like Goonyella, where the existing rail loops are bi-directional.

23.

- 24. If railing south however from Byerwen to DBCT was to become a permanent solution rail loops would need to be built to allow a southern facing exit, for both efficiency and safety reasons. This construction would require upgrades to signalling and other rail network infrastructure.
- 25. Any new rail loop construction at the QCoal Users' mines would also have the effect of "sterilising" portions of the coal deposits at those mines. That is, the new rail loops would need to be built over the top of otherwise mineable coal deposits.

M

Sworn / Affirmed by the deponent at Brisbane in Queensland on 20 October 2025

Before me:

Signature of witness

Signature of deponent

This document was signed and witnessed over audio visual link in accordance with section 14G of the Electronic Transactions Act 2000 (NSW).

MICHAEL PAUL GREATREX
Arnold Bloch Leibler
Level 24, Chifley Tower
2 Chifley Square, Sydney NSW 2000
An Australian Legal Practitioner
within the meaning of the
Legal Profession Uniform Law (NSW)

### **Exhibit DM-1**

**North Queensland Export Terminal (NQXT)** 

Declaration request from QCoal Pty Ltd and Byerwen Coal Pty Ltd (QCoal Users)

This is exhibit marked "**DM-1**" referred to in the statement of David Moore affirmed before me on 20 October 2025.

Signature of witness

MICHAEL PAUL GREATREX
Arnold Bloch Leibler
Level 24, Chifley Tower
2 Chifley Square, Sydney NSW 2000
An Australian Legal Practitioner
within the meaning of the
Legal Profession Uniform Law (NSW)









# ACAR25

## ANNUAL CAPACITY ASSESSMENT REPORT

Prepared by:

**Coal Network Capacity Co** Independent Expert

**DATED: 18 June 2025** 

REDACTED VERSION







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## Contents

| 1. | Prear | Preamble1  |    |  |  |  |
|----|-------|--|----|--|--|--|
|    | 1.1   | Deliverable Network Capacity                               | 1  |  |  |  |
|    | 1.2   | Annual Capacity Assessment                                 | 1  |  |  |  |
|    | 1.3   | Dynamic Simulation Model (Model)                           | 2  |  |  |  |
|    | 1.4   | Information and Redaction                                  | 3  |  |  |  |
| 2. | Execu | itive Summary  | 4  |  |  |  |
| 3. | ACAR  | Changes - CQCN-wide  | 6  |  |  |  |
|    | 3.1   | ACAR Report Changes  | 6  |  |  |  |
|    | 3.2   | Transitional Arrangements                                  | 7  |  |  |  |
|    | 3.3   | Demand   | 7  |  |  |  |
|    | 3.4   | Consist Allocation and Above Rail Productivity             | 7  |  |  |  |
|    | 3.5   | Asset-related Model Inputs                                 | 8  |  |  |  |
| 4. | Stake | holder Engagement and Feedback                             | 12 |  |  |  |
| 5. | Futur | e Opportunities  | 13 |  |  |  |
| 6. | Newl  | ands and GAPE Systems                                      | 14 |  |  |  |
|    | 6.1   | Overview of Newlands and GAPE systems                      | 14 |  |  |  |
|    | 6.2   | Deliverable Network Capacity                               | 15 |  |  |  |
|    | 6.3   | Modelling Changes  | 16 |  |  |  |
|    | 6.4   | Consist Numbers and Cycle Times                            | 17 |  |  |  |
|    | 6.5   | DNC and Available Capacity/Existing Capacity Deficit (ECD) | 18 |  |  |  |
|    | 6.6   | Model Variability  | 19 |  |  |  |
|    | 6.7   | Monthly Capacity Variability                               | 19 |  |  |  |
|    | 6.8   | Current Demand, Current Operations Scenario                | 20 |  |  |  |
|    | 6.9   | System Constraints   | 21 |  |  |  |
|    | 6.10  | Capacity Risks and Opportunities                           | 23 |  |  |  |
| 7. | Goon  | yella System   | 24 |  |  |  |
|    | 7.1   | Overview of System   | 24 |  |  |  |
|    | 7.2   | Deliverable Network Capacity                               | 25 |  |  |  |
|    | 7.3   | Modelling Changes  | 26 |  |  |  |
|    | 7.4   | Consist Numbers and Cycle Times                            | 27 |  |  |  |
|    | 7.5   | DNC and Available Capacity/Existing Capacity Deficit       | 29 |  |  |  |
|    | 7.6   | Model Variability  | 30 |  |  |  |
|    | 7.7   | Monthly Capacity Variability                               | 30 |  |  |  |
|    | 7.8   | Current Demand, Current Operations Scenario                | 31 |  |  |  |
|    | 7.9   | System Constraints   | 32 |  |  |  |
|    | 7.10  | Capacity Risks and Opportunities                           | 34 |  |  |  |
| 8. | Black | water System   | 35 |  |  |  |



|        | 8.1      | Overview of System                                   | 35 |
|--------|----------|--|----|
|        | 8.2      | Deliverable Network Capacity                         | 36 |
|        | 8.3      | Modelling Changes                                    | 37 |
|        | 8.4      | Committed Capacity                                   | 39 |
|        | 8.5      | DNC and Available Capacity/Existing Capacity Deficit | 39 |
|        | 8.6      | Model Variability                                    | 40 |
|        | 8.7      | Monthly Capacity Variability                         | 40 |
|        | 8.8      | Forecast Demand/Current Operations Scenario          | 41 |
|        | 8.9      | System Constraints                                   | 42 |
|        | 8.10     | Capacity Risks and Opportunities                     | 44 |
| 9.     | Mour     | a System   | 45 |
|        | 9.1      | Overview of System                                   | 45 |
|        | 9.2      | Deliverable Network Capacity                         | 46 |
|        | 9.3      | Modelling Changes                                    | 46 |
|        | 9.4      | Consist Numbers and Cycle Time                       | 47 |
|        | 9.5      | DNC and Available Capacity/Existing Capacity Deficit | 49 |
|        | 9.6      | Model Variability                                    | 49 |
|        | 9.7      | Monthly Capacity Variability                         | 50 |
|        | 9.8      | System Constraints                                   | 50 |
|        | 9.9      | Forecast demand/Current Operations Scenario          | 51 |
|        | 9.10     | Capacity Risks and Opportunities                     | 52 |
| 10.    | Abbre    | viations   | 53 |
| APPEND | IX A: No | ewlands System Information                           | 54 |
| APPEND | IX B: G  | APE System Information                               | 56 |
| APPEND | IX C: Go | oonyella System Information                          | 58 |
| APPEND | IX D: Bl | ackwater System Information                          | 59 |
| APPEND | IX E: M  | oura System Information                              | 60 |



## 1. Preamble

UT5, as approved by the Queensland Competition Authority (QCA), requires capacity assessments to be performed by the Independent Expert (IE) for each of the Central Queensland Coal Network's (CQCN) coal systems, as detailed in *Part 7A: Capacity*.

This is the fourth Annual Capacity Assessment Report (ACAR) since the completion of the Initial Capacity Assessment Report (ICAR), in 2021. The ACAR determines the Deliverable Network Capacity (DNC) for each coal system of the CQCN.

This document should be read in conjunction with the 2025 System Operating Parameters (SOP) which set out the assumptions on the operation of each element of the coal supply chain.

#### 1.1 Deliverable Network Capacity

The definition of DNC is taken from Part 7A.2 of UT5. This definition is important for stakeholders to consider and understand, as it directs the IE to consider and determine capacity in a particular way. This requirement drives an assessment of capacity in the CQCN's rail systems that is likely to differ from other estimates of capacity undertaken for other purposes. In particular, the IE understands that the intention of the UT5 definition is primarily to ensure that capacity is assessed in a practical "deliverable" sense, rather than a more theoretical view of capacity, and this is the underlying basis of the ACAR.

#### 1.2 Annual Capacity Assessment

UT5 outlines requirements that the IE must consider in undertaking the ACAR, which include:

- Consider whether any variation of the SOP is required, provided that any amendments to the SOP:
  - o include consideration of the factors set out in the definition of DNC;
  - o would be consistent with the applicable approved maintenance Renewals and strategy budget; and
  - o would not place Aurizon Network (AN) in breach of its obligations under UT5 or any access agreement.
- Seek to consult with and receive submissions from AN and industry stakeholders on the proposed SOP.
- Set out the SOP for each coal system having regard to the way in which each coal system operates in practice.

The ACAR, and associated SOP, prepared by the IE, must report on the DNC of each coal system over the capacity assessment period. The ACAR must include information regarding:

- Assumptions that the IE has made in interpreting the definitional factors that DNC is characterised by;
- Assumptions that the IE has made in developing the SOP and other modelling related assumptions;
- The DNC of each coal system's mainline and branch lines; and
- Constraints that reduce, or are likely to reduce, DNC of each coal system.

UT5 defines that capacity is to be measured in train paths (a return train journey). CNCC has included in the ACAR for reference purposes the equivalent capacity in tonnes based on the median payload of trains in each system.

The outcomes of the IE's assessment must be reported to the QCA and AN in a redacted and unredacted form and to the Chair of the Rail Industry Group (RIG) in a redacted form. QCA and AN will publish the redacted versions on their respective websites.

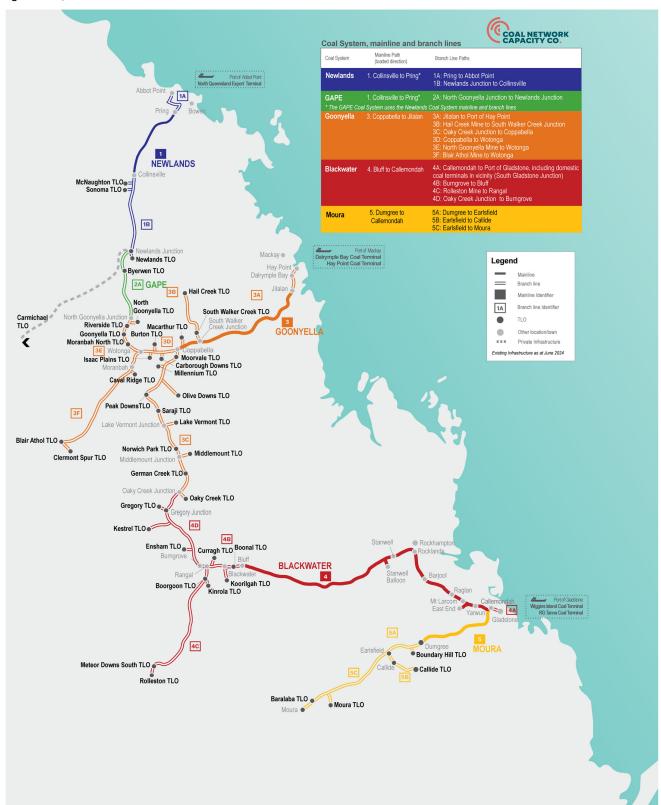
The capacity assessment period for ACAR25 has been determined as the five financial years FY26 to FY30 inclusive i.e. 1 July 2025 to the 30 June 2030.



#### 1.3 Dynamic Simulation Model (Model)

CNCC and the IE determines the DNC of each coal system within the CQCN (see map in **Figure 1** below) primarily through the use of a dynamic simulation Model which is based on AnyLogic modelling software.

Figure 1 - CQCN Mainline and Branch lines

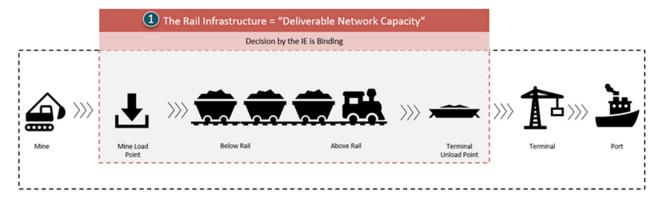




The scope of the Model reflects the DNC definition and considers activities at and between the boundaries of:

- Coal flow into wagons at Train Loadouts (TLO); and
- Coal flow out of wagons at inloaders and includes the components as outlined in Figure 2.

Figure 2 - Deliverable Network Capacity Boundaries



This Model scope means that the Model does not determine the capacity of the entire system or coal chain. In particular, the Model does not consider elements of the terminal operations beyond the inloaders and does not consider the shipping queue or terminal operations in the generation of rail demand within the Model.

There are several general assumptions used in the determination of the DNC:

- The IE has had to exercise judgement on a large range of issues in developing the SOP assumptions and application of these within the Model. These are called out as appropriate in each section of the SOP;
- In general, inputs into the Model, including key data statistical distributions, are generally informed by historical data. The IE has predominantly considered data from January 2021 to December 2024 (where available), however the exact approach varies across the various Model parameters and are outlined in the SOP.

#### 1.4 Information and Redaction

To the extent possible, this document has been prepared on an aggregated and unredacted basis. Where capacity outcomes contain information that is confidential to an access holder, customer, train operator, or terminal operator and is unable to be disclosed, it has been redacted in this document.

Minor rounding differences may occur in this report. Differences can arise between scenarios or sensitivity outcomes due to varying baselines or sequencing of constraints. For example, waterfall changes are assessed against ACAR24 DNC results, whereas sensitivities are evaluated as single input variations against ACAR25 DNC.



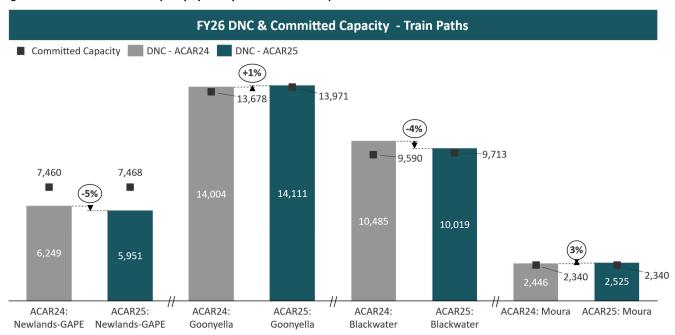
## 2. Executive Summary

The IE has prepared the ACAR which determines the DNC of the CQCN for the capacity assessment period (1 July 2025 to 30 June 2030).

The IE's determination of DNC for FY26 for each system, and the change since ACAR24 is shown in **Figure 3** in train paths. This figure also shows the Committed Capacity and hence the resulting surplus or deficit of capacity. **Figure 4** shows the equivalent capacity change in tonnes (for reference purpose only). Since ACAR24 the following changes are evident:

- A reduction in Newlands-GAPE System DNC of approximately 5% due to a range of factors including a reduction
  in consists. A reduction in median payload sees capacity in tonnes fall by 7%. DNC remains materially lower
  than Committed Capacity, although is still broadly sufficient to meet forecast demand (see Section 6.8);
- A slight increase in Goonyella System capacity due to a range of factors. Capacity remains aligned with demand noting the inclusion of ~300 train paths of New Access contracted by AN following ACAR24. An offsetting reduction in median payload sees capacity in tonnes reduce marginally:
- A 4% reduction in Blackwater System DNC primarily due to track maintenance impacts and a reduction in the number of consists utilised, however the system is still able to meet contracted demand; and
- Capacity in the Moura System shows a modest increase of approximately 3%.

Figure 3 - Deliverable Network Capacity by coal system - FY26 - train paths





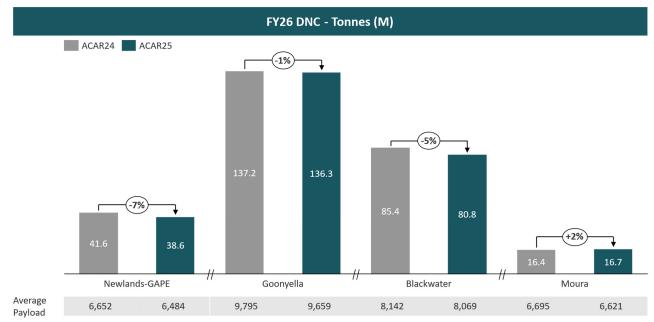


Figure 4 - Deliverable Network Capacity by coal system - FY26 - tonnes

More detailed information on the results for each coal system can be found in **Sections 6 - 9** of this report.



## 3. ACAR Changes - CQCN-wide

A range of changes have been made to both the inputs to the capacity assessment, and the way the results have been presented in ACAR25. The changes that affect all systems are outlined below, while system-specific factors are outlined in the relevant section within **Sections 6 - 9** of the report.

#### 3.1 ACAR Report Changes

The ACAR report continues to present an indicative view of changes in capacity since the prior year and the absolute impact of key input variables within each system, however a number of enhancements have been made to the reporting of capacity assessment outcomes.

#### 3.1.1 DNC Results – Measurement Methodology

The CQCN Model is a stochastic Model and includes a mixture of fixed inputs (e.g. planned maintenance events) and random probability distributions (e.g. unplanned maintenance events). This means that each run of the simulation will result in different outcomes as the values for key inputs are randomly chosen throughout the course of the simulation run. To address this natural variability the Model is run 100 times, from which 50 results are selected to provide a representative range of outcomes from which to determine DNC.

In prior years, the annual DNC has been determined based on the median of the 50 annual throughput outcomes. UT5 requires that DNC be calculated on a monthly basis and prior ACARs have included monthly capacity breakdowns each representing the median of a month's results. Unfortunately this has created some confusion as the sum of the median of 12 months' capacity does not necessarily equal the median of the annual results.

To avoid such confusion moving forward, the IE has aligned monthly and annual DNC results by calculating the annual DNC as the sum of the medians of each of the 12 constituent months. This change has increased DNC results slightly, with increases in each system under 0.5%.

#### 3.1.2 Forecast Demand, Current Operations Scenario

In response to feedback from stakeholders, ACAR25 sees the introduction of a new modelling scenario. A number of stakeholders expressed that it was difficult to reconcile the results of ACAR capacity modelling with the current "real world" situation.

To allow stakeholders to more easily relate the Model outcomes to their recent experience of the network, the IE has introduced a new scenario for ACAR25. Titled "Forecast demand, current operations", this scenario modifies certain ACAR-compliant input assumptions to more closely reflect the recent performance of the network. Key variable changes in this scenario include:

- Origin-destination demand based on the annual forecast information used by AN in the calculation of FY26 tariffs (which incorporates producer forecasts where available) rather than full contractual capacity. To reflect seasonality these annual demand amounts have been distributed across months using historical throughput patterns;
- Increased inloader shutdowns based on current maintenance plans (ACAR includes only that terminal maintenance operators have advised they would undertake in a full-demand environment);
- Current above rail consist numbers;
- Recent (CY2025) cancellation rates without ACAR adjustments for mine-related and force majeure cancellations.

The monthly results of this scenario are included in each system's section of the ACAR, illustrating in which months it is likely to be most difficult to service forecast demand. It is important to stress that this scenario is provided for information only and does not alter the ACAR determination of DNC.



#### 3.1.3 Reconciliation to Maximum Capacity

Stakeholders will be aware that there remains in some parts of the CQCN debate regarding the capacity of a given coal system. Much of the potential for disparity can be a result of differing approaches to the definition of capacity and the resulting factors that are included or excluded in modelling capacity.

To try to give stakeholders an understanding of the contributing factors, the IE has prepared a reconciliation between DNC and a track network unconstrained by non-track infrastructure capacity (TLOs, terminal inloaders and rail depots/yards capacities are increased well beyond current levels), maintenance activities and day of operations losses or above-rail consist numbers. This provides an illustration of the constraint factors in a system and the maximum (theoretical) capacity of that system. In the maximum capacity case, system capacity is restricted only by the track infrastructure and its ability to support the flow of trains.

#### 3.2 Transitional Arrangements

ACAR25 includes no new Transitional Arrangements (TA), given that no further TAs have been approved since ACAR24. Most notably, DNC assumes no use is made of the Collinsville passing loop in the Newlands-GAPE System.

#### 3.3 Demand

To assess the maximum capacity of the rail infrastructure it is important to ensure that sufficient demand is available to fully utilise the available track infrastructure. To achieve this, demand within the Model is increased beyond 100% of committed capacity (applied evenly across all origin-destination combinations in a system) until the limit of throughput is achieved.

In ACAR25, train demand has been limited to 120% of contract for each monthly period. This reverses the change made in ACAR24 to increase demand to 140% of contract (except for Newlands-GAPE which remained at 120%). While this change assists equity in achievement across origin-destination combination, the primary reason was to avoid an assumption that coal mines can support significant swings in monthly production to accommodate infrastructure limitations. Instead, mines are expected only to present coal for railing on a reasonably even monthly basis.

#### 3.4 Consist Allocation and Above Rail Productivity

Just as it is important to ensure that sufficient demand is available to fully utilise the available track infrastructure, sufficient above rail assets must also be available. A decision must therefore be made as to the appropriate number of above-rail consists for each system. This requires some careful consideration as additional consists increase network congestion which can reduce throughout.

To determine the most appropriate number of consists for each of the CQCN systems, the IE uses a Model with the final input settings, which is then run using a range of different consist scenarios. For this analysis, a uniform shared third-party above rail fleet is used (dedicated above rail providers continue to serve their dedicated mines).

The results of these Model runs are reviewed to examine both the throughput benefits of additional consists and the negative impact on above rail productivity. For ACAR25, above rail productivity has been measured by examining the transit time in a system (akin to cycle time but excluding loading and unloading time which are unrelated to track infrastructure). The trade-off between throughput and above rail productivity is a subjective assessment and the IE has applied judgement to determine the appropriate allocation of consists for each system. Further detail is provided for each system in **Sections 6-9**, but most systems' DNC determination for ACAR25 included a reduction in consists and a corresponding reduction in capacity and expected cycle times.

Once the optimal number of consists in a system has been determined (as described above), the resulting number of consists are allocated to the appropriate operators. This allocation typically results in a small reduction in throughput compared with a fully flexible above rail fleet. This impact is outlined in the sensitivity scenarios for each system.



#### 3.5 Asset-related Model Inputs

The SOP outlines the assumptions used in calculating DNC. A number of CQCN-wide modifications were made to the ACAR25 Model, which affect the DNC results for this year.

#### 3.5.1 Removal of loaded pathing

Prior modelling reflected clockface departure for empty trains from the yard and for loaded trains at the main line in each of the CQCN systems. This was aligned with the pathing profile for each system previously advised by AN:

**Table 1: ACAR24 Model Clockface Departures** 

|               | Empty dep                 | parture | Loaded o         | Loaded departure |  |  |
|---------------|---------------------------|---------|------------------|------------------|--|--|
| System        | <b>Location</b> Frequency |         | Location         | Frequency        |  |  |
| Newlands-GAPE | Pring                     | 45 mins | Collinsville     | 45 mins          |  |  |
| Goonyella     | Jilalan                   | 20 mins | Coppabella       | 20 mins          |  |  |
| Blackwater    | Callemondah, Kabra        | 15 mins | Bluff, Rocklands | 20 mins          |  |  |
| Moura         | Callemondah               | 90 mins | Dumgree          | 90 mins          |  |  |

These Model settings required empty and loaded trains to be held until the next clockface departure time, even if the track ahead was clear. A review of train departure data showed strong compliance with the clockface departure regime for empty trains in all systems, but little or no alignment for loaded trains (either in the train schedule or actual train operations). As a result, the IE has removed this clockface departure constraint for loaded trains (but retained it for empty trains).

#### 3.5.2 Moving Maintenance

In response to feedback from stakeholders following ACAR24, CNCC has examined whether aspects of AN's maintenance regime had not been captured in previous ACAR capacity modelling. This relates to the capacity impacts of maintenance that were not captured as track possessions (previously the basis of all maintenance included in ACAR modelling), but rather as "moving maintenance" activities involving a maintenance train moving slowly through the track network and thereby restricting the passage of coal trains.

This process has identified two activities that fit this criterion which had been omitted from previous ACAR processes:

- Mainline rail grinding this excludes turnout grinding (already captured as maintenance possessions) but includes all track grinding whether on mainline or branch lines; and
- Preventative track resurfacing this excludes turnout resurfacing and reactive mainline resurfacing (both already captured as maintenance possessions).

For ACAR25, the IE has focused on the inclusion of mainline rail grinding, as it is more easily identifiable and appears to have the greater capacity impact. Further work will be required to include resurfacing in future ACAR processes.

For mainline rail grinding, the IE was unable to obtain details of AN's planned FY26 grinding scope which AN considers to be commercially confidential. As a result, CNCC reviewed historical traffic movement data and MRSB reporting for the rail grinder to develop a notional grinding program consistent with ACAR volume levels. This grinding work was then included in the Model to reflect the anticipated moving maintenance activities. The impact on capacity from rail grinding was modest – less than 50 train paths in most systems.

#### 3.5.3 Hi-Rail Activities (Infrastructure Inspections)

Infrastructure inspections are carried out using a hi-rail vehicle, a car fitted with wheels that allow the car to travel on the rail infrastructure. These inspections are scheduled, and the Model makes the section of the track unavailable for coal services during the time when the hi-rail vehicle is present.



For ACAR25, CNCC has re-examined the inclusion of hi-rail movements within the Model. A review of non-coal traffic data identified four separate traffic types representing various types of hi-rail movements (distinguished mainly by the speed of the vehicle). Almost 80% of the recorded movements were attributed to regularly scheduled inspections – the so-called "road patrol" movements in which AN track inspectors conduct a visual inspection while driving on the track at 30 km/h. Based on this, CNCC decided to focus the ACAR25 infrastructure inspection analysis on this specific type of hi-rail movement. The remaining 20% of movements may be examined in future ACAR processes.

The analysis confirmed that road patrol movements follow a rigid schedule which could be replicated in the ACAR Model. The observable patterns have been identified and implemented as a series of short track possessions in the Model to reflect their impact on track capacity. The capacity impact of the inclusion of infrastructure inspections in this way was modest, ranging from 40 train paths (Newlands-GAPE) to 110 train paths (Goonyella).

#### 3.5.4 Track Maintenance

In addition to moving maintenance and infrastructure inspections discussed above, ACAR25 capacity modelling includes three other categories of track maintenance activities (including renewals), outlined below.

#### **Integrated Closures**

Integrated closures include Full System Shuts (FSS) and branch line shuts which form part of AN's Maintenance Renewals and Strategy Budget (MRSB) scope. Information regarding these planned possessions and the IE utilises this information as an input into the Model with few, if any, modifications. These integrated closure activities are also used in the consideration of other types of maintenance to ensure no "double counting" of maintenance possessions and their capacity impacts occurs. There has been no change to the approach for this maintenance in ACAR25.

#### Major Maintenance

In addition to the integrated closures described above, AN's MRSB scope includes further maintenance tasks that can be accommodated within less extensive possessions, including single-line closures within duplicated track sections. Like integrated closures, CNCC utilises this information as an input into the Model with few, if any, modifications. There has been no change to the approach for this maintenance in ACAR25.

#### Minor Maintenance

While AN scopes tasks and schedules possessions for major maintenance well in advance, other smaller-scale maintenance tasks are required across the network. This includes planned maintenance activities as well as "breakdown" maintenance tasks.

As in ACAR24, the IE has examined historical information to understand the extent of minor maintenance which has affected capacity in order to estimate the extent of minor maintenance expected in future.

Minor maintenance possession hours in CY2024 increased in all systems over CY2023, further extending the long-term trend observed since 2020 (see **Table 2** below).

Table 2: Historical Minor Maintenance Hours

|        | CY2020 | CY2021 | CY2022 | CY2023 | CY2024 |
|--------|--------|--------|--------|--------|--------|
| ACAR24 | 4,866  | 6,936  | 5,381  | 7,214  |        |
| ACAR25 |        | 7,047  | 5,472  | 7,197  | 8,838  |

Note minor differences in CY2021-23 are due to updated data classification

After reducing historical possession hours for overlap with integrated closures and scaling to full-demand levels, minor maintenance possessions input in the ACAR25 Model for FY26 increased in all systems except Newlands-GAPE.

AN has indicated to the IE that they are increasing the proportion of minor maintenance possessions that occur simultaneously with other major or minor maintenance, thereby reducing the capacity impact of that maintenance.



The IE has not yet been able to properly assess the data to identify such a trend and thus has yet to explicitly incorporate such an effect in the ACAR modelling but this existing methodology will reflect such impacts evident in CY2025. Further analysis and representation of this effect represents a planned improvement opportunity for CNCC.

#### 3.5.5 TLO Maintenance

Given that planned maintenance at TLOs can vary from year to year at each TLO, the IE has generally used a notional TLO maintenance schedule that is broadly aligned with long-term historical records of TLO maintenance. These records have consistently shown around 4,000 possession hours of maintenance outside integrated closures across the CQCN.

ACAR25 continues this approach except where more specific information was available. This year, several stakeholders provided forecast FY26 TLO maintenance schedules to AN or provided information directly to CNCC regarding their TLO maintenance profile. From this information CNCC identified a small number of longer shutdowns (greater than 48 hours) outside network closures. Such occasional long shutdowns were also evident at other TLOs in the historical data; however these longer shutdowns tend to be more sporadic with few occurring on a regular annual basis. Many of these long shutdowns were also aligned to individual inloader shutdowns (as distinct from network shutdowns), which would be expected to reduce their impact on DNC.

For ACAR25 modelling purposes CNCC has used a program of regular periodic maintenance at each TLO akin to the approach utilised from ICAR to ACAR23, with amendments reflecting scheduled FY26 maintenance forecasts already provided to AN or communicated to CNCC directly. Longer shutdowns have only been included where they could be identified as occurring on a regular, predicable basis. The inclusion of these shutdowns increased total ACAR25 TLO maintenance hours to ~4,800 hours. As in previous ACAR reports, TLO maintenance was not a significant factor in determining DNC, with the impacts ranging from 1 train path (Newlands-GAPE) to 40 train paths (Goonyella).

#### 3.5.6 TLO Loading Rates and Payloads

As in previous years, the IE has examined loading records from AN and above rail operators to assess the payload and loading times for each TLO in the CQCN.

This year, examination of the resulting expected loading times was compared with current AN scheduled loading times. In this data a number of outliers were evident where it appeared that trains were unlikely to have sufficient time to fully load. After discussion with AN, the IE has proposed to AN that scheduled loading times be revised to align with at least the P70 point on the distribution of loading times as outlined in the SOP (i.e. the time necessary to allow 70% of trains to fully load) in order to increase payload in the CQCN. AN is currently in consultation with stakeholders as to how such a change could be effected.

#### 3.5.7 Delays

The IE has instituted a change to the way AN's delay data is analysed to provide inputs into the Model.

Delays in the CQCN network can affect a single train service (primary delay) and possibly other services (secondary delays). The longer a primary delay, the greater the potential impact on other services. The CQCN Model requires information regarding the expected frequency and duration of faults within the network that lead to delays – this means the Model only requires information regarding primary delays, as the Model then determines any subsequent impact on other services based on Model conditions at the time.

AN's data systems record as delays any deviation from the standard Sectional Run Time (SRT) for each portion of a train's journey. This represents a subtle difference from the concept of delays in the CQCN Model.

For ACAR25, a new approach was instituted to analyse AN data to classify delay events and their duration. This approach first excludes delay types that the Model generates itself (e.g. time waiting for an inloader to become available) and then identifies and separates primary delay events within the data and calculates the rate and duration



of primary delays for each system. A small number of delay events recorded by AN as having lasted longer than 24 hours were capped at 24 hours to avoid the potential for such events to cause Model failure.

AN's delay recording system does not require allocation of delays of up to 3 mins per section – these delays can be attributed to the generic code described as "Automatic System Variance". The IE has excluded this code (and therefore the majority of delays of less than 3 minutes) from the delay analysis as it was not possible to determine the nature of these delays. The IE notes however that the use of the automatic system variance delay code appears to correlate highly with the presence of Temporary Speed Restrictions (TSR) in a section due to AN's data collection approach. The IE acknowledges that the exclusion of these delays might impact the cycle times of trains in the Model but does not consider that this will materially impact the assessment of capacity.

The result of this change in approach is the Model will experience fewer delay events but that events have a longer average duration and each event will therefore have a greater capacity than in prior ACAR assessments. The overall impact of the change in delay methodology was a slight increase in capacity in each of the systems.



## 4. Stakeholder Engagement and Feedback

Following development and distribution of the draft SOP, which represents the key inputs into the Model, CNCC engaged face-to-face with all service providers (AN, above rail operators and terminal owners and operators) and sought feedback from producers in relation to their assets. Key topics raised included:

| SOP Consultation Feedback   | IE Action  |  |  |
|---|--|--|--|
| Clarification of TLO loading time assumptions and the basis for CNCC's identification of significant light loading at a range of TLOs and a desire to understand the impact of light loading across the systems | Light loading impact included in sensitivity chart for each system   |  |  |
| Clarifications regarding producers' TLO maintenance assumptions for several TLOs  | Adjustments to some TLO maintenance profiles where available from producers  |  |  |
| Potential mismatches between allocation of above rail operators to TLOs based on historical data rather than current above rail contractual arrangements  | No action — potential to seek contractual information from operators for ACAR26  |  |  |
| Clarification regarding above rail maintenance activities – frequency, duration and location (network track infrastructure vs private infrastructure)   | Amendments to Model assumptions as advised   |  |  |
| CNCC's approach to selection of the appropriate number of above rail consists for a system and the associated trade-off between throughput and cycle-time   | Trade-off considerations shown for each system.  Additional information on cycle-time segment breakdown (see <b>Sections 6-9</b> )   |  |  |
| Feedback regarding significant Blackwater System delays in H1 2024, now resolved.   | Adjustment to Blackwater delay data sample to exclude H1, revised Blackwater delay assessment.   |  |  |
| Impact of RG Tanna inloader/route restrictions on delays in the Blackwater System   | Clarification that delays in accessing specific inloaders are excluded from network-related delay inputs in the Model  |  |  |
| Questions regarding input assumptions and impacts of rail grinding and hi-rail inspection activities  | Clarification regarding IE notional grinding program aligned with high-level metrics from AN data.  Clarification regarding observable hi-rail inspection movements and pathing/capacity impact. |  |  |



## 5. Future Opportunities

As part of each ACAR process, the CNCC team identify opportunities for improvement of the modelling and DNC outcomes to most closely represent the operation of the network. Not all opportunities can be addressed immediately but will become part of an improvement program. From the ACAR25 process, the following opportunities have been identified by CNCC:

- Adjustment of demand methodology to emphasize satisfaction of each origin-destination's contractual demand before servicing additional capacity demand
- Refinement of unloading activities to capture historical pre and post-load delays specific to each inloader (to replace current standard assumption of 7 and 8 minute respectively);
- Re-examination of the modelled train movements between Callemondah yard to RG Tanna and return to ensure that the Model accurately captures AN's management of this critical section of track infrastructure;
- Refinement of the Model's generation of secondary delays on a system-by-system basis;
- Potential refinement of Model delay inputs on a sub-system level (e.g. mainline and branch-lines separately);
- Review of sectional run times:
  - o Potential IE "first principles" determination of SRTs (rather than use of standard AN SRTs);
  - Examination of section level delays captured as "Automatic System Variance".
- Review and monitor minor maintenance activity long-term trends after taking overlapping activities into account:
  - Review historical maintenance records to identify maintenance task overlaps;
  - o Identify most significant event other simultaneous events fall within "shadow" of this event.
- Use AN track condition assessment data to better anticipate TSRs;
- Re-examination of even railings assumptions for terminals other than DBCT;
- Extension of Pring yard cancellation-related occupancy to Jilalan and Callemondah.



## 6. Newlands and GAPE Systems

#### 6.1 Overview of Newlands and GAPE systems

The Newlands System refers to the rail infrastructure comprising the rail corridor from the terminal at NQXT to Newlands mine (now decommissioned). The Newlands System rail infrastructure is also used by GAPE System traffic (traffic utilising the rail corridor from North Goonyella Junction to Newlands Junction and generally originating in the Goonyella System) and for traffic from Bravus' Carmichael Private Network. A map of the Newlands and GAPE systems is provided in **Figure 5.** 

The close integration of the GAPE and Newlands systems mean that these systems are effectively modelled as one system for the purposes of capacity assessment. As a result, ACAR25 reporting for these systems is provided primarily on a combined basis. For the purposes of strict compliance with UT5, which requires reporting on each system, separate Newlands and GAPE capacity information is included in **APPENDIX A: Newlands System Information** and **APPENDIX B: GAPE System Information**.

Figure 5 - Newlands and GAPE systems





#### 6.2 Deliverable Network Capacity

#### 6.2.1 Changes since ACAR24

The combined Newlands-GAPE System DNC has seen a reduction in FY26 capacity of ~300 trains since ACAR24. In addition, a ~2.5% reduction in median payload has seen capacity in tonnage terms decreasing to 38.6Mt.

**Figure 6** provides an indicative breakdown of the changes from ACAR24 to ACAR25 for FY26, the most significant of which are discussed in more detail in the remainder of this section.

Change in DNC-Train Paths -5% (-299) 6,249 -80 -70 6.168 -100 +40 -15 +10 -70 +340 5,951 -200 -40 -120 -24

Above Rail

0.3

TLO

Delays

Demand

-0.5

Consists

SRTs Cancellations Other

ACAR25

38.6

Figure 6 – Indicative Newlands and GAPE changes from ACAR24 to ACAR25 – FY26

ACAR24

40.5

Pathing

IL Unload

-0.5

IL Mtce

Track

Mtce

TSRs

#### 6.2.2 Key Input Sensitivities

ACAR24

- FY25

Tonnes (M) \*

An assessment has also been performed of the impact on Newlands-GAPE System DNC of changes to key operating parameters, these are represented in tonnes in **Figure 7** below.

ACAR25 - FY26 Tonnes (M) 38.6 No IL Mtce (outside ICs) +0.2 No TLO Mtce +0.2 No ICs +0.5 No Major Mtce +0.2 No Minor Mtce +0.5 No Moving Mtce, No Infrastructure Insp +0.7 No Track Mtce +2.1 No Mtce of IL, TLO or Track Flexible Above Rail Fleet -0.1 Fleet Actual Consists -2.5 No TSRs +1.6 Loss No Cancellations, No Delays No Light Loading

Figure 7 - Newlands and GAPE sensitivity impact to DNC for key operating parameters – FY26



 $<sup>\</sup>ensuremath{^{*}}$  Tonnes are calculated using the ACAR25 FY26 average payload.

#### 6.3 Modelling Changes

#### 6.3.1 Removal of loaded pathing

As discussed in **Section 3.5.1** the IE has removed the loaded train clockface departure constraint. Removing this has a significant impact in the Newlands-GAPE System (+340 trains) due to the long (45 min) clockface departure interval compared with other systems.

#### 6.3.2 Terminal Unload Rate

Examination of NQXT-provided unloading data showed an increase in instances of long unloading events compared with previous years. This resulted in a reduction in network capacity of approximately 80 trains (~0.5Mt).

#### 6.3.3 Terminal and Track Maintenance

#### Terminal Maintenance

NQXT-provided maintenance plans also show a minor increase in short duration shutdowns. These minor shutdowns are not aligned with network integrated closures and result in a reduction in network capacity of approximately 70 train paths (0.5Mt).

In aggregate, inloader maintenance outside network shuts reduce Newlands-GAPE System DNC by approximately 0.2Mt.

#### Track maintenance

There is no change to AN's integrated closure plans which continue to see two major closures of 108 and 60 hours, however the IE has classified AN's two planned 24 hour "maintenance windows" in November and April as integrated closures resulting in a total of 216 hours of full system closures.

Despite this increase in planned closures, ACAR25 sees improvements in capacity associated with major and minor maintenance activities, both of which require fewer possession hours than ACAR24. The introduction of rail grinding, and the revision of the approach to hi-rail infrastructure inspection activities saw a minor offsetting reduction in capacity. The net impact of track maintenance activities is an increase in capacity of 30 train paths (0.2Mt) compared with ACAR24.

In aggregate, track maintenance activities reduce capacity by approximately 315 train paths (2.1Mt).

#### 6.3.4 Temporary Speed Restrictions

Analysis of TSRs in the Newlands-GAPE System (CY2022-24) showed an increase compared with ACAR24. This was assessed as reducing capacity by 100 train paths (~0.6Mt). In aggregate, TSRs in Newlands-GAPE reduce capacity by approximately 1.6Mt.

#### 6.3.5 Delays and Cancellations

Changes to the delay methodology has increased capacity in the system very slightly (+10 trains). Cancellations in the Newlands-GAPE System increased slightly over ACAR24, while the introduction of cancellation-related delays in the Pring yard has been assessed as reducing capacity by approximately 90 train paths (~0.5Mt).

Collectively, delays and cancellations in Newlands-GAPE reduce capacity by approximately 510 trains (3.4Mt).

#### 6.3.6 Committed Capacity and Demand Presentation

There have been no material changes in committed capacity for FY26 to FY29 since ACAR24. There have been no further adjustments relating to non-renewal of GAPE capacity expiring in FY28 and ACAR25 continues to assume the renewal of expiring capacity where that capacity carries renewal rights, as required by UT5.



Newlands-GAPE capacity was reduced by 70 trains (0.5Mt) when updated contractual information for the CQCN was included. There was no direct change to Newlands-GAPE contracts and the IE attributes the change to the flow-on impact of the increase of approximately 300 train paths of new access in the Goonyella System.

#### 6.4 Consist Numbers and Cycle Times

Consistent with previous years' assessments, the IE has optimised consist numbers within ACAR25 to ensure that above rail capacity is not a constraint on DNC. For ACAR25, consists have been reduced by 2 to a total of 18.

This change has reduced capacity by 200 train paths and is the largest single factor reducing Newlands capacity compared with ACAR24 FY25, but the change also contributed to a reduction in cycle time 18.3 and 28.4 hours (Newlands and GAPE respectively) to 14.0 and 25.9 hours respectively.

Figure 8 - Newlands-GAPE Consist sensitivity

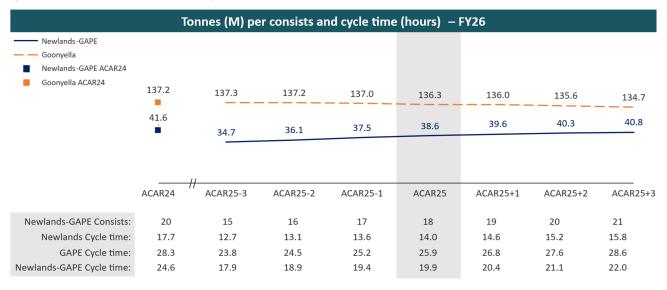


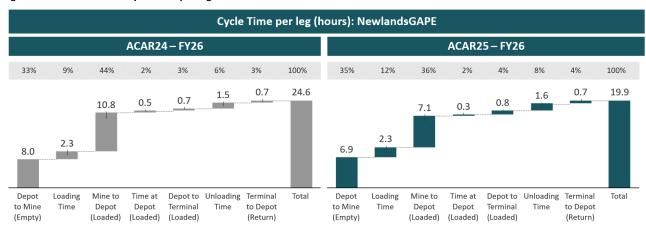
Table 3 - Newlands-GAPE Cycle Time

| Cycle Time (Hours) | FY25<br>(ACAR24) | FY26<br>(ACAR24) | FY26<br>(ACAR25) | FY26 Change |
|--------------------|------------------|------------------|------------------|-------------|
| Newlands           | 18.3             | 17.7             | 14.0             | -21%        |
| GAPE               | 28.4             | 28.3             | 25.9             | -9%         |
| Newlands-GAPE      | 25.2             | 24.6             | 19.9             | -19%        |

As shown in **Figure 9** below, the reduction in cycle time is driven predominantly by the depot to mine (empty) and mine to depot (loaded) legs, illustrating the effect of a reduction in consists from ACAR24.



Figure 9 - Newlands-GAPE Cycle Time per leg



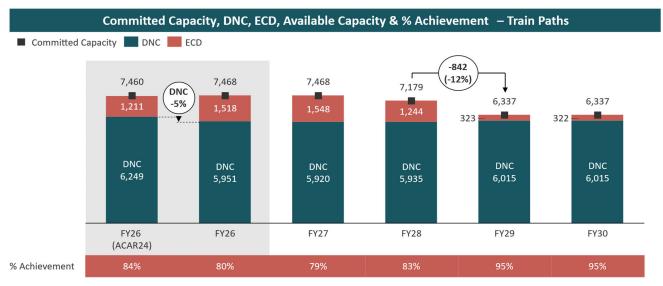
As discussed in SOP 2025, above rail operators are allocated to mines based on CY2024 railings. The IE has undertaken a sensitivity of the impact of above rail allocation, by allowing all third-party operators to operate to all mines. In the Newlands-GAPE System, there was no change to DNC as a result of allowing Aurizon Operations and Pacific National to both service all Newlands-GAPE mines (except the Carmichael mine).

#### 6.5 DNC and Available Capacity/Existing Capacity Deficit (ECD)

The FY26 DNC of 5,951 train paths (a reduction of 299 from the ACAR24 FY25 DNC) with committed capacity of 7,468 train paths leaves the Newlands-GAPE System with an **existing capacity deficit** of 1,518 train paths in FY26 – equivalent to 9.8Mt at median expected payload. The reduction in DNC means that at present, an ECD continues through to FY30, pending any further reduction in committed capacity by that time.

Capacity outcomes for all years of the ACAR period is outlined below in Figure 10 in Train Paths and Figure 11 in tonnes.

Figure 10 - Newlands and GAPE summary for FY26 to FY30 (Train Paths)





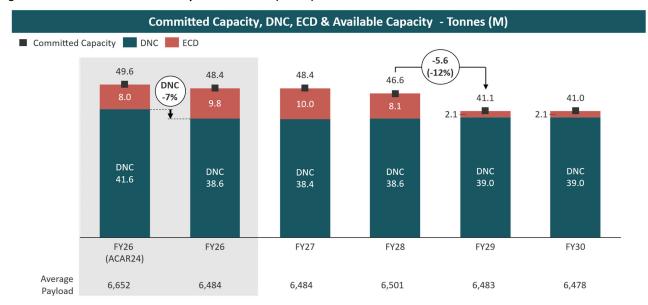


Figure 11 - Newlands and GAPE summary for FY26 to FY30 (tonnes)

The DNC calculated separately for the Newlands and GAPE systems by month for the five-year assessment period is shown in APPENDIX A: Newlands System Information and APPENDIX B: GAPE System Information.

# 6.6 Model Variability

The ACAR25 Newlands-GAPE System DNC for FY26 of 5,951 train paths represents the median of 50 Model simulation runs. The P90 to P10 range of the DNC was from 5,689 to 6,164 train paths (an 8% range) as shown in **Figure 12** below. None of the Model runs achieved committed capacity for FY26.

It should be noted that the P10-P90 DNC variation metric has changed in magnitude due to the change to reporting DNC as the sum of monthly median's as discussed in **Section 3.1.1**. If measured on the previous annual median basis, variation remained at ~2%.

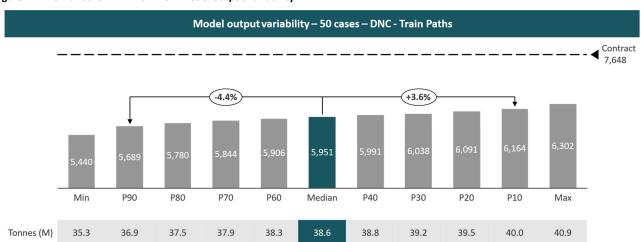


Figure 12 - Newlands-GAPE FY26 DNC - Model output variability

# 6.7 Monthly Capacity Variability

Although DNC is most frequently discussed in annual terms, the IE is required to determine each system's monthly capacity. FY26 monthly capacity in the Newlands-GAPE System is moderately stable, ranging from ~440 to 534 train



paths per month with the most constrained months of March and September reflecting the scheduled system closures, as shown in **Figure 13** below.

Monthly capacity for the full five-year period of the ACAR Model is shown in **APPENDIX A: Newlands System Information** and **APPENDIX B: GAPE System Information**.

FY26 Monthly Committed Capacity, DNC & % Achievement – Train Paths **Annual** Monthly ■ DNC ■ Committed Capacity 7,468 5.951 634 634 634 634 634 634 634 614 614 614 574 534 533 532 523 505 510 503 478 473 463 440 Aug Sep Apr Jun % Achieved Cycle Time: 12.7 13.5 Newlands 14.0 13.6 13.5 21.3 13.7 14.1 13.4 13.3 13.4 21.0 14.1 25.9 25.4 24.9 27.6 25.9 26.3 25.6 25.5 26.3 27.2 25.8 24.8 25.9 Newlands-GAPE 19.9 18.6 18.4 26.0 18.8 18.5 18.7 18.4 18.7 25.8 18.7 17.2 18.8

Figure 13 - Newlands-GAPE FY26 Monthly Capacity

# 6.8 Current Demand, Current Operations Scenario

As discussed in **Section 3.1.2** For ACAR25, the IE has also examined a scenario for the Newlands-GAPE System that more closely reflects current levels of demand and current operations (consist numbers, inloader shutdowns and cancellations) in the system.

The results of this scenario, shown below in **Figure 14**, suggest that current capacity is sufficient to meet forecast demand in all months except November and May, although demand and capacity is closely matched in March. Expected cycle times appear reasonably stable between 20 and 21 hours, but September and March are expected to be much higher, reflecting the planned closures in those months.



FY26 Scenario: Forecast Demand, Current Operations - Tonnes (M)\* **Annual** Monthly Forecast Demand Achieved 35.4 Jul Aug Oct Feb Mar May Jun 20.1 20.0 20.3 21.0 20.1 24.1 20.7 21.1 Cycle Time (hrs) 21.9 20.6 23.2 20.2 19.3

Figure 14 - Newlands-GAPE System FY26 Scenario

# **6.9 System Constraints**

#### 6.9.1 Mainline and Branch line DNC

The IE is required to determine DNC for each system's mainline and branch lines. In determining system DNC, the IE increases demand for each origin-destination pair in a system simultaneously until the maximum throughput is reached. The DNC, committed capacity and ECD values, where applicable, per mainline and branch line for Newlands-GAPE are outlined below in **Table 4** (in both train paths and tonnes).

Table 4 - Newlands and GAPE values per Mainline and Branch line for FY26 to FY30

| System        | System Mainline / Branch Line |  |       | Comm  | itted Ca | apacity |       |       |       | DNC   |       |       |       |       | ECD    |     |      |
|---------------|-------------------------------|--|-------|-------|----------|---------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-----|------|
|               |                               |  | FY26  | FY27  | FY28     | FY29    | FY30  | FY26  | FY27  | FY28  | FY29  | FY30  | FY26  | FY27  | FY28 I | Y29 | FY30 |
| Train Paths   |                               |  |       |       |          |         |       |       |       |       |       |       |       |       |        |     |      |
| Newlands-GAPE | 1                             | M.L Collinsville to Pring                            | 7,468 | 7,468 | 7,179    | 6,337   | 6,337 | 5,949 | 5,923 | 5,932 | 6,013 | 6,014 | 1,519 | 1,545 | 1,247  | 325 | 323  |
|               | 1A                            | B.L Pring to Abbot Point                             | 7,468 | 7,468 | 7,179    | 6,337   | 6,337 | 5,949 | 5,923 | 5,932 | 6,013 | 6,014 | 1,519 | 1,545 | 1,247  | 325 | 323  |
|               | 1В                            | B.L Newlands Mine to Collinsville                    | 7,468 | 7,468 | 7,179    | 6,337   | 6,337 | 5,949 | 5,923 | 5,932 | 6,013 | 6,014 | 1,519 | 1,545 | 1,247  | 325 | 323  |
| GAPE          | 2A                            | B.L North Goonyella Junction to<br>Newlands Junction | 4,345 | 4,345 | 4,047    | 3,214   | 3,214 | 3,299 | 3,275 | 3,195 | 2,973 | 2,977 | 1,047 | 1,071 | 852    | 242 | 238  |
| Tonnes (M)    |                               |  |       |       |          |         |       |       |       |       |       |       |       |       |        |     |      |
| Newlands-GAPE | 1                             | M.L Collinsville to Pring                            | 48.4  | 48.4  | 46.7     | 41.1    | 41.1  | 38.6  | 38.4  | 38.6  | 39.0  | 39.0  | 9.8   | 10.0  | 8.1    | 2.1 | 2.1  |
|               | 1A                            | B.L Pring to Abbot Point                             | 48.4  | 48.4  | 46.7     | 41.1    | 41.1  | 38.6  | 38.4  | 38.6  | 39.0  | 39.0  | 9.8   | 10.0  | 8.1    | 2.1 | 2.1  |
|               | 1B                            | B.L Newlands Mine to Collinsville                    | 48.4  | 48.4  | 46.7     | 41.1    | 41.1  | 38.6  | 38.4  | 38.6  | 39.0  | 39.0  | 9.8   | 10.0  | 8.1    | 2.1 | 2.1  |
| GAPE          | 2A                            | B.L North Goonyella Junction to<br>Newlands Junction | 27.9  | 27.9  | 26.1     | 20.6    | 20.6  | 21.1  | 21.0  | 20.6  | 19.0  | 19.0  | 6.7   | 6.9   | 5.5    | 1.5 | 1.5  |

#### 6.9.2 Branch line Capacity and System Constraints

The allocation of system DNC to branch lines shown in **Section 6.9.1** above does not necessarily demonstrate the full potential capacity of each branch line in the Newlands-GAPE System. In order to test the capacity limits of different sections of the Newlands-GAPE System, the IE has undertaken a series of Model sensitivities. This involves increasing capacity in various sections of the system to reach their practical limit.



 $<sup>\</sup>ensuremath{^{*}}$  Tonnes are calculated using the ACAR25 FY26 average system payload

As in ACAR24, the current constraint continues to appear to be in branch line 1B, based on longest headway - currently Almoola to Birralee (noting that this section straddles the mainline and branch 1B), where maximum capacity is aligned with DNC. Addressing the apparent constraint in this section has been the focus of the current TAs study work.

The analysis continues to indicate that there is additional capacity in branch 2A (serving GAPE traffic) and that this branch line has sufficient capacity to satisfy all its current committed capacity. The IE considers there is likely to be capacity beyond the values specified in **Table 5**, however accurately assessing this would require significant changes to a range of Newlands System operating parameters - an exercise the IE has not undertaken.

Table 5 - Branch line sensitivity per month

| Branch Line Capacity in excess of Committed Capacity- FY26 |     |     |      |      |     |     |     |     |      |     |     |     |       |
|--|-----|-----|------|------|-----|-----|-----|-----|------|-----|-----|-----|-------|
| Line   | Jul | Aug | Sep  | Oct  | Nov | Dec | Jan | Feb | Mar  | Apr | May | Jun | Total |
| 1A B.L Pring to Abbot Point                                | -60 | -50 | -100 | -100 | -95 | -50 | -50 | -55 | -150 | -60 | -75 | -55 | -900  |
| 1 M.L Collinsville to Pring                                | -60 | -50 | -100 | -100 | -95 | -50 | -50 | -55 | -150 | -60 | -75 | -55 | -900  |
| 1B B.L Newlands Junction to Collinsville                   | -60 | -50 | -100 | -100 | -95 | -50 | -50 | -55 | -150 | -60 | -75 | -55 | -900  |
| 2A B.L North Goonyella Junction to Newlands Junction       | +70 | +85 | -15  | -20  | +40 | +70 | +60 | +60 | -75  | +50 | +70 | +80 | +475  |

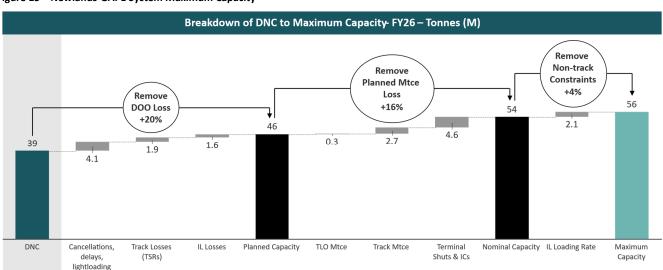
#### 6.9.3 Reconciliation to Maximum Capacity

For ACAR25, the IE has prepared a comparison between DNC and theoretical, unconstrained capacity in the Newlands-GAPE System. **Figure 15** illustrates how the various operational and maintenance activities affect capacity and the DNC.

With DNC of 39Mt as the starting point, removing unplanned day of operations issues, including inloader delays, track TSRs and cancellations and delays increases capacity by ~7Mt. Removing planned maintenance activities (inloader, track and TLO) further increases capacity to approximately 54Mt.

The IE has further unconstrained the TLOs, inloaders and yards by increasing loading and unloading rates to 200% of ACAR levels and increasing the number of roads in the yard, which yields capacity of approximately 56Mt. This is the maximum (albeit theoretical) capacity of the track infrastructure.

Figure 15 – Newlands-GAPE System Maximum Capacity





# **6.10 Capacity Risks and Opportunities**

Newlands-GAPE stands alone in ACAR25 as the only system with an ECD in FY26, and indeed for the entirety of the five-year period.

This means that the UT5 obligation for AN to address the capacity deficit remains. Options to increase capacity – both via modest capital investment and operating changes – remain under assessment. The situation is complicated however, by the potential for further reduction in GAPE demand in FY28 and beyond. None of those possibilities are explicitly addressed in the ACAR report but provide the potential for significant change in the Newlands-GAPE capacity landscape in the short-medium term. The IE will continue to work with AN and other stakeholders in the consideration of capacity improvement opportunities and indeed operating improvements in general, in conjunction with the Newlands Supply Chain Forum. Once implemented, any changes can be included in future capacity assessments as their benefits are demonstrated and quantified.

More immediately, the IE is aware of the planned NQXT ship loader major shutdown later in 2025. This has not been included in ACAR modelling as it lies outside the scope of DNC assessment. It does have the potential to reduce train loading capacity at the terminal, but this will depend on the stockpile situation at the time. This therefore represents a downside risk to FY26 capacity.

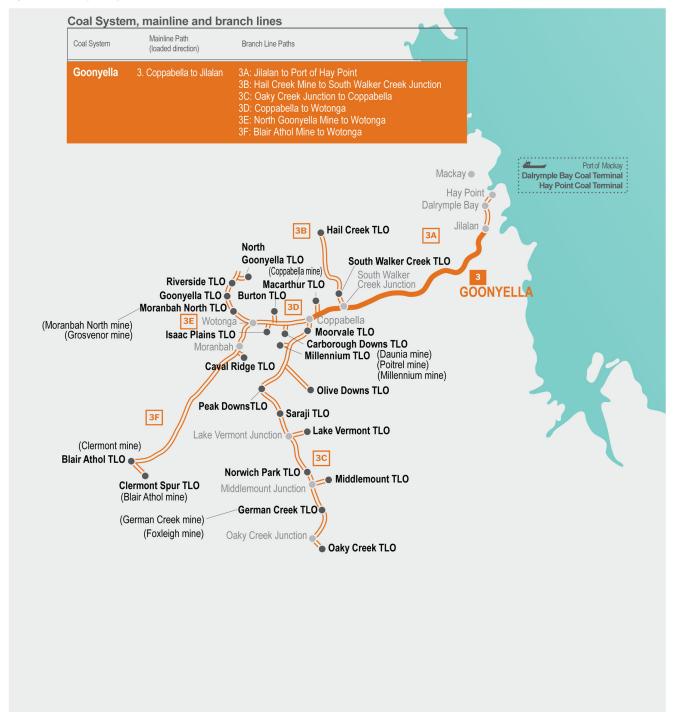


# 7. Goonyella System

# 7.1 Overview of System

**Figure 16** shows the system and each mainline and branch line that makes up the Goonyella System, incorporating the rail infrastructure from the terminals at the Port of Hay Point (i.e. Hay Point Services Coal Terminal and Dalrymple Bay Coal Terminal) to the Hail Creek mine, the Clermont mine, the North Goonyella mine and the junction with the Oaky Creek branch line and all spur lines connecting coal mine loading facilities to those corridors.

Figure 16 - Goonyella System





# 7.2 Deliverable Network Capacity

#### 7.2.1 Changes since ACAR24

The FY26 Goonyella System DNC has seen an increase of ~110 train paths (+1%) compared with ACAR24 to 14,111 train paths. A slight reduction in median payload offsets this increase and capacity in tonnage terms remains essentially flat at 136.3Mt.

**Figure 17** below provides an overview of changes from ACAR24 to ACAR25 for FY26. This outlines a range of changes – both increases and reductions – with the most significant factors outlined in this section of the report.

Change in DNC-Train Paths +1% (+107)14,111 14,004 13,873 -39 -120 +65 -80 -50 +300 -150 +130 -150 +180 -100 +120 ACAR24 ACAR24 Pathing Methodology IL Mtce Track Mtce TOW TSRs Above TLO Load Delays Consists SRTs Other ACAR25 - FY25 - FY26 Dispatch Rail Ops Rate & - FY26 & Mtce Mtce Tonnes (M) \* 134.0 135.3 -0.8 1.7 -1.4 1.3 -0.5 2.9 -1.2 -0.4 136.3

Figure 17 - Indicative Goonyella changes from ACAR24 to ACAR25 - FY26

#### 7.2.2 Key Input Sensitivities

An assessment has also been performed of the impact on Goonyella System DNC of changes to key operating parameters, these are represented in tonnes in **Figure 18** below.

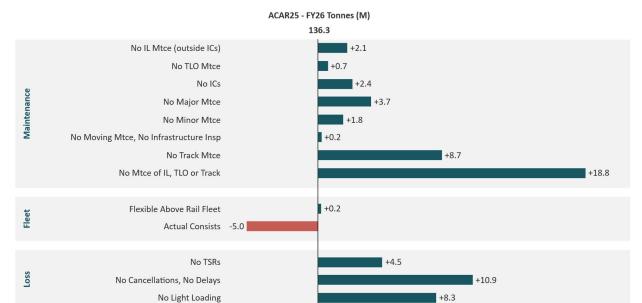


Figure 18 - Goonyella sensitivity impact to DNC of key operating parameters – FY26



st Tonnes are calculated using the ACAR25 FY26 average payload.

# 7.3 Modelling Changes

#### 7.3.1 Removal of loaded pathing

As discussed in **Section 3.5.1**, ACAR25 removes the prior Model assumption of clockface departures for loaded trains at Coppabella until the next 20 minute clockface time, even if the track ahead was vacant.

Given the relatively close spacing of Goonyella pathing, this change did not have a significant direct impact on the Goonyella System, but the significant uplift in Newlands-GAPE capacity (+340 trains) has an indirect impact on Goonyella, reducing capacity by ~80 trains.

# 7.3.2 Train Dispatch Methodology

Changes have been made to the factors that the Model considers in dispatching trains – particularly how track maintenance conditions alter train dispatch. This replaces some more coarse logic and input settings applied by the IE previously and sees a net reduction in capacity of ~150 trains.

#### 7.3.3 Terminal and Track Maintenance

#### Terminal Maintenance

Planned maintenance information was updated based on advice from the terminal operators. This included an increase in overall maintenance shuts outside network integrated closures, reducing capacity by  $^{\sim}100$  train paths (1.0Mt).

Taken in aggregate, terminal inloader maintenance outside system shuts reduce Goonyella System DNC by approximately 215 train paths (~2.1Mt).

Note also that based on a review of CY2024 data, there were no evident changes in the inloading rate performance or unplanned delay behaviour of the inloaders at DBCT or HPCT and no changes have been made to these operating parameters.

#### Track maintenance

Track maintenance inputs include integrated closures and major maintenance (per the FY26 MRSB), minor maintenance (the IE's estimate based on historical data) and (new in ACAR25) mainline rail grinding and routine scheduled hi-rail inspection activities.

Full system integrated closure possession hours in FY26 are largely unchanged from previous years, but branch line closure hours have reduced with the elimination of two Gregory branch closures. Other MRSB maintenance saw a minor reduction, while the impact of minor maintenance saw a more significant reduction in capacity impact.

Taken in aggregate, changes to track maintenance, including newly introduced items, saw Goonyella System capacity increase by 915 trains (8.7Mt).

# 7.3.4 Trains on Way

ACAR24 saw the introduction of a dispatch moderation tool that allowed the IE to optimise capacity in the Goonyella System by balancing the dispatch of trains between the DBCT and Hay Point terminals. This was, however, a static variable set for the entire year of the Model.

In ACAR25, this functionality has enhanced to allow variation in the train balance during specific periods (down to a daily level). This has allowed the IE to refine the train balance during periods of inloader shutdown. The Model now reduces train dispatches to Hay Point and increases trains destined for DBCT during a Hay Point shut and vice-versa, consistent with how users and AN would likely manage demand during such periods. This enhancement has increased Modelled FY26 Goonyella capacity by approximately 180 train paths (~1.7Mt).



#### 7.3.5 Temporary Speed Restrictions

Analysis of TSRs in the Goonyella System (CY2022-24) showed an increase in TSRs compared with ACAR24. This was assessed as reducing capacity by 150 train paths (~1.4Mt). In aggregate, TSRs in Goonyella reduced capacity by approximately 4.5Mt.

#### 7.3.6 Above-rail Operations and Maintenance

ACAR25 saw more detailed engagement with above rail operators regarding above rail maintenance activities, including frequency, duration and, in the case of Goonyella, refinement to which activities occurred on AN track vs private infrastructure. Along with updates to crew change locations these changes saw an increase of ~130 trains (~1.3Mt) in the Goonyella System.

#### 7.3.7 Delays and Cancellations

The IE's assessment of cancellations in the Goonyella System in CY2024 that are used as inputs increased over CY2023 from 16% to 18%. Cancellations are not a major driver of capacity in the current Model, and therefore it has only has a small impact on capacity.

Changes to the delay methodology (as discussed in **Section 3.5.7**) have increased Goonyella System capacity quite substantially (+300 trains).

Despite these changes delays remain a substantial factor in Goonyella System capacity – removal of delays and cancellations from the Model sees capacity increase by approximately 1,140 trains (10.9Mt).

#### 7.3.8 Committed Capacity and Demand Presentation

ACAR24 assessed that the Goonyella System had FY26 Available Capacity of 326 trains. As a result, AN offered additional contractual capacity to access seekers in the Goonyella access queue. Three access requests were assessed and approved by the IE and contracts for this capacity were executed in FY25. This process was the most significant factor in the increase in FY26 committed capacity over ACAR24 FY25 of 330 trains.

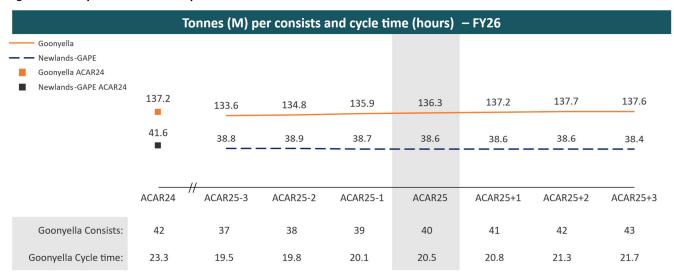
In preparing ACAR25, the IE has adjusted the method for presenting train demand to the Model. These changes relate to how monthly demand is spread within a month and was undertaken to reduce the effect where smaller mines appeared to be more susceptible to underachievement in constrained capacity months. There was no material impact to Goonyella System throughput resulting from this change.

#### 7.4 Consist Numbers and Cycle Times

Consistent with previous years' assessments, the IE has optimised consist numbers within ACAR25 to ensure that above rail capacity is not a constraint on DNC by assessing both throughput and above-rail transit time. In this analysis, summarised in **Figure 19** below, increments of throughput and cycle time are not necessarily evenly distributed, so the IE has exercised judgement in interpretation. For ACAR25, Goonyella System consists have been set at 40, a reduction of 2 compared with ACAR24.



Figure 19 - Goonyella Consist sensitivity



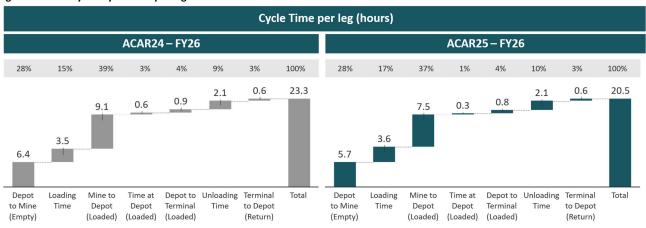
This change has reduced capacity by ~120 train paths, but is also a significant factor in the reduction in Modelled FY26 cycle time from 23.3 hours in ACAR24 to 20.5 hours in ACAR25 as outlined in **Table 6** below.

Table 6 - Goonyella Cycle Time

| Cycle Time (Hours) | FY25<br>(ACAR24) | FY26<br>(ACAR24) | FY26<br>(ACAR25) | FY26 Change |
|--------------------|------------------|------------------|------------------|-------------|
| Goonyella          | 23.3             | 23.3             | 20.5             | -12%        |

As **Figure 20** below shows, the cycle time change includes a reduction of 1.6 hours mine to depot (loaded) and 0.7 hours depot to mine (empty) reflecting the reduced track congestion provided (in part) by the reduction in consists and delays.

Figure 20 - Goonyella Cycle Time per leg



Above-rail operators are allocated to mines based on CY2024 railings and in the Goonyella System, adjustments were made to distinguish diesel consists from electric consists to reflect the effect of serving non-electric load points (where applicable). Including this issue as well as the operator allocation, Goonyella System DNC increased by approximately 20 trains (~0.2Mt) when these constraints were removed, suggesting a modest impact within the DNC due to operator-specific fleet allocation – lower than the same scenario in ACAR24 (likely reflecting the broader allocation of multi-operator load points than in ACAR24).



# 7.5 DNC and Available Capacity/Existing Capacity Deficit

While Goonyella System FY26 committed capacity has increased by 293 train paths, an increase in DNC of 107 train paths over ACAR24 to 14,111 (136.3Mt) sees the system retain available capacity, albeit now reduced to 140 train paths (~1.3Mt). Some available capacity does appear to exist in each of the future years, but is just 29 train paths in FY27, suggesting little potential for further capacity contracting at this time.

Capacity outcomes for all years of the ACAR period are outlined below in **Figure 21** in train paths and **Figure 22** in tonnes.

Figure 21 - Goonyella summary for FY26 to FY30 (Train Paths)

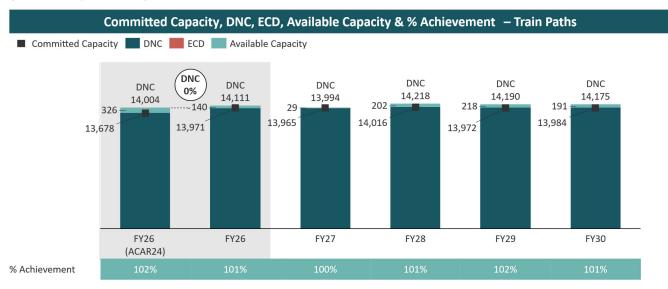
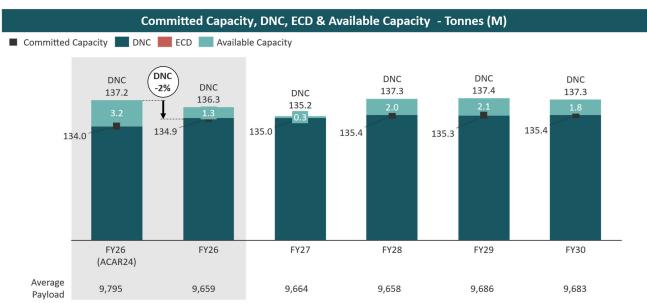


Figure 22 - Goonyella summary for FY26 to FY30 (tonnes)



The DNC calculated for the Goonyella System by month for the five-year assessment period is shown in **APPENDIX C:** Goonyella System Information.



# 7.6 Model Variability

The ACAR25 Goonyella System DNC for FY26 of 14,111 train paths was determined from the median of 50 Model simulation runs. The P90 to P10 range of the DNC was from 13,206 to 14,782 train paths (an 11% range) as shown in **Figure 23**. Almost 40% of the Model runs did not achieve committed capacity for FY26.

It should be noted that the P10-P90 variation metric has changed in magnitude due to the change to reporting DNC as the sum of monthly median's as discussed in **Section 3.1.1**. If measured on the previous annual median basis, variation remained at  $\sim$ 2%.

It is also noteworthy that the available capacity of 140 train paths represents less than 10% of the variability indicated in these results.

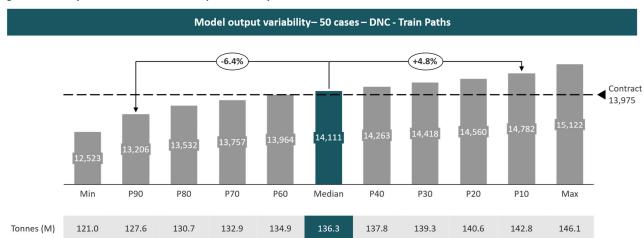


Figure 23 - Goonyella FY26 DNC - Model output variability

# 7.7 Monthly Capacity Variability

The IE is required to determine each system's capacity on a monthly basis. FY26 monthly capacity in the Goonyella System shows a reduction in variability compared with ACAR24. The dips in capacity in the first half of the year (associated with port and track maintenance) are less pronounced than ACAR24. February has the lowest absolute monthly capacity although November has slightly less average daily capacity.

When considered against committed capacity, outcomes range from 8% below committed capacity to 11% above committed capacity, as shown in **Figure 24** below. This 19% range is substantially lower than the corresponding 36% range shown in ACAR24 and the resulting standard deviation also reduces from 12% to 10% from the expected FY25 capacity in ACAR24. This suggests that capacity should be available on a more even basis than in FY25.

Monthly capacity for the full five-year period of the ACAR Model is shown in **APPENDIX C: Goonyella System Information** largely aligned to planned maintenance events.



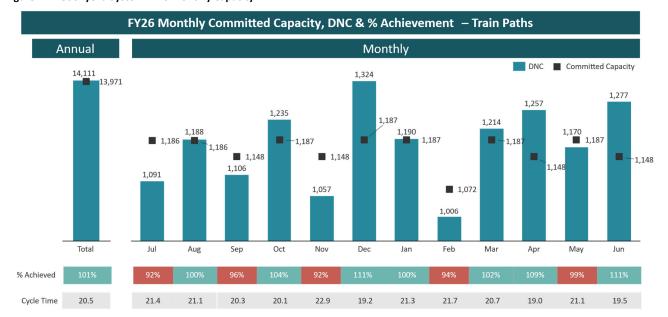


Figure 24 - Goonyella System FY26 Monthly Capacity

# 7.8 Current Demand, Current Operations Scenario

For ACAR25, the IE has also examined a scenario for the Goonyella System that more closely reflects current levels of demand and current operations in the system.

For this scenario, demand has been represented by the FY26 annual volume forecasts for each origin-destination prepared by AN for submission to the QCA, which uses producer forecasts where available. To reflect the seasonal demand patterns, the IE has distributed the annual volume across the months of FY26 following the throughput profile from CY2024. To service this demand, this scenario uses only the consists presently operating in the system and uses cancellation rates unaltered from AN's data.

The results of this scenario, shown below in **Figure 25**, suggest that current capacity is sufficient to meet forecast demand in all months except February, which is a shorter month and includes a 36 hour closure. Demand and capacity are closely matched in November, aligning with significant terminal maintenance and the 60-hour North Goonyella and Blair Athol branch line shuts. Expected cycle times appear reasonably stable between 17 and 20 hours, with November being a noticeable outlier at approximately 23 hours.



FY26 Scenario: Forecast Demand, Current Operations - Tonnes (M)\* Annual Monthly Achieved Forecast Demand (+9%) 99.8 Jul Sep Oct Nov Dec Jan Feb Mar May Jun Aug Apr Cycle Time (hrs) 18.1 19.1 20.6 18.5 16.8 23.3 18.3 17.2 17.4 16.2 18.2 18.8 17.4

Figure 25 - Goonyella System FY26 Scenario

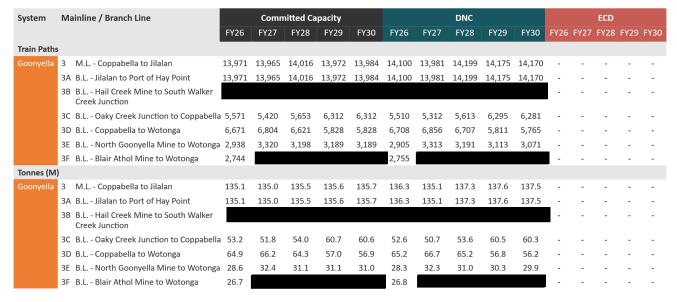
# **7.9** System Constraints

# 7.9.1 Mainline and Branch line DNC

The IE is required to determine DNC for each system's mainline and branch lines. In determining system DNC, the IE increases demand for each origin-destination pair in a system simultaneously until the maximum throughput is reached. The DNC, committed capacity and ECD values, where applicable, per mainline and branch line for Goonyella are outlined below in **Table 7** in train paths and tonnes.

Readers will note an apparent ECD in several branch lines. The IE considers this a result of the way the Model services demand, such that some unevenness in contractual achievement between mines (and therefore branch lines) has become evident. The IE does not consider that this represents a physical constraint on these branch lines (a conclusion informed in part by the analysis in **Section 7.9.2**).

Table 7 - Goonyella values per Mainline and Branch line for FY26 to FY30





<sup>\*</sup> Tonnes are calculated using the ACAR25 FY26 average system payload

**Table 7** above represents coal traffic that has a destination of that system's port precinct. Some branch lines are used to transport coal to multiple systems as is the case, for example, where origins on some Goonyella branch lines have a port precinct destination in the GAPE or Blackwater systems. The capacity associated with those situations is not included in the table above.

#### 7.9.2 Branch line Capacity and System Constraints

ACAR25 confirms that the constraint in the Goonyella System remains the mainline, between Coppabella and the port terminals. Existing access holders and other stakeholders may be interested in understanding whether the mainline capacity can be moved between branch lines (such as via a transfer request).

As in ACAR24, the IE has undertaken a series of Model sensitivities to assess the underlying branch line capacity to assess the level of flexibility in the system. This analysis was undertaken by incrementally moving additional capacity between branch lines. Notably, for all branch lines, even modest movement of +5% capacity into a branch line reduced system throughput. As a result, to assess the potential for transfers to occur between branch lines, the percentage of capacity moved to a branch line was increased progressively until the overall throughput of the system reduced to the level of committed capacity (i.e. the point at which a transfer might be achievable without negatively affecting other access holders).

The relative results of this analysis (i.e. comparing relative branch line capacity) were very similar to ACAR24 however the magnitude of the excess capacity reduced as Goonyella System available capacity in FY26 is approximately half that of ACAR24's FY25.

Table 8 - Goonyella System FY26 Branch line sensitivity per month

| Branch Line Capacity in excess of Committed Capacity FY26 |      |      |     |      |      |      |     |     |      |      |     |      |        |
|---|------|------|-----|------|------|------|-----|-----|------|------|-----|------|--------|
| Line  | Jul  | Aug  | Sep | Oct  | Nov  | Dec  | Jan | Feb | Mar  | Apr  | May | Jun  | Total  |
| 3A B.L Jilalan to Port of Hay Point                       | -80  | +5   | -30 | +60  | -90  | +160 | +10 | -60 | +35  | +120 | -10 | +145 | +265   |
| 3 M.L Coppabella to Jilalan                               | -80  | +5   | -30 | +60  | -90  | +160 | +10 | -60 | +35  | +120 | -10 | +145 | +265   |
| 3B B.L Hail Creek Mine to South Walker Creek Junction     | +85  | +110 | +75 | +85  | +110 | +100 | +75 | +65 | +80  | +95  | +70 | +95  | +1,045 |
| 3C B.L Oaky Creek Junction to Coppabella                  | +45  | +110 | +75 | +115 | +70  | +160 | +90 | +55 | +110 | +135 | +85 | +130 | +1,180 |
| 3D B.L Coppabella to Wotonga                              | +100 | +125 | +95 | +100 | +105 | +110 | +90 | +80 | +95  | +110 | +90 | +115 | +1,215 |
| 3E B.L North Goonyella Mine to Wotonga                    | +30  | +55  | +55 | +75  | +15  | +95  | +55 | +40 | +70  | +90  | +65 | +95  | +740   |
| 3F B.L Blair Athol Mine to Wotonga                        | +55  | +100 | +70 | +95  | +45  | +120 | +85 | +75 | +95  | +115 | +45 | +125 | +1,025 |

#### 7.9.3 Reconciliation to Maximum Capacity

To illustrate the factors that restrict Model throughput to DNC, the IE has undertaken a series of Model cases that progressively add restrictions on the system, incorporating three main constraints: non-track constraints, planned maintenance losses and day of operations losses. **Figure 26** illustrates the relative effect of different constraint factors and highlight the relative potential of operating improvements to release latent capacity.



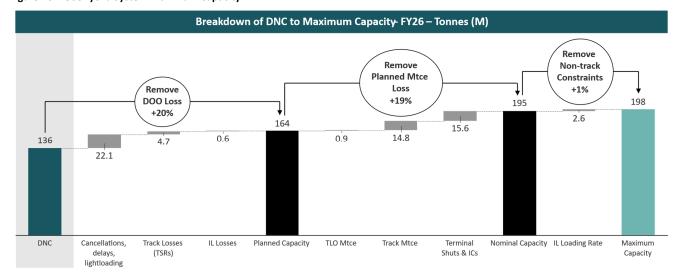


Figure 26 - Goonyella System Maximum Capacity

# 7.10 Capacity Risks and Opportunities

The Goonyella System remains the system in which track capacity and demand are most closely matched. The ACAR25 available capacity of 140 train paths is well within the IE's estimate of Model accuracy, suggesting that the system is essentially balanced. This implies that in an environment where demand increases to full contract levels, constraints will become particularly apparent.

While the recent assessment of potential Goonyella TAs concluded that there are no attractive capital investment opportunities to increase capacity, the ACAR results (including the maximum capacity analysis in **Section 7.9.3** above) suggests that opportunities exist to reduce both planned maintenance losses and operational losses (particularly lightloading).

ACAR25 adopts a slightly more conservative approach to capacity, particularly in the selection of consists, but the results also suggest that the Goonyella System has removed some of the volatility in monthly results evident in prior ACAR processes. This indicates a system where practical annual throughput does not rely as heavily on an assumption of significant swings in month-to-month coal production.

AN and the IE are continuing to progress work on better data gathering and analysis of train movements between Jilalan and the terminals to better understand the extent to which congestion in the port mini-cycle limits capacity including by comparison with apparent constraints down Connors Range between Hatfield and Yukan.



# 8. Blackwater System

# 8.1 Overview of System

The Blackwater System, shown in **Figure 27**, includes the mainline and branch lines comprising the rail corridor from terminals at Wiggins Island Coal Export Terminal and RG Tanna Coal Terminal to Rolleston mine, Oaky Creek Junction and spurs lines connecting coal mine loading facilities to those corridors. The Blackwater System also has a number of domestic coal users that are considered.

Much of the Moura System traffic utilises the Blackwater System branch from Callemondah to the Port of Gladstone, encompassing RG Tanna and the Gladstone Power Station creating a strong relationship between these two systems.

Figure 27 - Blackwater System





# 8.2 Deliverable Network Capacity

#### 8.2.1 Changes Since ACAR24

The Blackwater System FY26 DNC has seen a reduction of ~465 train paths (-4.0%) to 10,019 compared with ACAR24. The most significant factors were additional track maintenance (a combination of one additional 60-hour full system closure and increased minor maintenance, offset by the removal of branch line closures and a reduction in major maintenance), and a reduction in consists. When combined with a small reduction in median payload, capacity in tonnage terms has decreased 5% over ACAR24 FY26 to 80.8Mt.

The changes to FY26 capacity are shown in Figure 28 below and discussed in subsequent sections of this report:

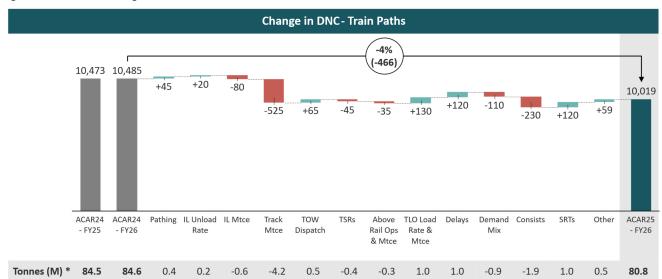


Figure 28 - Blackwater changes from ACAR24 to ACAR25 - FY26

It should be noted that as the Blackwater and Moura systems share a rail dispatch depot (Callemondah), a primary export terminal (RG Tanna Coal Terminal (RGTCT)) and a domestic customer (Gladstone Power Station), their capacities are closely linked, and to some extent inversely related (i.e. releasing constraints on the Blackwater System can reduce Moura System throughput and vice-versa).

#### 8.2.2 Key Input Sensitivities

The IE has also assessed the impact of key operating parameters on DNC, which is presented in tonnes in **Figure 29** below. Due to the interconnected nature of the Blackwater and Moura systems, the sensitivity impact has been assessed as combined systems.



<sup>\*</sup> Tonnes are calculated using the ACAR25 FY26 average payload.

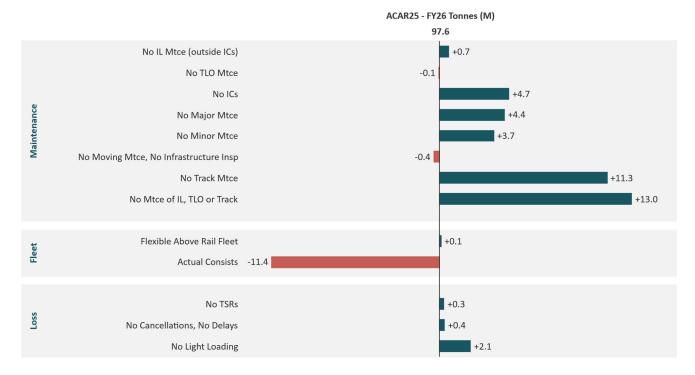


Figure 29 – Blackwater & Moura sensitivity impact to DNC of key operating parameters – FY26

# 8.3 Modelling Changes

#### 8.3.1 Removal of loaded pathing

As discussed in **Section 3.5.1**, ACAR25 removes the prior modelling assumption of clockface departures for loaded trains at Bluff and Rocklands until the next 20 minute clockface time, even if the track ahead was vacant.

This results in an increase in capacity (in part due to the clockface departure having been implemented twice for each loaded journey), but given the relatively close spacing of Blackwater pathing, the magnitude of change was not particularly significant (+45 trains).

## 8.3.2 <u>Terminal and Track Maintenance</u>

#### Terminal Maintenance

Engagement with Gladstone Ports Corporation (GPC) regarding their anticipated FY26 maintenance schedule identified a range of minor inloader shutdowns expected to occur outside rail network shuts in FY26. No such shutdowns are expected for WICET.

#### Track Maintenance

As discussed in **Section 3.5.4**, the inputs use AN's planned major maintenance programs, including integrated closures, consistent with the approved MRSB scope.

As outlined in AN's MRSB documentation, integrated closure possession hours in the Blackwater System will be 496 hours in FY26 – a reduction of 23 hours (4%) compared with FY25 but with a higher capacity impact as all 496 hours are full system shuts whereas 84 hours of the FY25 maintenance were branch line shuts. AN's MRSB includes planned major maintenance activities outside integrated closures, referred to as "single-line maintenance" activities, which appear to be approximately 18% lower in total possession hours than ACAR24.



Minor maintenance activities increased noticeably in CY2024, continuing a long-term trend first identified in ACAR24. As discussed in **Section 3.5.4**, the IE has revised the estimate of future minor maintenance activities based on the long-term trend, resulting in ~20% additional Blackwater System minor maintenance hours in ACAR25.

The combination of these track maintenance activities has reduced capacity by approximately 525 train paths (~4.2Mt) compared with ACAR24. In aggregate, major and minor maintenance outside integrated closures in FY26 has been assessed as reducing Blackwater and Moura System DNC by approximately 1,270 train paths (~10.3Mt).

# 8.3.3 <u>Demand Presentation</u>

As discussed in **Section 3.3**, for ACAR25 the IE has reduced the maximum demand applied to the Blackwater System from 140% to 120%, reflecting a lower assumption for flexibility in mine production. Given the preference provided in the Blackwater System for supply of coal to the domestic power generating stations (Stanwell and GPS), this also reduces the previous 140% achievement of these destinations which significantly exceeded export destination achievement.

This change reduced Blackwater System capacity by ~110 train paths (~0.9Mt).

#### 8.3.4 Consist Numbers and Cycle Times

As in all capacity assessments, the IE has optimised Blackwater consist numbers within ACAR25. ACAR25 adopts 37 consists for the Blackwater System, a reduction of two consists from ACAR24. This was determined as the optimal outcome considering the impact of consist numbers on Blackwater throughput and cycle time and on throughput in other CQCN systems. Particular attention was paid to throughput in the Moura System as Blackwater and Moura Model results are highly (but inversely) correlated. There was no change in consist numbers in the Moura System as a result of this optimisation.

Tonnes (M) per consists and cycle time (hours) - FY26 Blackwater Moura 85.4 Blackwater ACAR24 83.1 82.4 81.7 Moura ACAR24 80.8 80.0 79.0 77.9 16.4 17.0 16.9 16.8 16.7 16.6 16.4 16.1 ACAR24 ACAR25-3 ACAR25-2 ACAR25+3 ACAR25-1 ACAR25 ACAR25+1 ACAR25+2 Blackwater Consists: 39 34 35 36 37 38 39 40 Blackwater Cycle time: 29.9 28.1 28.5 28.9 29.4 29.8 30.4 30.9

Figure 30 - Blackwater Consist sensitivity

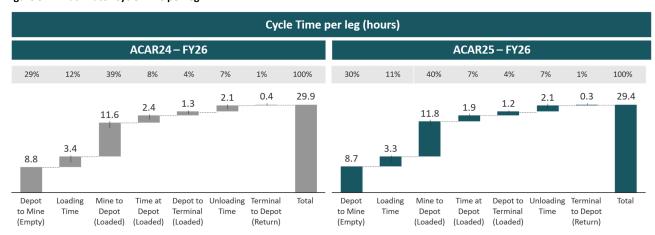
Despite the reduction in consists, average cycle time in the Blackwater System only reduced slightly. This, reflects the influence of other variables, particularly the additional track maintenance.

Table 9 - Blackwater Cycle Time

| Cycle Time (Hours) | FY25<br>(ACAR24) | FY26<br>(ACAR24) | FY26<br>(ACAR25) | FY26 Change |
|--------------------|------------------|------------------|------------------|-------------|
| Blackwater         | 30.0             | 29.9             | 29.4             | -2%         |



Figure 31 - Blackwater Cycle Time per leg



As a proportion of total cycle time, the long transit legs - mine to depot (loaded) and depot to mine (empty) have increased by 2% compared to ACAR24. This increase was partially offset by a reduction of 0.5 hours waiting loaded at the depot likely as a result of the decrease in consists.

The IE has undertaken a sensitivity of the impact of operator-specific above rail allocation, by allowing both Blackwater System operators to operate to all mines. Combined Blackwater and Moura System DNC would increase by approximately 18 trains (~0.1Mt) under this scenario. Contrary to the same scenario in ACAR24, this suggests limited constraint within the base case due to operator-specific fleet allocation.

# 8.4 Committed Capacity

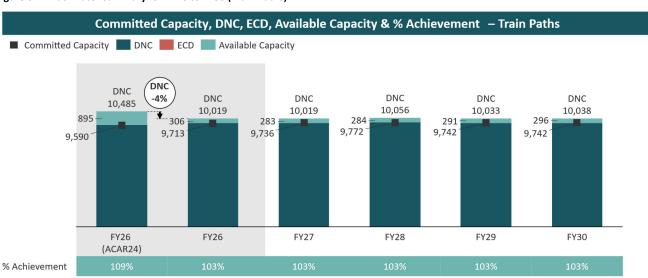
Blackwater System committed capacity for FY26 has increased by ~120 train paths as a result of new access requests assessed and executed during FY25.

#### 8.5 DNC and Available Capacity/Existing Capacity Deficit

The combination of changes to both the DNC and committed capacity leaves the Blackwater System able to meet contracted capacity in FY26-FY30, with available capacity of at least ~280 train paths (equivalent to 2.3Mt at median expected payload) during that period. This is a reduction of ~615 train paths compared with ACAR24 FY26.

Capacity outcomes for all years of the ACAR period is outlined below in Figure 32 in Train paths and Figure 33 in tonnes.

Figure 32 - Blackwater summary for FY26 to FY30 (Train Paths)





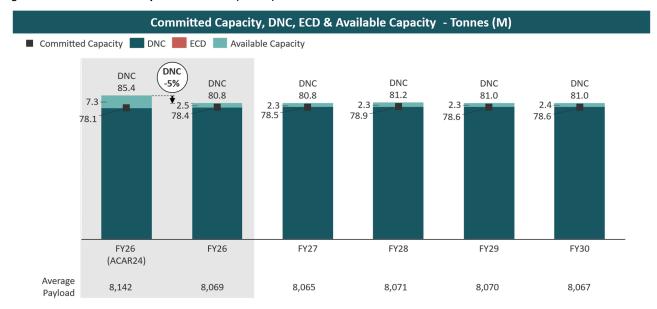


Figure 33 - Blackwater summary for FY26 to FY30 (tonnes)

The DNC calculated for the Blackwater System by month for the five-year assessment period is shown in **APPENDIX D**: **Blackwater System Information**.

## 8.6 Model Variability

The ACAR25 Blackwater System DNC for FY26 of 10,019 train paths was determined from the median of 50 Model simulation runs. The P90 to P10 range of the DNC was from 9,803 to 10,221 train paths, a variability of ~4%, as shown in **Figure 34** below. As displayed more than 90% of the Model runs achieved committed capacity for FY26.

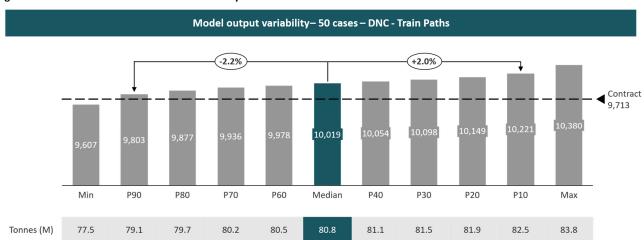


Figure 34 - Blackwater FY26 DNC - Model variability

#### 8.7 Monthly Capacity Variability

As shown in **Figure 35** below, FY26 monthly capacity in the Blackwater System appears to be slightly more even compared with ACAR24, with only one month (March) falling below 95% of committed capacity,

Monthly capacity for the full five-year period of the ACAR Model is shown in **APPENDIX C: Goonyella System Information** largely aligned to planned maintenance events.



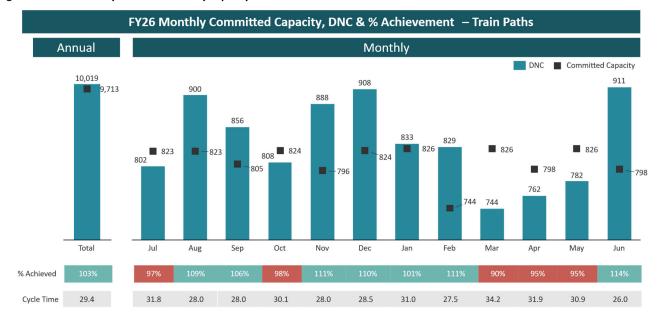


Figure 35 - Blackwater System FY26 Monthly Capacity

# 8.8 Forecast Demand/Current Operations Scenario

For ACAR25, the IE has also examined a scenario for the Blackwater System that more closely reflects current levels of demand and current operations in the system.

For this scenario, demand has been represented by the FY26 annual volume forecasts for each origin-destination prepared by AN for submission to the QCA, which uses producer forecasts where available. To reflect seasonal demand patterns, the IE has distributed the annual volume across the months of FY26 following the throughput profile from CY2024. To service this demand, this scenario uses only consists currently operating in the system and cancellation rates unaltered from AN's data.

Using this approach and as shown in **Figure 36**, monthly demand for the Blackwater System is relatively consistent. By contrast, monthly throughput is more variable. The results suggest that capacity is sufficient to meet demand in all months except March and May, although July, October and April appear to be closely matched. Cycle times also show noticeable variability. While 6 monthly results are ~26 hours, the remaining results vary up to a maximum of 32 hours in March. Cycle times do correlate strongly and inversely to throughput, providing some validation of the Model results.



FY26 Scenario: Forecast Demand, Current Operations - Tonnes (M)\* Annual Monthly Forecast Demand Achieved Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Cycle Time (hrs) 27.4 30.9 26.1 26.0 27.6 26.4 26.2 29.5 25.5 32.1 28.6 29.2 24.1

Figure 36 – Blackwater System FY26 Scenario

# 8.9 System Constraints

#### 8.9.1 Mainline and Branch line DNC

The IE is required to determine DNC for each system's mainline and branch lines. In determining system DNC, the IE increases demand for each origin-destination pair in a system simultaneously until the maximum throughput is reached. The resulting DNC, committed capacity and ECD values, where applicable, per mainline and branch line for Blackwater are outlined below in **Table 10** in train paths and tonnes.

The DNC values below reflect the proportion of current committed capacity in each branch line.

Table 10 - Blackwater values per Mainline and Branch line for FY26 to FY30



Note that **Table 10** above represents coal traffic that has a destination of that system's Port Precinct. Some branch lines are used to transport coal to multiple systems as is the case, for example, where origins on some Goonyella branch lines have a Port Precinct destination in the GAPE or Blackwater systems. The capacity associated with those situations is not included in the table above.

# 8.9.2 Branch line Capacity and System Constraints

Interpretation of the ACAR results confirm that the constraint in the Blackwater System remains as Branch 4A, Callemondah to Port of Gladstone (the track network between Callemondah and RGTCT). While this branch has



<sup>\*</sup> Tonnes are calculated using the ACAR25 FY26 average system payload

capacity in excess of committed capacity (as shown in **Table 11** below), it is only marginally higher than the DNC for the system – indicating this branch is the constraint.

To consider whether flexibility exists within the other branch lines, the IE has undertaken a series of Model sensitivities to "flex" the distribution of capacity in the system. The results of this analysis were generally consistent with ACAR24 although a reduction in spare capacity mirrors the overall DNC result (615 train paths). This analysis suggests that branch lines 4C and 4D have significant latent capacity beyond their committed capacity (+300 to 495 per month).

The analysis also indicates that the Blackwater mainline continues to have significant latent capacity, suggesting that additional demand of up to ~200 trains per month (~130 on average) could be accommodated to WICET (but not to RGTCT).

These results together allow the following conclusions to be drawn:

- The system is constrained in accommodating additional (new) capacity to RGTCT;
- Transfers between branch lines where the original and new destination are both RGTCT should be achievable;
- Substantial new capacity is only likely available to WICET, and branch line capacity should not be a constraint.

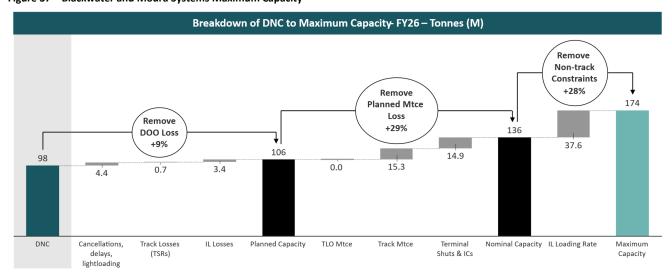
Table 11 - Blackwater System Branch line Sensitivity per month (Capacity in excess of committed capacity)

| Branch Line Capacity in excess of Committed Capacity FY26 |      |      |      |     |      |      |      |      |     |     |     |      |        |
|---|------|------|------|-----|------|------|------|------|-----|-----|-----|------|--------|
| Line  | Jul  | Aug  | Sep  | Oct | Nov  | Dec  | Jan  | Feb  | Mar | Apr | May | Jun  | Total  |
| 4A B.L Callemondah to Port of Gladstone                   | 0    | +45  | +65  | -15 | +105 | +105 | +30  | +90  | -55 | -20 | -55 | +135 | +430   |
| 4 M.L Bluff to Callemondah                                | +100 | +165 | +205 | +35 | +230 | +235 | +175 | +220 | +30 | -5  | +40 | +230 | +1,660 |
| 4B B.L Burngrove to Bluff                                 | +100 | +165 | +205 | +35 | +230 | +235 | +175 | +220 | +30 | -5  | +40 | +230 | +1,660 |
| 4C B.L Rollestone Mine to Rangal                          | +65  | +120 | +95  | +60 | +130 | +145 | +75  | +120 | +35 | +35 | +50 | +140 | +1,070 |
| 4D B.L Oaky Creek Junction to Burngrove                   | +95  | +115 | +175 | +85 | +145 | +150 | +110 | +140 | +75 | +70 | +85 | +145 | +1,390 |

#### 8.9.3 Reconciliation to Maximum Capacity

To illustrate the factors that restrict Model throughput to DNC, the IE has undertaken a series of Model cases that progressively add restrictions on the system, incorporating three main constraints: non-track constraints, planned maintenance losses and day of operations losses. This illustrates the relative effect of different constraint factors and highlight the relative potential of operating improvements to release latent capacity.

Figure 37 – Blackwater and Moura Systems Maximum Capacity





# 8.10 Capacity Risks and Opportunities

While the Blackwater Systems' ability to meet full contracted capacity appears to be robust, there are several opportunities to improve the understanding of constraints within the system via the use of the CQCN Model.

Interactions around Callemondah to RGTCT either side of the single-track cooling channel bridge (including empty GPS trains) are among the most complex train interactions in the CQCN. Ensuring that the representation of this area in the Model aligns as closely with AN's operations as possible should assist in confirming the source and extent of the apparent Blackwater System constraint (and possible mitigation actions if required).

Similarly, there is an additional opportunity to assess and adjust any impact on track capacity (particularly Callemondah arrival roads) caused by any restrictions to unloading trains at certain dump stations – including different coal types.



# 9. Moura System

# 9.1 Overview of System

The Moura System (shown in **Figure 38** below) includes the rail infrastructure from Callemondah to Moura and Callide and spur lines connecting coal mine loading facilities to those corridors. Moura System traffic also uses branch line 4A Callemondah to Port of Gladstone of the Blackwater System and the track routes through Gladstone to QAL.

Figure 38 - Moura System





# 9.2 Deliverable Network Capacity

#### 9.2.1 Changes since ACAR24

ACAR25 results in minimal changes in the evaluation of capacity in the Moura System. The primary factor affecting system capacity remains the performance of the Blackwater System, specifically how Blackwater trains compete with Moura for access to shared unloading capacity at the RG Tanna terminal.

FY26 DNC for Moura has increased marginally to 2,525 train paths, 80 (+3%) train paths more than FY26 in ACAR24. The IE attributes this change largely to the reduction in FY26 Blackwater System throughput resulting in a marginal increase in achievement for RGTCT-bound Moura trains.

Median payload has reduced by 1%, and thus capacity in tonnage terms increases 2% to 16.7Mt.

Although few are significant, the indicative magnitude of the various changes to FY26 capacity are shown in **Figure 39** below.

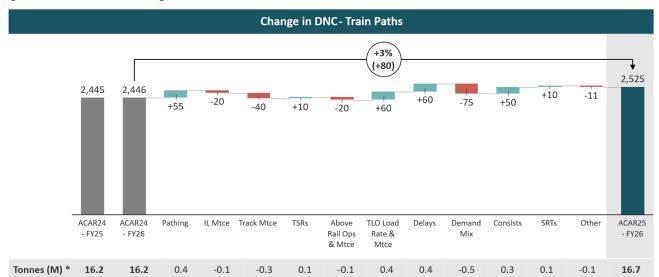


Figure 39 - Moura indicative changes from ACAR24 to ACAR25 - FY26

#### 9.2.2 Key Input Sensitivities

An assessment has also been performed of the impact on the combined Blackwater and Moura Systems' DNC of changes to key operating parameters, these are represented in tonnes in **Figure 29** at **Section 8.2.2** of this report.

#### 9.3 Modelling Changes

# 9.3.1 Removal of loaded pathing

As discussed in **Section 3.5.1**, ACAR25 removes the prior modelling assumption of clockface departures for loaded trains at Dumgree until the next 90 minute clockface time, even if the track ahead was vacant.

Despite the previously long separation between trains, removing this constraint has seen only a modest improvement in Moura System capacity (+55 trains) due to relatively low daily volumes in the Moura System.



<sup>\*</sup> Tonnes are calculated using the ACAR25 FY26 average payload.

# 9.3.2 Terminal and Track Maintenance

#### Terminal Maintenance

Like the Blackwater System, Moura capacity reduced slightly as a result of additional terminal inloader shutdown hours at RGTCT.

As described in the Blackwater System **Section 8.3.2** of this report, no changes have been made to inloader rates or delay assumptions.

#### Track maintenance

As discussed in **Section 3.5.4**, the inputs use AN's planned major maintenance programs, including integrated closures, consistent with the approved MRSB scope.

There has been no significant change in the profile of integrated closures in the Moura System, which includes two 84-hour closures, however the IE has classified AN's expected "maintenance windows" of 10 and 24 hours as integrated closures for modelling purposes. The Blackwater integrated closure in April has been modified to ensure Moura trains can access the RGTCT, consistent with AN contingency plan during that period.

There were no major changes to AN's planned major maintenance activities outside integrated closures. Based on the IE's review of minor maintenance history there was a small increase in the capacity impact of minor maintenance.

Overall, track maintenance activities have reduced capacity in the Moura System by approximately 150 train paths (~1.0Mt) compared with ACAR24.

# 9.3.3 TLO Performance and Delays

Moura System capacity did see an improvement from updated TLO parameters, particularly load rates. The system also saw benefits from the revised approach to delays.

Together these inputs resulted in a capacity increase against ACAR24 for FY26 of 120 train paths (~0.8Mt).

# 9.3.4 Committed Capacity and Demand Presentation

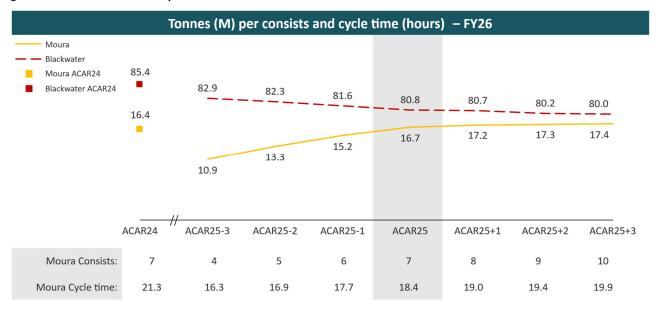
There has been no change in Moura System committed capacity between FY25 and FY26, however demand applied to the Model has been restricted to 120% as discussed in **Section 3.3** which has reduced throughput to QAL (which is not affected by the Callemondah precinct constraint affecting the Moura System).

#### 9.4 Consist Numbers and Cycle Time

Although the IE has generally reduced consist numbers in ACAR25, no change was made to assumptions for the Moura System. The observed benefit in Moura System capacity is due to the reduction in Blackwater System consists, which provide additional opportunities for Moura trains to unload at RGTCT.



Figure 40 - Moura Consist sensitivity



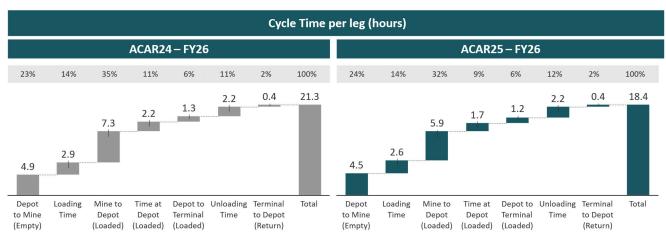
The FY26 median Modelled train cycle time for the Moura System of 18.4 hours has reduced by 2.9 hours (14%) since ACAR24.

Table 12 - Moura Cycle Time

| Cycle Time (Hours) | FY25<br>(ACAR24) | FY26<br>(ACAR24) | FY26<br>(ACAR25) | FY26 Change |
|--------------------|------------------|------------------|------------------|-------------|
| Moura              | 21.2             | 21.3             | 18.4             | -13%        |

As shown in **Figure 41** below, the change in cycle time was largely attributable to a reduction in mine to depot (loaded) and time at depot (loaded).

Figure 41 – Moura System Cycle Time per leg





# 9.5 DNC and Available Capacity/Existing Capacity Deficit

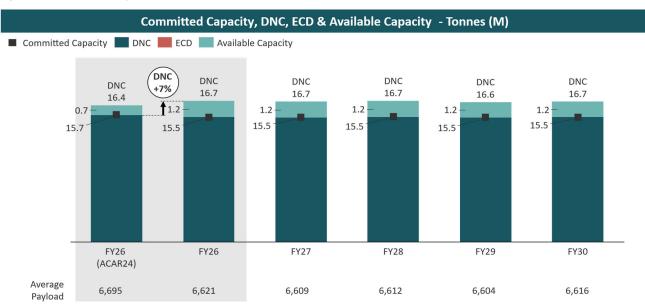
Given the increase in DNC and stable committed capacity for the Moura System, the Moura System has no existing capacity deficit in any of the five years of the ACAR period and sees a slight increase in available capacity.

Capacity outcomes for all years of the ACAR period is outlined below in Figure 42 in train paths and Figure 43 in tonnes.

Figure 42 - Moura summary for FY26 to FY30 (Train Paths)



Figure 43 - Moura summary for FY26 to FY30 (tonnes)



The DNC calculated for the Moura System by month for the five-year assessment period is shown in **APPENDIX E: Moura System Information.** 

#### 9.6 Model Variability

The ACAR25 Moura System DNC for FY26 of 2,525 train paths was determined from the median of 50 Model simulation runs. The P90 to P10 range of the DNC was from 2,438 to 2,591 train paths as shown in **Figure 44**. All Model runs achieved committed capacity for FY26.



Model output variability - 50 cases - DNC - Train Paths -3.4% +2.6% ◆ Contract
2,340 2,525 P90 P80 P70 P60 Median P40 P30 P20 P10 Min Max Tonnes (M) 19.1 19.7 19.9 20.1 20.2 20.4 20.5 20.6 20.8 20.9 21.2

Figure 44 - Moura FY26 DNC - Model variability

# 9.7 Monthly Capacity Variability

Monthly FY26 capacity in the Moura System is similar to FY25, with capacity ranging from 179 to 228 train paths, but is slightly more variable than FY25 (standard deviation of 9%). This represents a range from 10% below committed capacity to 15% above committed capacity, as shown in **Figure 45** below.

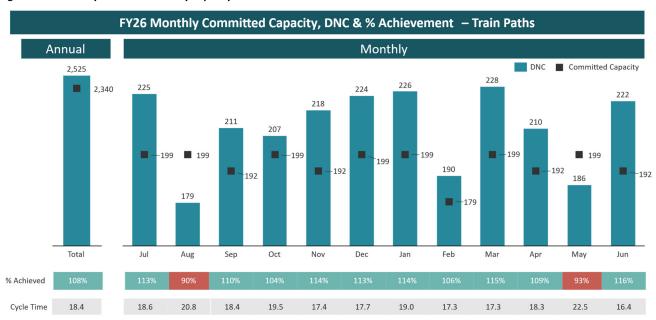


Figure 45 - Moura System FY26 Monthly Capacity

# 9.8 System Constraints

# 9.8.1 Mainline and Branch line DNC

The IE is required to determine DNC for each system's mainline and branch lines. The DNC, committed capacity and ECD values, where applicable, per mainline and branch line for Moura are outlined below in **Table 13** in train paths and tonnes.



Table 13 - Moura values per Mainline and Branch line for FY26 to FY30

| System   | System Mainline / Branch Line |                            | Committed Capacity |       |       |       |       |       |       | DNC   |       |       | ECD  |      |      |      |      |
|----------|-------------------------------|----------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
|          |                               |                            | FY26               | FY27  | FY28  | FY29  | FY30  | FY26  | FY27  | FY28  | FY29  | FY30  | FY26 | FY27 | FY28 | FY29 | FY30 |
| Train Pa | ths                           |                            |                    |       |       |       |       |       |       |       |       |       |      |      |      |      |      |
| Moura    | 5                             | M.L Dumgree to Callemondah | 2,340              | 2,340 | 2,346 | 2,340 | 2,340 | 2,524 | 2,517 | 2,525 | 2,511 | 2,519 |      |      | -    | -    | -    |
|          | 5A                            | B.L Earlsfield to Dumgree  | 2,340              | 2,340 | 2,346 | 2,340 | 2,340 | 2,524 | 2,517 | 2,525 | 2,511 | 2,519 |      |      | -    | -    | -    |
|          | 5B                            | B.L Earlsfield to Callide  |                    |       |       |       |       |       |       |       |       |       |      |      |      |      |      |
|          | 5C                            | B.L Earlsfield to Moura    |                    |       |       |       |       |       |       |       |       |       |      |      |      |      |      |
| Tonnes   | (M)                           |                            |                    |       |       |       |       |       |       |       |       |       |      |      |      |      |      |
| Moura    | 5                             | M.L Dumgree to Callemondah | 15.5               | 15.5  | 15.6  | 15.5  | 15.5  | 16.7  | 16.7  | 16.7  | 16.6  | 16.7  |      |      | -    | -    | -    |
|          | 5A                            | B.L Earlsfield to Dumgree  | 15.5               | 15.5  | 15.6  | 15.5  | 15.5  | 16.7  | 16.7  | 16.7  | 16.6  | 16.7  |      |      | -    | -    | -    |
|          | 5B                            | B.L Earlsfield to Callide  |                    |       |       |       |       |       |       |       |       |       |      |      |      |      |      |
|          | 5C                            | B.L Earlsfield to Moura    |                    |       |       |       |       |       |       |       |       |       |      |      |      |      |      |

#### 9.8.2 Branch line Capacity and System Constraints

In addition to the allocation of DNC throughput to the Moura System branch lines above, the IE has undertaken a series of Model sensitivities to identify constraints in the Moura System and its branch lines. This included reducing demand in the Blackwater System to ensure that capacity at RGTCT was available for Moura System trains.

From this analysis, the IE has concluded that there are no significant constraints on the Moura branch lines and that, were additional capacity available through to RGTCT, Moura System branch lines would not be a constraint. The monthly results of this analysis are outlined below in **Table 14**.

Table 14 - Moura System Branch line Sensitivity per month

| Branch Line Capacity in excess of Committed Capacity FY26 |      |     |      |     |      |      |      |     |      |     |     |      |        |
|---|------|-----|------|-----|------|------|------|-----|------|-----|-----|------|--------|
| Line  | Jul  | Aug | Sep  | Oct | Nov  | Dec  | Jan  | Feb | Mar  | Apr | May | Jun  | Total  |
| 4A B.L Callemondah to Port of Gladstone                   | 0    | +45 | +65  | -15 | +105 | +105 | +30  | +90 | -55  | -20 | -55 | +135 | +430   |
| 5. M.L Dumgree to Callemondah                             | +115 | +50 | +105 | +85 | +90  | +100 | +110 | +50 | +120 | +80 | +90 | +85  | +1,080 |
| 5A B.L Dumgree to Earlsfield                              | +115 | +50 | +105 | +85 | +90  | +100 | +110 | +50 | +120 | +80 | +90 | +85  | +1,080 |
| 5B B.L Earlsfield to Callide                              | +70  | +40 | +70  | +55 | +60  | +70  | +70  | +35 | +75  | +50 | +55 | +60  | +710   |
| 5C B.L Earlsfield to Moura                                | +100 | +45 | +90  | +75 | +80  | +90  | +95  | +50 | +100 | +75 | +80 | +75  | +955   |

#### 9.8.3 Reconciliation to Maximum Capacity

To illustrate the factors that restrict Model throughput to DNC, the IE has undertaken a series of Model cases that progressively add restrictions on the system, incorporating three main constraints: non-track constraints, planned maintenance losses and day of operations losses. This illustrates the relative effect of different constraint factors and highlight the relative potential of operating improvements to release latent capacity and is included in **Section 8.9.3** of this report.

#### 9.9 Forecast demand/Current Operations Scenario

For ACAR25, the IE has also examined a scenario for the Moura System that more closely reflects current levels of demand and current operations in the system.

For this scenario, demand has been represented by the FY26 annual volume forecasts for each origin-destination prepared by AN for submission to the QCA, which uses producer forecasts where available. To reflect seasonal demand patterns, the IE has distributed the annual volume across the months of FY26 following the throughput profile from CY2024. To service this demand, this scenario uses only consists currently operating in the system and cancellation rates unaltered from AN's data.



As shown in **Figure 46**, FY26 forecast demand is 95% of contract and given that the formal DNC assessment for the Moura System indicated sufficient capacity to meet full contractual demand, it is no surprise that the forecast demand scenario sees all months with sufficient capacity to meet forecast. Throughput is expected to be very even although eexpected cycle time shows slightly more variability, aligning with the constrained periods in the ACAR results but on a smaller scale.

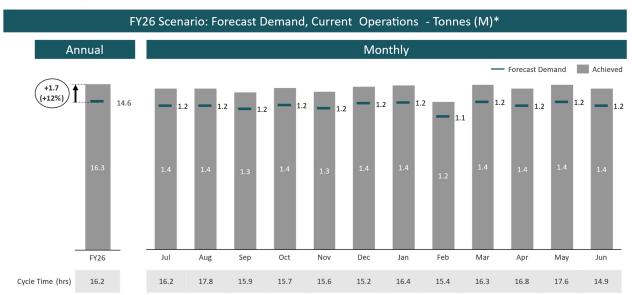


Figure 46 - Moura System FY26 Scenario

# 9.10 Capacity Risks and Opportunities

There appear to be few material risks to capacity in the Moura System. Instead, potential risks and opportunities are likely related to the Blackwater System, particularly around the Callemondah precinct. This includes how Moura trains "merge" with more frequent Blackwater traffic and proceed towards RGTCT.

<sup>\*</sup> Tonnes are calculated using the ACAR25 FY26 average system payload

# 10. Abbreviations

The following abbreviations may be used throughout this document:

| ABBREVIATION | MEANING                                 |
|--------------|---|
| ACAR         | Annual Capacity Assessment Report       |
| AN           | Aurizon Network                         |
| CQCN         | Central Queensland Coal Network         |
| CY           | Calendar Year                           |
| DBCT         | Dalrymple Bay Terminal                  |
| DNC          | Deliverable Network Capacity            |
| ECD          | Existing Capacity Deficit               |
| FSS          | Full System Shut                        |
| FY           | Financial Year                          |
| GAPE         | Goonyella to Abbott Point Expansion     |
| HPCT         | Hay Point Coal Terminal                 |
| ICAR         | Initial Capacity Assessment Report      |
| IE           | Independent Expert                      |
| Model        | CQCN Dynamic Simulation Model           |
| MRSB         | Maintenance, Renewal & Strategy Budget  |
| Mt           | Tonnes per annum in Millions            |
| NQXT         | North Queensland Export Terminal        |
| NRG          | Gladstone Powerhouse                    |
| QAL          | Queensland Alumina Limited              |
| QCA          | Queensland Competition Authority        |
| RIG          | Rail Industry Group                     |
| RCS          | Remote Control Signalling               |
| RGTCT        | RG Tanna Coal Terminal                  |
| SOP          | System Operating Parameters             |
| SRT          | Sectional Running Time                  |
| TAs          | Transitional Arrangements               |
| TLO          | Train Load Out                          |
| TSE          | Train Service Entitlement               |
| TSR          | Temporary Speed Restriction             |
| UT5          | Aurizon Network 2017 Access Undertaking |
| WICET        | Wiggins Island Coal Export Terminal     |
|              |   |



# **APPENDIX A: Newlands System Information**

UT5 requires the IE to determine DNC for each system in the CQCN. Capacity modelling for Newlands and GAPE has been conducted together since they share the same mainline and thus capacity constraint. To meet the UT5 requirements, the IE has presented DNC for each system separately. These values allocate DNC and ECD to various origin-destination pairs from the combined analysis, without judging the source of any capacity deficit.

Figure A1: Newlands summary for FY26 to FY30 (Train Paths and tonnes)

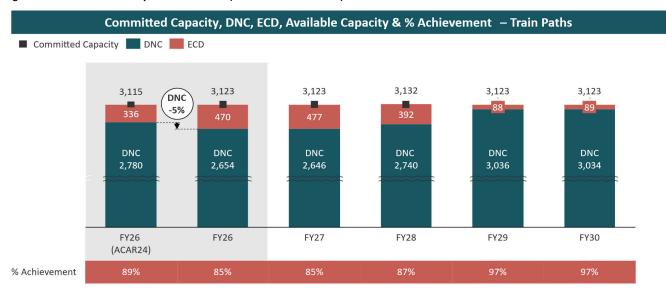


Figure A2: Newlands summary for FY26 to FY30 (tonnes)

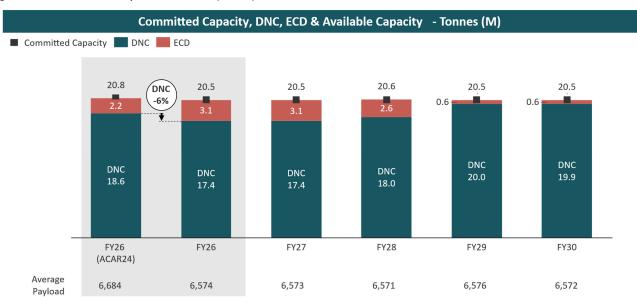




Figure A3: Newlands System DNC per month per year FY26 FY27 FY28 FY29 FY30 Avg 5-yr Committed Capacity Train Paths Oct Jul Aug Sep Nov Dec Jan Feb Mar Apr May Jun Month Year Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun FY26 FY27 FY28 FY29 FY30 



# **APPENDIX B: GAPE System Information**

UT5 requires the IE to determine DNC for each system in the CQCN. Capacity modelling for Newlands and GAPE has been conducted together since they share the same mainline and capacity constraint. To meet the UT5 requirements, the IE has presented DNC for each system separately. These values allocate DNC and ECD to various origin-destination pairs from the combined analysis, without judging the source of any capacity deficit.

Figure B1: GAPE summary for FY26 to FY30 (Train Paths)

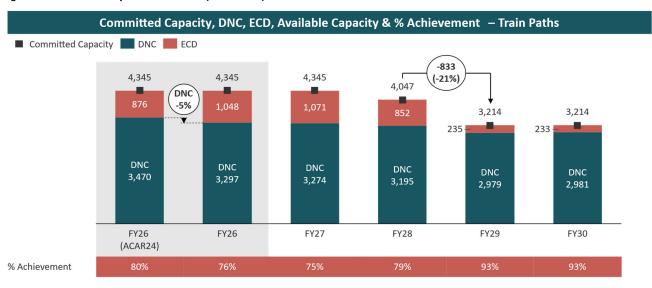
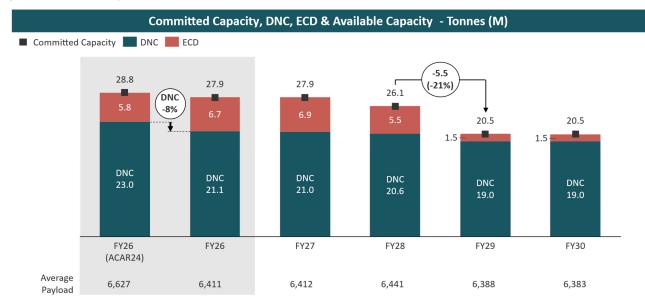


Figure B2: GAPE summary for FY26 to FY30 (tonnes)





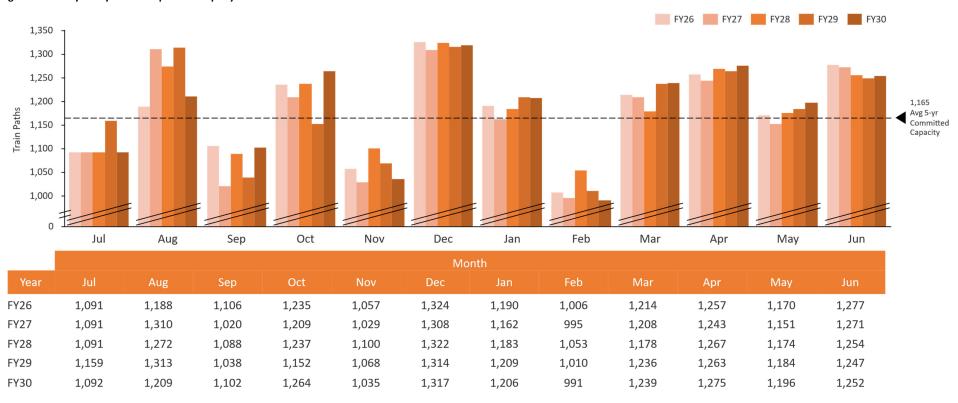
FY26 FY27 FY28 FY29 FY30 Avg 5-yr Capacity Train Paths Jan Jul Oct Dec Feb Aug Sep Nov Mar Apr May Jun Month Year Jul Aug Sep Oct Nov Dec Feb Mar Apr May FY26 FY27 FY28 FY29 FY30 



Figure B3: GAPE System DNC per month per year

# APPENDIX C: Goonyella System Information

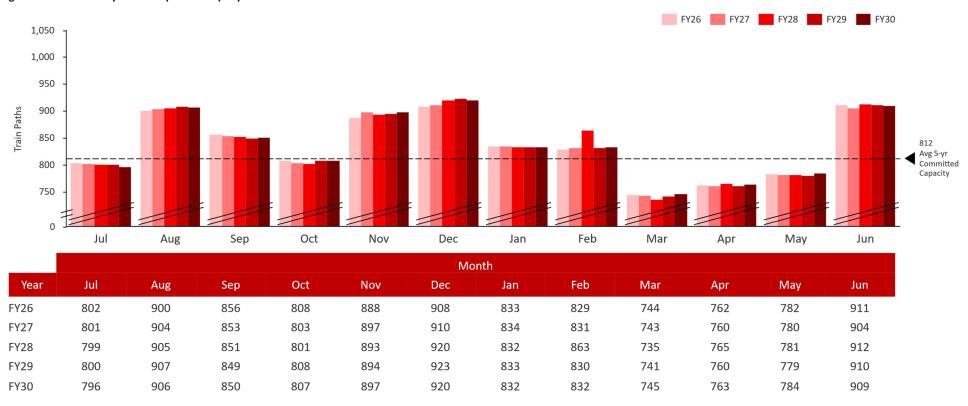
Figure C1: Goonyella System DNC per month per year





# APPENDIX D: Blackwater System Information

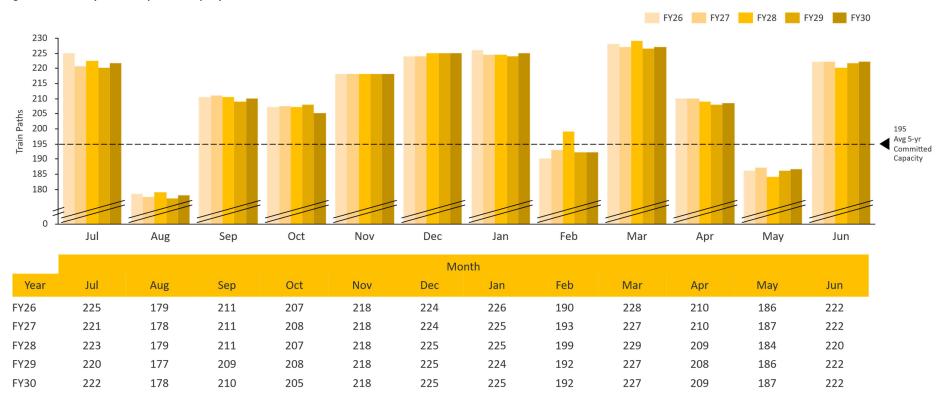
Figure D1: Blackwater System DNC per month per year





# APPENDIX E: Moura System Information

Figure E1: Moura System DNC per month per year







# Draft – Statement of Access Pricing Intent for Newlands and GAPE Systems

26 September 2025



## **Contents**

| Introduction   | 4  |
|--|----|
| What we need from Stakeholders   | 4  |
| Draft GAPE and Newlands Pricing Principles   | 5  |
| Engagement Approach  | 5  |
| Purpose and Role of a Statement of Access Pricing Intent   | 6  |
| A single coal system for the same shared rail corridor   | 7  |
| Transitioning to a single Coal System  | 10 |
| Application of the Pricing Principles  | 11 |
| Revenue Adequacy   | 11 |
| Price Differentiation  | 13 |
| Proposition 1. New or Additional Access Rights should not be subject to rates more favourable than those applying to existing Access Holders for the use of the same Rail Infrastructure   | 14 |
| Application of the Pricing Limits  | 15 |
| Floor Limits   | 15 |
| Ceiling Limits   | 16 |
| Combinatorial tests  | 16 |
| Proposition 2. Prices for Newlands and GAPE Train Service should not exceed the Newlands Ceiling and or be less than the GAPE Floor Limit  | 17 |
| Proposition 3. The contracting of new or additional Access Rights on the shared Newlands corridor should seek to reduce Access Charges for GAPE Access Holders, not to reduce or sustain Access Charges for legacy Newlands Access Holders | 19 |
| Proposition 4. The Moura and Blackwater Access Charges provide an appropriate benchmark  | 20 |
| Allocative Efficiency  | 20 |
| Substitute Services  | 20 |
| DBCT 8X  | 21 |
| Goonyella Congestion Charges   | 22 |
| Opportunity Cost of Capacity   | 24 |

| Proposition 5 Redistribution of GAPE Cost Base to New of Additional  Newlands Access Rights25 |
|---|
|   |
| Proposition 6 Goonyella Contribution to Goonyella to Newlands Connection25                    |
| Loaded Trains to DBCT25   |
| Cost Allocation Framework   |
| Tariff Structures   |
| Expansion Pricing   |
| Appendix A Engagement Timelines   |
| Appendix B Background Information and Data31  |
| GAPE Project31  |
| Project Objectives31  |
| Deliverable Capacity34  |
| GAPE Pricing Objectives34   |
| GAPE and Newlands Pricing DAAU35  |
| Projected GAPE RAB Values36   |

## Introduction

On 1 August 2025, Aurizon Network published a Newlands and GAPE Customer briefing note advising of its proposed GAPE and Newlands Pricing and Implementation Plan. The plan included detail on how Aurizon Network intends to engage affected stakeholders and the processes involved in modifying the access pricing arrangements for users in the Newlands and GAPE Systems for changes in Committed Capacity.

The briefing note identified that the first step in the GAPE and Newlands Pricing and Implementation Plan was to prepare and seek comments on a draft Statement of Access Pricing Intent (**SoAPI**).

As the services provided by the Newlands and GAPE Systems are regulated services, Aurizon Network's primary commercial objective is to recover the value of its investment in the Regulated Asset Base (i.e. prices achieve revenue adequacy). Subject to satisfying this outcome, in modifying the access pricing arrangements for users in the Newlands and GAPE Systems, Aurizon Network will seek to:

- set Access Charges for GAPE customers which do not exceed Reference Tariffs prevailing in FY27;
- promote Access Charges for all GAPE and Newlands users that are broadly consistent with other Access Charges within the CQCN for comparable distances;
- avoid price differentiation between Access Charges for existing GAPE users and Access Charges for new or additional Access Rights for use of the same Rail Infrastructure on a \$ per ntk basis;
- have regard to the opportunity cost of the availability of capacity in both the Newlands and Goonyella Systems; and
- promote fair and equitable outcomes for existing contracted Newlands Access Rights.

This draft SoAPI sets out the relevant principles as well as the economic rationale for how these outcomes might be achieved. These principles align to the pricing principles in Part 6 of Aurizon Network's 2017 Access Undertaking (UT5) and the *Queensland Competition Authority Act 1997* (Qld) (QCA Act). By agreement, the pricing principles in Part 6 of UT5 are not within the scope of the UT5 Amend and Extend Draft Amending Access Undertaking negotiations, and Aurizon Network does not intend to change these pricing principles as part of any DAAU's foreshadowed within this SOAPI. In reviewing the draft SoAPI, stakeholders should evaluate prospective outcomes and alternatives against these principles.

Appended to this document is a:

- project plan outlining indicative process and engagement on the development of pricing reforms;
   and
- background information on matters relevant to the development of this draft SoAPI.

All capitalised terms within this document have the same meaning given to those terms UT5, unless otherwise defined.

## What we need from Stakeholders

This draft SoAPI outlines several principles that will guide how pricing will evolve to reflect changes in Committed Capacity effective from 1 July 2027, both in aggregate, and between relevant Access Holders. Aurizon Network is looking for Stakeholder feedback on these principles and engagement on the

appropriate outcome. These principles have been developed having regard to the prospective market and demand conditions and alignment with the relevant provisions within the QCA Act. In developing these principles, Aurizon Network has also sought to have regard to fairness and equity. The remainder of the document discusses how the following principles have been determined.

# Draft GAPE and Newlands Pricing Principles



Combine the Newlands and GAPE Systems to a single revenue and pricing entity from FY29 to reflect the material shared used of common Rail Infrastructure.



The Access Charge for new or additional Access Rights should, on an ongoing basis, be equivalent to the highest Access Charge applicable for the use of the same Rail Infrastructure.



It would be fair and equitable to increase Access Charges for legacy Newlands Access Holders if their overall contracted Access Rights declined, to ensure that those Access Holders in aggregate make the same total contribution to common costs as they did before the reduction in Access Rights.



GAPE Access Charges should be no less than the costs that would be avoided if those services did not operate and Newlands Access Charges are subject to the Stand-Alone Cost ceiling limits for those combinations of Train Services.



Access Holders of new or additional Newlands Access Rights may need to make a higher contribution to common costs where the Goonyella System is congested and has excess demand.



GAPE Access Charges should not exceed the approved FY27 Reference Tariffs. It may be necessary for Goonyella Access Holders to make a contribution to the Goonyella to Newlands Connection where implementation of the above principles does not satisfy this objective (i.e. Total Committed Capacity is < Deliverable Network Capacity and GAPE contracted Access Rights are too low).



Reference Tariff structures should be reformed to reflect different incentives and to achieve desired cost distributions consistent with CQCN pricing benchmarks.

# **Engagement Approach**

Aurizon Network is seeking stakeholder feedback for the development and finalisation of these key principles. Aurizon Network also expects that not all stakeholders will support these principles where they have the effect of potentially increasing their respective Access Charges.

Aurizon Network welcomes constructive engagement on the draft SoAPI but also expects that where a stakeholder does not support one or more of the above principles, this is accompanied by both:

- reasons why the relevant principle(s) does not satisfy the statutory criteria in the QCA Act; and
- a document that provides an alternate concept or principle(s) that better promotes the efficient utilisation of Rail Infrastructure within the CQCN.

Aurizon Network is seeking written comments on the draft SoAPI by no later than **30 November 2025**. Should you wish to discuss any aspect of the draft SoAPI to assist in preparing a response, please contact your Customer Account Manager in the first instance.

# Purpose and Role of a Statement of Access Pricing Intent

Aurizon Network has elected to prepare a SoAPI to provide *guidance* to relevant stakeholders on how it intends to develop pricing arrangements for the GAPE and Newlands Systems from 1 July 2027. The SoAPI is a principles-based document which discusses what factors, information, constraints and options are applicable to how those pricing arrangements will be developed. The SoAPI is *non-binding*. The pricing arrangements that are ultimately implemented will be those approved by the QCA through its assessment of a draft amending access undertaking (**DAAU**) against the relevant statutory criteria in the QCA Act.

The content of an Access Undertaking typically includes price determinations applicable for the term of that instrument. The Access Undertaking will also contain principles or provisions which determine how an Access Charge will be established for new or additional Train Services which commence during that term, or how a Pricing Proposal is to be developed where an Expansion is undertaken to increase the Capacity of Rail Infrastructure. However, the Access Undertaking does not include specific outcomes for material change in circumstances which might require revision or amendment to the current pricing arrangements.

The absence of provisions in the Access Undertaking about how prices might evolve under different scenarios and circumstances prevailing in future Access Undertakings can create uncertainty for current Access Holders and future Access Seekers as to:

- i) how the prices they will pay in the future will be determined; and
- ii) the potential range of outcomes that might apply.

This uncertainty can adversely affect decision-making regarding applying for Access Rights, contract renewals and investment decisions due to incomplete information.

The uncertainty can potentially be resolved through a ruling made by the Queensland Competition Authority (**QCA**) under Division 7A of the QCA Act. The purpose of a ruling is to set out how the QCA intends to treat a matter relating to access to a service in the making of an access determination or in the approval of a draft access undertaking. For example, the QCA made a ruling on 18 November 2021 setting out the circumstances and assumptions relevant to the socialisation of the 8X expansion of the Dalrymple Bay Coal Terminal (**DBCT**) with existing users of the terminal<sup>1</sup>.

An application for a ruling under section 150D of the QCA Act requires a reasonable level of certainty of the circumstances that are relevant to the ruling. A ruling approved by the QCA under section 150F of the QCA Act is also binding for the period for which the ruling has effect. For Newlands and GAPE access pricing for the period commencing 1 July 2027, Aurizon Network considers a ruling is not a sufficiently flexible instrument to address the various contractual permutations, circumstances and conditions that may be relevant to the development of Access Charges.

Queensland Competition Authority (2021) Determination: DBIM's application for a price ruling—the 8X expansion, November. Available at: <a href="https://www.gca.org.au/wp-content/uploads/2021/11/dbct-price-ruling-the-8x-expansion-ruling-notice-and-determination-final14590371.pdf">https://www.gca.org.au/wp-content/uploads/2021/11/dbct-price-ruling-the-8x-expansion-ruling-notice-and-determination-final14590371.pdf</a>

The consultation on this draft SoAPI also provides relevant stakeholders an opportunity to share insights and suggestions early in the pricing development process.

# A single coal system for the same shared rail corridor

The FY26 Committed Capacity for the Newlands System is 20.8 million tonnes per annum (**mtpa**) with the Committed Capacity for GAPE System being 28.8 mtpa representing 49.6 mtpa on the shared rail corridor in aggregate<sup>2</sup>. There is a reasonable likelihood that on expiry of the current GAPE Access Agreements, some Access Holders may not renew those Access Rights. In addition, it is expected that at least a portion of the capacity on the shared Newlands rail corridor (between Abbot Point and Newlands Junction) that becomes available from non-renewal of expiring Access Rights will be contracted by Access Seekers in the Newlands System. Any increase in contract volumes above 20.8 mtpa would necessitate a redistribution of the GAPE cost base to the users in the Newlands System to reflect the use of the capacity created by the GAPE Project.

In contrast with the Gladstone port precinct, which is shared between the Blackwater and Moura Systems, the Newlands and GAPE Systems use substantially the same Rail Infrastructure. The underlying rationale for the maintenance of two coal systems for the shared rail corridor in the Newlands System was to quarantine the Newlands coal mines existing at that time from the volume risk associated with underutilisation of contracted GAPE Train Services (due to the relativity of the incremental expansion costs with the average Newlands costs and consistent with the incremental up – average down approach summarised in the QCA's discussion paper on capacity and expansion pricing<sup>3</sup>).

Given the expectation of increased contracted Train Service levels in the Newlands System, Aurizon Network considers there is no ongoing requirement for the retention of a two-system model for the shared rail corridor on expiry of the GAPE foundation Access Agreements<sup>4</sup> by 30 June 2028. This position is supported by:

• The significantly reduced output from the Newlands legacy mines. As shown in Figure 1, except for the Collinsville mine, all other currently producing mines subject to the Newlands Reference Tariff commenced operation after the GAPE Project was commissioned. The Jax mine may also be considered a replacement mine for Sonoma.

<sup>&</sup>lt;sup>2</sup> Coal Network Capacity Company (2025) 2025 Annual Capacity Assessment Report, Appendix A and B. Available at: <a href="https://www.qca.org.au/wp-content/uploads/2025/06/acar25-report\_redacted.pdf">https://www.qca.org.au/wp-content/uploads/2025/06/acar25-report\_redacted.pdf</a>

<sup>&</sup>lt;sup>3</sup> Queensland Competition Authority (2013) Discussion Paper: Capacity Expansion and Access Pricing for Rail and Ports, April, p. iv. Available at: <a href="https://www.qca.org.au/wp-content/uploads/2019/05/1920">https://www.qca.org.au/wp-content/uploads/2019/05/1920</a> CI-CapExpAccPRP-QCA-PricePaper-0413-1.pdf

<sup>&</sup>lt;sup>4</sup> A GAPE foundation Access Agreement is a 15-year Access Agreement which funded the construction of the GAPE Project.

GAPE Project Commencement

7.5

0.0

Carmichael Coal Mine Newlands Mine
Collinsville - Open Cut
Northern Hub - Drake - Open Cut
Northern Hub - Sonoma - Open Cut

Figure 1 Newlands Coal System Production by Mine

Source: Aurizon Network analysis of Queensland Government Coal industry review statistical tables

The data in the figure above is consistent with the QCA's acknowledgement in its final decision on the April 2023 GAPE and Newlands Pricing DAAU<sup>5</sup> that the Newlands System involves three types of Access Holders:

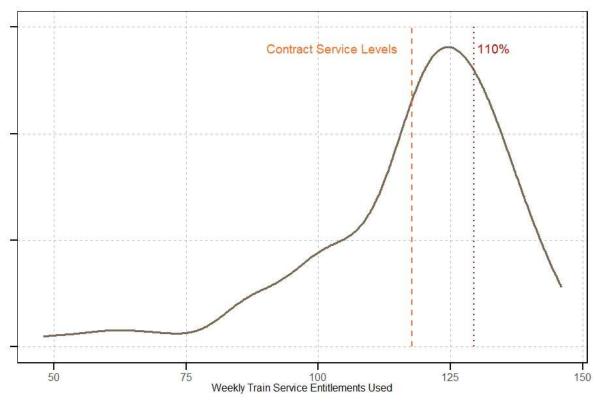
- Newlands users, including legacy Newlands users, whose mines were operational or committed prior to negotiation of the GAPE project and connected directly to the existing Newlands system;
- Newlands to Abbot Point expansion (NAPE) users, who sought access as part of the GAPE project and connected directly to the existing Newlands System; and
- post-GAPE Newlands users, who sought access following completion of the GAPE project and connected to the existing Newlands System through the Carmichael Rail Network.
- Aurizon Network and customers are in discussion, within the ongoing consultation on the next Access Undertaking for the regulatory period commencing on 1 July 2027, on reforms to Take or Pay across the CQCN which may materially reduce the socialisation of volume risks among users of the shared Newlands Rail Corridor; and
- The total planning and scheduling capacity within the shared Newlands Rail Corridor is not allocated or quarantined between the two coal systems. Therefore, there will be planning

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Oueensland Competition Authority (2023) Final Decision: April 2023 GAPE and Newlands Pricing DAAU, November, p. 4.
Available at: <a href="https://www.gca.org.au/wp-content/uploads/2023/11/qca-final-decision-april-2023-gape-newlands-pricing-daau.pdf">https://www.gca.org.au/wp-content/uploads/2023/11/qca-final-decision-april-2023-gape-newlands-pricing-daau.pdf</a>

periods where peak demand from Newlands users substantially exceeds the contracted Train Service levels for Newlands, which provides the benefit of scheduling services for Newlands mines using the capacity created by the GAPE Project. This is evident in the weekly scheduling outcomes for Newlands mines shown in the density curve for the period July 2023 to March 2025 in Figure 2. This shows weekly utilisation is frequently above contract levels and occasionally more than 110% of contract levels.





<sup>&</sup>lt;sup>6</sup> Train Service Entitlement Utilisation as reported in TSE Reconciliation Reports (Scheduled less Contract Relief Schedule G, Clause 8.2(b)

# **Transitioning to a single Coal System**

As all GAPE foundation Access Agreements do not expire prior to 1 July 2027, Aurizon Network proposes to transition the Newlands and GAPE Systems to a single integrated pricing system from FY29 in a phased approach as follows:

1. The UT5 Amend and Extend DAAU (UT5A&E) will be submitted to the QCA based on the current system and tariff structures, with an assumption that all existing Access Rights will be renewed, other than where a renewal option has expired or been waived.

Current information available to Aurizon Network indicates there will be sufficient contracted GAPE Train Services levels under either existing GAPE foundation Access Agreements or renewed GAPE Access Rights to support GAPE Access Charges in FY28.

 If there are new or additional Access Rights<sup>7</sup> contracted by Access Holders or Access Seekers with nominated loading facilities in the Newlands System after publication of the Final SoAPI which is expected to occur late in the first quarter of calendar year 2026; then:

following the later of either 1 July 2026 or the QCA approval of the UT5A&E DAAU, Aurizon Network will prepare and submit a DAAU to amend the Newlands and GAPE Reference Tariffs for FY28 to implement GAPE Project Cost reallocations applying the methodologies described in this draft SoAPI.

As UT5 only permits Aurizon Network to contract for new or additional Access Rights where there is Available Capacity, then this phase 2 will only occur where the Committed Capacity is less than the Deliverable Network Capacity (**DNC**), which is not expected based on the 2025 Annual Capacity Assessment Report published by the Independent Expert as shown in Figure 3.

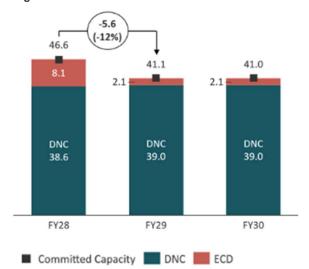


Figure 3 2025 ACAR Newlands Common Corridor

<sup>&</sup>lt;sup>7</sup> New or additional access rights includes Access Rights which are transferred and require additional capacity.

A DAAU is therefore only likely to be required where more than one of the following events occur:

- under the prospective UT5A&E take or pay reforms, up to 10% of Newlands Access Rights (~2 mtpa) are relinquished where permitted under relevant Access Agreements;
- the FY26 Annual Capacity Assessment Report published by the Independent Expert increases the DNC (where transitional arrangements are implemented or there is a material change in System Operating Parameters); or
- o GAPE foundation customers whose Access Agreements expire prior to FY28 elect not to renew those Access Rights at least 12 months prior to expiry.
- 2. After 1 July 2027, and the completion of Phase 2, if it occurs, Aurizon Network will submit a second DAAU which combines the GAPE and Newlands Systems into a single Newlands System from FY29 with appropriate tariff structures and distance tapers subject to the methodologies, principles and pricing objectives outlined in this draft SoAPI.

# **Application of the Pricing Principles**

In developing this draft SoAPI, Aurizon Network has had regard to the pricing principles in section 168A of the QCA Act and those within UT5. A summary of the pricing principles is listed in Figure 4. Fairness and equity are not expressly considered as pricing principles. other than where they relate to application of the pricing principles and their broader efficiency goals. For example, the QCA acknowledges<sup>8</sup> the interaction between fairness and efficiency but notes that economic efficiency is the primary objective of economic regulation and Part 5 of the QCA Act:

It is also recognised that fairness will, in some cases, be a pre-requisite for achieving economic efficiency and that procedural fairness and credibility of the regulatory system are important aspects of effective regulation. However, unless otherwise directed by Government, the Authority will treat economic efficiency as the primary objective of economic regulation.

Aurizon Network will have regard to fairness and equity concepts in its consideration of the pricing principles.

# Revenue Adequacy

As noted in the discussion of the December 2023 GAPE and Newlands Pricing DAAU, the QCA notes its consideration of regulatory pricing is subject to the relevant statutory criteria. The statutory criteria provide the basis on which Aurizon Network should reasonably expect to recover the value of the GAPE project costs in the RAB where those costs have been prudently and efficiently incurred.

A key requirement of the pricing principles in the Access Undertaking is that of revenue adequacy, which requires prices to be set at levels which are at least enough to meet the Efficient Costs of providing the service and provides a rate of return on the value of assets commensurate with the regulatory and commercial risks involved, which includes the return on and of the previously approved and invested capital.

<sup>8</sup> Queensland Competition Authority (2013) p. 30. Available at: https://www.qca.org.au/wp-content/uploads/2019/05/1918\_X-QCA-Paper-PricingPaperFinalPosition-0813-1.pdf

Figure 4 QCA Act - Summary of Pricing Principles



These expectations were affirmed in the QCA's recent Final Decision on the Queensland Rail 2025 Draft Access Undertaking which noted:

While we note that New Hope and Yancoal have expressed concerns as to the affordability of the reference tariff proposed by Queensland Rail, we do not consider it appropriate that we set a subsidised price. While it is only one of the factors to which we are to have regard and weigh, we consider that, in effect, locking Queensland Rail into a tariff which would not allow recovery of its efficient costs is inconsistent with the regulatory regime. It is inconsistent with the pricing principles in section 168A of the QCA Act as well as the legitimate interests of Queensland Rail and the public interest<sup>9</sup>.

In assessing a Draft Amending Access Undertaking, the QCA must also have regard to the effects of excluding existing assets for pricing purposes<sup>10</sup>. The intent of these provisions is outlined in the *Queensland Competition Act Amendment Bill* 2008 (Qld) explanatory notes:

while the Authority cannot guarantee a return on all regulated investment in infrastructure, the risk of the regulator removing assets from the asset base (and therefore decreasing the regulated entities rate of return) can have an adverse effect on the incentives for industry to invest in strategic significant infrastructure over time. This provision will focus the Authority on minimising this effect where possible.

The revenue adequacy principles and the relevant statutory criteria collectively, require that the exclusion of assets from the RAB and/or Access Charges to represent an instrument of last resort where other options are available to avoid this outcome, including broader socialisation within the CQCN. This is consistent with a widely accepted regulatory principle that investment in regulated assets should be subject to only one prudency test. That is, investments are reviewed for prudency either ex-ante or expost, prior to their inclusion into the RAB. They should not be reviewed under both ex-ante and ex-post. Where capital expenditure has been included in the RAB as prudent, then it should not be subject to a

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<sup>&</sup>lt;sup>9</sup> Queensland Competition Authority (2025) Decision: Queensland Rail 2025 Draft Access Undertaking, March, p. 113. Available at: <a href="https://www.qca.org.au/wp-content/uploads/2025/03/queensland-rail-2025-dau-decision-paper.pdf">https://www.qca.org.au/wp-content/uploads/2025/03/queensland-rail-2025-dau-decision-paper.pdf</a>

<sup>10</sup> Section 138(2)(f) of the QCA Act.

further review of prudency in response to reductions in demand (i.e. actual outcomes differ from the expected outcomes). Otherwise, the regulatory cost of capital for investment in regulated assets would need to be materially higher to compensate the regulated entity for the increased risk.

It is generally expected that where large sunk capital investments are made, these will be supported by long term contractual commitments. In the case of the GAPE Project, this was achieved with 15 year take or pay Access Agreements.

The term of these agreements is not sufficient to underwrite the full economic recovery of the GAPE Project Costs. This is a reasonable expectation as it was in the public interest for the GAPE Project to proceed, and requiring longer-term capacity commitments from the Access Seekers may have resulted in reduced demand for the GAPE Project to a level where it would not have been economically viable to proceed. Since the completion of the GAPE Project in 2012, **over 200 million tonnes of coal** have been exported over the Goonyella to Newlands Connection which has provided material economic benefits to the state of Queensland. Clearly from a public interest perspective, the benefits of the GAPE Project materially exceeded the project costs.

Furthermore, when approving the GAPE Project as being prudent in scope, standard and cost, the QCA did not consider the term of the Access Agreements to be financially imprudent. In addition, 15 years is a typical term for foundation agreements in several industries including gas pipelines and in regulatory arrangements involving no-coverage rulings<sup>11</sup>.

While long term foundation contracts are expected to underwrite the investment in the Expansion, there remains the challenge at the expiry of those foundation Access Agreements as to how pricing should evolve between existing users and the expansion users at the expiry of the long-term contract. That is, for what term should price differentiation be expected to apply between the two classes of users who ostensibly are being provided the same service. Aurizon Network notes this issue was not addressed in any of the QCA's Discussion Papers on Capacity Expansion and Access Pricing for Rail and Ports and therefore provides no guidance.

Having established the primacy of the Revenue Adequacy principle, the remaining pricing principles are therefore used to establish prices which allow recovery of the value in the RAB in an allocatively efficient way.

## **Price Differentiation**

GAPE Customers were required to enter into long-term Access Agreements to financially support the development of the GAPE Project. Following construction of the GAPE Project, Access Seekers that have been, or are, granted new or additional Access Rights in the Newlands System (whether by expiry of existing Access Rights or via a transfer of Access Rights with renewal rights) which use the same Rail Infrastructure as GAPE Access Holders, have obtained, or will obtain, Access on rates more favourable than those GAPE Access Holders (on a \$/ntk basis).

Where an Access Seeker seeks new or additional Access Rights, then Aurizon Network is required to determine the Access Charge in accordance with clause 6.3.1 of UT5. This clause also requires that:

Where an Access Seeker has requested Access Rights (other than as a Renewal) that do not require an Expansion and two or more Reference Tariffs are expressed to apply in relation to the

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<sup>&</sup>lt;sup>11</sup> Under the NGL a new gas pipeline can seek a Greenfield Incentive Determination (previously a no-coverage ruling) which prevents the pipeline being subject to price regulation for a period of 15 years.

Access Rights in the relevant Coal System, then the Reference Tariff used to formulate the relevant Access Charges is that Reference Tariff which is the highest on a \$/ntk basis.

If a coal system is subject to both an existing tariff and a higher Expansion Tariff, then an Access Seeker seeking new or additional Access Rights would be required to pay the higher Expansion Tariff. Over time, the expiry of existing Access Rights and replacement with new or additional Access Rights would converge to a single tariff. This is also facilitated by the requirement that all asset renewals in a coal system are included in the existing tariff and not the Expansion Tariff.

The separation of the GAPE project costs from the Newlands System through the establishment of a GAPE System effectively circumvented these requirements which may unfairly differentiate Access Charges between GAPE Access Holders and Newlands Access Seekers on a \$/ntk basis.

Consequently, upon expiry of the GAPE Deeds it would be unfair and inequitable for an Access Seeker to seek new or additional Access Rights from FY28 on terms more favourable than other users of the same service. Aurizon Network also notes that this outcome might also not conform with the requirements of section 101(2) of the QCA Act which requires that "in negotiating access agreements, or amendments to access agreements, relating to the service, the access provider must not unfairly differentiate between access seekers in a way that has a material adverse effect on the ability of 1 or more of the access seekers to compete with other access seekers".

# Proposition 1. New or Additional Access Rights should not be subject to rates more favourable than those applying to existing Access Holders for the use of the same Rail Infrastructure

All new or additional Access Rights negotiated in the Newlands System should not pay an Access Charge less than the equivalent Access Charge of a GAPE Access Holder for the use of the same Rail Infrastructure when expressed on a \$/ntk basis.

To determine the applicable \$ per ntk rate payable by GAPE Access Holders for the use of Newlands System, Aurizon Network will calculate:

- 1. the Allowable Revenue in the GAPE cost base attributable to the Newlands System (i.e. excluding the Goonyella to Newlands Connection and the Goonyella System Enhancements (**GSE**)); divided by
- 2. the total net tonne kilometres for GAPE Train Services attributable to the use of the Newlands System.

For example, in FY26 the GAPE Allowable Revenue (excluding the Goonyella to Newlands Connection and the GSE) is estimated to be \$97.3 million. The ntk attributable to GAPE services to the Newlands System in the FY26 volume forecasts is approximately 3.26 billion. Therefore, the \$/ntk rate for GAPE Access Holders using the Newlands System in FY26 is \$0.029.

Prior to consolidation of the two Coal Systems, where this rate is higher than the applicable \$/ntk associated with the application of the Newlands Reference Tariff, a transitional DAAU would be necessary to transfer an appropriate amount from the GAPE cost base to the Newlands cost base to determine an equivalent tariff rate for the new or additional Access Rights.

This redistribution reflects the principles in Clause 6.3.1(e) of UT5.

#### Fairness and Equity Considerations

GAPE Customers were required to enter into long-term Access Agreements to financially support the development of the GAPE Project. Following construction of the GAPE Project, where an Access Seeker is granted new or additional Access Rights in the Newlands System (whether by cessation of existing Access Rights or via transfer of Access Rights with renewal rights) which use the same Rail Infrastructure as GAPE Access Holders, they may obtain Access on rates more favourable than those GAPE Access Holders (on a \$/ntk basis).

Consequently, upon expiry of the GAPE Deeds, it would be unfair and inequitable for an Access Seeker or an Access Holder to obtain new or additional Access Rights on terms more favourable than other users of the same service.

## Application of the Pricing Limits

The Access Undertaking also prescribes upper and lower limits for pricing purposes. The floor and ceiling pricing limits are well established economic principles which avoid the cross-subsidisation between services.

The pricing principles in section 168A of the QCA Act expressly require that the revenues should be at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks (i.e. NPV >= 0, not NPV=0). This implies that Stand-Alone Costs are a non-binding constraint and revenues exceeding stand-alone cost is a necessary, but not sufficient, evidence of a cross-subsidy.

A cross-subsidy can only arise where:

- one or more services are paying more than the stand-alone costs; and
- one or more services are paying less than the incremental costs attributable to that service(s).

Therefore, the primary and binding pricing limit is the floor limit (Incremental Costs). These concepts are important in the context of options for achieving revenue adequacy, including how costs may be distributed.

#### **Floor Limits**

The floor price limits generally require that any service or combination of services should not pay an Access Charge less than the *Incremental Costs* of providing those services, where Incremental Costs are defined as:

Those costs of providing Access, including capital (renewal and expansion) costs, that would not be incurred (including the cost of bringing expenditure forward in time) if the particular Train Service or combination of Train Services (as appropriate) did not operate, where those costs are assessed as the Efficient Costs and based on the assets reasonably required for the provision of Access.

Note that the definition considers only those costs that 'would not be incurred'. It does not refer to those costs that 'would not *have been* incurred'. Consequently, Incremental Costs are typically a forward-looking construct associated with the costs that would be avoided if the service or services did not continue to operate. In this regard sunk costs are, by definition, not incremental to any user and are a common cost to be recovered through pricing. However, in the context of the Goonyella to Newlands Connection this represents a cost which is avoidable for Newlands Access Holders and is an Incremental Cost for GAPE Access Holders as in the absence of demand for GAPE services the Goonyella to Newlands Connection would cease to be used.

## **Ceiling Limits**

The ceiling price limits assume that the price of access for a Train Service or combination of Train Services should not exceed the stand-alone costs (**SAC**) of providing those services, where stand-alone costs are:

Those costs that Aurizon Network would incur if the relevant Train Service(s) was (were) the only Train Service(s) provided Access by Aurizon Network, where those costs are assessed:

- (a) as the Efficient Costs; and
- (b) on the basis of the assets reasonably required for the provision of Access.

The SAC are also a forward-looking assessment and generally requires an assessment of the replacement costs of providing those services. In a practical sense, the value of the existing assets in the RAB represents an estimate of those replacement costs, which avoids the requirement for undertaking a Depreciated Optimised Replacement Cost (**DORC**) valuation when applying the price ceiling limits. However, due to changes in replacement cost inflation relative to CPI, technology changes and differences in physical and financial depreciation, a DORC value may be materially different from depreciated actual costs (**DAC**) over time. In practice, the DAC, as represented by the value of the RAB, is applied in the SAC tests to ensure assets are depreciated in pricing only once.

## **Combinatorial tests**

The floor and ceiling limits described above are a combinatorial test in that they should be assessed against various combinations of services. For example, there are at least three combinations applicable to the Newlands users which can be assessed using the following combination of prices as satisfying the combinatorial test:

- 1. Sonoma Jct to Abbot Point
- the Train Services originating from the McNaughton and Sonoma Nominated Loading Facilities could be required to pay up to the Stand-alone costs of this section, subject to;
- all other train services covering their Incremental Costs.
- 2. Carmichael Junction to Abbot Point (A)
- the Train Services originating from the Carmichael Rail Network (CRN) could be required to pay
  for the subset of assets within the Newlands coal system that are required to deliver the demand
  originating from the CRN; and
- the remaining Newlands Train Services recovering the balance of Efficient Costs subject to meeting the tests in combination 1.
- 3. Carmichael Junction to Abbot Point (B)
- subject to the satisfaction of the limits in combinations 1 and 2, then the Train Services from CRN, Sonoma and McNaughton could be required to pay an access charge commensurate with the Stand Alone Costs of an optimised Newlands System exclusive of demand from Goonyella to Abbot Point train services; and
- the Goonyella to Abbot Point train services being required to pay an access charge which
  recovers the Rail Infrastructure removed from the Newlands stand-alone cost test.

Combination 3 shows how a feasible and compliant pricing scenario could include a cost distribution between users which involves:

- Newlands train services (incl. CRN) paying an access charge which reflects costs up to the stand-alone costs of providing those services; and
- Goonyella to Abbot Point train services paying an access charge which reflects the:
  - o incremental costs for the use of the Newlands system;
  - o costs associated with the Goonyella to Newlands connection; and
  - balance of costs within the Newlands system not recovered from Newlands train services.

Determination of the SAC associated with these scenarios necessarily requires an understanding of the demand scenarios and the Rail Infrastructure necessary to provide those services. Consequently, the associated SAC are volume dependent. For example, if on expiry of the GAPE foundation Access Agreements, the demand for Newlands Train Services increased from 21 million tonnes to 30 million tonnes, then this would require an assessment of the existing Rail Infrastructure required to rail 30 mtpa of Newlands demand exclusive of demand from GAPE Train Services.

On balance, Aurizon Network considers there are two price limits relevant to the development of pricing for Newlands and GAPE Train Services.

# Proposition 2. Prices for Newlands and GAPE Train Service should not exceed the Newlands Ceiling and or be less than the GAPE Floor Limit

1. Newlands Ceiling Limits

The stand alone cost for users of the Newlands system is reflective of the Rail Infrastructure that would be necessary to satisfy the Committed Capacity for that demand (effectively an optimised configuration of the shared Newland rail corridor 12).

2. GAPE Floor Limits

The GAPE floor limits should be assessed against the higher of:

- Incremental costs. This represents the Goonyella to Newlands Connection and the avoidable costs from utilisation of the relevant parts of the Newlands and Goonyella Systems.
- b. Fully distributed cost (**FDC**). This represents the Access Charge that would be applied where the incremental capacity created by GAPE Project reflected in the GAPE cost base was subject to full utilisation. (i.e. shared rail corridor DNC 21 mtpa).

The FDC is applied only to reflect the Access Charges that would apply if there was no change in usable GAPE Committed Capacity but does not reflect an economic floor limit under the pricing principles. Therefore, the incremental costs may be applied where the fully distributed cost rate would reduce demand for GAPE services (subject to alternate revenue recovery mechanisms).

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<sup>&</sup>lt;sup>12</sup> To be determined through appropriate capacity analysis and optimisation study.

#### Fairness and Equity Considerations

The ceiling limits described above should serve as an effective constraint on the expected pricing outcomes. However, the ceiling limit for the combinatorial test involving the Collinsville and Sonoma Nominated Loading Points to the Abott Point Nominated Unloading Point may be materially higher than the current Access Charges for those mines.

In evaluating price outcomes, it is necessary to have regard to a range of other metrics or benchmarks to promote fair and equitable outcomes. Aurizon Network has previously noted that the legacy Newlands Access Holders have benefited from the additional demand provided by the development and connection of the CRN. In assessing fairness and equity, then the relevant reference transaction would be what price those parties expected to pay in the absence of the CRN being developed. This price would be expected to more closely resemble the SAC under combination 1. Consequently, those customers should not hold expectations that they should be quarantined from an increase in their Access Charges solely based on being a legacy Newlands Access Holder.

Notwithstanding, Aurizon Network considers there are some benchmarks and measures that could inform what represents a fair and equitable attribution of costs to legacy Newlands Access Holders, including, but not limited to:

- the current proportion of the Newlands System Allowable Revenue attributable to contracted legacy Newlands Access Holders. For example, the Allowable Revenue (AT1-4) for the Newlands System in FY26 is \$53.6 million. Recasting the Reference Tariffs on contracted Train Paths (being what customers have contracted to pay) the proportion of the FY26 Allowable Revenue attributable to legacy Newlands Access Holders is 56%; and
- the relativity of rates with other services of comparable distances within the CQCN. As shown in Figure 5, the Access Charges for GAPE Access Holders are the highest within the CQCN on a distance equivalent basis. In contrast, the Newlands System Access Charges are the lowest and are broadly equivalent to those prevailing in the Goonyella system with greater economies of scale. It is reasonable to consider these price benchmarks when evaluating the allocation of costs between various users of the services provided in the GAPE and Newlands System.

System
Blackwater
Gape
Goonyella
Moura
Newlands

Loaded Distance (km)

Figure 5 FY25 CQCN Access Charges AT<sub>1-4</sub> (\$/ntk)<sup>13</sup>

This leads to proposition 3.

Proposition 3. The contracting of new or additional Access Rights on the shared Newlands corridor should seek to reduce Access Charges for GAPE Access Holders, not to reduce or sustain Access Charges for legacy Newlands Access Holders.

The legacy Newlands Access Holders should expect to pay no less than their current contribution to Newlands Allowable Revenue based on their current Committed Capacity held by those parties. That is, it would be fair and equitable for the price of Access Charges to increase for legacy Newlands Access Holders if they reduce the level of their current contracted Access Rights, to retain the current aggregate contribution to common costs.

For example, as a general principle, GAPE Access Holders should not expect to obtain access on rates more favourable than those prevailing in Blackwater on a distance equivalent basis for whom they may be competing in seaborne markets for coal. Similarly, there is a reasonable expectation that their Access Charges would not increase because of an overall reduction in the demand for GAPE services (due to that demand being rerouted to DBCT or a cessation in that demand and allocation of capacity to new or additional Newlands Access Rights).

<sup>&</sup>lt;sup>13</sup> Rates are obtained by dividing the total access cost in FY25 for each O-D pair by the actual ntk. Total access cost is obtained by multiplying volume metrics for O-D pairs by system reference tariffs. This also reflects the total cost access for discounted reference tariffs where the discount reflects the equivalent private costs that are deducted from the system reference tariff. Excludes cross system services.

This leads to proposition 4.

# Proposition 4. The Moura and Blackwater Access Charges provide an appropriate benchmark

Access Charges for GAPE Train Services should not:

- exceed the Access Charges which would apply in FY27 (and where demand is at least 17 mtpa); or
- be less than Access Charges in the Blackwater System (as the next highest priced Coal System) on a distance equivalent basis.

Access Charges for current Newlands Committed Capacity (i.e. excluding new or additional Access Rights) should not expect to exceed the Access Charges in the Moura System (as the Coal System with comparable haulage distances) on a distance equivalent basis.

Where satisfaction of these requirements would result in Access Charges for Newlands Access Holders exceeding the ceiling limits, then any amounts exceeding the Newland SAC would need to be recovered from Goonyella System users for reasons detailed in the section on Allocative Efficiency below.

## Allocative Efficiency

Allocative efficiency reflects two important concepts:

- 1. existing capacity is fully utilised before investment in new capacity is made; and
- 2. capacity is allocated to its highest marginal use (or those who value it the most).

The investment in the Goonyella to Newlands Connection occurred primarily to provide an option for coal producers in the Goonyella system to utilise the relatively low costs of expansion of the Abbot Point Coal. Terminal. At the time of the investment, this represented the most feasible option from a timing, cost and complexity perspective relative to an expansion of the Goonyella System and terminal capacity in the Hay Point port precinct. Further details of the GAPE Project are provided in Appendix B.

A set of efficient prices are those which optimise and maximise the utilisation of existing capacity. This concept is codified in the object of Part 5 of the QCA Act which seeks to promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets.

## **Substitute Services**

Aurizon Network recognises that coal carrying Train Services for producers in the Goonyella System hold a cost advantage in exporting through DBCT. Consequently, where there is both port and rail capacity in the Goonyella System and at DBCT, then this represents a more efficient option when compared to either commencing or continuing to rail to NQXT.

However, this assumption holds only for the utilisation of existing combination of port and rail infrastructure. Where Expansion of the Goonyella System and DBCT is necessary to service demand more than the current Committed Capacity, this is unlikely to be allocatively efficient where spare or excess capacity is available to NQXT or that additional demand could be serviced by a low-cost Expansion of the Newlands System.

#### **DBCT 8X**

As of 30 June 2025, DBI has entered conditional access agreements for an additional 14.9Mtpa of access rights with access seekers<sup>14</sup>. Some of this demand could comprise existing contracted capacity to NQXT or new demand which could feasibly utilise NQXT. At the completion of the Feasibility FEL3 study, DBI has identified the project phases, capacity increments and indicative project costs in Table 1.

Table 1 DBI 8X Expansion Phases<sup>15</sup>

| Phase | Description            | Capacity Mtpa | Cost \$m |
|-------|------------------------|---------------|----------|
| 1     | SL4 on Berth 3         | 4.4           | 503      |
| 2     | Stockpile Augmentation | 4.1           | 313      |
| 3     | New Inloading Systems  | 6.4           | 664      |
| Total |                        | 14.9          | 1,480    |

Given the projected decline in the value of the Goonyella to Newlands Connection in the RAB, the cost of utilising available capacity at NQXT and addressing the remaining Existing Capacity Deficit in the Newlands System may be lower than the incremental costs of expanding DBI. Aurizon Network has estimated the incremental revenue and incremental cost for the cumulative phases of DBI 8X using the following benchmark regulatory assumptions:

- a pre-tax Weighted Average Cost of Capital of 8.61%;
- the use of straight-line depreciation with inflation indexation to the economic life of 2055; and
- no assumed opex savings from project capex (revised 8X scope may not include the full replacement capital expenditure benefits assumed in the Ruling which is being funded through the current NECAP program).

Table 2 Estimated Incremental Revenue and Incremental Cost for DBI 8X (\$FY25)

| Phases  | Capacity<br>(Mtpa) | Capital Cost<br>(\$m) | Incremental<br>Revenue (\$m) | Incremental Cost<br>(\$/nt) |
|---------|--------------------|-----------------------|------------------------------|-----------------------------|
| 1       | 4.4                | 503                   | 49.85                        | 15.95                       |
| 1, 2    | 8.5                | 816                   | 80.87                        | 14.13                       |
| 1, 2, 3 | 14.9               | 1480                  | 146.69                       | 14.46                       |

Aurizon Network considers these estimates to be conservative as the applied WACC and depreciation arrangements are likely to be more commercially favourable to DBI under the negotiate-arbitrate model. They are also broadly consistent with the differentiated expansion pricing included in the Table 13 of the application for the price ruling. However, Access Seekers for DBI 8X will not be required to pay a terminal

<sup>&</sup>lt;sup>14</sup> DBI (2025) 2025 Half Year Financial Results – Investor Presentation, 25 August.

<sup>&</sup>lt;sup>15</sup> Ibid.

infrastructure charge reflective of the incremental costs that expansion imposes as the QCA approved a ruling under section 150F of the QCA Act to socialise the costs of the expansion with existing users.

The primary basis given by the QCA in approving the ruling include:

- We consider that the 8X expansion will operate in an integrated way with the existing terminal. We have formed this view having regard to the characteristics of the 8X expansion and the existing terminal <sup>16</sup>: and
- We consider that the 8X expansion will provide benefits to existing users, in that it will result in cost savings to the NECAP program through the refurbishment of existing shiploaders (SL1–3) and the removal of reclaimer RL2 replacement<sup>17</sup>.

However, the ruling does not assess whether the 8X expansion itself is prudent and efficient or whether it would satisfy total foreseeable demand from the Goonyella System at least cost. This point is also acknowledged by the QCA in its determination on the ruling application<sup>18</sup>:

We are required to undertake an assessment of the prudency of expansion costs, having regard to the scope of the works undertaken, among other things. A ruling as to the appropriate pricing method to apply to the proposed 8X expansion does not equate to the acceptance of the 8X capital expenditure for future TIC negotiations.

To the extent that 8X does not represent the least cost approach to satisfying the total foreseeable demand in Goonyella, then this has implications for the pricing of GAPE services with and without the expansion.

## **Goonyella Congestion Charges**

Aurizon Network is not seeking to implement congestion charges for DBCT users. This analysis merely provides the efficiency grounds for why a cost allocation of the Goonyella to Newlands Connection can be made to the Goonyella System on efficiency grounds to achieve the intended outcomes in Proposition 4.

There is a sound economic justification for the potential contribution by Goonyella system users towards the recovery of the Goonyella to Newlands Connection. Requiring financial contributions from users of a capacity-constrained low-cost corridor towards the cost recovery of an underutilised high-cost corridor is an economically rational policy. It promotes system efficiency, supports infrastructure sustainability, encourages better asset utilisation, and ensures a fairer distribution of costs across an integrated network.

In this regard, the Goonyella to Newlands Connection may also be considered a 'network good' due to the interconnection of the Newlands and Goonyella coal systems providing broader interoperability benefits which expanded the scale of the above rail market to the whole of the CQCN. Importantly, the interconnection supported an expansion of export volumes from coal mines operating within the Goonyella System geographical boundaries.

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<sup>&</sup>lt;sup>16</sup> Queensland Competition Authority (2021) Determination: DBIM's application for a price ruling—the 8X expansion, November, p. 44

<sup>&</sup>lt;sup>17</sup> Ibid, p. 48

<sup>&</sup>lt;sup>18</sup> Ibid, p. 15

Congestion charges are widely recognised as being an effective means of promoting efficient flows within a railway network or supply chain to avoid costly expansions to alleviate that congestion. The GAPE Project was undertaken to overcome capacity constraints at DBCT and provide an alternate transport option for Access Seekers who could not obtain capacity through a timely and efficient expansion of DBCT.

As noted above, as the QCA has made a ruling to socialise the DBCT 8X expansion costs with existing access holders, then those access holders should be willing to pay amounts up to the difference between their current access price and the socialised access price after expansion to avoid the expansion proceeding. That is, the price differential represents the maximum congestion charge that could be levied to leave existing DBCT users indifferent as to whether 8X proceeds or does not proceed. Therefore, a congestion charge less than this amount can promote the efficient utilisation of the CQCN. It also promotes fairness between existing Goonyella Access Holders and Access Seekers who cannot access the lower cost service. Aurizon Network notes the economic basis for levying congestion charges on Hay Point Coal Terminal users, or making a contribution to the costs of the Goonyella to Newlands Connection is not as obvious.

The revenue collected from a Goonyella congestion charge should be used to reduce the below rail cost differential on a \$/ntk basis between railing to either Hay Point or Abbot Point for customers whose mines are in the Goonyella system. In theory, a congestion charge should continue to increase to the point where the reduced price of the alternative provides sufficient incentive for demand for GAPE services.

The application of a congestion charge for DBCT can be illustrated in the following example adapted from 'Appendix A: A Simple Economic Model of Capacity Expansion' from the QCA Capacity Expansion and Access Pricing for Rail and Ports Discussion Paper. Current demand for the terminal is 85 mtpa at a price of P1. The incremental cost of expanding the terminal to increase terminal capacity to  $Q_2$  is P2. If the cost of the incremental expansion is socialised across the entire user base, then the fully socialised post expansion price for all contracted tonnes is P3 as shown in Figure 6.

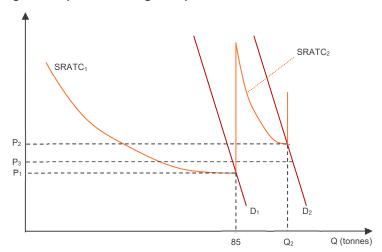


Figure 6 Expansion Pricing Example

In this context, a congestion charge reflects the opportunity cost of existing users continuing to retain the contracted exclusive rights of use which prevent access to the terminal by Access Seekers. The QCA describes this circumstance as follows:

If marginal cost pricing including the marginal value of congestion costs cannot be implemented, demand must be rationed by non-price means – for example using a rule of thumb such as 'first

*in line first in right*'. In effect, there is an opportunity cost that reflects that some excluded users value capacity more than some users who are served.

Therefore, the value of the service provided to DBCT users (s. 120(1)(e) of the QCA Act) is the lesser of the GAPE Access Charge or the costs of alleviating the supply chain constraints (net of any benefits). Therefore, it would be allocatively efficient to apply congestion charges to DBCT users, which contribute to a reduction in the GAPE Access Charges to obtain an equivalent \$/ntk rate for an equivalent distance.

## Fairness and Equity

GAPE foundation Access Holders were required to enter into long term Access Agreements to obtain Access to the declared service. The Incremental Costs of obtaining that Access was materially higher than the prices for competing Goonyella Access Holders who held access rights at DBCT. On expiry of the foundation Access Agreements, those Access Holders will need to either cease production or continue to use the higher priced GAPE Train Services if they cannot obtain access to DBCT. That is, the price of continuing to use GAPE services reflects the scarcity value of capacity in the DBCT supply chain. GAPE Access Holders might consider it inequitable that Access Holders at DBCT do not share the costs of that scarcity, particularly where Goonyella Access Holders have entered the market after the Goonyella to Newlands Connection was constructed.

Similarly, DBCT users who have held Access Rights prior to the construction of Goonyella to Newlands Connection may consider any transfer of those costs as inconsistent with their expectations when contracting for those Access Rights. However, Aurizon Network notes that the QCA price ruling for socialisation of 8X did not consider the consequential expected average increase in the terminal infrastructure charge of \$0.42 /nt to existing users to be onerous noting, "the TIC is only a small proportion of total mine production and supply chain costs<sup>19</sup>". Based on this assessment, a congestion charge of a comparable amount would not reduce demand for Train Services in the Goonyella System.

## **Opportunity Cost of Capacity**

The Rail Infrastructure utilisation provisions in section 6.7.1 of the Access Undertaking are intended to ensure that Capacity is allocated to its highest marginal use. The current cost base comprising the Newlands System includes an allocation of the Newlands System Infrastructure Enhancements (**NSIE**) in the GAPE Project costs associated with the Access Rights contracted by the operator of the Drake mine. Therefore, the Newlands System cost base reflects the Efficient Costs of providing up to 21 mtpa in capacity. By definition, the contracting of new or additional Access Rights by Newlands Access Seekers or Access Holders above this level means that the Newlands cost base will not reflect the efficient costs of providing the service without the transfer of associated capacity costs from the GAPE cost base.

The consequential decision is then how the relevant amount of cost transfer should be determined. This will be dependent on whether there is demand for new or additional Access Rights in the Goonyella System. For example, NQXT may choose for its own commercial reasons, to allocate port capacity to a Newlands Access Seeker rather than Goonyella Access Seeker where there is competing demand. There is an opportunity cost of this allocation decision in respect of the Goonyella to Newlands Connection which impacts:

Aurizon Network - through increased asset stranding risk on the Goonyella to Newlands Connection;
 and

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<sup>&</sup>lt;sup>19</sup> Ibid, p. 34.

GAPE Access Holders - who would pay a higher overall Access Charge from the reduction of scale
utilising the Goonyella to Newlands Connection undermining the economics of operating coal carrying
Train Services to NQXT.

Therefore, the amount of the GAPE cost base transferred should be dependent on whether there is unmet Goonyella demand.

# Proposition 5 Redistribution of GAPE Cost Base to New of Additional Newlands Access Rights above 21 mtpa

Where there is evidence of demand for new or additional access in the Goonyella system, then the amount transferred to the Newlands cost base will include costs relating to both the NSIE and the Goonyella to Newlands Connection (NML) as follows:

$$Additional\ Train\ Paths\ \times \left(\frac{NSIE_{GAPE\ RAB}+NML}{DNC_{Train\ Paths}-6176}\right)$$

Where there is no demand for new or additional access in the Goonyella system, then the amount to be transferred to the Newlands cost base will include only those costs relating solely to the NSIE as follows:

$$Additional\ Train\ Paths\ \times \left(\frac{NSIE_{GAPE\ RAB}}{DNC_{Train\ Paths}-6176}\right)$$

## Proposition 6 Goonyella Contribution to Goonyella to Newlands Connection

Where the GAPE and Newlands prices established under Propositions 1 - 5 do not achieve revenue adequacy, then it may be allocatively efficient for that shortfall to be transferred to Goonyella System Users.

## Loaded Trains to DBCT

Presently, loaded trains on the Goonyella to Newlands Connection are unidirectional to NQXT. GAPE Train Services are not required to contribute to the common costs in the Goonyella System. Similarly, Goonyella Train Services are also not required to make any contribution to GAPE project costs. In the absence of loaded Train Services operating to a Nominated Unloading Facility within the Goonyella System, then there are no Goonyella System Access Holders physically utilising the Newlands System or the Goonyella to Newlands Connection.

While some use is made of the Wotonga angle by diesel services, which operate solely within the Goonyella System for operational reasons, neither the utilisation nor the capital costs are considered material enough to support an attribution at this stage.

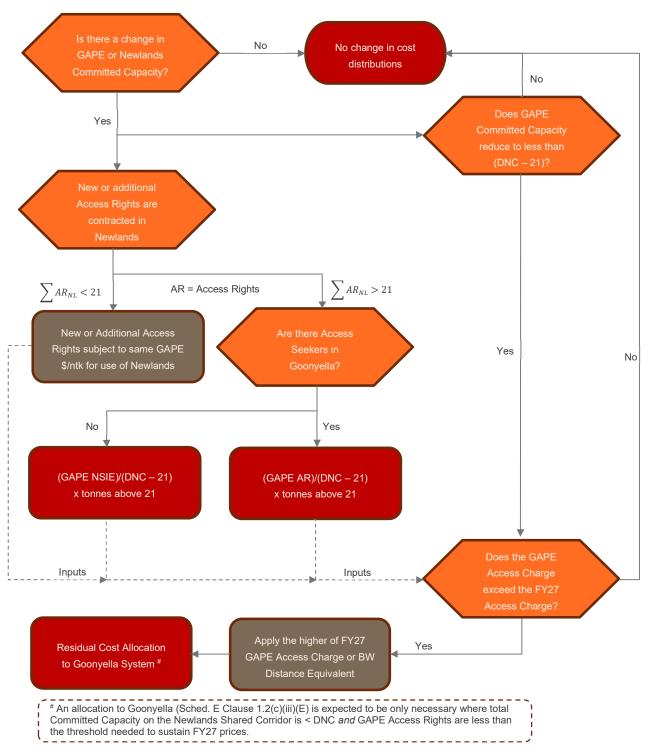
If loaded Train Services did commence to a Nominated Unloading Facility in Goonyella, then some cost attribution of the Goonyella to Newlands Connection would be necessary and that attribution would likely be assessed as being specific to that service for the purposes of determining whether a system premium on the Goonyella system reference tariff would be applicable.

Train Services utilising the Goonyella to Newlands Connection to a Nominated Unloading Point in the Goonyella System would be expected to make a Minimum Revenue Contribution to the Goonyella System where there is excess demand for Capacity in that System.

## **Cost Allocation Framework**

The initial condition for the allocation of costs in the GAPE System is the status quo where there should be no requirement for cost redistribution. Subject to satisfaction of the floor and ceiling limits in Proposition 2, then the following diagram summarises a cost allocation framework which reflects Propositions 1, 3-6.

Figure 7 Cost Allocation Framework for Changes in Committed Capacity



## **Tariff Structures**

The previous sections have established an indicative framework for cost allocation of the total Newlands and GAPE cost base between users of the shared Newlands rail corridor, and where necessary, users of the Goonyella System.

The role of the tariff design is then how to approximate those allocations in Access Charges for Nominated Loading Facilities. Figure 8 shows the effect of the distance tapers within each Coal System. Generally, the greater the proportion of Access Charges collected through the Train Path Charge (with the balance of Allowable Revenue being recovered equally through the \$ /ntk and the \$/nt rates), then the stronger the distance taper<sup>20</sup>.

As observed in the plot, the current GAPE tariff structure has a strong distance taper with the majority of revenue being collected from the higher AT2 path charge and the AT4 net tonne charge. The unit cost of access in \$ per net tonne terms is then relatively uniform (a flat distance taper) for all GAPE Access Holders.

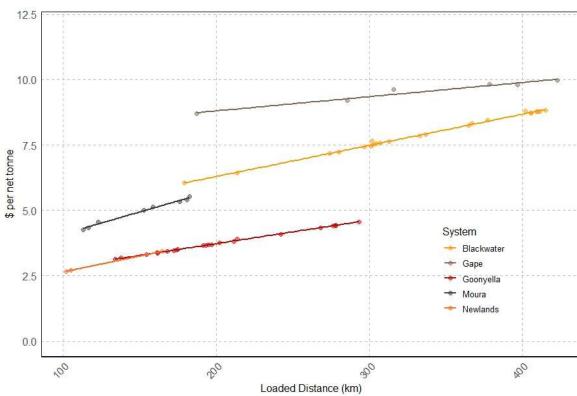


Figure 8 FY25 \$ per net tonne below rail access cost by Coal System

In the absence of being able to materially reduce the cost differential between GAPE and Goonyella Access Charges to create switching incentives for closer mines to NQXT, the retention of a relatively flat tariff structure for Nominated Loading Facilities in the Goonyella System operating to NQXT is likely to not differentiate between Goonyella customers on a distance basis. That is, a steeper slope would be

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<sup>&</sup>lt;sup>20</sup> A distance taper is observed where the tariff is comprised of both linear (ntk, gtk) and non-linear (rtp, nt) components. Longer distance services will pay more per service than a closer distance service but the difference will be greater where more revenue is collected through a linear tariff than the non-linear tariffs

unlikely to have the effect of incentivising closer Goonyella mines to switch to NQXT and may create stronger incentives for more distance mines to switch to cross system services to Blackwater.

In contrast, where new or additional Access Rights are contracted by Access Seekers which utilise the full length of the shared rail corridor, then it may be necessary to require a weaker distance taper for Nominated Loading Points within or connecting to the Newlands System.

These two competing objectives therefore suggest it will be necessary to apply a combination of base tariffs and premiums to achieve the desired cost distributions and conformance to the proposed principles. For example, Figure 9 shows a conceptual kinked access cost curve (dotted lines) which indicatively reflects:

- An expected reduction in the value of the assets in the GAPE RAB in FY27 (and GAPE Access Rights >= DNC – NL Access Rights);
- A reduction in Byerwen Access Costs reflecting its lower use of the Newlands to Goonyella Connection (and to lower the slope of the \$ per ntk curve shown in Figure 5); and
- A contracting of new or Additional Access Rights using the full distance of the shared rail corridor and paying equivalent GAPE \$/ntk rate (raising the distance end of the Newlands price); and
- An increase in average costs for shorter haul services reflecting a prospective reduction in their Committed Capacity (which also raises the Access Charges relative to current pricing).

12.5 10.0 7.5 \$ per net tonne 5.0 System Blackwater - Gape 2.5 Goonyella Moura Newlands 0.0 200 00 Loaded Distance (km)

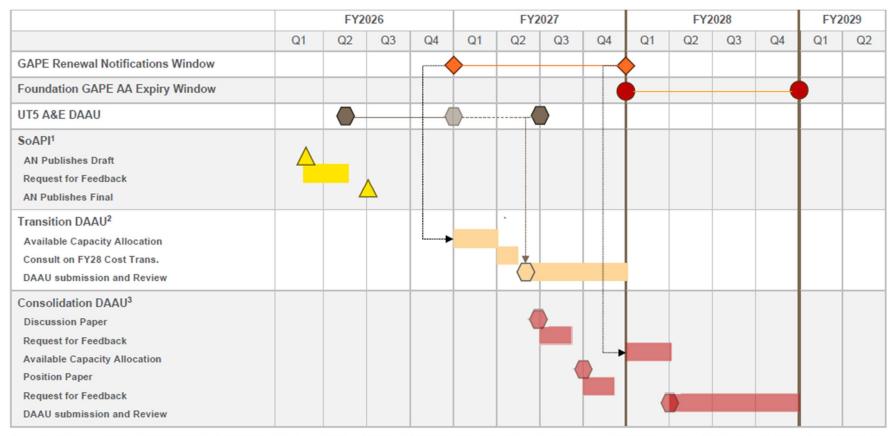
Figure 9 Conceptual Example of Kinked Cost Curve for GAPE and Newlands Customers

# **Expansion Pricing**

Where Committed Capacity is less than, or equal to, the Deliverable Network Capacity and an Expansion is required to grant new or additional Access Rights, the Expansion will be subject to the Expansion Pricing framework in Section 6.4 of UT5.

To the extent the Incremental Costs of an Expansion is less than the average GAPE tariff (being the relevant highest tariff), then the Pricing Proposal will reflect the iterative methodology for socialising Expansions as detailed in clause 6.4.5(e). In other words, if the cost of the Expansion was equivalent to \$10/ntk and the GAPE Tariff is \$40/ntk, then the Expansion would be socialised to reduce the GAPE tariff. These principles would apply even without consolidation of the Newlands and GAPE Systems as it is an Expansion of the shared rail corridor which is reflected in both System Reference Tariffs.

# **Appendix A Engagement Timelines**



- The Statement of Access Pricing Intent (SoAPI) will be an Aurizon Network document setting out the principles and methods that will be used to determine access pricing from 1 July 2027 and 1 July 2028 which will inform contracting for Available Capacity from 1 July 2026.
- 2. The Transition DAAU will redistribute, in accordance with the SoAPI, the appropriate proportion of the GAPE cost base to the Newlands System associated with any new or additional Newlands Access Rights contracted by Newlands Access Seekers following publication of the SoAPI for FY28.
- The Consolidation DAAU will consolidate the GAPE and Newlands Systems into a single Newlands System from FY29 and establish new tariff structures, distance tapers, discounts or premiums necessary to achieve the target cost distributions between Access Holders.

Draft for Consultation / Aurizon Network

# **Appendix B Background Information and Data**

# **GAPE Project**

## **Project Objectives**

The ~\$1.1 billion GAPE Project was constructed over a period of 20 months and was officially opened ahead of schedule on 19 December 2011.

The GAPE Project bridged the Goonyella and Newlands Systems through the construction of the Goonyella to Newlands Connection. The project alleviated capacity pressures on the Goonyella rail and port infrastructure and leveraged the low-cost expansion of the Abbot Point Coal Terminal from 25 mtpa to 50 mtpa. At the time of construction and contracting with foundation customers, longer term coal price projections were favourable.

Investment in below rail infrastructure was optimised to provide the lowest overall Total Cost of Ownership (**TCO**) to our coal customers and to minimise the capital expenditure required to deliver capacity up to 50 Mtpa to the port. Major design alternatives focussed on rolling stock configuration and operational parameters to minimise the overall Rail Infrastructure required while providing the most cost-effective above rail solution.

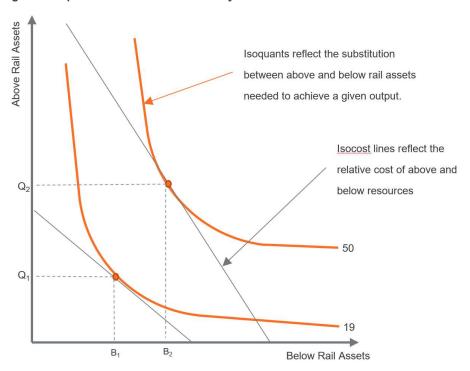
Train length and axle load were selected based on the existing Newlands System configuration and the capital costs required to upgrade the Newlands System to accommodate longer and heavier trains. The additional investment in upgrading infrastructure was offset by the ability to reduce the scope of additional passing loops and duplication required to accommodate increased traffic and congestion associated with smaller payload trains.

The selected H82 train consist met the objective of minimising initial project costs, while retaining the flexibility to transition to the longer Goonyella length trains in the next expansion stage. In addition, the operational parameter of Below Rail Transit Time (BRTT) was optimised to balance the need for physical Rail Infrastructure with system congestion and the impact on above rail cycle time to minimise overall TCO.

The TCO seeks to determine the technical and allocative efficient mix of above and below rail resources. The capital value maximisation studies undertaken for the GAPE Project concluded that the relative cost of above and below rail assets favoured adding more above rail assets and increasing the congestion costs. In the example in Figure 10, it is assumed that:

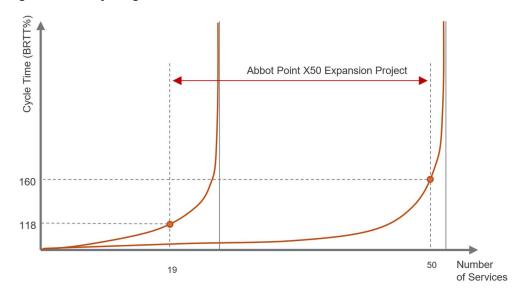
- Prior to the GAPE Project below rail asset costs are relatively low and the optimal ratio of above and below rail assets is Q<sub>1</sub>B<sub>1</sub>
- The GAPE Project capital optimisation assumes the costs of below rail assets are higher relative
  to above rail assets and the optimal mix shifts up and to the left on the isoquant to increase the
  optimal ratio of above and below rail assets to Q<sub>2</sub>B<sub>2</sub>

Figure 10 Optimal Scale and Mix Efficiency



The practical implication of the GAPE Project design assumption is that the Newlands System was expected to operate at increased level of congestion with the below rail transit time increasing from 118% to 160% as shown in Figure 11.

Figure 11 Railway Congestion and BRTT



The interconnection of the Newlands and Goonyella Ssystems provides various operational and competition benefits which were acknowledged by the QCA in its declaration review of the CQCN noting that:

The primary market for use of below rail access rights on the CQCN is made up of above- rail haulage operators. These operators do have the ability to switch their rollingstock between different parts of the CQCN depending on the demand for rail transportation from mine owners. The ability of rail operators to switch between different parts of Aurizon Network's interconnected rail system is a powerful indicator that the use of the CQCN is a service provided in a single geographic market.

That is, there are broader competition and efficiency benefits from the increase in the geographical scope of the rail haulage market. Similarly, the broader operational and diversification benefits are also discussed by the DBCT User group submission to the declaration review of the coal handling services provided by DBCT:

In addition – it is important to understand why APCT was contracted. Again, there is a significant element of capacity being contracted at APCT for diversification and operational flexibility reasons – not because APCT is a substitute in the sense of being competitive with DBCT. In particular, Middlemount has capacity at DBCT/APCT, Lake Vermont has capacity at APCT/RGT and Poitrel effectively has capacity at HPCT, DBCT and APCT and at least BMA has confirmed that the use of APCT is to provide risk diversification and operational flexibility.

These operational and diversification benefits are broadly reflective of the reliability of the DBCT supply chain to achieve the nameplate capacity. As shown in Figure 12, on an annualised basis, the DBCT terminal has rarely achieved monthly coal deliveries above the 85mtpa nameplate capacity since 2011, with only incidence occurring with the outperformance achieved in August 2024 under the rolling plan.

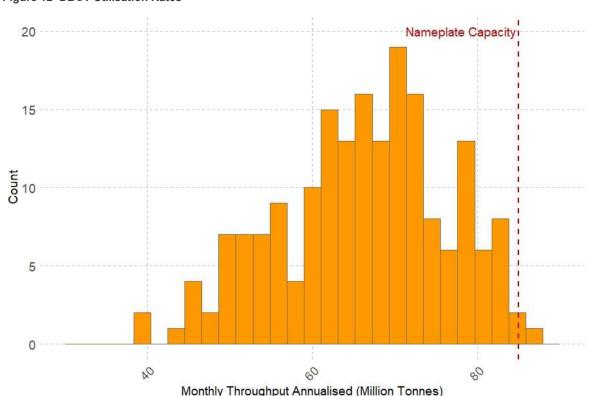


Figure 12 DBCT Utilisation Rates

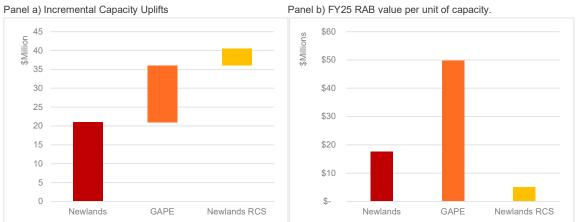
## **Deliverable Capacity**

While the GAPE Project design brief and operating plan assumed an incremental increase in Capacity up to 50 million tonnes per annum to support the port expansion, the practical operational requirements regarding scheduling and train movements within Newlands meant that the original Direct Traffic Control (**DTC**) and 'run when ready' assumption would not deliver the full contracted capacity. However, due to a decline in demand, GAPE customers elected to defer the installation of Remote Controlled Signalling (**RCS**) until an agreed threshold level of demand was sustainably achieved.

Prior to the installation of RCS between Collinsville and the Newlands Junction, the Independent Expert determined in its 2024 Annual Capacity Assessment Report (**ACAR**) that the Deliverable Network Capacity (**DNC**) of the shared Newlands rail corridor was 36.1 million tonnes. The 2024 ACAR also concluded that the installation of full RCS on the shared Newlands Rail Corridor would represent an incremental increase of 4.4 mtpa in the DNC to 40.5 million tonnes<sup>21</sup>.

The practical effect of the combination of the Newlands Committed Capacity prior to the GAPE Project and the additional 4 mtpa contracted under the GAPE Project means the Newlands RAB is broadly representative of the Efficient Costs of achieving 21 mtpa. By inference, the GAPE Project exclusive of Newlands allocations, delivered an incremental capacity uplift of 15.1 mtpa as shown in panel a) of Figure 13. These values become relevant to any future increase in the Committed Capacity levels by Train Services that do not utilise the Goonyella to Newlands Connection as they would be utilising the next incremental unit of capacity created by the GAPE Project. As shown in panel b) of Figure 13, this represents approximately \$50 million per net tonne of the FY25 GAPE system RAB value.

Figure 13 Newlands and GAPE Capacity and RAB Unit Costs



## **GAPE Pricing Objectives**

The current GAPE Reference Tariff structure was designed to align with the negotiated intentions of the parties to the GAPE foundation Access Agreements and included the following:

- a relatively high AT2 train path charge to reflect the significant capital costs of the GAPE Project;
- a linear AT3 \$/net tonne kilometre charge which recovered the complimentary investments made in the Goonyella System; and

106

<sup>&</sup>lt;sup>21</sup> Coal Network Capacity Company (2025) Expansion Capacity Assessment for RCS Project, 28 January, p. 7 https://www.gca.org.au/wp-content/uploads/2025/01/250128 expansion-capacity-assessment post-implementation.pdf

a balancing AT4 \$/net tonne charge.

The implication of the project costs being recovered from a fixed AT2 train path charge and a fixed AT4 net tonne rate is that all customers subject to the GAPE Reference Tariff would be expected to make an equivalent financial contribution to GAPE Project Costs through Access Charges and Take-or-Pay. The relative contribution to the recovery of Efficient Costs of providing GAPE Train Services from the current Reference Tariff structure is shown in Figure 14.

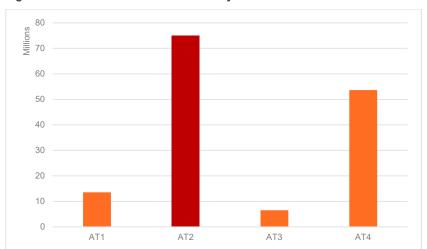


Figure 14 Tariff Contributions to GAPE System Allowable Revenue FY24

# **GAPE** and Newlands Pricing DAAU

On the 22 February 2024, the QCA approved the December 2023 Newlands and GAPE Pricing DAAU. The December 2023 Newlands and GAPE Pricing DAAU was prepared following considerable engagement with effected GAPE and Newlands Customers and gave effect to the following adjustments:

- Provided for the cessation of the Newlands System Infrastructure Enhancements capital
  deferrals in the Newlands system RAB associated with the allocated GAPE project costs to the
  relevant Newlands project participant. The amounts included assumed capitalisation incurred
  up to the commencement of the Drake mine in 2017, and is reflected in the amounts in 'Panel
  a)' of Figure 13 above; and
- Implemented an approach to allocate revenue associated with incremental asset renewal costs on the shared Newlands rail corridor between GAPE and Newlands users based on their forecast utilisation of that rail corridor.

The QCA's consideration in both the April and December 2023 GAPE and Newlands Pricing DAAUs established the following principles:

1. Regulatory decisions are made independently of any prior commercial arrangement and consequently, Aurizon Network should expect to recover the value of its prudent investment in both the GAPE and Newlands RAB:

To the extent Aurizon Network has recovered revenue through commercial arrangements, this is a matter that falls outside the scope of the regulatory framework. We do not consider it is appropriate to give weight to the potential outcomes occurring under commercially negotiated arrangements, as doing so could harm certainty and predictability, both in relation to commercial arrangements and the regulatory framework.

2. Where an existing Newlands Access Holder or new Newland's Access Seeker requests additional or new access rights respectively, they should be expected to pay an access charge no less than than another user being provided the same service on a \$/ntk basis:

The inclusion of this amount into the Newlands pricing RAB recognises that all Newlands users benefit from the NSIE and that there is no differentiation in the level of service provided to Newlands users.

# Projected GAPE RAB Values

The GAPE and Newlands Coal Systems can be portioned into two asset categories:

- All Rail Infrastructure which is physically located within the Newlands Coal System, being the rail corridor from the port of Abbot Point to the Newlands Nominated Loading Point; and
- Rail Infrastructure represented by the Goonyella to Newlands Connection and the Wotonga Angle.

The composition of the RAB in respect of these two asset categories is shown in Figure 15. The GAPE Project was one of the first significant capital projects in the CQCN that was subject to the introduction of accelerated depreciation in the 2010 Access Undertaking. Consequently, it is expected that the affordability of utilising the Goonyella to Newlands Connection will improve over time. Excluding any substantive capital expenditure requirements, the carrying value of the Goonyella to Newlands Connection in the RAB would be expected to halve over the next decade. Notwithstanding, given the relative age of assets between Abbot Point and the Newlands Mine, the capital expenditure requirements would be expected to maintain the RAB value of that Rail Infrastructure relatively constant in nominal terms.

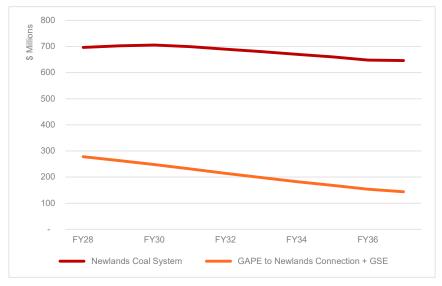


Figure 15 Projected RAB Values for GAPE and Newlands Rail Infrastructure

The division of Rail Infrastructure between these two asset categories is relevant to the proper economic interpretation and application of the pricing principles as the Goonyella to Newlands Connection will be specific or incremental to users of that Rail Infrastructure.