

Mr Charles Millsteed Chief Executive Officer Queensland Competition Authority Level 27, 145 Ann Street Brisbane QLD 4001

22 December 2025

Dear Charles,

Aurizon Network submission of the voluntary 2025 UT5 Draft Amending Access Undertaking

Aurizon Network's current 2017 Access Undertaking (**UT5**) was approved by the Queensland Competition Authority (**QCA**) in February 2019. The current UT5 reflects the outcome of direct, detailed engagement and negotiations between Aurizon Network, customers and other stakeholders over its Term.

Capitalised terms in this letter, and the attached submission, have the same meaning given to those terms in the 2025 Draft Amending Access Undertaking (2025 UT5 DAAU) unless otherwise defined.

On 6 November 2024, Aurizon Network wrote to the QCA providing a commitment to continue to operate under a voluntary Access Undertaking for the regulatory Term commencing 1 July 2027.

Throughout 2024 and 2025, Aurizon Network engaged with stakeholders of the Central Queensland Coal Network (**CQCN**) including Customers, Railway Operators, Coal Export Terminals, Non-Coal Customers and the Independent Expert to inform, develop and agree the form of the next Access Undertaking for the next regulatory period.

As a result of this engagement, on 8 July 2025, Aurizon Network and the Rail Working Group of the Queensland Resources Council, which represents the majority of coal producers in the CQCN, wrote to the QCA to advise that they had independently agreed a set of principles in the form of a non-binding term sheet to be the basis on which a DAAU was to be drafted and submitted to the QCA.

In the period since July 2025, a package of amendments to both policy and revenue positions for the next regulatory term, including a 10 year extension of the term of UT5, has been developed and agreed in the form of the 2025 UT5 DAAU. This approach to the development of an undertaking represents a significant step forward with enhanced consultation methods, increased transparency, multi-stakeholder workshops and broad stakeholder forums.

Overall, the 2025 UT5 DAAU provides a range of benefits to both Customers and Aurizon Network. The accompanying Aurizon Network covering submission details the matters that are being amended and Aurizon Network's view on the quality of the engagement on each of those matters, ultimately leading to the agreement on the matters as part of the overall package.

Letters of support from a material number of customers for the 2025 UT5 DAAU are expected to be submitted to the QCA supporting various elements of the package of amendments.

The terms of the 2025 UT5 DAAU are based on the outcomes of the negotiated process, therefore the terms of the 2025 UT5 DAAU are being submitted for approval by the QCA in the form **attached** to this submission (subject to immaterial changes).

Aurizon Network is confident that the package of amendments reflected in the 2025 UT5 DAAU, which builds upon the existing elements of UT5, achieves the objects of Part 5 of the *Queensland Competition Authority Act*, 1997 (Qld) (**QCA Act**).

Having regard to the matters set out in more detail in the submission, and in particular having regard to the factors in section 138(2) of the QCA Act, measured against the contents of the 2025 UT5 DAAU, Aurizon Network submits that the 2025 UT5 DAAU is appropriate to approve.

Should you have any further questions in relation to this letter, please do not hesitate to contact Jon Windle.

Kind regards,

Cat Peppler

Group Executive Network

Aurizon Network Pty Ltd

Cheph

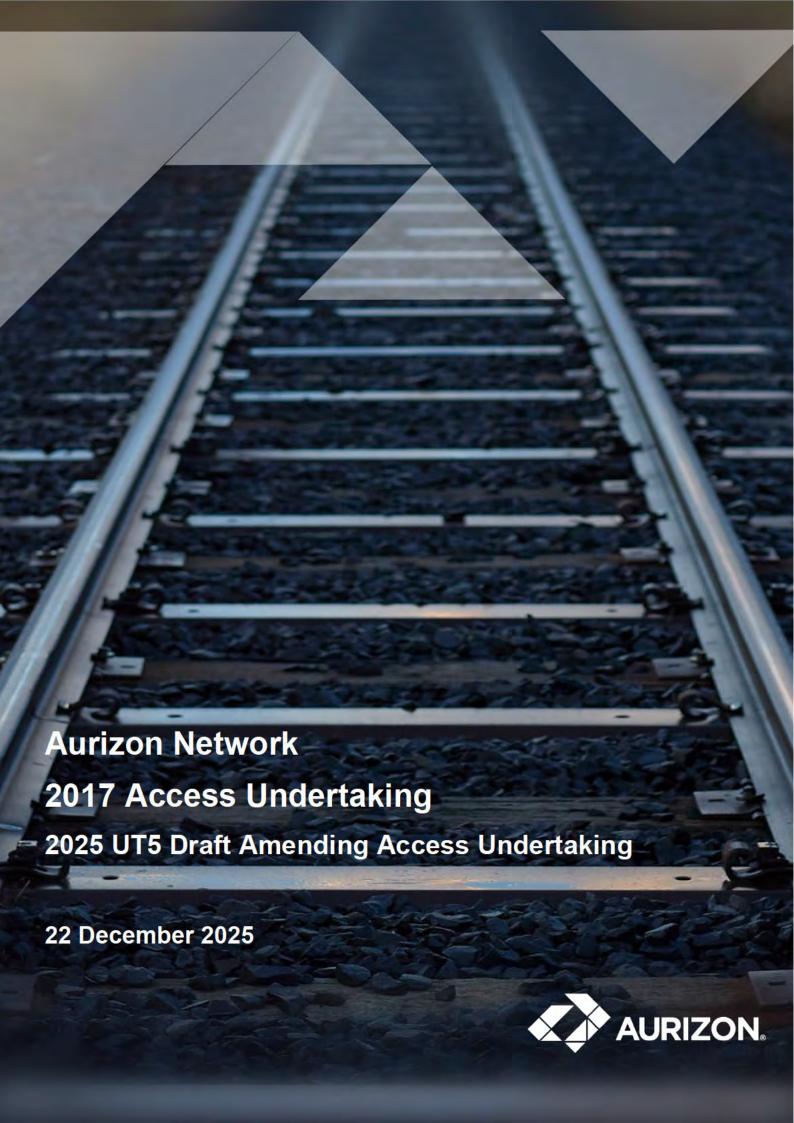


Table of Contents

1.	Executive Summary	4
PART A -	- Introduction	9
2.	Engagement and Consultation Framework	10
3.	Legal Requirements	17
Part B – F	Revenue	25
4.	Allowable Revenue	26
5.	Rate of Return	58
6.	Inflation	93
7.	Depreciation	99
8.	Operating Expenditure	127
Part C – F	Policy	192
9.	Part 2 - Term of Undertaking	193
10.	Part 6A – Extension of Schedule F Values	194
11.	Part 7 – Available Capacity	198
12.	Part 7A – Available Capacity	221
13.	Part 7B – Continuous Improvement Group and Innovation	229
14.	Part 8 – Network Development and Expansions	233
15.	Part 10 – Reporting	237
16.	Schedule F	239
17.	Redundant Drafting	242
18.	Access Agreements and Train Operation Deeds	244
19.	Glossary	245
Appendix	1: List of Customers providing letters of support	249
Appendix	2: First and Second Reset Processes	250
Appendix	3: Allowable Revenue movements by System	252

Appendix 4: Longer Term Allowa	ble Revenues and Refer	ence Tariffs	255
List of Attachments			269

1. Executive Summary

The Access Undertaking is a critically important document for Aurizon Network and its customers as it guides negotiations, sets out how Aurizon Network is to provide access and provides for the Allowable Revenue that can be earned through Access Tariffs. It provides Aurizon Network's customers with transparency on processes and outcomes for seeking and managing ongoing access to the Central Queensland Coal Network (**CQCN**).

Capitalised terms within this submission have the same meaning given to those terms in the 2025 Draft Amending Access Undertaking (2025 UT5 DAAU) unless expressed otherwise.

1.1 Building on UT5 through stakeholder engagement

Aurizon Network's existing 2017 Access Undertaking (**UT5**) approved by the Queensland Competition Authority (**QCA**) reflects the outcome of direct, detailed engagement and negotiations between Aurizon Network and a range of customers and other stakeholders.

Like UT5, Aurizon Network's 2025 UT5 DAAU is the result of extensive stakeholder engagement and negotiations. Section 2 of this submission details the nature, quality and extent of that engagement, including details of the agreed framework for negotiations and the development of a Term Sheet agreed between Aurizon Network and members of the Queensland Resources Council (QRC). Each section within this submission provides goes into greater detail on the engagement undertaken for each matter.

The QCA's attention is also directed to the letters of support for the 2025 UT5 DAAU received by the QCA from a material number of significant end customer beneficiaries of the declared service.

Importantly, the 2025 UT5 DAAU reflects and adds to the benefits for stakeholders approved by the QCA in UT5. The additional benefits and how those benefits address the factors that the QCA is required to have regard to when deciding whether to approve the 2025 UT5 DAAU are addressed in Chapter 3 of this submission.

1.2 Summary of key benefits for customers

In summary, some of the additional benefits over and above those secured in UT5 for users and beneficiaries of the declared service include (but are not limited to):

- a ten year term from 1 July 2027, coupled with the introduction of five-year rolling Access Agreements, to provide greater certainty and efficiency in relation to the tenure and the renewal of Access Rights;
- the introduction new streamlined (fee-free) Transfer provisions to aid efficiency in Transfers between Access Holders;
- a continuing and expanded role for the Independent Expert in carrying out annual Capacity Assessments;
- the provision of enhanced information provision and reporting obligations;
- the introduction of consultation mechanisms for the options available for dealing with a
 Deliverable Network Capacity deficit identified by the Independent Expert in its annual
 Capacity Assessments;
- the introduction of new Relinquishment and Resumption provisions to create, and ensure efficient allocation of, available capacity;

- the introduction of a 'Continuous Improvement Group', including End Users and Railway Operators, to identify and prioritise the delivery of continuous improvement projects;
- the granting of Customer oversight in relation to 'material contracts' that Aurizon Network proposes to enter into, including the right for Customers to impose a requirement for an independently run procurement process for such contracts; and
- the introduction of revised Take or Pay (ToP) provisions that will operate to lower Access
 Charges for Access Holders who hold Access Rights appropriate for their expected demand
 and provide for more predictable and stable Access Charges over the regulatory term.

1.3 Summary of key financial matters

The range of benefits in favour of customers are material and justify the negotiated and proposed outcomes on financial matters reflected in the 2025 UT5 DAAU. The financial matters are detailed in this submission. In summary, they include (but are not limited to) the following.

Allowable Revenue

The 2025 UT5 DAAU proposes Allowable Revenues and Reference Tariffs structured over two five-year reset periods (FY2028–FY2032 and FY2033–FY2037). The building blocks approach includes a return on capital (using a Regulatory Asset Base (RAB) and Weighted Average Cost of Capital (WACC), inflation adjustments, depreciation, maintenance and operating expenditures, taxes and other costs.

As this 2025 UT5 DAAU is being submitted approximately 18 months before the First Reset Date (1 July 2027), a range of assumptions and placeholders have been applied to parts of the Allowable Revenues that will be subject to defined processes in the future that will look to update the respective values.

Aurizon Network's Allowable Revenue and Reference Tariff proposal for the 2025 UT5 DAAU Term is consistent with the pricing principles outlined in the Act. The proposal provides Aurizon Network with an opportunity to recover the revenue expected to be required to provide the declared service in each Year, having regard to forecasts of its efficient costs, including a return that is commensurate with its commercial and regulatory risks. A summary of the Allowable Revenue for the first 5 years of the 2025 UT5 DAAU Term is outlined below.

Table 1-1 Allowable Revenue - 2025 UT5 DAAU (\$m)

Building Blooks	UT5		2	025 UT5 DAA	U	
Building Blocks	FY27	FY28	FY29	FY30	FY31	FY32
Return on Capital	523.2	483.3	484.8	483.6	481.1	478.1
Return of Capital	325.9	356.4	397.2	424.0	440.4	455.2
Maintenance Costs	222.9	223.3	231.3	236.6	241.5	246.6
Non-Electric Operating Costs	135.1	150.4	153.5	158.5	163.7	168.5
Electric Operating Costs	77.3	79.5	81.6	83.8	86.1	88.3
Tax	58.6	55.1	60.8	63.8	64.7	65.2
Prior Year Adjustments	93.4) -	_			-
Allowable Revenue	1,436.4	1,348.1	1,409.2	1,450.3	1,477.5	1,502.0
Allowable Revenue less Prior Year Adjustments	1,343.0	1,348.1	1,409.2	1,450.3	1,477.5	1,502.0

Building Blacks	UT5		2	025 UT5 DAA	'n	FY32
Building Blocks	FY27	FY28	FY29	FY30	FY31	
Throughput Payment (TP) ¹	D. -	26.5	27.2	27.9	28.7	29.5
Allowable Revenue + TP	1,436.4	1,374.6	1,436.5	1,478.2	1,506.2	1,531.5

^{1.} Indicative only. Based on 221mt, escalated at 2.66% and assumes empty wagon performance is in line with agreed baseline.

A summary of the negotiated positions within the package deal for each of the revenue building blocks is outlined below.

Regulatory Asset Base

The forecast opening RAB as of 1 July 2027 is estimated for this submission to be \$6.1 billion, reflecting approved capital expenditure up until FY2025 and forecast capital expenditure for FY2026 and FY2027. The RAB will continue to be reported by individual Coal System.

Risk free rate

A placeholder risk free rate value of 4.36% has been applied, measured over 20 days up to and including 30 July 2025, with the final value to be updated over a nominated averaging period between 20 to 40 business days closer to the First Reset Date (1 July 2027). Consistent with the QCA's 2021 Rate of Return Review, the current term-matched four-year risk free rate will be replaced with the annualised yield for nominal Australian Government bonds, using the RBA's indicative mid-rate for a ten-year term to maturity.

Equity Margin

The Equity Margin is fixed at 4.75%. If there is a material change in the risk free rate outside the 2% to 6% range, the Equity Margin will be formulaically adjusted to address the negative correlation between the risk free rate and the Market Risk Premium (**MRP**).

Cost of Debt methodology

A change to a hybrid trailing average approach is proposed for estimating the benchmark cost of debt. This is consistent with the efficient benchmark debt management strategy for Aurizon Network and avoids the need for a transition to the trailing average approach. This combines a reset base rate at the start of the regulatory period with a ten-year trailing average Debt Risk Premium (**DRP**). The trailing average DRP will be updated annually.

Benchmark credit rating

Aurizon Network is adopting a BBB benchmark credit rating for its cost of debt estimation, which is one notch below its BBB+ credit rating. As demonstrated by observing the yields on Aurizon Network bonds relative to other BBB+ bonds issued by infrastructure firms in recent years, this more appropriately reflects its efficient financing costs. Analysis also shows that estimating a BBB+ cost of debt using the two-thirds BBB/one-third A approach results in an estimate that is materially downward biased.

Throughput Payment

A new Throughput Payment is included in lieu of the UT5 negotiated WACC uplift. The Throughput Payments generate additional revenue directly from Coal System throughput, providing a stronger performance signal than a WACC adjustment. The Throughput Payment is Consumer Price Index (**CPI**) linked and subject to a floor of 180 million tonnes (**mt**). Key characteristics include:

- a cap on Performance Rebates (50% of Throughput Payment revenue);
- adjustments for empty wagon performance; and
- rates which are expected to achieve, on average \$0.12 per net tonne, indexed annually.

Depreciation policy changes

A 20-year rolling maximum asset life applies to all assets included in the RAB before 30 June 2027. Capital expenditure entering the RAB after 1 July 2027 will be depreciated on a straight-line basis, applying either the shorter of the physical asset life or economic life. Economic life constraints for the Blackwater, Goonyella and Newlands Coal Systems are maintained at 2055. The Moura Coal System has a proposed reduced economic life of 2048 due to its higher concentration of demand risk based on two large coal mines, lack of interconnectivity and limited large scale expansion or new projects. The Moura economic life will be subject to a mid-term QCA review and possible reset.

Treatment of inflation

A placeholder inflation value of 2.66% is applied based on the QCA's preferred approach from its 2021 Inflation Forecasting review. This value will be updated using the RBA's June 2028 and June 2029 inflation forecasts in the most recent *Statement on Monetary Policy* published prior to the risk free rate averaging period. Forecast inflation indexation on new capital expenditure from 1 July 2027 will not be deducted from Allowable Revenue or capitalised into the RAB.

Operating expenditure

The proposed adjusted cost base for the Non-Electric Operating Expenditure Allowance (**NOEA**) is \$132.8 million (\$FY2025). This is based on Aurizon Network's actual expenditure for that year, after adjusting for non-recurrent costs, allocation to non-coal services and a small number of refinements to the allocation approach. The proposed adjusted cost base is \$2.8 million less than the current QCA approved allowance for FY2025 of \$135.6 million. The NOEA provides for a nominal allowance of \$150.4m which includes known step changes, inflation impacts and changes in the costs associated with insurance. The proposed NOEA is subject to QCA approval.

Direct Operating Costs (excluding Corporate Overheads) are subject to a Wage Price Index (**WPI**)/CPI minus 'x' incentive regime over the ten-year term (where x = 0.5%). In respect of Corporate Overheads, Aurizon Network has applied a negative step adjustment to its proposed corporate overhead base costs in lieu of a WPI/CPI minus x incentive regime. Any further efficiency savings are retained by Aurizon Network. However, a Mid-Term review of the NOEA (**Mid-Term Opex Reset**) may be triggered if actual costs fall more than 3% below the NOEA allowance.

A Contingent Projects mechanism is included for recovering costs of future projects (such as Enterprise Resource Planning (**ERP**), Cyber Security and operational facilities), where those projects are not able to be sufficiently scoped at the time of this submission. Subject to QCA approval, the incremental costs of these initiatives may be recovered as an Endorsed Variation Event.

Package deal

As noted above, the elements comprising the 2025 UT5 DAAU are the result of extensive and structured engagement and negotiations with a large number of stakeholders. The Customers listed in Appendix 1 have provided, or will provide on or around the date of this submission, letters addressed to the QCA in support of various elements of the 2025 UT5 DAAU.

Aurizon Network agreed with the signatories to those letters of support that Aurizon Network would not seek to vary the form of the 2025 UT5 DAAU attached to this submission, without their consent.

Given that the terms of the 2025 UT5 DAAU are based on the outcomes of the negotiated process and that the benefits for customers and other stakeholders are counter-balanced by the proposed financial outcomes, the terms of the 2025 UT5 DAAU are being submitted for approval by the QCA in the form attached to this submission (subject to immaterial changes).

Aurizon Network reserves the right to withdraw the submission of the attached 2025 UT5 DAAU should the QCA refuse to approve the DAAU in the form submitted (subject to immaterial changes and any further discussions between Aurizon Network and the QCA in respect of any stakeholder submissions on the proposed ToP amendments).

1.4 2025 UT5 DAAU is appropriate to approve

Having regard to the matters set out above and in more detail in this submission, and in particular, having regard to the factors in section 138(2) of the *Queensland Competition Authority Act 1997(Qld)* (**the Act**) measured against the contents of the 2025 UT5 DAAU, Aurizon Network submits that the 2025 UT5 DAAU is appropriate to approve.

PART A – Introduction



2. Engagement and Consultation Framework

2.1 The focus of Australian regulators and the value of customer engagement

Australian regulators are increasingly adopting negotiated settlements as a mechanism for determining access terms between providers and their customers. This approach marks a deliberate shift away from prescriptive 'propose-and-respond' models toward responsive, outcomes-based regulation, where transparency and collaboration are central to achieving agreed terms for access. Internationally, similar frameworks have delivered measurable benefits, including reduced disputes, improved service quality and greater cost efficiency.

Negotiated settlements involve structured engagement between access providers and their customers to agree on critical elements such as pricing, service standards, and investment commitments. Rather than imposing outcomes through rigid determinations, regulators may facilitate or oversee these negotiations to ensure fairness, accountability and reasonableness from all parties. Successful frameworks are underpinned by principles of transparency, inclusivity, appropriate oversight and timeliness.

The move toward negotiated settlements reflects the limitations of traditional regulatory models. Historically, 'propose-and-respond' processes created adversarial environments, resulting in lengthy determinations, delayed outcomes and significant costs for all stakeholders. These models often struggled to accommodate the complexity of modern markets and the evolving needs of customers. In contrast, negotiated settlements encourage direct engagement between access providers and customers, creating space for collaborative problem-solving, value exchange and mutual improvement. This approach aligns with a broader trend toward responsive regulation, where success is measured by consumer experience and market efficiency rather than strict adherence to prescriptive rules.

The benefits of negotiated settlements are tangible. They reduce the time and cost associated with formal determinations, enable decisions to be reached more quickly and with less conflict and produce outcomes that reflect consumer priorities. Customers have a direct voice in shaping pricing structures, service standards and investment programs, ensuring that regulatory outcomes are both fair and practical.

Given the direct contractual relationship between Aurizon Network and its customers, the engagement process for achieving a form of negotiated settlement will generally require greater levels of collaboration and empowerment (or ability to influence) than normally associated with consumer participation under the IAP2 participation spectrum used for essential utility services.

Ultimately, regulators are adopting negotiated settlements because they create a regulatory environment that is collaborative rather than combative, adaptive rather than rigid and focused on delivering value for both consumers and providers. Drawing on these tangible results, Aurizon Network has designed its engagement approach with the objective of achieving a negotiated settlements with its customers while involving broader supply chain participants.

2.2 Engagement design

Recognising the importance of engagement with its customers and leveraging the maturing framework developed as part of the approval of UT5 and the 2019 UT5 DAAU, Aurizon Network

developed an engagement design discussion paper for stakeholder input in November 2023. This early engagement discussion paper asked stakeholders for input and engagement on a range of matters, as set out in Table 2-1.

Table 2-1 Questions on engagement proposed to stakeholders

Feedback sought on the following questions

- 1. Do stakeholder have any views on our draft engagement principles?
- Do you have an early view on how your organisation wishes to be involved or represented in the UT6 engagement process?
- 3. Do you have preferences on how Aurizon Network should engage customers in the UT6 negotiations?
- 4. Are there particular issues you think Aurizon Network needs to consider in the design of the engagement process?
- Do you have any views on the key challenges and uncertainties that are likely to be relevant to our engagement on UT6?

Stakeholders provided feedback on the questions listed above, along with preliminary views on matters for consideration in the development of the next Access Undertaking. Ultimately, stakeholders expressed a desire for stable regulatory frameworks, improved supply chain productivity and enhanced engagement practices.

In response to that feedback, Aurizon Network released its Stakeholder Engagement Plan in August 2024, to guide how it would engage with customers and stakeholders in shaping the regulatory arrangements for the CQCN from 1 July 2027.

The plan built upon the customer-focused outcomes achieved through UT5 and the 2019 UT5 DAAU, which was approved by the QCA in December 2019.

2.3 Engagement framework

Recognising the importance of customer input, Aurizon Network's engagement objectives for the development of the next Access Undertaking were to:

- continue delivering the benefits negotiated in the 2017 Access Undertaking;
- develop further amendments to enhance access; and
- extend the term of the Access Undertaking to serve current and future customers.

The Stakeholder Engagement Plan is underpinned by agreed principles of effective engagement and good faith negotiation, aiming for outcomes that balance the interests of Aurizon Network and its customers, which should ultimately be acceptable to the QCA.

The development of the plan was informed by several industry trends and stakeholder feedback. Key factors included:

- changing industry participation, with new entrants and evolving interests;
- shifts in financial markets and Environmental, Social and Governance (ESG) considerations;
- regulatory changes and the need for decarbonisation;
- market dynamics and demand outlook for coal; and

technological advancements.

Engagement principles

Aurizon Network's Stakeholder Engagement Plan is built on principles designed to ensure the process is effective, transparent, and inclusive. The overarching objective of these principles is to ensure that the engagement process leads to an amended Access Undertaking that is supported by customers (where appropriate) before being reviewed and ultimately approved by the QCA.

These principles were developed in consultation with stakeholders and refined based on their feedback. The agreed engagement principles are:

1. Comprehensive and comprehensible

- Stakeholders should receive enough information, with the appropriate level of detail, to understand how proposals and changes affect both Aurizon Network and stakeholders.
- The aim is to avoid surprises during the regulatory review process by ensuring all relevant information is shared early and clearly.

2. Timely information

- Information should be provided with sufficient time for stakeholders to consider and respond.
- Aurizon Network committed to preparing and sharing relevant information promptly and using appropriate platforms for dissemination.

3. Support for participation and inclusion

- The engagement process should allow all relevant stakeholders to be involved in developing the proposed Access Undertaking.
- Aurizon Network recognised that stakeholders have different levels of expertise and interest and will support appropriate levels of participation.

4. Transparency

- Aurizon Network aims to be transparent about its considerations, decisions and the engagement process itself.
- The process should support free and open discussion of ideas and issues, while recognising the need to comply with ASX disclosure rules and competition laws.

5. Provision for Influence

- Stakeholders should feel they have been effectively engaged and have had the opportunity to influence decisions and proposals.
- The process should give stakeholders confidence that their input is valued and considered.

6. Seek to reach agreement (added at stakeholder request)

- Stakeholders should participate with the intention of reaching a negotiated outcome, rather than defaulting to a regulator-determined model.
- This principle, suggested by the QRC, emphasises the importance of genuine engagement and negotiation, distinguishing engagement from mere consultation.

Engagement methods

Aurizon Network's engagement approach was designed to be flexible and inclusive, recognising that stakeholders have varying needs and preferences for involvement. The Stakeholder Engagement Plan outlined several complementary engagement methods to ensure broad and meaningful

participation in developing the next Access Undertaking. A general excerpt of the engagement plan is set out below.

Figure 2-1 Stakeholder engagement plan excerpt



Rail Working Group - Representative Panel (RWG)

Purpose: The RWG Representative Panel is a subgroup of the broader RWG, composed of a representative cross-section of customers (current and future users, small and large users, and users from all Coal Systems).

Role: This panel is the primary forum for negotiation and detailed engagement with Aurizon Network. It is expected to engage openly and constructively in developing amendments to the Access Undertaking and also take its views back to the broader RWG.



Stakeholder forums

Purpose: These forums are open to all customers and stakeholders, including those not directly involved in the RWG. It was also agreed that the QCA should be involved in these forums as an observer, to simply view the progression of the negotiation and probability of obtaining a negotiated outcome.

Role: They provide updates from all stakeholders on the negotiation progress, allow for broader consultation and offer an opportunity for all stakeholders to voice their views and concerns or take up the offer to meet individual with Aurizon Network to discuss relevant matters.



Industry advocates

Purpose: Industry bodies such as the QRC play a key role in coordinating and supporting the engagement process.

Role: They help facilitate communication, provide advisory services and offer analysis to support customers during negotiations.



Technical working groups or roundtables

Purpose: For complex or specialised topics (e.g., economics, asset management, operations, finance, legal), technical working groups or roundtables may be convened.

Role: These groups allow for deeper engagement and expert input on specific issues.



Individual customer engagement

Purpose: Recognising that some stakeholders may have unique interests or require more tailored engagement, Aurizon Network offered the option for one-on-one meetings.

Role: This method is particularly relevant for Railway Operators or coal export terminals, or for stakeholders whose interests may not be fully represented by the RWG. It was expected that smaller entities within the supply chain would benefit from this approach

In addition to the above methods that were expressly covered within the final Stakeholder Engagement Plan, it became evident throughout the detailed engagement process that additional forms of engagement were required. These additional forms of engagement were to allow for the correct representation and discussion of issues with the stakeholders that would have benefited from, or been impacted by, the prospective change. Those additional forms of engagement include the following:

Figure 2-2 Additional forms of stakeholder engagement



Stakeholder workshops

Focused workshops were conducted to encourage transparent dialogue and collaboration to focus on the development of proposed solutions. Stakeholders were encouraged to provide feedback and inputs, which ultimately has resulted in the development of balanced solutions that aim to achieve the core outcomes sought.



Operator consultation

This involved focused consultation and engagement with Railway Operators, which was intended to ensure their broader perspectives, interests and operational impacts were also considered when developing the proposed changes.



Independent Expert participation

This involved the Independent Expert being consulted on relevant matters that it is involved in as required by the 2017 Access Undertaking (e.g., Transfers, reporting). The Independent Expert was consulted from the early development stages, including in relation to the workability of proposed amendments to the 2025 UT5 DAAU.



Non-coal operators

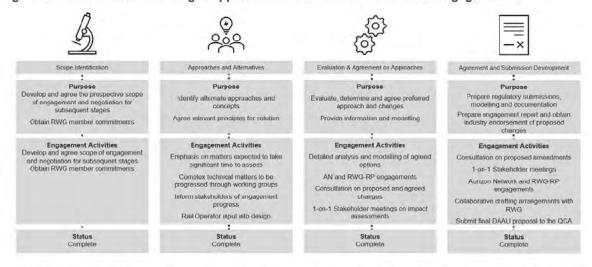
Non-coal operators were invited to all Stakeholder forums to receive an update on the relevant matters. Aurizon Network proactively contacted non-coal operators to provide updates and receive feedback.

The engagement with Operators included the range of engagement methods (inform, consult, engage) depending on the purpose and scope of the subject matter. Engagement with non-coal operators was limited. Based on the direct individual discussions with them, this involvement is likely to reflect the fact that the proposed changes do not materially impact their day-to-day service, pricing or obligations at this time. Notwithstanding the lower level of participation, Aurizon Network has ensured that the interests of non-coal operators were considered in the development of the package.

Execution of the Stakeholder Engagement Plan

Consistent with recognised engagement approaches, Aurizon Network adopted a multi-stage approach to engaging with customers and stakeholders. This approach is illustrated in Figure 2-3.

Figure 2-3 Aurizon Network's staged approach to customer and stakeholder engagement



Throughout each of the four stages, Aurizon Network completed a range of engagement activities using the various engagement methods as outlined in Figure 2-1 as tailored to the needs of stakeholders. The above framework ultimately applies a transparent approach to customer

engagement. It was expected that the level of engagement would be influenced by the stage of the negotiation process and the matter being negotiated.

Ongoing and detailed engagement

Aurizon Network began high-level engagement activities in May 2024, focusing initially on identifying relevant matters for consultation. This resulted in a sharing of a list of various items that the parties would like to discuss as part of the engagement schedule.

The more targeted, issue-specific engagement commenced in July 2024 and continued regularly with the Customers, Railway Operators, and through individual engagements. More complex issues benefited from workshops and technical working groups where technical information was discussed, which included expert consultants from the RWG and individual participants' in-house technical experts. The scheduling of the engagements with the various parties remained flexible, adapting to the evolving needs of the negotiation for both Aurizon Network and stakeholders. Overall, the engagement approach and activities are summarised within Figure 2-4.

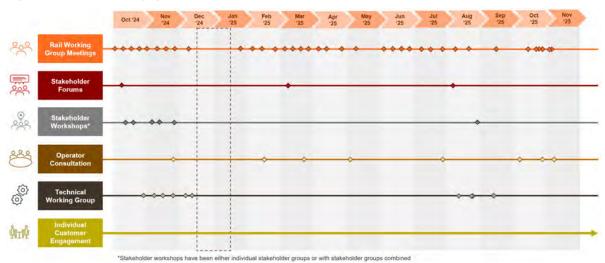


Figure 2-4 Individual engagement activities in the development of the 2025 UT5 DAAU

Engagement outcomes

Aurizon Network and the Customers had been engaged in discussions since mid-2024 to explore the options for submitting a DAAU that would amend and extend the term of the current 2017 Access Undertaking from the current expiry date of 30 June 2027.

The discussions included engagement with a broad range of supply chain participants, including Railway Operators, non-coal customers and the Independent Expert, to ensure a comprehensive understanding of stakeholder perspectives.

As a result of the early detailed engagement with CQCN stakeholders, in July 2025 Aurizon Network and the QRC jointly wrote to the QCA regarding the ongoing development of a voluntary Draft Amending Access Undertaking (**DAAU**) to apply from 1 July 2027.

As a result of this collaborative engagement process, Aurizon Network and the Customers had at the time, arrived at a set of agreed principles, documented in a non-binding term sheet. The non-binding term sheet was to serve as the foundation for the specific drafting of the 2025 UT5 DAAU.

As it was a non-binding term sheet, it was important to note at the time that the final form and content of the 2025 UT5 DAAU were still being developed and were subject to further internal approval processes for both Aurizon Network and each Customer's organisation.

Subsequent to the letter to the QCA, ongoing engagement continued with a focus on the development of an agreed form of drafting within the Access Undertaking to reflect the agreed principles within the non-binding term sheet. This engagement was detailed in terms of discussion with the relevant stakeholders (including Railway Operators and the Independent Expert where relevant) and also involved the sharing of proposed revised drafting for inclusion in the 2025 UT5 DAAU.

The resulting attached voluntary 2025 UT5 DAAU is the product of this extensive and detailed consultation, ensuring that proposed amendments are reflective of the principles included in the non-binding term sheet and ultimately the stakeholder interests.

The 2025 UT5 DAAU comprises many elements that were the subject of negotiation and that form part of a 'package deal'. In some cases, Aurizon Network agreed to incorporate matters into the 2025 UT5 DAAU for the benefit of customers that cannot be imposed on Aurizon Network as a service provider under the access regime in the Act. Aurizon Network reserves its rights not to agree to matters that cannot be imposed on it if the 2025 UT5 DAAU submitted by Aurizon Network is not approved by the QCA.

For each negotiated matter discussed in this submission, both the specific engagement approach and the outcome is identified using the key shown below in Figure 2-5. In addition, within each Chapter, there is supporting commentary to provide greater context on the nature of the engagement to reach the relevant position proposed in the 2025 UT5 DAAU.

Figure 2-5 Summary of engagement methods and outcomes

Enga	gement Methods Used	Engaç	gement Outcome
222	RWG - Representative Panel	SELO.	Agreed with Customers
	Stakeholder forums	\ominus	Consistent with UT5
	Industry advocates		Subject to QCA Review
60	Technical working groups or roundtables		
'ni	Individual customer engagement		
	Stakeholder workshops		
83	Railway Operator consultation		
<u>8</u>	Independent Expert participation		
988	Non Coal Operators		

3. Legal Requirements

3.1 Test for approval of a draft amending Access Undertaking

Aurizon Network is submitting the 2025 UT5 DAAU for approval by the QCA. If approved, the 2025 UT5 DAAU will have the effect of amending and extending the term of Aurizon Network's existing approved 2017 Access Undertaking for a further ten years until 30 June 2037.

Outlined within section 138(2) of the Act are the matters that the QCA will have regard to in considering whether it is appropriate to approve a draft Access Undertaking (**DAU**) (and by extension, a DAAU).

The factors listed in section 138(2) of the Act, together with a review of regulatory precedents (including decisions by the QCA), and a review of relevant court decisions, govern the way in which the QCA is required to exercise its discretion to approve or reject a DAAU. The relevant principles are summarised as follows:

- a. Section 138(2)(a) of the Act requires the QCA to have regard to the object of part 5 of that Act. That object is set out in section 69E of the Act as follows:
 - The object of this part is 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.
- b. The section 138(2) factors also include the pricing principles mentioned in section 168A of the Act. Relevantly, those principles include that the price for access should:
 - (i) generate expected revenue for the service that is 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 involved; and
 - (ii) provide incentives to reduce costs and otherwise improve productivity.¹
- c. As confirmed by the QCA, while the pricing principles in section 168A of the Act are only one of the factors that the QCA must have regard to and weigh in considering a DAAU, the QCA cannot make a decision that would have the effect of locking an access provider into a price for access that would not allow recovery of the provider's efficient costs, in contravention of the pricing principles and in contradiction to the access provider's legitimate interests².
- d. The QCA must consider whether the DAAU is "appropriate" to approve having regard to the factors in section 138(2) of the Act. The QCA cannot refuse to approve a DAAU because the QCA considers that there may be another DAAU that the QCA would prefer or considers would be more appropriate.³
- **e.** While preserving the need for some flexibility in the making of regulatory decisions, the QCA and the Australian Competition and Consumer Commission (**ACCC**) have both recognised the

² Queensland Competition Authority (2025a). Decision, Queensland Rail 2025 draft Access Undertaking, p.113.

¹ Sections 168(A)a) and (d).

³ Re GasNet Australia (Operations) Pty Ltd [2003] ACompT 6; [2004] ATPR 41-978 and ACCC v Australian Competition Tribunal [2006 152 FCR 33; 232 ALR 153; [2006] ATPR 42-124.

importance of the fundamental requirement to provide regulatory certainty, a principle that underpins regulated access in Australia:

"The QCA recognises the importance of maintaining regulatory certainty in the context of the application of the various statutory factors"⁴;

the QCA "agrees that regulatory certainty is an important objective"5; and

the ACCC has stated that decisions in relation Access Undertakings "will need to carefully balance consideration of providing regulatory certainty with retaining regulatory flexibility and discretion" 6.

3.2 QCA decision-making

When considering whether the DAAU is appropriate to approve, the QCA cannot reject the DAAU or seek changes that are outside of the QCA's statutory authority granted under the Act.

Aurizon Network recognises that in its view, the 2025 UT5 DAAU and the 2017 Access Undertaking contain voluntary matters that could not be required by the QCA under the Act.

However, the 2025 UT5 DAAU and the 2017 Access Undertaking are both the result of a negotiated outcome between Aurizon Network and users of the declared service. Against that background, Aurizon Network has been prepared to volunteer and agree to aspects of the proposed amended Access Undertaking that it considers to be outside the scope of the Act, as part of the overall package of rights and obligations contained in the 2025 UT5 DAAU. Aurizon Network also agrees to those matters in the interest of promoting a timely and efficient approval process for the 2025 UT5 DAAU.

At the same time, Aurizon Network necessarily needs to reserve its rights not to agree to those matters and to seek to have them removed from the 2017 Access Undertaking and the 2025 UT5 DAAU, should the QCA ultimately not approve the overall package of benefits that Aurizon Network and users of the declared service are seeking to secure from the negotiated outcomes reflected in the 2025 UT5 DAAU.

3.3 How does the 2025 UT5 DAAU satisfy the section 138(2) factors in the Act?

To satisfy the needs for regulatory certainty and the factors in sections 138(2)(d) and (e), the 2025 UT5 DAAU:

- is the result of lengthy and detailed negotiations and drafting exchanged with the RWG comprising the customers listed in Appendix 1 to this submission. The negotiations with the RWG commenced in mid-2024 and ended in late 2025, immediately prior to the lodgement of the 2025 UT5 DAAU to the QCA for approval;
- has been the subject of engagement with a range of stakeholders including non-coal Operators and Railway Operators;

⁴ Queensland Competition Authority (2016). Draft Decision, Aurizon Network's Amended 2014 draft Access Undertaking, August, p.12.

⁵ Queensland Competition Authority (2014). Position Paper, Long Term Regulatory Framework for SEQ Water Entities, February, p.23.

⁶ Australian Competition and Consumer Commission (2016). Part IIIA Access Undertaking guidelines, Submitting, varying or withdrawing an Access Undertaking pursuant to Part IIIA of the Competition and Consumer Act 2010, August, p.35.

- is the subject of letters of support sent to the QCA from a range of customers who are members of the RWG; and
- builds and expands on the benefits secured as part of the 2017 Access Undertaking for Access Seekers, Access Holders, Railway Operators and Aurizon Network.

Details of the extensive negotiation framework for the development of the 2025 UT5 DAAU are set out in Chapter 2 of this submission.

Except for improvements reflecting the outcomes of engagement with customers, the 2025 UT5 DAAU adopts and builds on the provisions of the 2017 Access Undertaking. All of the above allows the QCA to be more easily satisfied that the 2025 UT5 DAAU meets:

- the requirement for regulatory certainty given that the 2017 Access Undertaking has already been approved by the QCA in 2019; and
- the "public interest" criterion in section 138(2)(d) of the Act; and
- the "interests of persons who may seek access to the service" criterion in section 138(2)(e) of the Act.

Satisfaction of other section 138(2) factors

The 2025 UT5 DAAU also satisfies the section 138(2) factors and the principles that underpin the access regime by, amongst other matters, the inclusion of the following rights, obligations and benefits.

Revised policy matters

Behavioural undertakings and ringfencing obligations

The 2025 UT5 DAAU retains the fundamental behavioural and ringfencing obligations on Aurizon Network approved by the QCA in Parts 2 and 3 of the 2017 Access Undertaking to help ensure Aurizon Network complies with its non-discrimination obligations under the Act. This approach satisfies the factor in section 138(2)(a) of the Act.

Negotiation framework

The 2025 UT5 DAAU retains the negotiation framework set out in Part 4 of the 2017 Access Undertaking to facilitate efficient access to the declared service in furtherance of the object of Part 5 of the Act and the interests of Access Seekers and Access Holders, as contemplated by sections 138(2)(a) and (e) of the Act, respectively.

Standard form Access Agreement and Standard form Train Operations Deed

The 2025 UT5 DAAU includes an updated, standard form Access Agreement and an updated standard form Train Operations Deed, with minor changes included, which will help to facilitate efficient access to the declared service in furtherance of the object of Part 5 of the Act and the interests of Access Seekers and Access Holders, as contemplated by sections 138(2)(a) and (e) of the Act, respectively.

Available capacity creation, allocation and management

The 2025 UT5 DAAU retains and improves on the 2017 Access Undertaking provisions by including the following, all of which satisfy the factors in sections 138(2)(a), (d) and (e) of the Act:

 streamlined Transfer provisions for short term transfers, including creation of different classes of Transfer that will only require a streamlined, Capacity Assessment to facilitate more efficient capacity transfers between Access Holders;

- a continuing role for the Independent Expert in carrying out annual capacity assessments and an additional right to be provided with specific information to assist the Independent Expert to carry out its role more efficiently;
- where an annual capacity assessment by the Independent Expert identifies a Deliverable Network Capacity (**DNC**) Shortfall, under the 2025 UT5 DAAU Aurizon Network will be required to consult with stakeholders in relation to options to address any identified Shortfall;
- new Relinquishment and Resumption provisions to create, and ensure efficient allocation of, available capacity without the need for an expansion;
- addition of new fee-free capacity Relinquishment rights for Access Holders in certain circumstances; and
- a continued expansion funding commitment by Aurizon Network over the life of the 2025 UT5 DAAU, including a roll-forward of unexpended funding from year to year from FY2028 onwards, with the annual amount indexed.

Five-year rolling Access Agreement

The introduction of a new five-year rolling Access Agreement for coal carrying services, providing greater certainty in furtherance of the object of Part 5 of the Act and the interests of Access Seekers and Access Holders, as contemplated by sections 138(2)(a) and (e) of the Act, respectively.

Maintenance and Renewals Strategy and Budget

Amendment of the Maintenance and Renewals Strategy and Budget (MRSB) review and approval process to:

- give the Rail Industry Group (RIG) oversight in relation to 'Material Contracts' involving expenditure, alone or with other to contracts with the same counterparty, of more than AUD\$2 million, the acquisition of goods or services from a related party of Aurizon Network, or a proposed sole source arrangement; and
- provide a right for the Chair of the RIG to require the appointment of an external procurement expert to manage the procurement process for 'Material Contracts'.

Aurizon Network's agreement to RIG oversight of procurement processes for Material Contracts and Aurizon Network's agreement to the potential appointment of an external procurement expert to manage Material Contract procurements are both in furtherance of the object of Part 5 of the Act and the interests of Access Seekers and Access Holders, as contemplated by sections 138(2)(a) and (e) of the Act, respectively.

Independent Expert enhancements

Confirmation that the Independent Expert can attend meetings of the RIG as an observer, and the introduction of an obligation for Aurizon Network to provide the Independent Expert with the same information that Aurizon Network provides to the RIG, for the purpose of allowing the Independent Expert to understand the RIG's views on capacity-related matters and to otherwise assist in the discharge of the Independent Expert's capacity related functions – all of which are relevant to the factors in sections 138(2)(a), (d) and (e) of the Act.

Continuous Improvement Group and Innovation Mechanism

Establishment of a 'Continuous Improvement Group' (**CIG**) with representation from End Users across all Coal Systems, Railway Operators for coal carrying train services, coal export terminal operators and Aurizon Network. The CIG's function is to facilitate proposals and implement projects (on agreed terms) that improve efficiencies in Train Service delivery and supply chain interactions across the CQCN and within Coal Systems. It includes a steering committee (**CIG Steering Committee**), a Chair and a Continuous Improvement Project Manager. Voting Members include Aurizon Network and End User representatives, with Railway Operators and coal export terminal operator representatives gaining voting rights if projects adversely affect them financially.

The CIG provisions are supplemented by an Innovation Mechanism, which applies on a project-by-project basis and will become operative if the members of the CIG elect to dissolve the CIG. The CIG and Innovation Mechanism provisions include provisions to allow Aurizon Network to recover its costs, and in some cases additional revenue beyond cost recovery, for approved projects.

The CIG and Innovation Mechanism clearly respond to the factors in sections 138(2)(a), (b), (c), (d), (e) and (g) of the Act.

Revised Take or Pay arrangements

Reference Tariffs will be set on the higher of 90% of contracted services levels or the expected demand for those services. This will lower Access Charges for Access Holders who hold Access Rights appropriate for their expected demand and provide for more predictable and stable Access Charges over the regulatory term.

The revised ToP arrangements will reduce the intra-period revenue variability with revenue cap adjustments and better align prices and revenues with efficient costs in that year (in furtherance of the principle in section 168A(a) of the Act). The arrangements will also promote the efficient management and allocation of capacity by increasing the financial accountability for holding exclusive rights of use to that capacity (in furtherance of the principle in section 168A(d) of the Act).

Revised financial matters

Weighted Average Cost of Capital

In negotiating the WACC inputs with the customers, Aurizon Network has had regard to:

- the QCA's 2021 Rate of Return Review⁷;
- the QCA's 2021 Inflation Forecasting Review⁸;
- the 2018 Final Decision⁹; and
- recent QCA decisions in respect of Queensland Rail 2025 Access Undertaking¹⁰ and 2025-2029 irrigation price investigation¹¹.

As the 2025 UT5 DAAU amends the 2017 Access Undertaking, and extends its term, many of the inputs from the 2018 Final Decision have also been continued, including:

- applying the Equity Margin from the 2018 Final Decision, adjusted for the use of a risk free rate with a term of ten years;
- the applied capital structure of 55% debt and 45% equity; and
- an adjustment to the tax allowance for the value of dividend imputation credits to equity investors (gamma) of 0.484.

In relation to the cost of debt, Aurizon Network has not applied the 'on-the-day' and 'term-matched' approach from the 2018 Final Decision or applied a ten-year trailing average cost of debt, as recommended in the 2021 Rate of Return Review. Aurizon Network has negotiated, agreed and committed to adopting a hybrid trailing average cost of debt approach, which:

⁷ https://www.qca.org.au/project/rate-of-return-matters/rate-of-return-review-2021/

⁸ https://www.qca.org.au/project/inflation-forecasting/inflation-forecasting-review-2021/

⁹ Queensland Competition Authority (2018). Decision, Aurizon Network's 2017 draft Access Undertaking, December.

¹⁰ Queensland Competition Authority (2025).

¹¹ https://www.qca.org.au/project/rural-water/irrigation-price-investigation-2025-29/

- uses an applied benchmark credit rating of non-financial BBB;
- applies a ten-year trailing average debt risk premium; and
- uses an on-the-day base rate using the ten-year risk free rate applied in the cost of equity.

Aurizon Network considers the hybrid trailing average cost of debt approach is a more efficient and appropriate framework for coal export infrastructure providers subject to long-term demand uncertainty. As the approach does not require transitional arrangements, it is consistent with the legitimate interests of the service provider (addressing the criterion in section 138(2)(b) of the Act).

In addition, the trailing average cost of debt approach described above ensures that the cost of debt remains at least commensurate with the cost of financing coal export infrastructure in the CQCN and therefore satisfies the requirements of section 168A(a) of the Act. In assessing the cost of debt against the requirements of section 168A(a) of the Act in the 2021 Rate of Return Review, the QCA acknowledges that this may require allowable revenues to exceed the efficient cost, leading to a circumstance where NPV>0.

Throughput Payment

Aurizon Network and the Customers have negotiated new arrangements whereby the additional value exchange and compensation for additional risks and obligations above those necessary for the provision of access to the service will be provided for by way of an increase in Aurizon Network's cash flows in lieu of an uplift in the benchmark WACC. This is achieved by an additional 'Throughput Payment' in specified circumstances.

This is a preferrable arrangement to both Aurizon Network and customers as:

- the cashflows are uncoupled from the value of the RAB and maintained in real terms. This
 effectively quarantines the additional cash flows from depreciation and capital expenditure and
 therefore better reflects the value exchange and benefits over the term of the 2025 UT5 DAAU
 and ensures the expected revenue is commensurate with the incremental commercial risks
 involved in the negotiated package (addressing the principle in section 168A(a) of the Act);
- the Throughput Payments are volume dependent, with a floor limit to maintain a minimum level of compensation for the negotiated outcomes. As the Throughput Payments are pre-tax, volume dependent and outside of the Allowable Revenue and revenue cap they provide an appropriate throughput incentive and align to the statutory factor in section 168A(d) of the Act, in that they provide incentives to reduce costs or otherwise improve productivity.

Depreciation

The promotion of efficient investment in the facility providing a declared service (referred to in section 69E of the Act) necessarily requires that investors have a high degree of confidence in recovering the value of the invested capital. This condition is also reflected in section 138(2)(f) of the Act requiring the QCA to have regard to the effect of excluding existing assets for pricing purposes. Regulatory error in setting current depreciation rates may result in the exclusion of existing assets from pricing in the future. Given the asymmetric risks associated with long-term demand uncertainty, the requirements of section 138(2)(f) of the Act mandate depreciation rates that render those outcomes as highly improbable.

Aurizon Network and the majority of the Customers have negotiated modest changes in the depreciation framework that implement proportional and responsive changes to the depreciation arrangements based on current information and assumptions regarding the long-term demand uncertainty for coal carrying train services in the CQCN. The changes include:

- applying accelerated depreciation on pre-2010 RAB assets;
- removing forecast inflation indexation on capital expenditure; and

reducing the maximum economic life constraint of the Moura System from 2055 to 2048¹².

As the return of capital is NPV-neutral the depreciation arrangements are consistent with section 168A(a) of the Act. Aurizon Network also considers the changes appropriately balance the interests of current Access Holders and future Access Seekers (as contemplated by the factor in section 138(2)(e) of the Act) by ensuring rates of capital recovery are compatible with plausible longer term demand scenarios.

As the implied asset beta in the WACC reflects the asset beta of water and electricity networks as determined in the 2018 Final Decision, then asymmetric demand risk remains uncompensated (contrary to the principle in section 168A(a) of the Act) and diversified over a large customer base (in furtherance of the objective in section 138(2)(f) of the Act).

Change Event mechanisms

The extended ten-year term of the 2025 UT5 DAAU includes various review and reset mechanisms, referred to as Change Events, which seek to ensure that revenue continues to at least reflect the efficient costs of the providing the service during that term consistent with the requirements of the pricing principles in section 168A of the Act. These Change Events are fully detailed in this submission and can be summarised at a high level as follows:

- a reset of forecast inflation, the risk free rate and the opening asset values at 1 July 2027 and
 1 July 2032 (together the Reset Dates);
- a revision to the Equity Margin for the periods commencing 1 July 2027 and 1 July 2032 respectively, where the risk free rate over a defined averaging period falls outside of a range associated with 'normal' economic conditions;
- the ability to review the economic life of one or more Coal Systems where the long-term demand uncertainty might materially increase in response to factors affecting either the demand for, or supply of, coal from the CQCN; and
- an update to various inputs into the cost of debt methodology where the benchmark assumptions are no longer representative of the costs or terms of financing coal export infrastructure.

Operating costs

The 2017 Access Undertaking's NOEA has a high-powered incentive built in by reason of the fact that the NOEA was fixed for the period until 30 June 2027.

The 2025 UT5 DAAU proposes a Base Year of FY2025, which is subject to the existing high-powered incentive and is therefore an efficient allowance to establish the NOEA for the period from 1 July 2027 to 30 June 2037. Step changes are included within the proposed allowance, recognising changes in the business environment in which Aurizon Network operates.

The NOEA will also be reviewed as part of the mid-term reset, where a reset of the allowance will only occur:

 a. where a cumulative underspend of greater than 3% occurs in the period from FY2028 to FY2031; or

¹² Some members of the RWG did not agree to the proposed reduced maximum economic life constraint. Those customers that did not agree to this aspect of the proposed new arrangement make this clear in the letters of support for the 2025 UT5 DAAU submitted to the QCA by those customers.

b. in the event of a material change in circumstances that have or will result in Aurizon Network's actual costs exceeding the approved NOEA, but only to the extent necessary to reflect the impact of that material change in circumstance.

The base NOEA retains the high-powered incentives as reflected in the current allowance and these incentives are carried throughout the Term, therefore meeting the criteria in sections 168A(a) and (d) of the Act.

Negotiated as part of the NOEA is the inclusion of an inflation adjustment for each year, with that adjustment subject to an annual efficiency factor (reduction) of 0.5% against defined aspects of the operating cost allowance. The efficiency factor promotes the principle in section 168A(d) of the Act.

Given the length of the proposed Term of the 2025 UT5 DAAU, the 2025 UT5 DAAU also makes provision for Contingent Projects, which are initiatives as further described in Chapter 8 of this submission. The costs of Contingent Projects are expressly omitted from the initial NOEA. Where identified by Aurizon Network as incremental to the Corporate Overheads category of the NOEA and approved by the QCA, the relevant costs can be included as part of the NOEA.

The core parameters of costs, scope and timing for these projects are not yet confirmed as at the time of lodgement of the 2025 UT5 DAAU and are therefore subject to future QCA review/approval. The Contingent Projects are core requirements for the ongoing operational aspects of Aurizon Network's business, therefore promoting the efficient operation of the CQCN in furtherance of the object of Part 5 of the Act.

Performance Rebate

The 2025 UT5 DAAU retains the Performance Rebate, with amendments to reflect the overall changes to the performance incentive framework. The Performance Rebate retains the incentive but caps it at 50% of the Throughput Payment referred to above. This creates an overall incentive framework, which is equivalent to the regulatory and commercial risks that Aurizon Network is currently exposed to under the 2017 Access Undertaking that applied a WACC uplift, whilst capping the downside risk. The incentive framework will operate to strongly encourage the promotion of throughput and productivity within the CQCN and is therefore aligned to the principles in section 69E and section 168A(d) of the Act.

Conclusion

Based on:

- the discussion set out above in relation to the various ways in which the 2025 UT5 DAAU addresses the legal requirements for the approval of a DAAU;
- the detailed supporting submissions in the balance of this document outlining the rationale for, and effect of, the proposed amendments reflected in the 2025 UT5 DAAU;
- the detailed drafting of the 2025 UT5 DAAU itself;
- the extensive negotiation process undertaken with customers and other stakeholders that resulted in the contents of the 2025 UT5 DAU; and
- the letters of support from a wide range of customers in relation to the contents of the 2025 UT5 DAAU,

the QCA can be confident that the factors in section 138(2) of the Act have been meaningfully and fully addressed in ways that make it appropriate for the QCA to approve the 2025 UT5 DAAU.

Part B – Revenue



4. Allowable Revenue

4.1 Introduction

The 2025 UT5 DAAU includes Aurizon Network's proposed Allowable Revenues and Reference Tariffs for each Coal System and for each Year of the Term.

Aurizon Network has developed its Allowable Revenue proposal to ensure consistency with the pricing principles outlined in section 168A of the Act. Section 168A(a) states that the price of access to the regulated service provided by Aurizon Network should:

...generate expected revenue for the service that is 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 involved.

Aurizon Network's Allowable Revenue proposal needs to be assessed having regard to this risk profile, within the context of its commercial and operating environment. As will be outlined below, Aurizon Network has negotiated a number of positions with Customers in relation to the risks that it will bear, along with the compensation that it will be entitled to earn for bearing those risks.

4.2 Process for establishing Allowable Revenues and Reference Tariffs

The process through which Aurizon Network establishes Reference Tariffs for coal carrying Train Services starts by determining:

- the value of the RAB, which determines the return on, and of, capital; and
- the Allowable Revenue, which is calculated using the building blocks approach.

Changes to the value of the RAB are approved by the QCA following completion of each Year of the Term through the RAB roll-forward process in Schedule E of the Access Undertaking. The forecast value of the RAB for each Year of the Term reflects the combination of the latest approved RAB roll-forward and the capital expenditure forecasts developed in consultation with customers through the MRSB process.

The Allowable Revenue is established via the building blocks methodology, which involves identifying and then aggregating the various cost components that are required to provide the declared service, i.e., the use of a Coal System for providing transportation by rail.¹³

A description of the building blocks is provided in Table 4-1.

Table 4-1 Description of Allowable Revenue building blocks

Building Block	Description
Return on Capital	Calculated by multiplying the RAB (the value of Aurizon Network's regulated assets) by the WACC (the cost of financing those assets).

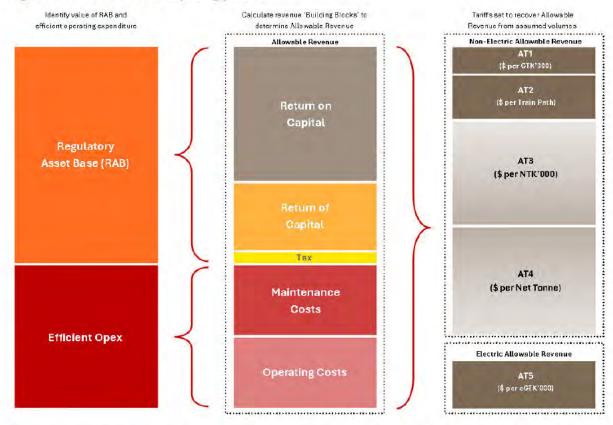
¹³ Section 250(1)(a).

Building Block	Description
Inflation	Aurizon Network is compensated for inflation impacts through indexation of the RAB via the roll-forward process.
	Forecast inflation for capital expenditure included in the RAB up to and including FY2027 is deducted from the Allowable Revenues to avoid double compensation.
	This 2025 UT5 DAAU proposes that indexation will not be applied to capital expenditure included in the RAB from FY2028 onwards. Consequently, an inflation deduction for this expenditure will not be required.
Return of Capital (Depreciation)	Accounts for the reduction in the value of the RAB over time for wear and tear.
Maintenance Expenditure	Reflects the efficient cost of maintaining the Rail Infrastructure.
Operating Expenditure	The efficient day-to-day costs of providing the declared service.
Other Costs	This includes Tax, and other specific costs relevant to the business, such as the impact of prior year adjustments and reconciliations.

Aurizon Network will calculate an Allowable Revenue for each Year of the regulatory period, and for each Coal System. An Allowable Revenue is also calculated separately for electric Rail Infrastructure in each of the Blackwater and Goonyella Systems.

Aurizon Network will then determine a multi-part pricing structure (Reference Tariffs) such that Allowable Revenues will be recovered from the assumed volumes in each year. This process is illustrated in Figure 4-1 below.

Figure 4-1 Overview of CQCN pricing process



The Access Undertaking also provides for Reference Tariffs to be set to recover costs that do not form part of Aurizon Network's Allowable Revenue. These include the Electric Energy Charge (EC),

the QCA Levy, IE Pass Through Costs and, in respect of the 2025 UT5 DAAU, the value of Throughput Payments. Further information in respect of these Reference Tariffs is provided below.

4.3 Summary of Aurizon Network's Allowable Revenue proposal

Overview

Aurizon Network's Allowable Revenue and Reference Tariff proposal for the 2025 UT5 DAAU Term is consistent with the pricing principles outlined in the Act. This proposal provides Aurizon Network with an opportunity to recover the revenue expected to be required to provide the declared service in each Year, having regard to forecasts of its efficient costs, including a return that is commensurate with its commercial and regulatory risks.

For the regulatory period commencing 1 July 2027, the outcomes of the engagement are as follows:

- the current 2017 Access Undertaking will be extended via a Draft Amending Access Undertaking (i.e., the 2025 UT5 DAAU), rather than being replaced by a new a Draft Access Undertaking;
- the extension will be for a term of ten years from 1 July 2027 until 30 June 2037; and
- a mid-term reset will take place in respect of the five-year period commencing 1 July 2032.

Consequently, Aurizon Network has structured its Allowable Revenue proposal into two defined five-year periods, namely:

- the First Reset Period, from 1 July 2027 to 30 June 2032 (FY2028 to FY2032); and
- the Second Reset Period, from 1 July 2032 to 30 June 2037 (FY2033 to FY2037).

As is standard regulatory practice, the QCA is expected to make a decision on the 2025 UT5 DAAU prior to 1 July 2027, meaning that most of the Allowable Revenue and Reference Tariff inputs that are included within this submission are necessarily based on forecasts. Provision has been made within Part 6A of the proposed 2025 UT5 DAAU to reset a defined list of inputs prior to the commencement of both the First Reset Period and the Second Reset Period (refer Chapter 10).

Each reset provides an opportunity for Aurizon Network to provide the QCA with updated information in respect of those specified inputs to promote improved alignment between forecast and actual outcomes

Engagement

Aurizon Network engaged constructively on key financial matters and methodologies and these engagement outcomes are reflected in this Allowable Revenue proposal. The methodology relating to the key components of Aurizon Network's Allowable Revenue proposal are outlined in Table 4-2. Aurizon Network has also sought to identify the relevant engagement outcomes for each component. These categories are illustrated by Figure 2-5 and include:

- Agreed with Customers: the outcome has been agreed with the Customers;
- Consistent with UT5: i.e., the proposed approach is consistent with the 2017 Access Undertaking; and
- Subject to QCA review.

Notwithstanding the extensive engagement in respect of revenue and policy positions, all Allowable Revenue and Reference Tariff outcomes reflected within this Allowable Revenue proposal are subject to QCA review. The QCA will be required to:

- determine an efficient cost base for the NOEA using a base-step-trend methodology; and
- assess the computational accuracy of Aurizon Network's Allowable Revenue proposal.

Table 4-2 Components of the Allowable Revenue proposal

Component	Description	Status
Term	The 2025 UT5 DAAU proposes to extend the Term to 30 June 2037, a period of ten years.	4
RAB Value	Forecast Opening Asset Value	霆
	This submission provides for a forecast opening RAB value for the CQCN of \$6.1 billion as at 1 July 2027. This forecast ¹⁴ value reflects the following:	
	 application of the approved UT5 roll-forward principles; 	
	 approved RAB roll-forward for FY2024; 	
	 approved capital expenditure for FY2025; and 	
	 forecast capital expenditure for FY2026 and FY2027. 	
	For all remaining years of the Term, Aurizon Network has applied:	
	 the depreciation policy proposed in the 2025 UT5 DAAU; 	
	 forecast capital expenditure outlined within the FY2026 Renewal Strategy and Budget for each Coal System, noting this includes forecast values until FY2030. For all subsequent years, Aurizon Network has applied the FY2030 values, escalated annually using the placeholder inflation rate of 2.66%. 	
	Subject to the timing of the QCA's Final Decision on the 2025 UT5 DAAU, it may be appropriate to update the forecast RAB values to reflect the QCA's Final Decision on the FY2025 RAB roll-forward and the outcomes of the FY2027 Maintenance and Renewals Strategies and Budgets (MRSB) process.	
	Reset of Opening Asset Value	200
	This submission provides for a reset of the Opening Asset Value in respect of the first Year of each regulatory pricing period, being the first year of the First Reset Period (FY2028) and the first year of the Second Reset Period (FY2033).	The state of the s
	This will be given effect through an Endorsed Variation Event, which will take place following the QCA's approval of the RAB roll-forward for the financial years ending 30 June 2027 (FY2027) and 30 June 2032 (FY2032).	
WACC	The methodology applied to determine each component of the WACC has been agreed with the Customers.	850
	The Reset Risk Free Rate will be updated by 30 April prior to each of 1 July 2027 (First Reset Date) and 1 July 2032 (Second Reset Date).	
	WACC will be updated annually through each Year of the Term for the trailing average Cost of Debt.	

¹⁴ The FY2024 RAB roll-forward reflects the latest QCA-approved value at the time of submission. FY2025 capital expenditure was approved by the QCA on 20 November 2025. Forecasts for FY2026 and FY2027 are provided for in the FY2026 Renewals Strategy and Budget.

Component	Description	Status
	This submission provides for a placeholder WACC of 7.79%. For the purposes of this submission it is a placeholder value due to the averaging period and relevant debt parameter updates to be completed closer to the First Reset Date as outlined above.	
Inflation	Forecast inflation in respect of the WACC and the indexation of the RAB has been determined in accordance with the QCA's preferred methodology, as outlined in its 2021 Inflation Forecasting Review.	C. S.
	The Reset Inflation Rate will be updated by 30 April prior to each of the First Reset Date and Second Reset Date.	
	Based on the RBA's May 2025 Statement on Monetary Policy, Aurizon Network has determined a placeholder inflation rate of 2.66%.	
Depreciation	Aurizon Network proposes a change in depreciation policy with effect from FY2028.	500 D
	Consistent with an accelerated depreciation approach (which also aligns with the QCA's classification), the residual life of all assets included or expected to be included in the RAB prior to 1 July 2027 will be assessed against a maximum remaining life of 20 years at the commencement of each regulatory pricing period, i.e., the First Reset Date and the Second Reset Date.	
	Capital expenditure forecasts for the term of the 2025 UT5 DAAU will be depreciated on a straight-line basis over the shorter of their physical life and economic life and will not be escalated by forecast inflation.	
Capital Expenditure	Aurizon Network proposes a continuation of the MRSB process for the Term of the 2025 UT5 DAAU.	\ominus
forecasts and Direct Maintenance Cost Allowance	For this submission, Aurizon Network has relied on the 'four- year' forecasts outlined within the FY2026 MRSB for each Coal System, noting that this represents the most recently approved values. The FY2026 MRSB provides estimates out to FY2030. For all remaining Years of the term, forecasts have been aligned to the FY2030 values, escalated annually at 2.66%.	
	The proposed values for each Year and for each Coal System will be updated prior to the commencement of each Year via the MRSB process.	
Indirect	Methodology	\bigcirc
Maintenance Cost	The methodology for determining the Indirect Maintenance Cost Allowance is consistent with the UT5 process.	
	The allowance included within this submission is:	
	 comprised of a return on plant and a return on inventory; and 	
	 calculated using the latest forecast cost base in respect of the First Reset Period. 	
	The proposed allowance for the Second Reset Period is currently aligned to FY2032; the final year of the First Reset Period.	
	An updated cost base (and indirect maintenance costs allowance) for the Second Reset Period will be submitted to the QCA in accordance with Part 6A of the 2025 UT5 DAAU.	

Component	Description	Status
	The forecast cost base for plant and inventory is subject to QCA review and approval.	
Non-Electric Operating Expenditure	Methodology: Aurizon Network and the Customers have agreed that the NOEA will:	(The state of the
Allowance	 be determined using a base-step-trend methodology with the Base Year being FY2025 actual costs (adjusted as appropriate); 	
	 be escalated annually using defined cumulative weighted indices; and 	
	 include a separate Risk and Insurance allowance reflecting an actuarial assessment. 	
	It has been agreed that an efficiency factor:	
	 of 0.5% will apply to both the Direct CQCN Operating Cost and Indirect CQCN Operating Cost components of the allowance; and 	
	 will not be applied to the Corporate Overhead component of the allowance, noting that Aurizon Network has applied a negative step adjustment (of \$2.9 million per annum) to the Corporate Overhead cost base as a result of its share of the Aurizon's non-operating cost reduction program outlined within the FY2025 Aurizon Annual Results. 	
	The 2025 UT5 DAAU provides for a Mid-Term Opex Reset, where (on a cumulative basis) Aurizon Network underspends the NOEA (excluding the Risk and Insurance component) by more than 3% over the First Reset Period or where there is a material change in circumstances impacting Aurizon Network.	
lon-Electric	Implementation:	(<u>3</u> =
Operating Expenditure Allowance –	Aurizon Network and the Customers have agreed that the QCA will determine the efficient cost base for the NOEA, which will be escalated annually using the agreed indices.	
Efficient Costs	Aurizon Network has applied the above methodology when establishing the proposed NOEA outlined in Chapter 8.	
Electric Operating	The methodology for establishing the electric operating expenditure allowance is consistent with UT5.	\ominus
Expenditure Allowance	This allowance is comprised of external Transmission Network Service Provider (TNSP) cost forecasts and the insurance costs of electric feeder stations.	
	For this submission, Aurizon Network has adopted:	
	 the forecast TNSP costs for FY2026, being the latest QCA- approved forecast and noting that the forecast for each year will be updated annually through the review of Reference Tariff process; and 	
	insurance costs reflected in the actuarial assessment.	
Working Capital and Tax	Each of these components is a computation of Aurizon Network's post-tax revenue model.	\bigcirc
Allowance	The methodology is consistent with the UT5 process.	

Revenue Adjustment Amounts are calculated in line with existing regulatory processes. At the time of submission, there are no Revenue Adjustment Amounts applicable to the First	\ominus
	existing regulatory processes. At the time of submission, there

As indicated above, Aurizon Network's Allowable Revenue proposal has been split into two defined periods - the First Reset Period and Second Reset Period. Many of the Allowable Revenue inputs for the Second Reset Period are based on carry-forward values from prior years that will progressively be updated in accordance with the 2025 UT5 DAAU as the Term progresses.

As such, Aurizon Network has presented the Allowable Revenue and Reference Tariff inputs in respect of the First Reset Period only in this submission. The Allowable Revenue and Reference Tariff inputs for the Second Reset Period are contained in Appendix 4.

Allowable Revenue by building block

Table 4-3 presents the aggregate proposed annual Allowable Revenues for the CQCN for the First Reset Period.

Table 4-3 Proposed 2025 UT5 DAAU Allowable Revenue, CQCN (\$m) - First Reset Period

Building Blocks	FY2028	FY2029	FY2030	FY2031	FY2032
Return on Capital ¹	483.3	484.8	483.6	481.1	478.1
Depreciation	510.6	542.6	560.2	567.5	573.5
Inflation	(154.2)	(145.4)	(136.2)	(127.0)	(118.2)
Maintenance Costs	223.3	231.3	236.6	241.5	246.6
- Direct	206.6	214.6	220.4	226.1	232,0
- Indirect	16.7	16.7	16.2	15.4	14.6
Operating Costs	229.9	235.1	242.3	249.8	256.8
- Non-Electric	150.4	153.5	158.5	163.7	168.5
- Electric	79.5	81.6	83.8	86.1	88.3
Tax	55.1	60.8	63.8	64.7	65.2
Sub-total	1,348.1	1,409.2	1,450.3	1,477.5	1,502.0
Adjustments	-		=	-	-
Allowable Revenue	1,348.1	1,409.2	1,450.3	1,477.5	1,502.0
Throughput Payment (TP) ²	26.5	27.2	27.9	28.7	29.5
Allowable Revenue + TP	1,374.6	1,436.5	1,478.2	1,506.2	1,531.5

^{1.} Includes working capital.

Figure 4-2 compares the proposed annual Allowable Revenues for the First Reset Period to the approved values for FY2027, the final year of the current UT5 regulatory period.

^{2.} Indicative only. Based on 221mt, escalated at 2.66% and assumes empty wagon performance is in line with agreed baseline.

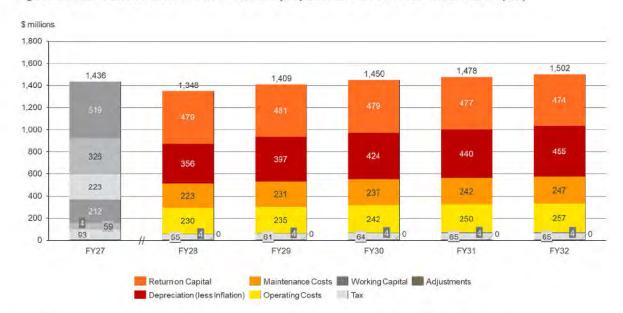


Figure 4-2 Allowable Revenue FY2027 and the proposal for First Reset Period, CQCN (\$m)

The Allowable Revenues for each year of the First Reset Period for each Coal System are summarised in Table 4-4.

Table 4-4 Proposed 2025 UT5 DAAU Allowable Revenue by System (\$m) - First Reset Period

AM	-imain	- Colores	Constant of the last of the la	THE REAL PROPERTY.	-
Allowable Revenue	FY2028	FY2029	FY2030	FY2031	FY2032
Blackwater	601.1	629.7	649.6	655.9	660.6
Goonyella	489.0	509.7	522.8	535.2	549.8
Moura	81.3	85.4	89.3	93.1	96.3
Newlands	63.8	68.4	71.0	73.8	76.2
GAPE	112.9	116.0	117.6	119.6	119.0
Allowable Revenue	1,348.1	1,409.2	1,450.3	1,477.5	1,502.0

Volume forecasts

Each year, Aurizon Network engages with End Users with a view to establishing volume forecasts for each Coal System. The most recent iteration of those volume forecasts was approved by the QCA on 15 May 2025 in its decision on the FY2026 Annual Review of Reference Tariffs. The QCA-approved gross tonne kilometre (**Gtk**) Forecasts (and each equivalent operational unit) for FY2026 are specified in Table 4-5.

Table 4-5 Approved volume forecast and equivalent volume metric – FY2026

System	Gtk Forecast ('000)	NTK'000	Net Tonnes (million)	eGTK'000
Blackwater	33,615,781	21,099,578	58.8	24,443,400
Goonyella	34,644,926	21,966,672	109.2	34,528,268
Moura	3,803,347	2,370,710	14.8	-
Newlands	4,640,004	2,902,008	20.8	-
GAPE	8,959,821	5,583,253	17.4	9
Total CQCN	85,663,878	53,922,221	221.0	58,971,668

A description of each volume metric is provided in Table 4-6.

Table 4-6 Volume metrics used to determine Reference Tariffs

Operational Unit	Description		
Gross Tonne	Measures how much coal is moved by a train and how far it travels. It combines		
Kilometres (gtk)	 weight of the train – including the volume of coal and the weight of the wagons and locomotives; 		
	 distance travelled – how far the train travels from mine to port. 		
	Gtk = total weight of the train × distance it travels in both the loaded and empty directions.		
Train Paths	A planned movement of a train on the railway from an origin to a destination		
Net Tonne Kilometres (ntk)	res Measure of how much coal is moved by a train and how far it travels. U Gtk, ntk does not include the weight of the train itself. ntk = weight of the coal (net tonnes) × distance it travels.		
Net Tonnes	The weight of the coal transported by a train — not including the weight of train itself (e.g., wagons and locomotives)		
Electric Gross Tonne Kilometres (egtk)	Measures the Gross Tonne Kilometres moved by electric trains.		

Take or Pay forecasts

The 2025 UT5 DAAU proposes changes to the ToP provisions with effect from 1 July 2027 (refer Chapter 11). To give effect to those ToP provisions:

- the value of 'ToP Gtk' will be determined, along with equivalent values of Train Paths, Net Tonne Kilometres (ntk) and Net Tonnes; and
- these ToP Gtk equivalent volume metrics will be used to calculate the AT₂, AT₃ and AT₄
 Reference Tariffs (levied on a Train Path, ntk and Net Tonne basis, respectively).

The ToP Gtk will reflect the greater of (for each Coal System):

- the Gtk Forecast; and
- 90% of the aggregate Gtk that would be achieved if the full contracted Train Service Entitlements (TSEs) are utilised.

To ensure consistency with the latest QCA-approved volume forecasts, Aurizon Network has relied upon the contracted TSEs for FY2026 to determine the ToP Gtk for each Coal System, which are outlined in Table 4-7.

Table 4-7 ToP Gtk'000

System	ToP Gtk ('000)		
Blackwater	38,806,517		
Goonyella	41,247,591		
Moura	3,808,909		
Newlands	4,646,958		
GAPE	13,674,618		
Total CQCN	102,184,593		

Annual updates to volume forecasts

For this submission, Aurizon Network has relied on the following to derive indicative Reference Tariffs for each Coal System and for each Year of the 2025 UT5 DAAU Term:

- a Gtk Forecast and associated electric gross tonne kilometres (egtk) derived from the FY2026 Net Tonne forecast (outlined in Table 4-5), noting that these values represent the volume forecasts most recently approved by the QCA; and
- the equivalent Train Paths, ntk and Net Tonnes that are derived from the ToP Gtk specified in Table 4-7.

These forecasts are placeholders only, noting that updated volume forecasts will be submitted to the QCA for approval prior to the commencement of each Year as part of the annual review of Reference Tariff process¹⁵. In respect of the egtk forecasts for the 2025 UT5 DAAU Term, this will also include updates to the Forecast Electric Utilisation Level that will flow through to the AT₅ Reference Tariffs. Furthermore:

- by 28 February 2026, Aurizon Network will submit updated coal volume forecasts to the QCA as part of its FY2027 review of Reference Tariffs. The outcomes of the QCA's decision for that review will be used to update coal volume forecasts and the indicative Reference Tariffs for the First Reset Period;
- Aurizon Network will continue to engage with End Users to establish updated volume forecasts through the annual review of Reference Tariffs process for each Year of the 2025 UT5 DAAU Term; and
- Aurizon Network has sought to formalise the process through which volume forecasts are
 established by including it in clause 4.1(b) of Schedule F of the 2025 UT5 DAAU. This creates
 a new obligation on Aurizon Network in respect of this (previously voluntary) process.

The following figures presents the proposed Allowable Revenues (both electric and non-electric revenues) for the First Reset Period (Table 4-4) on a dollar per Net Tonne basis, using the approved volume forecasts for FY2026 (Table 4-5).

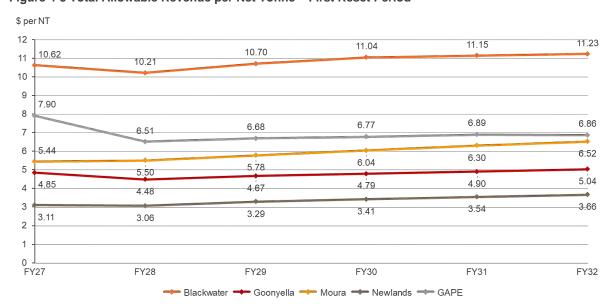


Figure 4-3 Total Allowable Revenue per Net Tonne – First Reset Period

-

¹⁵ 2017 Access Undertaking, Schedule F, Clause 4.1.

Reference Tariffs

Reference Tariffs are the mechanism through which Aurizon Network recovers the revenue it is entitled to earn each Year from providing access to the Rail Infrastructure.

Reference Tariffs for each Coal System are set to recover the Allowable Revenue ¹⁶ from the forecast volume. To facilitate efficient and cost reflective pricing outcomes, the forecast volume for a Year is expressed in terms of five metrics. Aurizon Network's approach to modelling Reference Tariffs remains consistent with the pricing principles in the Act.

The volume metrics outlined below have been used to establish the proposed indicative Reference Tariffs for each Year of the First Reset Period and Second Reset Period.

Table 4-8 Basis of volume metrics applied to determine Reference Tariffs

Reference Tariff Component	Basis of Forecast	Volume Metric	
AT ₁	Gtk Forecast	GTK'000	
AT ₂	ToP Gtk	Train Paths	
AT ₃	ToP Gtk	NTK'000	
AT4	ToP Gtk	Net Tonnes	
AT ₅ and EC	Gtk Forecast	Electric GTK'000	
QCA Levy, IE Fee and TP ₁	Gtk Forecast	Net Tonnes	
TP ₂	Gtk Forecast	NTK'000	

4.4 The Regulatory Asset Base

Introduction

The Allowable Revenues and Reference Tariffs are predominantly a function of Aurizon Network's investment in CQCN Rail Infrastructure over time. The RAB reflects the prudent and efficient value of the Rail Infrastructure that has been approved by the QCA for the purpose of developing Reference Tariffs for coal carrying train services. The value of the RAB is rolled-forward each year to reflect:

- the opening asset value (or the closing asset value for the prior year approved by the QCA as part of the annual RAB roll-forward process¹⁷);
- indexation of the RAB to reflect the annual rate of inflation;
- depreciation of the RAB assets having regard to QCA-endorsed asset lives;
- asset disposals; and
- the prudent and efficient value of capital expenditure approved by the QCA.

Figure 4-4 illustrates the growth in the RAB through each successive Access Undertaking period, including a forecast opening asset value for the year commencing 1 July 2027.

¹⁶ Or other relevant components such as the Electric Energy (EC) costs, QCA Levy, IE Pass Through Costs and Throughput Payments

¹⁷ As outlined in Clause 1 of Schedule E.

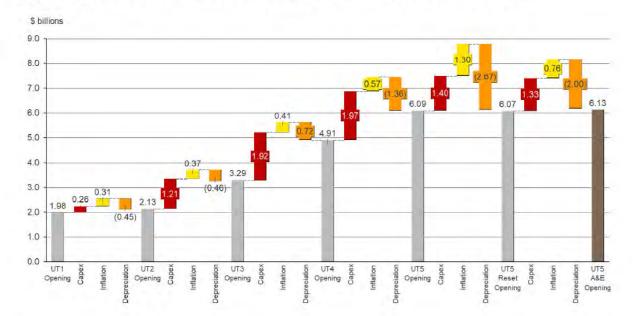


Figure 4-4 Growth in Aurizon Network's RAB - UT1 to forecast FY2028 opening value (\$b)

Forecast RAB values

The roll-forward principles outlined in Schedule E of the Access Undertaking are applied to establish the forecast RAB value for the First Reset Period. In establishing the forecast RAB value, Aurizon Network must:

- identify the value of the latest QCA-approved RAB roll-forward;
- estimate the forecast RAB roll-forward values for the remaining years of the current regulatory period to determine a forecast opening RAB value as a 1 July 2027; and
- establish the forecast RAB values for each Year of the Term.

Latest QCA-approved RAB roll-forward

On 30 January 2025, the QCA approved Aurizon Network's RAB roll-forward for the year ended 30 June 2024 (i.e., FY2024). The latest approved RAB roll-forward values are shown below.

Table 4-9 Approved FY2024 RAB roll-forward values - CQCN aggregate (\$m)

Regulatory Asset Base ¹	Non-Electric Assets	Electric Assets	Total
Opening Value (at 1 July 2023)	5,461.4	613.1	6,074.5
Capex	311.2	12.3	323.5
Inflation	197.6	21.2	218.8
Depreciation	414.6	48.4	463.0
Closing Value (at 30 June 2024)	5,555.6	598.2	6,153.8

¹ Includes AFD assets

To the extent that the QCA approves a subsequent RAB roll-forward during the period in which it is assessing the 2025 UT5 DAAU proposal (e.g., the FY2025 RAB roll-forward), Aurizon Network will work with the QCA to determine the most efficient regulatory process for updating the RAB values.

Forecast opening RAB value

To determine the forecast opening RAB value for First Reset Period (i.e., the RAB value as at 1 July 2027), Aurizon Network will:

- take the latest approved RAB roll-forward values for each Coal System; and
- extend those values, having regard to forecast capital expenditure for the remaining years of the current UT5 period.

This involves the following steps:

- applying actual capital expenditure for FY2025 (approved by the QCA on 20 November 2025);
- forecasting capital expenditure for FY2026 and FY2027;
- forecasting annual inflation for the same years; and
- applying the QCA-approved depreciation methodology and the roll-forward principles to establish a forecast closing asset value as at 30 June 2027.

In applying these steps, Aurizon Network has made the following assumptions.

Table 4-10 Assumptions for establishing the forecast opening asset value

Parameter	Method				
Capital Expenditure	Forecast capital expenditure for:				
	 FY2025 reflects Aurizon Network's actual approved capital expenditure; 				
	 FY2026 and FY2027 reflects the forecasts outlined in the FY2026 MRSB. 				
Inflation	The RAB is rolled-forward for each remaining year of the UT5 period an escalated in line with:				
	 actual inflation for FY2025 (2.49%); and 				
	 UT5 forecast inflation for FY2026 and FY2027 (i.e., 2.90% per annum). 				
Depreciation	Consistent with the approach applied in the QCA's 2018 UT5 Final Decision applying depreciation with the following asset lives:				
	 assets commissioned prior to FY2010 – QCA endorsed lives 				
	 assets commissioned or assumed to be commissioned from FY2010 to FY2027 – the minimum of the QCA endorsed lives and 20-year rolling life 				

The application of the above assumptions results in a forecast opening asset value for the First Reset Period of \$6.1 billion (inclusive of assets that are subject to Access Facilitation Deed (**AFD**) arrangements). The relevant values for each Coal System are set out below. Importantly, at the time of this submission, the final RAB values required to set the opening asset value as at:

- 1 July 2027 (the First Reset Date); and
- 1 July 2032 (the Second Reset Date),

are necessarily based on forecasts. Aurizon Network proposes to finalise these values as follows.

Opening asset value for 1 July 2027:

- as part of its combined FY2028 review of Reference Tariffs and First Reset Date submission, Aurizon Network will include updates to the opening asset value to account for the latest approved RAB roll-forward outcomes (including actual inflation); and
- following QCA approval of the FY2027 RAB roll-forward, Aurizon Network will submit to the QCA a variation to Reference Tariffs through an Endorsed Variation Event. The submission will seek QCA approval to:
 - reset the opening asset value as at 1 July 2027 to reflect the actual QCA-approved values; and

reconcile any associated difference in Allowable Revenues.

Opening asset value for 1 July 2032:

- as part of its combined FY2033 annual review of Reference Tariffs and Second Reset Date submission, Aurizon Network will include updates to the opening asset value to account for the latest approved RAB roll-forward outcomes (including actual inflation);
- following QCA approval of the FY2032 RAB roll-forward, Aurizon Network will submit to the QCA a variation to Reference Tariffs through an Endorsed Variation Event. The submission will seek QCA approval to:
 - reset the opening asset value as at 1 July 2032 to reflect the actual QCA-approved values; and
 - reconcile any associated difference in Allowable Revenues.

Forecast RAB values for the 2025 UT5 DAAU Term

The forecast RAB values for each Year of the 2025 UT5 DAAU Term (commencing 1 July 2027) will then be estimated having regard to:

- the roll-forward methodology outlined in the Access Undertaking;
- QCA-endorsed asset lives;
- forecast capital expenditure reflecting:
 - the four-year capital expenditure forecasts set out within the FY2026 MRSB, noting that this includes the period from FY2028 to FY2030;
 - for all other Years during the Term, the capital expenditure forecast for FY2030 (with annual escalation at 2.66%), noting that these forecasts will be updated prior to the commencement of each Year to reflect the outcomes of the annual MRSB process¹⁸; and
- the proposed changes to the depreciation policy outlined in Chapter 7 that will take effect from FY2028 onwards. Specifically, for assets:
 - included in the RAB prior to FY2010, a rolling 20-year asset life is applied;
 - included (or forecast to be included) in the RAB between FY2010 and FY2027, a rolling 20-year asset life applies; and
 - forecast to be included in the RAB from FY2028 onwards, no indexation will apply and depreciation will be on a straight-line basis.

For clarity, updates to the forecast RAB values for the period commencing 1 July 2027 will also form part of the Endorsed Variation Event submissions to the QCA outlined above.

Forecast RAB values

The application of the above methodology results in the following forecast RAB values for the First Reset Period. Aurizon Network has relied on the following RAB values to derive Allowable Revenues and Reference Tariffs. The value of assets that are subject to AFD arrangements are separately identified.

¹⁸ The annual review of Reference Tariff process allows the outcomes of the MRSB engagement (including the four-year forecasts) to be reflected in Allowable Revenues and Reference Tariffs. To the extent that the MRSB does not include a capital expenditure forecast for a year, Aurizon Network will set the Capital Indicator equal to the last year of the MRSB four-year forecast (escalated annually at 2.66%). These forecasts will be updated annually.

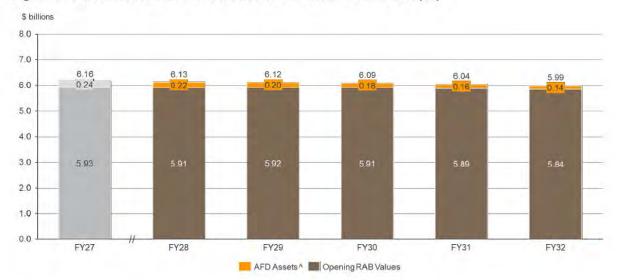


Figure 4-5 Forecast RAB Value for the First Reset Period – Total CQCN (\$b)

The forecast RAB values by Coal System are as follows. These values exclude AFD assets that are subject to discounted Reference Tariff arrangements.

Table 4-11 Forecast RAB values - Blackwater System (Non-Electric Assets) (\$m)

Blackwater Non-Electric	FY2028	FY2029	FY2030	FY2031	FY2032
Opening	2,401.7	2,401.0	2,387.7	2,369.7	2,355.4
Capex	141.7	148.0	154.9	159.0	163.2
Inflation	63.9	60.4	56.7	53.0	49.6
Depreciation	206.3	221.7	229.5	226.2	228.7
Closing	2,401.0	2,387.7	2,369.7	2,355.4	2,339.6

Table 4-12 Forecast RAB values - Blackwater System (Electric Assets) (\$m)

Blackwater Electric	FY2028	FY2029	FY2030	FY2031	FY2032
Opening	319.5	304.5	296.8	287.7	276.4
Capex	10.0	19.8	20.9	21.5	22.1
Inflation	8.5	7.8	7.2	6,4	5.6
Depreciation	33.4	35.3	37.2	39.2	34.3
Closing	304.5	296.8	287.7	276.4	269.8

[^] Some AFD assets are subject to discounted Reference Tariff arrangements and are excluded from Allowable Revenues.

Table 4-13 Forecast RAB values - Goonyella System (Non-Electric Assets) (\$m)

Goonyella Non-Electric	FY2028	FY2029	FY2030	FY2031	FY2032
Opening	1,714.0	1,733.3	1,745.6	1,755.8	1,763.8
Capex	132.7	138.3	142.1	145.8	149.7
Inflation	45.6	42.8	40.0	37.3	34.8
Depreciation	159.0	168.9	171.9	175.2	179.7
Closing	1,733.3	1,745.6	1,755.8	1,763.8	1,768.6

Table 4-14 Forecast RAB values - Goonyella System (Electric Assets) (\$m)

Goonyella Electric	FY2028	FY2029	FY2030	FY2031	FY2032
Opening	229.1	235.7	237.4	237.5	237.9
Capex	24.0	19.2	17.7	18.2	18.6
Inflation	6.1	5.7	5.3	4.9	4.5
Depreciation	23.5	23.1	22.8	22.7	23.7
Closing	235.7	237.4	237.5	237.9	237.4

Table 4-15 Forecast RAB values - Moura System (\$m)

Moura	FY2028	FY2029	FY2030	FY2031	FY2032
Opening	381.7	382.0	378.1	374.8	369.0
Capex	22.4	21.1	24.2	24.9	25.5
Inflation	10.2	9.6	9.0	8.4	7.8
Depreciation	32.2	34.6	36.6	39.0	41.1
Closing	382.0	378.1	374.8	369.0	361.3

Table 4-16 Forecast RAB values - Newlands System (\$m)

Newlands	FY2028	FY2029	FY2030	FY2031	FY2032
Opening	384.3	406.8	425.8	436.2	444.9
Capex	41.1	41.2	35.5	36.4	37.4
Inflation	10.2	9.8	9.3	8.9	8.4
Depreciation	28.9	32.0	34.4	36.6	38.6
Closing	406.8	425.8	436.2	444.9	452.1

Table 4-17 Forecast RAB values - GAPE (\$m)

GAPE	FY2028	FY2029	FY2030	FY2031	FY2032
Opening	585.6	554.6	521.6	486.6	449.4
Capex	1-4	-		-	
Inflation	15.6	14.8	13.9	12.9	12.0
Depreciation	46.6	47.8	48.9	50.1	49.2
Closing	554.6	521.6	486.6	449.4	412.1

RAB: other matters

Inflation and depreciation of the RAB

The RAB values outlined above for each Coal System also show the forecast value of inflation and depreciation for the First Reset Period. The assumptions and methodology applied by Aurizon Network to determine inflation and depreciation can be found in Chapter 6 and Chapter 7 respectively.

Consistent with the outcome of the engagement in respect of the depreciation policy, Aurizon Network has assessed the remaining life of assets against a cap of 20 years at both the First Reset Date (FY2028) and the Second Reset Date (FY2033). This means that in circumstances where the remaining life of an asset exceeds 20 years (in FY2028 and/or FY2033), depreciation will be calculated using a maximum remaining life of 20 years.

Treatment of Rail Infrastructure west of Burngrove

Following cessation of coal carrying train services from the Minerva mine on 20 October 2022, Aurizon Network submitted a DAAU to the QCA seeking approval to:

- permanently remove the value of user-funded rebate assets from the RAB;
- defer the non-rebate coal allocated assets, such that they would not be reflected in the calculation of Blackwater System Reference Tariffs and Allowable Revenues; and
- retain the non-rebate non-coal allocated assets to be considered in non-coal pricing arrangements.

The Minerva DAAU was approved by the QCA on 16 February 2023.

As foreshadowed in the Minerva DAAU, Aurizon Network has periodically reviewed foreseeable demand in respect of future utilisation of the Rail Infrastructure west of Burngrove by coal carrying train services. At the time of preparing this submission, there has been no material change in the likelihood of alternate future coal demand that would utilise this Rail Infrastructure.

Consequently, Aurizon Network proposes to remove the value of all Rail Infrastructure west of Burngrove from the RAB with effect from 1 July 2027. For clarity, this outcome is reflected in the forecast RAB values outlined above. Aurizon Network notes that this proposal:

- has no practical impact on Allowable Revenues for the Term of the 2025 UT5 DAAU, noting that the coal-allocated assets have been deferred for pricing purposes since the cessation of coal Train Services from Minerva in FY2023; and
- will not impact pricing for non-coal Train Services utilising the corridor.

Pricing arrangements for the Newlands System and GAPE

Aurizon Network confirms that the access pricing arrangements for the Newlands System and GAPE outlined in the 2025 UT5 DAAU remain consistent with the current QCA-approved approach. It was

agreed between Aurizon Network and the RWG early in the process and prior to finalising the non-binding Term Sheet, that this matter would remain separate from the 2025 UT5 DAAU process.

Aurizon Network has commenced engagement with affected stakeholders on a draft Statement of Access Pricing Intent, the purpose of which is to provide guidance on how Aurizon Network intends to develop pricing arrangements for the GAPE and Newlands Systems for changes in Committed Capacity from 1 July 2027.

Following this engagement, Aurizon Network's intention is to develop and submit proposed changes to the access pricing arrangements for the Newlands System and GAPE via a DAAU. The pricing arrangements that are ultimately implemented will be those approved by the QCA through its assessment of a DAAU against the relevant statutory criteria in the Act.

4.5 Maintenance costs and capital expenditure

The Maintenance Strategy and Budget and Renewals Strategy and Budget for each Coal System is developed though the annual MRSB process, outlined in clause 7A.11.3 of the 2017 Access Undertaking. The MRSB process:

- promotes collaborative engagement between Aurizon Network, the RIG and non-coal Access Holders and other supply chain stakeholders;
- provides stakeholders with a degree of influence with respect to the maintenance and renewal activities in a Year; and
- provides a process through which End Users may vote on Aurizon Network's proposed MRSB for a Coal System for a Year.

Direct Maintenance Cost Allowance

Aurizon Network submits the following forecasts of the Direct Maintenance Cost allowance for the First Reset Period, noting that these are consistent with the four-year forecasts included within the FY2026 Maintenance Strategy and Budget for each Coal System.

Table 4-18 Direct Maintenance Cost Allowance - Non-Electric - First Reset Period (\$m)

Non-Electric Maintenance	FY2028	FY2029	FY2030	FY2031 ¹	FY2032
Blackwater	80.0	82.2	84.5	86.7	88.9
Goonyella	72.8	75.5	77.9	80.0	82.0
Moura	18.1	18.9	19.7	20.2	20.8
Newlands	7.1	7.8	7.6	7.8	8.0
GAPE	9.4	10.3	10.0	10.3	10.5
Total	187.4	194.7	199.8	204.9	210.2

¹ Aligned to the FY2030 forecast, escalated at 2.66%

Table 4-19 Direct Maintenance Cost Allowance - Electric - First Reset Period (\$m)

Electric Maintenance	FY2028	FY2029	FY2030	FY2031 ¹	FY2032 ¹
Blackwater	9.2	9.4	9.6	9.9	10.1
Goonyella	10.1	10,4	11.0	11.3	11.6
Total	19.3	19.9	20.6	21.2	21.7

¹ Aligned to the FY2030 forecast, escalated at 2.66%

Methodology

Aurizon Network's approach to establishing the proposed Direct Maintenance Cost Allowance is consistent with the current approach under the 2017 Access Undertaking. Aurizon Network is not seeking any amendments to that process.

To establish its proposed Direct Maintenance Cost Allowance for the 2025 UT5 DAAU Term, Aurizon Network has adopted the maintenance cost forecasts outlined in the FY2026 MRSB as placeholder values. In respect of the FY2026 MRSB, on 14 February 2025 a Special Majority of End Users voted to approve an 'alternative' MRSB, which included variations to the FY2026 maintenance budget. Aurizon Network accepted the alternative MRSB, which was subsequently approved by the QCA on 15 May 2025 in its decision on the FY2026 Review of Reference Tariffs. The FY2026 MRSB includes:

- the FY2026 direct maintenance cost budget; and
- a four-year forecast of direct maintenance costs for the period FY2028 to FY2030.

The 2025 UT5 DAAU proposal applies the MRSB forecasts for FY2028 to FY2030 for each Coal System. For all remaining Years, Aurizon Network has set the forecast Direct Maintenance Cost Allowance to the equivalent FY2030 value for each Coal System, escalated annually at 2.66% ¹⁹.

Aurizon Network notes that updated forecasts of the Direct Maintenance Cost Allowance will be considered by the RIG as part of the FY2027 MRSB process and as part of the respective MRSB processes for each subsequent Year. The FY2027 MRSB process culminates in a vote by a Special Majority of End Users, with the voting outcomes communicated to Aurizon Network by no later than 14 February 2026.

To the extent that the FY2027 MRSB as approved by a Special Majority of End Users (or the QCA) differs from the forecasts of the Direct Maintenance Cost Allowance outlined above, Aurizon Network will engage with the QCA to determine an appropriate process for updating the proposed Direct Maintenance Cost Allowance.

Indirect Maintenance Cost Allowance

Aurizon Network submits the following Indirect Maintenance Cost Allowance for the First Reset Period.

¹⁹ The escalation value of 2.66% used throughout this submission is a placeholder value, calculated using the Geometric Mean. The calculation of this is outlined within Table 6-1.

Table 4-20 Indirect Maintenance Cost Allowance - Non-Electric - First Reset Period (\$m)

Indirect Maintenance – Non-Electric	FY2028	FY2029	FY2030	FY2031	FY2032
Blackwater	7.2	7.2	7.0	6.7	6.3
Goonyella	7.2	7.1	6.9	6.5	6.1
Moura	1.0	1.0	1.0	1.0	1.0
Newlands	0.5	0.5	0.5	0.5	0.5
GAPE	0.7	0.7	0.7	0.7	0.6
Total	16.5	16.5	16.1	15.3	14.5

Table 4-21 Indirect Maintenance Costs Allowance – Electric – First Reset Period (\$m)

Indirect Maintenance – Electric	FY2028	FY2029	FY2030	FY2031	FY2032
Blackwater	0.1	0.1	0.1	0.0	0.0
Goonyella	0.1	0.1	0.1	0.0	0.0
Total	0.2	0.1	0.1	0.1	0.1

Consistent with the methodology approved as part of the QCA's 2018 UT5 Final Decision and applied during UT5, the Indirect Maintenance Cost Allowance is comprised of a return on plant and a return on inventory. With the annual update to the Approved WACC, the return on plant/inventory will be updated as part of the annual review of Reference Tariffs. While Aurizon Network has provided forecasts for the Indirect Maintenance Cost Allowance out to FY2037, the values for the Second Reset Period (i.e., FY2033 to FY2037), as outlined in Appendix 4, are placeholder values and aligned to the assumption for the final year of the First Reset Period (FY2032).

An updated estimate of the cost base for the Indirect Maintenance Cost Allowance for the Second Reset Period will be submitted to the QCA for approval in accordance with Part 6A of the 2025 UT5 DAAU.

Return on plant

Aurizon Network is required to invest in a wide variety of assets to efficiently deliver its declared service throughout the CQCN. A return on plant is included as part of Aurizon Network's Indirect Maintenance Cost Allowance for plant and equipment that is owned by Aurizon Network and not otherwise included within Aurizon Network's RAB.

Consistent with the methodology outlined in the QCA's 2018 Final Decision, Aurizon Network has calculated the return on plant for each year of the 2025 UT5 DAAU Term by applying the proposed WACC to the:

- written down value of Aurizon Network's existing plant and equipment; plus
- expected value of new plant and equipment purchased in each Year.

The resulting return on plant for the First Reset Period is summarised in

Table 4-22.

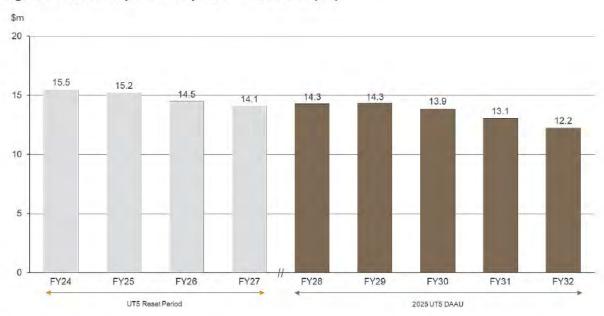
Table 4-22 Return on plant - First Reset Period (\$m)

Return on Plant	FY2028	FY2029	FY2030	FY2031	FY2032
WACC	7.79%	7.79%	7.79%	7.79%	7.79%
Opening Asset Value ¹	183.8	183.9	178.1	167.7	157.2
Total Return on Plant	14.3	14.3	13.9	13.1	12.2

¹ Reflects the opening value of the Asset Register in each year.

Figure 4-6 compares the proposed return on plant for the First Reset Period to the current approved allowances for the UT5 Reset Period.

Figure 4-6 Return on plant - comparison from FY2024 (\$m)



Despite the minor increase in the return on plant between FY2027 and FY2028, Aurizon Network notes that the average return on plant over the:

- UT5 Reset Period (i.e., FY2024 to FY2027) is \$14.8 million; and
- First Reset Period (i.e., FY2028 to FY2032) is in the order of \$13.6 million per annum.

The change in return on plant reflects the combined impact of:

- the change in WACC, noting that the proposed WACC for the 2025 UT5 DAAU is 7.79% against a UT5 Reset WACC of 8.51%; and
- differences in the underlying value of plant and equipment, where the forecast value of plant and equipment in FY2028 is in the order of \$183.8 million against a forecast value for FY2027 of \$166.1 million²⁰.

Aurizon Network

²⁰ The Indirect Maintenance Cost Allowance was fixed for the UT5 Reset Period, and the forecast value of plant and equipment for FY2027 was set in June 2023.

Consistent with the QCA's 2018 Final Decision, the proposed return on plant for each Year of the 2025 UT5 DAAU Term has been allocated between Coal Systems in proportion to direct maintenance expenditure in each Year.

Composition of the forecast plant requirements

In addition to the residual value of Aurizon Network's existing plant, vehicles and equipment, the proposed cost base for the First Reset Period includes capital expenditure forecasts for the like-for-like replacement of life-expired plant, vehicles and equipment. Aurizon Network has outlined the forecast spend on the top five categories of plant impacting the Indirect Maintenance Cost Allowance during the First Reset Period (FY2028 – FY2032) in Table 4-23.

Table 4-23 Aggregate plant expenditure FY2028 - FY2032 (top five categories)

Description	Total Spend (\$m)	Comment		
Motor Vehicle Replacement	42.8	Forecast of c.\$8.5m per annum relating the replacement of motor vehicles in line with Aurizon Network's motor vehicle flee replacement standard.		
Truck Replacement	11.7	Average spend of \$2.3m per annum relating to the replacement of trucks in line with Aurizon Network's motor vehicle fleet replacement standard.		
RRV Inspection Vehicles	6.5	Expected cost of replacing road rail vehicles used by civil infrastructure teams. Replacement program planned to run FY27 to FY29.		
Sleeper Wagon Replacement	6.4	Forecast costs associated with the overhaul of sleeper wagons. The requirement for these works has previously been presented to the RIG.		
Minor Capital - Civil	5.5	Average expenditure of \$1.1m per annum relating to the forecast cost of tools and equipment across the civil discipline.		
All Other Items	25.9	Forecast average spend of \$5.2m per annum for the like for like replacement of plant items including excavators, forklifts, loaders, trailers and minor plant for electrical and mechanised production teams.		

Aurizon Network has provided the QCA with a detailed financial model outlining its existing assets and proposed new investments, which includes a disaggregation of the 'All Other Items' line item in the table above.

Future plant requirements

Aurizon Network expects that during the 2025 UT5 DAAU Term, various material items of maintenance plant and equipment will become 'book life' expired. Aurizon Network's intention is to commence work to better understand future plant requirements within the next 12 to 24 months. It is expected that any such assessment would need to consider a range of matters including, but not limited to:

- an engineering assessment to ascertain plant condition and whether the life of individual plant items can be extended;
- the volume outlook for each Coal System and for the CQCN in aggregate;

- machine utilisation and access considerations; and
- consideration of alternate operating models.

At this stage, it would be premature to provide cost and timing estimates for future plant requirements within the forecast cost base for the Indirect Maintenance Cost Allowance. Consequently, the Indirect Maintenance Cost Allowance forecasts for the Second Reset Period (outlined in Appendix 4) are placeholder values only, and are aligned with the proposed value for FY2032, the last year of the First Reset Period.

Aurizon Network remains committed to engagement with customers in respect of material procurement decisions. Aurizon Network's commitment to such engagement has been formally embedded within the Material Contracts provisions that are proposed in this 2025 UT5 DAAU (refer Chapter 12). To the extent that the assessment of future plant requirements and engagement with customers results in additional plant investments during the 2025 UT5 DAAU Term, Part 6A of the 2025 UT5 DAAU provides for an update to the cost base for the Indirect Maintenance Cost Allowance in respect of the Second Reset Period.

Return on inventory

For Aurizon Network to achieve the Maintenance Objectives (as specified in clause 7A.11 of the 2017 Access Undertaking), it is critical that quality inventory is on hand at the required location when and where it is required. Recognising that Aurizon Network must invest, procure and store an appropriate level of inventory, the Indirect Maintenance Cost Allowance provides for a return on Aurizon Network's inventory holdings.

To determine the return on inventory for each year of the 2025 UT5 DAAU Term, Aurizon Network has applied a methodology consistent with the QCA's 2018 Final Decision, which is as follows:

- 1. forecasting total below rail inventory holdings for each Year of the relevant period;
- identifying inventory associated with CQCN maintenance tasks (based on actual monthly inventory consumption);
- using the outputs from steps 1 and 2 to calculate the level of stock on hand that is expected to be required for maintenance purposes; and
- 4. applying the WACC to calculate the return on inventory.

The resulting return on inventory is summarised in Table 4-24.

Table 4-24 Return on inventory - First Reset Period (\$m)

Return on inventory	FY2028	FY2029	FY2030	FY2031	FY2032
WACC	7.79%	7.79%	7.79%	7.79%	7.79%
Total Projected Inventory	77.5	77.1	77.8	77.8	77.8
Proportion for CQCN Maintenance ¹	30.1	30.0	30.3	30.3	30.3
Total return on inventory	2.3	2.3	2.4	2.4	2.4

¹ The remaining balance is used for capital expenditure purposes including renewals within the CQCN.

Figure 4-7 compares the proposed return on inventory for the First Reset Period to the current approved allowances for the UT5 Reset Period.

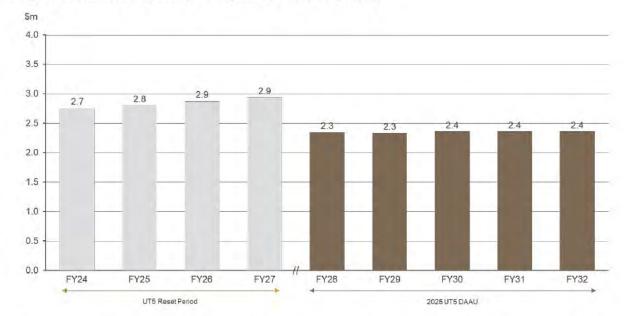


Figure 4-7 Return on inventory - comparison from FY2024 (\$m)

The QCA's 2023 Final Decision on the Reset Schedule F Values provided a return on inventory for FY2027 of \$2.9 million. Aurizon Network's proposed return on inventory for FY2028 is approximately \$0.6 million lower than this value.

The change in return on inventory between FY2027 and FY2028 is attributable to:

- the change in WACC, noting that the proposed WACC for the 2025 UT5 DAAU is 7.79% against a UT5 Reset WACC of 8.51%; and
- differences in the forecast level of inventory consumption for CQCN maintenance purposes.
 During the FY2025 base year, approximately 38.9% of inventory on hand was consumed for CQCN maintenance activities. Aurizon Network has applied this value to the forecast value of inventory holdings across the First Reset Period. By way of comparison, the forecast inventory consumption for the UT5 Reset Period was 43.3%.

Consistent with the QCA's 2018 Final Decision, the return on inventory for the 2025 UT5 DAAU Term will be allocated between Coal Systems in proportion to direct maintenance expenditure in each Year.

Capital expenditure forecast

Aurizon Network submits the following capital expenditure forecasts (Capital Indicator) for the First Reset Period. The forecasts below are expressed in 'mid-year' terms.

Table 4-25 Capital expenditure - Non-Electric - First Reset Period (\$m)

Non-Electric Capex	FY2028	FY2029	FY2030	FY2031 ¹	FY20321
Blackwater	147.2	153.7	160.8	165.1	169.5
Goonyella	137.8	143.6	147.5	151.4	155.4
Moura	23.2	21.9	25,1	25.8	26.5
Newlands / GAPE	42.7	42.8	36.8	37.8	38.8
Total	350.9	361.9	370.3	380.1	390.2

¹ Aligned to the FY2030 forecast, escalated at 2.66%

Table 4-26 Capital expenditure – Electric – First Reset Period (\$m)

Electric Capex	FY2028	FY2029	FY2030	FY2031 ¹	FY2032 ¹
Blackwater	10.4	20.5	21.8	22.3	22.9
Goonyella	24.9	19.9	18.4	18.8	19.4
Total	35.3	40.4	40.1	41.2	42,3

¹ Aligned to the FY2030 forecast, escalated at 2.66%

Methodology

Aurizon Network's approach to establishing the Capital Indicator is consistent with the current approach under the 2017 Access Undertaking. Aurizon Network is not seeking any amendments to that process.

Consistent with the approach used to establish the forecast Direct Maintenance Cost Allowance, Aurizon Network has adopted the longer-term capital expenditure forecasts contained in the FY2026 MRSB as placeholder values. On 14 February 2025 a Special Majority of End Users voted to approve the FY2026 Renewal Strategy and Budget for all Coal Systems. The FY2026 MRSB includes:

- the FY2026 capital expenditure forecasts; and
- a capital expenditure forecast for each Coal System for the period FY2028 to FY2030.

The 2025 UT5 DAAU proposal applies the MRSB forecasts from FY2028 to FY2030 for each Coal System. For all remaining Years, Aurizon Network has set the forecast capital expenditure to the equivalent FY2030 value for each Coal System, escalated annually at 2.66%.

Aurizon Network notes that updated forecasts will be considered by the RIG and may be updated in accordance with the FY2027 MRSB process. This process culminates in a vote by a Special Majority of End Users, with the voting outcomes communicated to Aurizon Network by no later than 14 February 2026.

To the extent that the FY2027 MRSB as approved by a Special Majority of End Users differs from the capital expenditure forecasts outlined above, Aurizon Network will engage with the QCA to determine an appropriate process for updating the proposed forecasts.

4.6 Other Allowable Revenue matters

There is a range of other matters that will impact the Allowable Revenues and Reference Tariffs during the 2025 UT5 DAAU Term, which may include:

- computations of Aurizon Network's post-tax revenue model;
- changes to Allowable Revenues and Reference Tariffs approved by the QCA from time to time through various processes outlined within the Access Undertaking.

An overview of these matters is provided below.

Tax allowance

The tax allowance reflects the estimated cost of corporate tax payable on Allowable Revenue less annual tax expenses and the value of imputation credits (gamma). The tax allowance is a computation of Aurizon Network's post-tax revenue model using a methodology consistent with the QCA's 2018 UT5 Final Decision. Aurizon Network has supplied the QCA with tax depreciation forecasts relating to the forecast RAB values that are outlined above.

Aurizon Network submits the following tax allowance for the First Reset Period.

Table 4-27 Tax allowance - Non-Electric - First Reset Period (\$m)

Non-Electric Tax	FY2028	FY2029	FY2030	FY2031	FY2032
Blackwater	20.9	23.6	24.9	24.2	24.5
Goonyella	15.3	16.8	17.1	17.4	17.9
Moura	3.8	4.1	4.5	4.8	5.1
Newlands	2.9	3.2	3.4	3.7	3.9
GAPE	5.8	6.3	6.7	7.1	7.2
Total	48.7	54.0	56.7	57.3	58.6

Table 4-28 Tax allowance - Electric - First Reset Period (\$m)

Electric Tax	FY2028	FY2029	FY2030	FY2031	FY2032
Blackwater	3.7	4.1	4.5	4.8	3.9
Goonyella	2.7	2.7	2.6	2.6	2.8
Total	6.5	6.8	7.1	7.4	6.7

Working capital

The working capital allowance is a computation of Aurizon Network's post-tax revenue model and is determined using the same methodology approved in the QCA's 2018 UT5 Final Decision. Aurizon Network submits the following working capital allowance for the First Reset Period.

Table 4-29 Working capital - Non-Electric - First Reset Period (\$m)

Non-Electric Working Capital	FY2028	FY2029	FY2030	FY2031	FY2032
Blackwater	1.4	1.5	1.5	1.5	1.6
Goonyella	1.2	1.2	1.2	1.3	1.3
Moura	0.2	0.2	0.3	0.3	0.3
Newlands	0.2	0.2	0.2	0.2	0.2
GAPE	0.3	0.3	0.3	0.3	0.3
Total	3,3	3.5	3.6	3,6	3.7

Table 4-30 Working capital - Electric - First Reset Period (\$m)

Electric Working Capital	FY2028	FY2029	FY2030	FY2031	FY2032
Blackwater	0.3	0.3	0.3	0.3	0.3
Goonyella	0.2	0.3	0.3	0.3	0.3
Total	0.5	0.6	0.6	0.6	0.6

Approach to modelling

Aurizon Network has developed its Allowable Revenue proposal for the 2025 UT5 DAAU Term using detailed financial models, all of which have been provided to the QCA concurrently with this

submission. The calculation methodology applied by Aurizon Network in determining Allowable Revenues and Reference Tariffs for the 2025 UT5 DAAU Term is consistent with that previously approved by the QCA as part of its 2018 UT5 Final Decision.

Adjustment amounts

The Allowable Revenues and Reference Tariffs included in this submission rely on assumptions and the best available information at a point in time. Aurizon Network notes that during the 2025 UT5 DAAU Term, other regulatory decisions may impact the Allowable Revenues and Reference Tariffs that are outlined within this submission. These processes include, but are not limited to:

- revenue adjustment amounts;
- maintenance cost claims;
- capital expenditure claims and associated Allowable Revenue adjustments;
- outcomes of the annual MRSB process; and
- Endorsed Variation Events.

At the time of drafting, there are no approved adjustment amounts that would impact Allowable Revenues for the 2025 UT5 DAAU Term.

4.7 Reference Tariffs

Schedule F of the Access Undertaking contains the Allowable Revenues for each Coal System. Reference Tariffs are set to recover the Allowable Revenue for each Year from the forecast volume and are levied on various operational metrics, the purpose of which is to account for the differences in TSEs, distance between mine and port and forecast net tonnage for each origin to destination pairing.

Aurizon Network's proposed Reference Tariffs for each Coal System for the First Reset Period are set out below. As noted previously, Aurizon Network's Allowable Revenues and Reference Tariffs may be subject to change in accordance with the various processes contained in the 2025 UT5 DAAU.

Table 4-31 Blackwater System - Reference Tariffs: First Reset Period (\$)

Blackwater	FY2028	FY2029	FY2030	FY2031	FY2032
AT ₁	1.16	1.19	1.22	1.25	1.29
AT ₂	2,862.84	2,938.99	3,017.16	3,097.41	3,179.79
AT ₃	9.00	9.49	9.79	9.71	9.83
AT ₄	2.97	3.13	3.23	3.20	3.24
AT ₅	4.31	4.47	4.63	4.78	4.61
EC	1.35	1.38	1.42	1.46	1.50
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250
TP ₁	0.060	0.062	0.063	0.065	0.067
TP ₂	0.167	0.172	0.176	0.181	0.186

Table 4-32 Goonyella System – Reference Tariffs: First Reset Period (\$)

Goonyella	FY2028	FY2029	FY2030	FY2031	FY2032
AT ₁	0.80	0.82	0.85	0.87	0.89
AT ₂	1,813.78	1,862.02	1,911.55	1,962.39	2,014.58
AT ₃	6.59	6.92	7.09	7.27	7.45
AT ₄	1.35	1.42	1.46	1.49	1.53
AT ₅	2.58	2.61	2.66	2.70	2.79
EC	1.35	1.38	1.42	1.46	1.50
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250
TP ₁	0.060	0.062	0.063	0.065	0.067
TP ₂	0.298	0.306	0.314	0.323	0.331

Table 4-33 Moura System – Reference Tariffs: First Reset Period (\$)

Moura	FY2028	FY2029	FY2030	FY2031	FY2032
AT ₁	2.15	2.21	2.27	2.33	2.39
AT ₂	847.89	870.45	893.60	917.36	941.76
AT ₃	14.62	15.41	16.17	16.90	17.50
AT4	2.35	2.47	2.59	2.71	2.81
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250
TP ₁	0.060	0.062	0.063	0.065	0.067
TP ₂	0.374	0.384	0.394	0.405	0.415

Table 4-34 Newlands System - Reference Tariffs: First Reset Period (\$)

Newlands	FY2028	FY2029	FY2030	FY2031	FY2032
AT ₁	2.24	2.30	2.36	2.43	2.49
AT2	383.41	393.61	404.08	414.83	425.86
AT ₃	9.57	10.31	10.70	11.12	11.38
AT ₄	1.33	1.44	1.49	1.55	1.59
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250
TP ₁	0.060	0.062	0.063	0.065	0.067
TP ₂	0.430	0.442	0.454	0.466	0.478

Table 4-35 GAPE - Reference Tariffs: First Reset Period (\$)

GAPE	FY2028	FY2029	FY2030	FY2031	FY2032
AT ₁	1.81	1.85	1.90	1.95	2.01
AT ₂	11,785.81	12,131.61	12,266.47	12,464.03	12,318.13
AT ₃	0.80	0.79	0.80	0.81	0.82
AT ₄		-	-	-	
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250
TP ₁	0.060	0.062	0.063	0.065	0.067
TP ₂	0.186	0.191	0.197	0.202	0.207

Reference Tariff components

AT1 and AT2

The AT₁ and AT₂ Reference Tariffs are cost causative unit rates approved by the QCA as part of prior regulatory processes and escalated over time. The rate of escalation applied to the AT₁ and AT₂ Reference Tariffs for each Year (excluding the GAPE AT₂ Reference Tariff) is 2.66%.

Aurizon Network has not applied annual escalation to the GAPE AT₂ Reference Tariff because doing so would result in a negative GAPE AT₄ Reference Tariff. This occurs because the GAPE AT₂ Reference Tariff is significantly higher than in other Coal Systems. As a result, the expected revenue recovery via the AT₁ and AT₂ Reference Tariff components would exceed the GAPE Allowable Revenue for the year. Aurizon Network has reduced the GAPE AT₂ Reference Tariff to preserve a non-negative GAPE AT₄ Reference Tariff. The GAPE AT₂ has been reduced only to the extent necessary, i.e., such that AT₄ is \$Nil.

Aurizon Network notes that the 2017 Access Undertaking does not require AT₂ Reference Tariffs to be escalated and that by not applying AT₂ escalation there is no impact to the overall Allowable Revenues to be recovered from GAPE Train Services. Aurizon Network considers this approach to be reasonable as non-negative Reference Tariffs will better allow operational differences between Access Holders to be accounted for when calculating Access Charges.

AT3, AT4 and AT5

The AT₃, AT₄ and AT₅ are allocative tariffs, which are calculated within Aurizon Network's regulatory models to recover:

- in the case of AT₃ and AT₄, the remainder of non-electric Allowable Revenue after deducting the expected revenue to be collected from the AT₁ and AT₂ Reference Tariffs; and
- in the case of AT₅, the electric Allowable Revenue from the expected egtk. In non-electrified Coal Systems, there is no AT₅ Reference Tariff.

Forecast IE Pass Through Cost

Under section 7A.3.4 of the 2017 Access Undertaking, the cost incurred by the Independent Expert in performing its role under the 2017 Access Undertaking is passed through to Access Holders by Aurizon Network (the IE Pass Through Cost). In accordance with these provisions, in February of each Year, the Independent Expert, being the Coal Network Capacity Company (CNCC), will notify Aurizon Network of the forecast IE Pass Through Cost for the following Year. This notification includes relevant adjustments to account for any prior Year's under- or over-recovery.

Following discussions with the CNCC as part of engagement for the 2025 UT5 DAAU, Aurizon Network agreed to extend the date by which the CNCC must provide the IE Pass Through Cost to Aurizon Network. The intent of this change is to minimise the extent of any variance between forecast and actual costs. For this purpose, Aurizon Network proposes that CNCC provides Aurizon Network with the IE Pass Through Cost by 14 April of each Year. Aurizon Network will then submit the updated IE Pass Through Cost to the QCA as part of the annual review of Reference Tariffs - specifically the 30 April update of defined inputs.

For this submission, Aurizon Network has applied the approved FY2026 IE Pass Through Cost (\$4.7 million in FY2026, escalated annually at 2.66%) as a placeholder value for all Years, noting that these values will be updated prior to the commencement of each Year. The placeholder IE Pass Through Cost for each Year of the 2025 UT5 DAAU Term is provided in Table 4-36.

Table 4-36 IE Pass Through Cost: First Reset Period

Description	FY2028	FY2029	FY2030	FY2031	FY2032
Estimated IE Pass Through Cost (\$m)	5.0	5.1	5.2	5.4	5.5
CQCN volume forecast (million Net Tonnes)	221.0	221.0	221.0	221.0	221.0
IE Fee (\$/Net Tonne)	0.0225	0.0231	0.0237	0.0243	0.0250

Electric energy tariff

The sale of electricity does not form part of the declared service and consequently is not part of Aurizon Network's Allowable Revenue. Aurizon Network procures electricity for the benefit of Access Holders through a progressive purchasing arrangement. Aurizon Network recovers the costs of providing this service to Access Holders through the EC tariff.

The EC tariff is set to recover the forecast costs relating to the consumption of electric energy and is updated annually for the following Year by 31 May in accordance with the 2017 Access Undertaking.

For this submission, Aurizon Network has applied the cost estimate of electric energy and variable connection charges that were approved for FY2026 (i.e., \$75.2 million and escalated annually at 2.66%) as a placeholder value for all Years, noting that these values will be updated prior to the commencement of each Year during the 2025 UT5 DAAU Term. These amounts are outlined in Table 4-37.

Table 4-37 Preliminary EC Tariff: First Reset Period (\$ per egtk'000)

Description	FY2028	FY2029	FY2030	FY2031	FY2032
Electric Energy and Variable Connection Charge Cost (\$m)	79.4	81.5	83.7	85.9	88.2
Total egtk'000 forecast	58,970,213	58,970,213	58,970,213	58,970,213	58,970,213
EC	1.35	1.38	1.42	1.46	1.50

Clause 2.2(e) of Schedule F requires Aurizon Network to separately identify the Environment Compliance Charge and Variable Connection Charge within the EC tariff. The composition of the approved FY2026 cost estimate is provided in Table 4-38 and these proportions carry through to each Year. Aurizon Network will publish updated information as part of the annual update to the EC tariff.

Table 4-38 Composition of the preliminary electric energy charge: First Reset Period

Cost component	%
Consumption and Supply	81
Environment Compliance Charge	8
Variable Connection Charge	10

QCA Levy

The QCA Levy for each year is set to recover the fees imposed by the QCA in undertaking its regulatory responsibilities.

On 21 August 2025, the QCA approved Aurizon Network's proposed adjusted QCA Levy for FY2026, which would apply for a ten-month period commencing 1 September 2025. For each year of the 2025 UT5 DAAU Term, Aurizon Network proposes to set the placeholder QCA Levy to reflect the full year equivalent QCA Levy for FY2026 (i.e., \$3.5 million, escalated annually at 2.66%). The QCA Levy will be updated annually once the QCA has advised Aurizon Network of the relevant fees for each Year. The placeholder QCA Levy for each year of the First Reset Period is contained in Table 4-39.

Table 4-39 QCA Levy: First Reset Period (\$ per Net Tonne)

QCA Levy	FY2028	FY2029	FY2030	FY2031	FY2032
QCA Fees (\$m)	3.7	3.8	3.9	4.0	4.1
CQCN volume forecast (million net tonnes)	221.0	221.0	221.0	221.0	221.0
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185

TP₁ and TP₂

TP₁ and TP₂ do not form part of Aurizon Network's Allowable Revenue and relate to Throughput Payments. The rationale and basis for calculating TP₁ and TP₂ are described in Chapter 5.

The indicative values of TP₁ and TP₂ for each Coal System and for each year of the First Reset Period are provided in Table 4-40 and Table 4-41. In deriving these estimates, Aurizon Network has assumed an annual rate of escalation of 2.66% and that no TP Adjustment Factor will apply to the value of TP₂. The actual value of TP₁ and TP₂ will be determined in accordance with the 2025 UT5 DAAU.

Table 4-40 TP₁ (\$ per Net Tonne)

TP ₁	FY2028	FY2029	FY2030	FY2031	FY2032
All Systems	0.060	0.062	0.063	0.065	0.067

Table 4-41 TP₂ (\$ per ntk)

TP ₂	FY2028	FY2029	FY2030	FY2031	FY2032
Blackwater	0.167	0.172	0.176	0.181	0.186
Goonyella	0.298	0.306	0.314	0.323	0.331
Moura	0.374	0.384	0.394	0.405	0.415
Newlands	0.430	0.442	0.454	0.466	0.478

TP ₂	FY2028	FY2029	FY2030	FY2031	FY2032
GAPE	0.186	0.191	0.197	0.202	0.207

5. Rate of Return

Risk free rate

Engagement Methods Used Engagement Outcome RWG - Representative Panel Agreed with Customers Technical working group



Industry advocates

The 2018 UT5 Final Decision applied a risk free rate with a term of four years, in alignment with the length of the regulatory period. After this decision, the QCA published its Final Report from its 2021 Rate of Return Review (the QCA's Rate of Return Report), which concluded that the appropriate risk free rate that reflects the rate of return an investor would expect to receive on an asset with zero default risk would be an Australian Government nominal bond yield with:

- a term to maturity of ten years (being the longest term of sufficient liquidity); and
- averaged over a period nominated by the regulated entity that is between 20 and 60 business days in length and ending as close as reasonably possible to the commencement of the regulatory term.

Consistent with the QCA's Rate of Return Report, Aurizon Network amends UT5 to adopt a risk free rate on Australian Government Securities (AGS) with a ten-year maturity.

Data source

The data source will be the Indicative Mid Rates of Selected Australian Government Securities. F16 series published by the Reserve Bank of Australia (RBA). The nominal ten-year yield will be:

- the interpolated yield on the two bonds with maturities immediately prior to, and following, the target maturity of ten years for which complete data is available over the nominated averaging period; and
- annualised to an effective annual rate (EAR) using the following approach:

$$EAR = \left(1 + \frac{i}{2}\right)^2 - 1$$

Averaging periods

As the 2025 UT5 DAAU is expected to be approved prior to its effective commencement date of 1 July 2027, there will be two resets of the risk free rate during the term:

- the First Reset Date on 1 July 2027; and
- the Second Reset Date on 1 July 2032.

For the period up to 30 June 2027, the approved risk free rate will remain at 3.87%²¹.

Aurizon Network will nominate an averaging period of 20 to 40 Business Days within an eligible nomination window of 1 January to 30 April preceding the relevant reset date. The 30 April end date for the eligible nomination window is intended to ensure that this updated input can be incorporated into the Allowable Revenues and Reference Tariffs prior to the commencement of the relevant Reset Period. This is a simpler approach than the one currently applied under the 2017 Access Undertaking, where the risk free rate has been updated over the 20 Business Days up to (and including) 30 June (the **Reset Risk Free Rate**), necessitating an ex-post adjustment through the Revenue Adjustment Amounts process.

Under the 2025 UT5 DAAU, Aurizon Network must provide notice to the QCA of the nominated averaging periods at least 28 calendar days prior to the commencement date of the nominated averaging period.

5.2 Cost of equity

Engagement Outcome
Agreed with Customers

Equity Margin

The 2018 UT5 Final Decision applied an Equity Margin of 5.11%, which is obtained from:

- a market risk premium (MRP) of 7.0%; and
- an equity beta of 0.73²².

The MRP reflected the value applicable to a four-year term-matched risk free rate of 1.91%. The 2018 UT5 Final Decision also stated that had a ten-year risk free rate been applied, the MRP would necessarily have been 6.5%. Adjusting for the use of ten-year risk free rate, the implied Equity Margin in the 2018 UT5 Final Decision would be 4.75%.

The package of changes reflecting the outcomes of the engagement with Customers include changes that:

- reduce Aurizon Network's short- to medium-term cash flow volatility through ToP reforms;
- remove the possibility of material windfall gains or losses on the unhedged debt risk premium in the staggered maturity debt portfolio; and

²¹ The risk free rate of 3.87% was approved by the QCA on 19 October 2023 as part of the Reset Schedule F values. This approval was for the application of that risk free rate for reminder of the existing UT5 Term until 30 June 2027.

²² An unlevered asset beta of 0.42. The QCA 2021 Rate of Return Review has updated its levering approach to the Brealey-Myers using a debt beta of 0.12. Using this approach the unlevered asset beta required to obtain an equity beta of 0.73 at 55% gearing is 0.39.

 apply proportionate changes to the depreciation policy to reflect changes in longer term demand uncertainty since the approval date of the 2017 Access Undertaking.

Aurizon Network has therefore discussed with the Customers to extend the ten-year implied Equity Margin from the 2018 UT5 Final Decision of 4.75% at the relevant reset date, subject to the interest rate conditions discussed below. This Equity Margin is equivalent to:

- a MRP of 6.3% as applied in recent QCA decisions²³; and
- an equity beta of 0.75.

Updating the Equity Margin at the Reset Dates

The MRP applicable to the Equity Margin reflects the historical excess returns above the ten-year risk free rate calculated using the Ibbotson method. The implicit assumption of the Ibbotson method is that the MRP is relatively stable and there is a perfect positive correlation between the risk free rate and the total market return (**TMR**).

The alternate approach to historical excess returns is the Wright method that assumes the TMR is relatively stable and the MRP is perfectly negatively correlated with the risk free rate. In practice, neither of these assumptions will be strictly valid and there is insufficient robust empirical evidence to support a definitive conclusion on the stability (or otherwise) of the MRP relative to changes in the risk free rate. CEPA has previously recommended to the Australian Energy Regulator (AER) that a hybrid of both approaches may provide a more reasonable estimate of the MRP noting that such an approach:

...relies on an assumption that there is a negative correlation between the RfR and the MRP but this correlation is not perfect, so that a fall (/rise) in the risk free rate would lead to a rise (/fall) in the MRP, but the change in the MRP would be smaller than that of the risk free rate. Analysis of historical data or alternative approaches could be used to calibrate the mode.²⁴

The comparison of the Ibbotson and Wright methods was considered by the QCA in its Rate of Return Report with the QCA concluding:

At this stage we will continue to use the Ibbotson method and will place no weight on the Wright method. We consider that the Ibbotson method is likely to provide a plausible indication of the average market risk premium investors can expect to receive in normal conditions. Although we are not placing any weight on the Wright method, we plan to monitor the future movement of the risk free rate and the MRP.²⁵

The QCA notes the Ibbotson method is likely to be the preferred estimation method under 'normal' conditions but does not seek to classify or define under what conditions alternate methods might be appropriate. This is not an unreasonable view in the absence of all relevant information that might be applicable to determining what weights should be given to alternate methods. The QCA acknowledges this uncertainty and the need to retain some flexibility and discretion in response to relevant market conditions:

We note that it is possible that an overall cost of equity (deemed reasonable) is not dissimilar to a cost of equity determined using an MRP based on both the Wright and Ibbotson methods, depending on the prevailing market circumstances. While we recognise that such

²³ Queensland Competition Authority (2025b). Gladstone Area Water Board price monitoring investigation 2025-30, April; Queensland Competition Authority (2025a).

²⁴ Cambridge Economics Policy Associates (2021). Relationship between RFR and MRP, Australian Energy Regulator, 16 June, p.44.

²⁵ Queensland Competition Authority (2024). Rate of Return Review, Version 4, September, p.69.

an approach introduces a degree of discretion, we consider that this is necessary, given that an entirely fixed or formulaic approach to determining a reasonable cost of equity is unlikely to be robust across the entire spectrum of possible market conditions.²⁶

Notwithstanding this, based on Aurizon Network's discussions with the Customers it has been determined that it is appropriate to adjust the Equity Margin in a formulaic way at a Reset Date where the Reset Risk Free Rate falls outside a specified range, as follows:

- Where the Reset Risk Free Rate within the nominated averaging period falls within the range of 2% to 6% inclusive, the Equity Margin will be 4.75%.
- If the Reset Risk Free Rate falls outside of this 2% to 6% range, then the Equity Margin will be adjusted by multiplying 4.75% by the relative change in the equally weighted average MRP of the Ibbotson and Wright methods at the Reset Date compared to the equally weighted average MRP of the Ibbotson and Wright methods as of 31 December 2024 (calculated as set out below).

In setting the range of 2% to 6%, Aurizon Network has had regard to the range of outcomes in the 20-day moving average of the yield on ten-year AGS since the commencement of inflation targeting in monetary policy to ascertain what represents a reasonable range of 'normal' economic conditions. For example, where the risk free rate is less than 2%, then under the Wright method the MRP would be expected to increase significantly to maintain a stable TMR.

The application of the hybrid MRP from both the Wright and Ibbotson methods moderates the materiality of the change in the MRP. As shown in Figure 5-1, under normal economic conditions (excluding, for example, the COVID-19 period), the 20-day moving average of the yield on ten-year AGS predominantly lies within the 2% to 6% range.

²⁶ Queensland Competition Authority (2024). p.76.

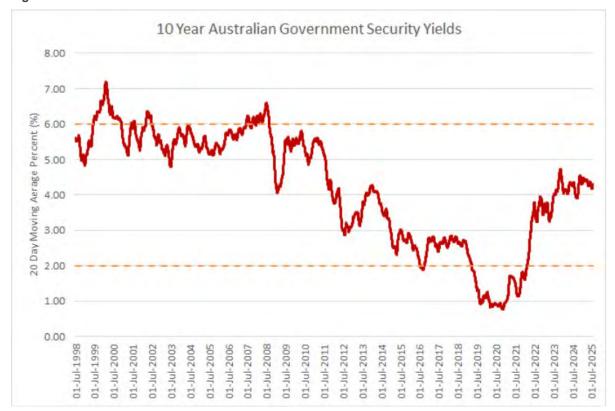


Figure 5-1 Historical risk free rates

The MRP for both the Ibbotson and the Wright methods will be calculated by applying the methods and assumptions in the AER's published Historical Excess Returns (**HER**) workbook²⁷. Aurizon Network has adopted the AER's HER workbook to provide transparency to customers regarding how the MRP under both the Ibbotson and Wright methods is calculated. Aurizon Network recognises that there are differences in the absolute MRP estimates obtained from the AER HER workbook and those calculated by the QCA. The differences arise primarily as a result of the following factors:

- the AER assumes a utilisation rate of franking credits of 0.65 whereas the QCA applies a utilisation rate of 0.55; and
- the AER uses the semi-annual yield on the risk free rate where the QCA uses the effective annual rate.

Both differences produce higher estimates of the TMR and MRP under the AER's model with the difference as of 31 December 2024 being 24 basis points. However, the adjustment to the Equity Margin relies on a relative change in the AER estimates and therefore is not dependent on the absolute differences between the AER's and the QCA's methods to estimate the MRP.

Where the first and second Reset Risk Free Rate falls outside of the 2% to 6% band, Aurizon Network will update and submit the varied Equity Margin concurrently with the Reset Risk Free Rate in updating the Approved WACC.

Aurizon Network

_

²⁷ Australian Energy Regulator (2022) Historical Excess Returns, 2022. Available at: https://www.aer.gov.au/documents/aer-historical-excess-returns-december-2022

Calculating the Ibbotson MRP

Consistent with the QCA's Rate of Return Report, Aurizon Network applies the arithmetic average of the historical excess return data from 1958 with data sourced as follows:

- Stock accumulation data: The stock accumulation index is obtained from the annual rate of change in the average index value over the month of December from year to year.
- Bond data: The ten-year bond yield is obtained from the last trading day on or before 31
 December each year. This is the interpolation of the two bonds with tenors above and below
 the target tenor of ten years without being annualised.
- Imputation data: The average imputation rebate yield (%) is the ATO published value for 31 December each year.
- Actual inflation data: The inflation data is the December quarter CPI from same quarter in the previous year for Australia: All Groups.

Updating the AER's HER workbook to 31 December 2024 obtains an MRP estimate for the Ibbotson method of **6.66**%. The value corresponds to the value obtained from cell M150 in the updated 'BHM Rm, MRP Calculations' worksheet, an extract of which is provided in Figure 5-2.

D M Stock MRP For accumulatio 2 Year 10Y Bonds Inflation n index Real Rm + 1 GEOMEAN - 10v Real Rm 2012 0.15 0.12 132 0.03 0.02 1.12 1.12 2013 0.04 1 15 133 0.03 0.19 0.16 1.16 134 2014 0.03 0.02 0.07 0.05 1 05 1 04 135 2015 0.03 0.02 0.04 0.02 1.02 1.01 136 2016 0.03 0.02 0.14 0.12 1.12 1.11 137 2017 0.03 0.02 0.14 0.12 1.12 1.12 0.02 138 2018 0.02 (0.02)(0.04)0.96 0.96 139 2019 0.01 0.02 0.27 0.24 1.24 1.25 140 2020 0.01 0.01 0.04 0.03 1.03 1.03 141 2021 0.02 0.04 0.16 0.12 1.12 1.14 142 2022 0.04 0.08 0.01 (0.06)0.94 0.97 143 2023 0.04 0.04 0.08 1.04 0.04 1.04 144 2024 0.04 0.02 0.18 0.15 1.15 1.14 145 Theta 0.65 146 Nominal Nominal Rm Nominal Rm MRP (Geometric) - MRP (Arithmetic) Real Rm Real Rm Rm Real Rm 147 (Arithmetic) 10Y (Arithmetic) (Geometric) (Arithmetic (geometric) (Geometric) 10Y 148 1883-2024 0.099 0.083 0.069 0.110 0.072 0.113 0.051 0.064 149 1937-2024 0.070 0.053 0.096 0.057 0.101 0.084 0.045 150 1958-2024 0.082 0.062 0.109 0.068 0.114 0.094 0.046 0.067

0.077

0.076

0.122

0.120

0.104

0.103

0.048

0.051

0.067

0.064

Figure 5-2 Extract from the AER's Historical Excess Returns workbook

Calculating the Wright MRP

0.086

0.079

The MRP from the Wright method is obtained from applying the following steps:

0.114

0.105

0.069

0.066

- 1. Compute the arithmetic average real return on a broadly diversified stock market index over an historical period. This value is calculated using the Fisher equation and is obtained from the updated 'BHM Rm, MRP Calculations' worksheet.
- 2. Use the Fisher relation to apply the prevailing ten-year inflation forecast to the average real return calculated above.
- 3. Subtract the prevailing risk free rate.

151 1980-2024

152 1988-2024

For consistency with the AER's HER model, Aurizon Network will apply the AER's methodology for the forecast inflation rate, which involves:

- adopting the RBA's prevailing forecasts for years one and two of the forecast period; and
- applying a linear glide path to the 2.5% mid-point of the RBA's target inflation band in year five.

To obtain a ten-year inflation forecast, the RBA's midpoint of 2.5% is applied for years six to ten. The forecast ten-year inflation rate is the geometric mean of these forecasts. The ten-year forecast inflation estimate as of 31 December 2024 is **2.62%** as shown in Table 5-1.

Table 5-1 10 year inflation forecast as of 31 December 2024

Year	1	2	3	4	5	6-10
Year ending	Dec 25	Dec 26	Dec 27	Dec 28	Dec 29	Dec 34
CPI Forecast (%)	3.7	2.5	2.5	2.5	2.5	2.5
I + CPI	1.037	1.025	1.025	1.025	1.025	1.025
Geomean – 1	2.62%					-

The MRP for the Wright method as of 31 December 2024 is then obtained by the following steps.

 Applying the Fisher equation to the real market return (r_m), which produces an estimate of the expected nominal return on the market portfolio of 11.55%:

$$r_m$$
, nominal = $(1 + r_m$, real) $(1 + forecast inflation) - 1$
= $(1.0871)(1.0262) - 1 = 11.56\%$

Subtracting the prevailing ten-year AGS yield of 4.37% from the expected nominal market return.
 This produces an estimate of the MRP using the Wright approach of 7.19%.

Equity Margin adjustment

The simple average MRP obtained from the Ibbotson and Wright methods as at 31 December 2024 is 6.93%:

$$\frac{(6.66\% + 7.19\%)}{2} = 6.93\%$$

The Equity Margin at the reset date, where the Reset Risk Free Rate is less than 2% or more than 6%, would be:

$$4.75\% \times \frac{Prevailing Hybrid MRP}{6.93\%}$$

Where: The Prevailing Hybrid MRP is the average of MRP obtained from the Ibbotson and Wright methods using updated inputs for forecast inflation and Risk free Rate prevailing in the relevant Risk Free Rate Averaging Period.

5.3 Cost of debt

Engagement Methods Used	Engagement Outcome			
RWG - Representative Panel	Agreed with Customers			
Technical working group				
Industry advocates				

This section sets out the estimation of Aurizon Network's cost of debt and explains the following key matters that reflect the outcomes of the engagement:

- the implementation of the trailing average approach to estimate the cost of debt;
- the benchmark credit rating; and
- debt Change Events.

Cost of debt estimation approach

The trailing average approach

To date, Aurizon Network's cost of debt has been estimated based on the 'on-the-day' approach, consistent with the preferred approach that had been historically applied by the QCA prior to its 2021 Rate of Return Review ²⁸. This involved resetting the cost of debt over a short averaging period preceding (and close to) the start of the next regulatory period. This applied to the risk free rate (which is also used in calculating the cost of equity) and the debt risk premium (**DRP**). The rationale for that approach was that the cost of debt should reflect prevailing market interest rates at the time of setting prices at the start of each regulatory period.

The QCA has previously acknowledged that a regulated firm seeking to minimise the risks associated with this approach (including minimising the risk of mismatch between the regulated and actual cost of debt) would employ the following strategy:

- the firm would refinance all if its debt using ten-year bonds over the averaging period that is used to estimate the regulated cost of debt;
- the firm will then use interest rate swaps to convert the base rate (the risk free rate) from a tenyear rate to a rate that matches the term of the regulatory period; and
- the firm will enter into credit default swaps to hedge the DRP component.²⁹

The AER has also stated that this is the only prudent and efficient strategy under this regime.³⁰

However, given the limited availability, liquidity and market depth for credit default swaps in Australia, the last step is not feasible, meaning that it is not possible for the firm to replicate the benchmark debt management strategy that would enable it to minimise the risk of mismatch between the regulated and actual cost of debt.

²⁸ https://www.qca.org.au/project/rate-of-return-matters/rate-of-return-review-2021/

²⁹ Queensland Competition Authority (2015). Final Decision, Trailing average cost of debt, April, pp.10-11.

³⁰ Australian Energy Regulator (2013). Rate of Return Guideline: Explanatory Statement, pp. 107,121, December.

While it is recognised that the actual cost of debt need not always match the regulated allowance, the on-the-day approach made it extremely difficult, if not impossible, to minimise the risk of mismatch should the firm choose to do so.

Change in the QCA's preferred approach

The QCA reviewed this approach as part of its 2021 Rate of Return Review. Its estimation approach has been referenced to what it considers to be the debt management strategy that would be employed by the efficient benchmark firm.

It recognised that in practice, instead of the strategy outlined above, an efficient capital-intensive infrastructure provider is likely to maintain a portfolio of debt with staggered maturity profiles in order to manage its refinancing risk. The QCA therefore determined that it would change its approach to estimate the cost of debt to the trailing average approach, which was also consistent with the general trend in economic regulation in Australia. It concluded that this would be its single preferred efficient benchmark debt management strategy, recognising that there is no 'one-size fits all' approach in practice.³¹ It also considered that a choice of approaches could see a firm select the approach that maximised its cost of debt.

Another important issue to be considered with this change in approach is whether transitional arrangements should be required. The QCA's preferred approach is to not allow for a transition, other than in "exceptional circumstances". ³² It will consider this on a limited case-by-case basis, providing the following guidance:

As such, we reaffirm our position of considering flexible arrangements in limited circumstances where applying a trailing average debt management strategy without such arrangements creates material and adverse impacts on a firm that are not related to its own inefficiency. For example, at its next regulatory review, Aurizon Network could negotiate with its customers on suitable transition arrangements to unwind elements of its hybrid debt management strategy to match the benchmark trailing average debt management strategy. We would consider the adoption of such arrangements on a case-by-case basis.³³

Aurizon Network also notes that the Ministerial Referral provided to the QCA for Gladstone Area Water Board's (GAWB's) recent 2025-30 bulk water price review directed it to apply a ten-year transition to the full trailing average.³⁴ This transition was based on the AER's approach. The structure of GAWB's funding will reflect its arrangements with Queensland Treasury Corporation.

Role of the QCA's 2021 Rate of Return Review and the statutory requirements

Estimation of the rate of return for regulatory purposes is technical but also inherently imprecise. It has therefore been the subject of some contention and debate historically. In recognition of this, several Australian regulators, including the QCA, have therefore developed rate of return guidelines³⁵.

In publishing its Rate of Return Report³⁶, the QCA acknowledges that it is non-binding:

³¹ Queensland Competition Authority (2024). p.38.

³² Queensland Competition Authority (2024). p.56.

³³ Queensland Competition Authority (2024). p.58.

³⁴ https://www.qca.org.au/wp-content/uploads/2023/12/amending-referral-notice-gawb.pdf

³⁵ In electricity network regulation, the National Electricity Rules requires the Australian Energy Regulator to develop and publish a Rate of Return Guideline.

³⁶ The QCA's Final Report from this review was first published in 2021. This has been subject to minor amendments since that time. All references herein to the QCA's Rate of Return Report refer to Version 4, published in September 2024.

This review process was not intended to prescribe a binding methodology for rate of return assessments, but rather to provide our latest consideration of these matters to guide stakeholders. Our intention is that in future regulatory reviews that require an assessment of rates of return, all stakeholders will be given an opportunity to make submissions, which we will consider on their merits.³⁷

Within this context, reference needs to be made to the requirements of Part 5 of the Act, the object of which is to "promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided" ³⁸.

Section 138(2) of the Act sets out the key matters that the QCA must consider in approving a DAU (which are also relevant to consideration of a DAAU). As noted above, these matters, together with a review of regulatory precedents (including decisions by the QCA), and a review of relevant court decisions, govern the way in which the QCA is required to exercise its discretion to approve or reject a DAAU. One of these matters is the pricing principles specified in section 168(A), which includes that a price for access should "generate expected revenue for the service that is 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 involved".³⁹

To inform its approach to this review and its discussions with customers, Aurizon Network procured a report from Frontier Economics (**Frontier**) on the most appropriate efficient benchmark debt strategy to apply in estimating its cost of debt (refer Attachment A). Having regard to these statutory requirements, Frontier considered that there are two main elements that are relevant to an economic analysis of alternative approaches to the allowed cost of debt:

- the objective of economic efficiency; and
- the requirement that the regulatory allowance must be at least enough to meet the efficient costs of providing access to the service.

Frontier therefore considers that the economically efficient outcome is where the allowed cost of debt at least reflects the costs that would be incurred by a benchmark efficient entity operating a prudent and efficient debt management strategy. ⁴⁰ Frontier also advises that any benchmark debt strategy developed in accordance with these statutory requirements should be mechanical, transparent and replicable.

The QCA acknowledges that the rate of return arises in different contexts under the Act, including under Part 5 where Access Undertakings are subject to commercial negotiation. It noted and agreed with stakeholder submissions that highlighted the benefits of negotiated outcomes, stating that:

We consider that there are benefits to negotiated outcomes, and where such outcomes are legally permitted and do not create anti-competitive effects, they should not be interfered with. Moreover, if a regulated entity and its customers support a proposed rate of return, the parties have made their own assessment of the benefits and costs of the agreement underpinning it, including the commercial and regulatory risks. As such, the agreed position represents an alignment of the parties' interests. Customers would not be incentivised to support provisions that increase their own costs without receiving corresponding benefits.⁴¹

³⁷ Queensland Competition Authority (2024). p.1.

³⁸ Section 69E.

³⁹ Section 168A(a).

⁴⁰ Frontier Economics (2025). The Allowed Cost of debt, Report for Aurizon Network, p.7.

⁴¹ Queensland Competition Authority (2024). p.12.

The QCA therefore concluded that where an access provider and its customers were able to reach agreement on the rate of return, "or such other commercial agreement that makes no mention of a rate of return", that this "would likely have a significant influence on our regulatory assessment (if relevant), subject to our other statutory obligations."⁴² Examples it provides of these other statutory obligations includes the interest of future users and/or the public interest.

Over time, Aurizon Network has generally sought to align with the QCA's preferred approaches to estimating the rate of return (including the cost of debt), unless it has a compelling reason for proposing an alternative. Consistent with the QCA's Rate of Return Report, Aurizon Network is proposing to change the approach to estimating the cost of debt away from the on-the-day to the trailing average approach, noting that it welcomes the QCA's recognition of the material risks implied by the on-the-day approach, along with the need to have reference to an efficient benchmark debt strategy.

The key issue for Aurizon Network, which has also been the focus of its negotiations, is the relevant benchmark debt strategy, having regard to the QCA's preferred strategy outlined in its Rate of Return Report. This is explored further below.

Determining the efficient benchmark debt management strategy

Frontier undertook an analysis of the efficient benchmark debt management strategy for Aurizon Network having regard to the statutory requirements outlined above, along with the principles of ensuring that the approach is mechanical, transparent and replicable. Reference is also made to a report from Competition Economists Group (**CEG**), which was attached to Aurizon Network's submission in response to the QCA's Draft Report for the 2021 Rate of Return Review and is attached to this submission as Attachment B.

Recognising that a firm's debt management strategy is fundamentally a risk management strategy, both CEG and Frontier identify the two key sources of risks that are relevant in determining whether a particular debt management approach is prudent and efficient as:

- refinancing risk, which is the risk that the firm is unable to refinance debt when required or is only able to do so on unfavourable terms;
- mis-match risk, which is the risk that a regulated firm's actual cost of debt materially increases above the allowed cost of debt that is used to set prices.

In managing these (and other) risks, CEG identified the primary goal of efficient debt management for a firm is to avoid insolvency or bankruptcy costs, actual or perceived. It explained that there does not have to be an imminent threat of bankruptcy or insolvency to have a material influence on the firm's debt management strategy – what is relevant is the potential impact of firm decisions on its continued future solvency.⁴³

Frontier identifies two candidate approaches, both of which have been considered by the QCA and other Australian regulators in moving to a trailing average approach.

Full trailing average

This assumes that the regulated firm issues fixed rate debt on an overlapping, staggered maturity basis. Assuming a term of ten years, the firm would have ten tranches of ten-year debt, with each

⁴² Queensland Competition Authority (2024). p.12.

⁴³ Competition Economists Group (2021). Efficient Regulatory Benchmarks, and Transitions, for the Cost of Debt, August.

tranche issued one year apart. Each year, one tranche of debt will mature and be refinanced with a new tranche of ten-year debt.

To reflect this approach, the regulated cost of debt would be set based on the average yield of the ten tranches of debt, which is updated annually for the refinancing of each tranche at the then prevailing market yield. This is the QCA's preferred approach in its Rate of Return Report.

Hybrid trailing average

Under this approach the regulated firm issues floating rate, rather than fixed rate, debt. The floating rate debt involves the payment of a floating base rate plus a fixed DRP. The DRP is fixed at the time of issuance of each tranche of debt – each tranche is assumed to still have a ten-year term.

At the beginning of each regulatory period, the firm uses interest rate swaps to convert the floating base rate into a fixed rate obligation for the relevant regulatory period. Each year, each maturing tranche of ten-year floating rate debt is refinanced at the then prevailing market yield.

To reflect this approach, the regulated cost of debt would be the sum of the base rate that has been locked in at the start of the regulatory period (applied to all tranches of debt) and the average DRP of the ten tranches.

While the QCA has previously acknowledged the efficiency of the hybrid approach (as noted above), its preferred approach as set out in its Rate of Return Report is the full trailing average.

In responding to a submission by the Dalrymple Bay Coal Terminal (**DBCT**) User Group who supported the hybrid approach, the QCA considered this approach an "artefact of the regulatory process" that is not adopted by unregulated firms operating in a competitive market.⁴⁴ In this context, Aurizon Network submits that this is not a relevant consideration. If the practical implications of the regulatory framework are ignored on the presumption that the regulated firm should implement a strategy that is consistent with the practices of an unregulated firm operating in a competitive market, the firm will be exposed to significant mis-match risk. This was also acknowledged by Lally in the QCA 2015 Cost of Debt Review who noted:

Furthermore, the goal of replicating the cost of debt incurred by an efficient comparable unregulated firm is inappropriate because such comparator firms do not exist and regulation changes the revenues of a firm, so that some cost policies that were sensible prior to regulation might not be so post regulation.⁴⁵

The Frontier and CEG reports demonstrate that both the hybrid and full trailing average approaches can satisfy the requirements of an efficient benchmark debt strategy as both allow the regulated firm to effectively manage refinancing and mis-match risk.

The need for transition

The other key aspect in implementing this strategy is the QCA's position that no transition to the full trailing average is assumed to be required. In its Rate of Return Report, the QCA stated that it had not sought to provide the analysis of the potential impact of applying no transition, noting that it is not possible to meaningfully determine this when the path of future interest rates is unknown. It concludes

⁴⁴ Queensland Competition Authority (2024). p.49.

⁴⁵ Lally, M. (2015). Review of submissions on the trailing average cost of debt, A report for the Queensland Competition Authority, 27 January, p. 10. https://www.qca.org.au/wp-content/uploads/2019/05/27093 QCA-2014-Review-of-Submissions-on-Trailing-Average-Kd FINAL807867 1-1.pdf

that under "normal circumstances", transition arrangements are not required for a regulatory approach that should be forward looking.

As outlined in the accompanying report by Frontier, if the regulator changes its approach to assessing the allowed cost of debt, the question of whether or not a transition mechanism is required depends on whether:

- the efficient benchmark debt management strategy differs between the old regime (the on-theday approach) and the new regime (the trailing average); and
- it would take some time for the regulated firm to 'unwind' its current (efficient) portfolio and rebuild its portfolio to be consistent with the new regime.

Where a firm is required to change its efficient debt management strategy as a result of the change in regimes, and it would take some time to implement this change, failing to allow for a transition could see "material and adverse impact on a firm that are not related to its own inefficiency." 46

As noted above, in its Rate of Return Report, while the QCA has nominated a preferred benchmark debt management strategy it also indicated that it would be willing to consider alternatives on a case-by-case basis. Aurizon Network considers that given its circumstances, this assessment has to be made in conjunction with a view on whether a transition would be required, having regard to the debt management strategy it employed in seeking to manage its refinancing and mis-match risks under the previous on-the-day approach.

This assessment should also be specific to the circumstances of the regulated firm and the industry in which it operates. For example, what may be appropriate for government owned corporations subject to price monitoring with perpetual demand may not be appropriate to regulated infrastructure providers supporting the resources sector. This is considered further below.

The efficient benchmark debt strategy for Aurizon Network

Given the implied benchmark debt management strategy under the on-the-day approach has not been feasible given the inability to hedge the DRP component, Aurizon Network's debt management strategy has been based on staggering its debt issuance and refinancing tasks to manage its refinancing risk and unhedged credit risk. It also uses interest rate swaps to reduce the risk of mismatch with respect to the base interest rate by converting its base rate exposure to align with the term of the regulatory (or reset) period. Aurizon Network and customers have remained fully exposed to the risk of mismatch on the DRP component where the variance between the weighted average portfolio DRP and the spot DRP is a zero-sum game, representing either a windfall loss or gain to both parties.

The implications of the above are that Aurizon Network's debt management strategy is consistent with:

- the efficient benchmark debt management strategy under the previous on-the-day approach (recognising the issues in hedging the DRP); and
- one of two efficient benchmark debt management strategies that could be applied under the trailing average approach, being the hybrid approach.

This means that if the hybrid approach was used to estimate Aurizon Network's regulated cost of debt, no transition is required. Under this approach, its cost of debt would be set by:

⁴⁶ Queensland Competition Authority (2024). p.56.

- resetting the base rate in the same way at the beginning of each regulatory (or reset) period,
 i.e., based on a short-term average of prevailing ten-year yields over the relevant averaging period; and
- immediately applying a ten-year trailing average DRP, which is then updated annually as each tranche of debt is refinanced.

If the cost of debt was estimated using the full trailing average approach, this is applied to the total yield (i.e., the base rate and DRP). For Aurizon Network's debt management strategy to align with this, it would need to enter into a complex set of transactions to unwind its interest rate swaps, which will also incur additional costs. If it does not unwind these transactions, it would be maintaining a debt management strategy that would no longer be considered efficient given its exposure to mis-match risk (until those transactions expire). However, that inefficiency is a consequence of the change in regulatory approach, rather than its own actions.

To avoid this, a full trailing average would need to be implemented with a transition. In effect, this would involve transitioning from:

- Aurizon's current debt management strategy, which is the efficient benchmark strategy under the on-the-day approach; to
- the efficient benchmark strategy implied by the full trailing average, as outlined above.

This transition would primarily involve managing the transition from an on-the-day base rate associated with the prior debt management strategy, as the debt portfolio DRP reflects the historical trailing average. With this in mind, the 2025 UT5 DAAU does not include a transitional approach to implement the hybrid trailing average.

The efficiency of the hybrid trailing average, along with the implications for a transition, is supported by more detailed analysis by Frontier and CEG. As Frontier notes, "setting the regulatory allowance in line with the efficient costs always preserves the incentive for efficient investment and utilisation of infrastructure assets."⁴⁷

Aurizon Network also notes the Economic Regulation Authority's concern with the full trailing average approach in that:

...it leads to the greatest volatility of the cost of debt within an access arrangement period, including the greatest difference between forecast cost of debt and actual cost of debt in the last year of an access arrangement.⁴⁸

A key difference between the hybrid trailing average and the full trailing average is the trade-off between intra- and inter-period revenue volatility. As the base rate is fixed for the regulatory pricing period under the hybrid trailing average, it will be associated with lower intra-period cost of debt variances but may be subject to higher variance between the last year of the pricing period and the first year of the subsequent pricing period where there is a material change in the base rate. However, this variance in the base rate is also observed in the cost of equity where the risk free rate is updated during the averaging period. Consequently, applying the same risk free rate to both the cost of equity and the cost of debt ensures a forward-looking efficient component in estimating the overall WACC.

Apart from the efficiency of the hybrid trailing average approach, and the avoidance of a need for a transition, Frontier also explores a number of other benefits in adopting the hybrid trailing average

-

⁴⁷ Frontier Economics (2025). p.14.

⁴⁸ Economic Regulation Authority (2022). Explanatory statement for the 2022 final gas rate of return instrument, 16 December, p.63. https://www.erawa.com.au/sites/default/files/23028/2022-Final-Gas-Rate-of-Return-Instrument-Explanatory-Statement---To-publish.pdf

having regard to Aurizon Network's circumstances, including providing increased flexibility for changes in the following.

- It is more robust than the full trailing average to a change in the benchmark term of debt, as
 the base rate for the entire debt portfolio is reset at the start of each regulatory period.
- It is equally robust as the full trailing average to a change in the benchmark credit rating.
- It is more robust than the full trailing average to a change in the quantum of debt, in particular, changes to the benchmark gearing assumption. The hybrid approach would avoid the need for mark-to-market calculations in relation to the base rate as this is reset at the beginning of each regulatory period.

Aurizon Network considers that a stable and consistent approach that can continue to be applied over the long-term provides a degree of certainty and predictability to all stakeholders. This is particularly relevant to coal export infrastructure subject to longer term demand uncertainty.

Stakeholder engagement

As the implementation of either a full trailing average or a hybrid trailing average cost of debt represents a material variation to the on-the-day approach applied in prior regulatory determinations, including for UT5, the cost of debt was an input that required substantive customer engagement. Due to the complexity and specialist knowledge associated with debt financing and capital markets the engagement processes had a significant informational context to improve broader understanding of the relevant issues. In addition, the Customers were supported by the participation of its own expert advisors from Castalia-Advisors.

Early in the engagement process, Aurizon Network communicated to the Customers and its expert advisors a preference to implement a hybrid trailing average through a combination of:

- direct engagement with the RWG-nominated representative and the expert advisor;
- responses to questions from the expert advisor;
- Aurizon Network's peer review of the expert advisor's modelling of Aurizon Network's weighted average cost of debt over the UT5 period; and
- the provision of a preliminary views paper outlining the basis for Aurizon Network's preference for the hybrid trailing average approach.

During the engagement activities, the Customers had a particular emphasis on exploring alternate cost of debt approaches that might support a reduction in the benchmark cost of debt. Aurizon Network worked with the Customers to explore alternative approaches, in line with the following prioritised conditions needing to be satisfied:

- 1. there is no increase in regulatory risk and is consistent with debt and equity investor expectations of investment in a regulated business;
- 2. remains consistent with incentive-based regulation and uses benchmark measures/inputs; and
- 3. provides for an effective and efficient transition from the current financing strategy.

To assist the Customers in evaluating alternate cost of debt approaches a technical working group meeting was held with the Customers, their expert advisor and was also open to individual company Treasury representatives. Aurizon Network discussed with attendees:

- its approach to capital management and expected refinancing activities; and
- the debt management practices typically undertaken and reported by both regulated and unregulated infrastructure owners in Australia.

These comparisons demonstrated that Aurizon Network's debt management practices are consistent with the trailing average approaches of both regulated and unregulated infrastructure peers and possess the following characteristics:

- 1. Debt stagger: a staggered debt raising and roll-over profile to manage refinancing risk and unhedged credit risk.
- 2. Diverse funding: the sourcing of debt from a diverse range of markets (including offshore capital markets).
- 3. Weighted maturity: the preference to issue medium- to long-term tenors commensurate with the economic life of the underlying asset.
- 4. Risk management. the use of interest rate swaps as a cost effective and efficient means of managing interest rate risk and to reduce the mismatch between the benchmark weighted average cost of debt (WACD) and actual WACD.

A subsequent technical working group meeting including the RWG and their respective experts was held in late November 2024 to discuss:

- the relative differences between the full trailing average and the hybrid trailing average;
- the transitional options and their implications;
- the approaches to averaging periods and trailing average update processes; and
- the relativity of observed yields on Aurizon Network's Medium-Term Notes (MTNs) in secondary markets and at issuance against the benchmark spreads on BBB+ non-financial corporate bonds.

Following these engagements, Aurizon Network and the Customers developed the cost of debt methodology as set out in this section.

Summary of Aurizon Network's proposed approach

While the QCA's preferred approach to estimating the cost of debt is the full trailing average with no transition, it has allowed for alternatives to be considered on a case-by-case basis, particularly where adopting that preferred approach "creates material and adverse impacts on a firm that are not related to its own inefficiency". The QCA also explicitly recognised that Aurizon Network might look to negotiate an alternative approach with its customers, which would be considered in this context.

The analysis summarised above and supported by the accompanying Frontier and CEG reports, demonstrates that while the full trailing average is an efficient benchmark debt strategy, the hybrid trailing average with no transition is the most efficient benchmark debt management strategy for Aurizon Network, having regard to the following.

- It satisfies the requirements of the Act, including the objective of economic efficiency and the requirement that the regulatory allowance must be at least enough to meet the efficient costs of providing access to the service. Aurizon Network also notes that the adoption of a hybrid trailing average with no transition would be compatible with other matters that the QCA must consider under section 138 of the Act, including, but not limited to, the interests of future users and the public interest.
- The approach reflects the outcomes of the detailed engagement.
- The approach is mechanical, transparent and replicable.
- The application of a hybrid approach avoids the need for a transition. This is because the
 approach that has been the most prudent and efficient strategy that could be employed under
 the previous on-the-day regime remains the same under a trailing average regime.

 The approach is more flexible to future changes in key benchmark assumptions that are relevant to the estimation of the cost of debt, allowing the application of a stable and consistent framework over the long-term.

If the QCA was to require Aurizon Network to apply a full trailing average instead of the hybrid approach, the regulatory cost of debt allowance would not reflect its efficient benchmark costs having regard to its relevant circumstances. This is because it will enter the next regulatory period with a debt portfolio that retains significant mis-match risk with respect to the base rate of the cost of debt. This could have a material and adverse impact on Aurizon Network that arises due to the change in the regulatory framework, not its own inefficiency.

In the absence of the approach being proposed by Aurizon Network, a transition mechanism would therefore be required to allow Aurizon Network to transition from its current efficient debt management strategy to the prudent and efficient debt management strategy under a full trailing average approach.

Other aspects of the proposed approach

Other key aspects of Aurizon Network's proposed approach, which also reflect the outcomes of its engagement with customers, are summarised below.

Data source

Consistent with the QCA's Rate of Return Report, data will be sourced from the RBA based on a tenyear term to maturity. In the event the RBA ceases to publish its data series, the DRP will be calculated with reference to the average of the Bloomberg and LSEG Data and Analytics corporate bond index for the relevant rating and a ten-year tenor.

Base rate

While in practice Aurizon Network hedges its base interest rate using interest rate swaps, it proposes to use AGS yields as the proxy for the base rate (not the swap rate). This aligns with the QCA's Rate of Return Report, is a more transparent and is widely referenced. This will be based on the indicative mid-rate for the ten-year AGS yield. In both cases, the average allowance will be equal to the average yield on ten-year fixed-rate BBB corporate debt. In the long run this approach will produce the same allowed cost of debt as the full trailing average approach. Both the base rate and DRP will be based on annualised rates, which is also consistent with the QCA's Rate of Return Report (and the supporting workbook).

As the intention is to add the DRP to the base rate to obtain an annualised cost of debt, if the base rate aligned to the risk free rate on that date, then the DRP is the reverse of that process and obtained by subtracting:

- the annualised yield for nominal AGS with a term to maturity of ten years on the last business day of the relevant month⁴⁹; from
- the annualised yield obtained from extrapolation of the RBA's non-financial BBB rated corporate bond yield with a ten-year target tenor for ten years for the last business day of the relevant month.

The is effectively achieved by adding two additional columns (J and K) to the QCA cost of debt workbook as shown in Figure 5-3 where:

 the annualised ten-year AGS rate in column J is obtained from the ten-year AGS rate in column G; and

⁴⁹ While the F3 non-financial corporate bond data is reported as the last calendar day of the month the reported values are obtained from observations on the last business day of the month.

 the annualised ten-year DRP is obtained by subtracting the annualised ten-year AGS rate in column J from the annualised BBB ten-year bond yield in column I.

Figure 5-3 Modified QCA Cost of Debt Workbook

2	A	F	G	Н	1	1	K
1							
2 3 Date		10-year DRP	10-year AGS rate	10-year bond yield	Annualised BBB 10-year bond yield	Annualised 10-year AGS rate	Annualised 10-year
4	9/30/2013	3.71	3.85	7.56	7.70	3.89	3.82
5	10/31/2013	3.66	3.98	7.65	7.79	4.02	3.77
6	11/30/2013	3.62	4.18	7.81	7.96	4.23	3.73
7	12/31/2013	3.52	4.20	7.72	7.87	4.24	3.63
8	1/31/2014	3.46	3.98	7_44	7.58	4.02	3.56
9	2/28/2014	3.14	4.01	7 15	7.28	4.05	3.22
10	3/31/2014	3.06	4.08	7.13	7.26	4.12	3.14
11	4/30/2014	2.60	3.95	6.55	6.65	3.99	2.67
12	5/31/2014	2.44	3.66	6.10	6.19	3.70	2.49
13	6/30/2014	2.29	3.55	5.84	5.93	3.59	2.34
14	7/31/2014	2.00	3.53	5.53	5.60	3.56	2.04
15	8/31/2014	2.06	3.32	5 38	5.45	3.35	2.11
16	9/30/2014	2.14	3.51	5.65	5.73	3.54	2.19
17	10/31/2014	2.21	3.32	5.52	5.60	3.34	2.26
18	11/30/2014	2.30	3.07	5 37	5.44	3.09	2.35
19	12/31/2014	1.99	2.79	4.77	4.83	2.81	2.02
20	1/31/2015	1.82	2.43	4 25	4.30	2.44	1.85
21	2/28/2015	1.93	2.45	4.37	4 42	2.46	1.96
22	3/31/2015	2.19	2.31	4.50	4.55	2.33	2.22
22	4/20/2015	2.22	2.65	4 00	4.04	2.66	2.27

Averaging period

For the purpose of setting its trailing average DRP prior to the commencement of the application of the hybrid trailing average cost of debt from 1 July 2027, Aurizon Network has specified its averaging periods for the previous ten years. The same averaging period is applied each year, which is the full twelve months from 1 April until 31 March in the following year. ⁵⁰ This reflects the default averaging period specified under the QCA's Rate of Return Report that it proposes be used if the regulated firm has not otherwise nominated an averaging period. Given this starting calculation will span historical periods, reference to the QCA's default averaging period is intended to avoid concerns that a period has been selected to be most advantageous to Aurizon Network.

Going forward from FY2028, for the purpose of future annual updates to the trailing average DRP, Aurizon Network will nominate averaging periods in advance and having regard to the QCA's guidance in its Rate of Return Report. That is:

- comprising nominated averaging periods, in aggregate, of between two months and 12 months;
- completed no later than three months prior to the next year; and
- commenced no earlier than 15 months prior to the relevant year.

The intent of the nominated averaging periods for a relevant year is to allow nominated financing windows. For example, there are months where debt raising activity would generally not be expected to occur that may fall within the middle of the eligible 12-month window. The specification of periods allows these months to be excluded from the DRP estimate.

Under the proposed terms, Aurizon Network must nominate averaging periods for those years where the averaging period ends within the First Reset Period by 28 February 2027. Therefore, this includes the nominated averaging period applicable to the first Year of the Second Reset Period as shown in Table 5-2.

⁵⁰ For example, for the updated DRP to apply in the trailing average DRP from 1 July 2027, this will be calculated over the period from 1 April 2026 to 31 March 2027.

Table 5-2 First Reset Period DRP nomination windows

Period	Start Date	End Date	Relevant Year
1	1 April 2028	31 March 2029	FY29
2	1 April 2029	31 March 2030	FY30
3	1 April 2030	31 March 2031	FY31
4	1 April 2031	31 March 2032	FY32
5	1 April 2032	31 March 2033	FY33

The annual update will occur as part of Aurizon Network's annual review of Reference Tariffs. As part of that process, the rolled-forward trailing average hybrid cost of debt, comprising the base rate and the updated trailing average DRP, will update the Approved WACC in calculating Allowable Revenues for the following Year. As the averaging period must end no later than 31 March of each Year and the RBA typically publishes the F3 data in mid-April, this allows the cost of debt to be updated along with other inputs by 30 April as part of the annual review of Reference Tariffs.

Debt raising costs

The cost of debt will continue to include an allowance of ten basis points per annum for debt raising costs.

Benchmark credit rating

Overview

Under the 2017 Access Undertaking the benchmark credit rating that has been used to estimate Aurizon Network's DRP is BBB+. While the inputs used to estimate Aurizon Network's WACC are set with reference to an efficient benchmark, this is also consistent with Aurizon Network's current credit rating.

In the QCA's 2021 Rate of Return Review Report, it observed that most Australian regulators applied either BBB or BBB+ (noting that in six of the seven examples it cites, the benchmark rating is BBB).⁵¹ It concluded that it would assess the rating to apply to each business on a case-by-case basis.

Aurizon Network's market environment has continued to materially change since the QCA's initial approval of the 2017 Access Undertaking in 2018, which also prescribed the reset of the DRP based on a BBB+ credit rating. While it currently maintains a BBB+ credit rating, the yields on Aurizon Network's debt issues have continued to behave differently to other BBB+ rated issues. There is now more sustained evidence of a statistically significant and time-varying premium included in the yields on Aurizon Network's MTN issues trading in the secondary market relative to its relevant infrastructure peers.

Aurizon Network has discussed this issue in detail with the Customers as part of its engagement, including providing information on its debt program and the yields at which its debt issues have been trading in the secondary market. The outcome of this engagement is that Aurizon Network will apply a benchmark credit rating of BBB. The reason for this is outlined below.

⁵¹ Queensland Competition Authority (2024). p.43.

Estimating a benchmark BBB+ yield

In setting the cost of debt for Aurizon Network's 2017 Access Undertaking, the BBB+ estimate was derived using a regression-based approach. This followed detailed analysis by the QCA, its consultant, Incenta, and Aurizon Network. The 2017 Access Undertaking prescribed that for the purpose of the 2023 reset of Schedule F values, including the WACC, the same approach was to be applied.

In its 2021 Rate of Return Review Report, the QCA changed its preferred data source for estimating the cost of debt to the RBA's published corporate bond yield data series, concluding that:

In general, we do not consider it appropriate to use proprietary data sources or in-house models, in the interests of relying on data sources that are publicly available, robust, transparent and replicable. This represents a change from our current approach but is consistent with the practice of several other Australian regulators.⁵²

Its preference is to solely rely on RBA data because it is readily available and hence easier for stakeholders to replicate.

The QCA's interpolation approach

In providing aggregated yields from the market for bonds with different credit ratings, the third party data providers relied upon by the QCA and other Australian regulators (including the RBA, Bloomberg and Thompson-Reuters) only publish yields for the broader BBB rating category, i.e., there are no BBB+ estimates. In referring to estimates from third party data providers as a 'reasonableness check' of its regression-based estimates for Aurizon Network, the QCA interpolated between the published BBB and A yield curve estimates by applying a two-third weight to the BBB estimate and one-third to the A estimate. This is consistent with the approach that has been applied by the AER (see below).

Aurizon Network has undertaken regression analysis using Incenta's expanded bond sample to examine the difference between BBB, BBB+ and A- yield curves (see Figure 5-4, Figure 5-5 and Figure 5-6). This shows that the difference between the BBB and BBB+ estimates is relatively immaterial, with a more marked difference between BBB+ and A- estimates.

Further, this clearly shows that applying a two-third BBB/one-third A approach to calculate an implied BBB+ estimate would result in an estimate that is materially downward biased. It can be seen from Figure 5-4 and Figure 5-5 that the BBB+ estimate is much closer to the BBB estimate, with a more notable gap between the BBB+ and A- curves. Given one-third weight is applied to the broader A-weighted curve under the QCA's approach, the difference between the BBB+ and A yield curves would be even greater. To be unbiased under that weighting approach, the BBB+ curve would need to 'fit' approximately half-way between the BBB and A- curves.

This downward bias outcome was consistently demonstrated over three averaging periods, being 2017 (final UT5 starting values), 2022 (preliminary Schedule F reset values) and 2023 (final Schedule F reset values), as shown below.

⁵² Queensland Competition Authority (2024). p.38.

Figure 5-4 Analysis showing the differential between A-, BBB and BBB+ estimates obtained from dummy linear regression analysis

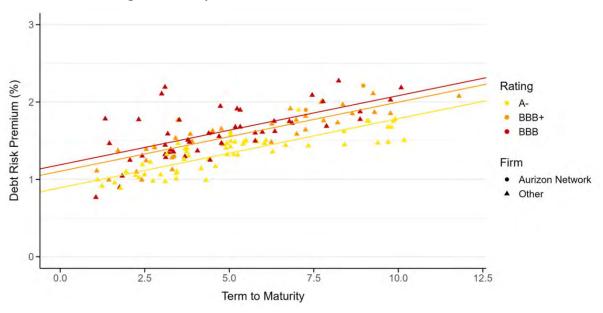
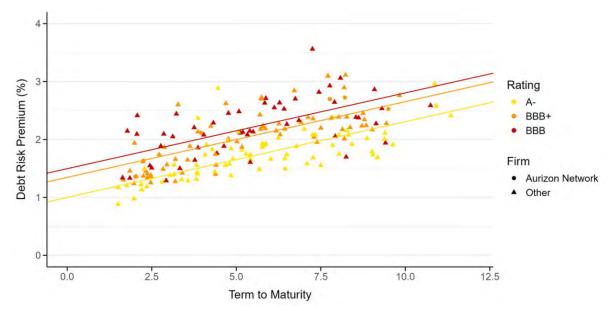


Figure 5-5 Analysis showing the differential between A-, BBB and BBB+ estimates obtained from dummy linear regression analysis: QCA 2022 Expanded Bond Sample (Preliminary Reset Values)



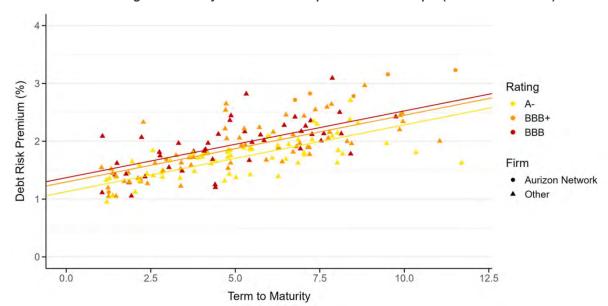


Figure 5-6 Analysis showing the differential between A-, BBB and BBB+ estimates obtained from dummy linear regression analysis: QCA 2023 Expanded Bond Sample (Final Reset Values)

Source: Aurizon Network analysis

To overcome the persistent bias in estimating a BBB+ yield based on the two-third BBB/one-third A approach means that it would be necessary to revert to the current linear regression-based method and complete this complex task on an annual basis. Apart from being inconsistent with the QCA's preferred approach to use published RBA data, this would be particularly complex to implement under the trailing average methodology and lacks transparency for stakeholders.

The AER's approach

As observed by the QCA in its 2021 Rate of Return review, the AER is currently the only other Australian regulator to apply a benchmark credit rating of BBB+.⁵³ It also prefers to use independent third party data sources to estimate the BBB+ cost of debt.

When the AER published its first Rate of Return Guideline in 2013 as part of the Better Regulation program, it based its BBB+ cost of debt estimate on the broader published BBB curve.⁵⁴ In reviewing its 2018 Rate of Return Guideline it changed its approach to applying a two-third weight to the BBB curve and one-third to the A rated curve. Importantly, this conclusion followed an analysis of the yields at which debt issued by energy network service providers was actually trading in the market.

The AER's analysis showed that, over the five years from 2013 to 2017 (and controlling for term and the date of issuance):

- the use of the broad BBB curves had over-estimated the cost of debt by approximately 27 basis points compared to the spreads at which service providers had been issuing debt; while
- a weighted estimate based on two-thirds BBB and one-third A yields had over-estimated those spreads by approximately nine basis points.⁵⁵

⁵³ Queensland Competition Authority (2024). p.43.

⁵⁴ https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-guideline-2013.

⁵⁵ Australian Energy Regulator (2018). Draft, Rate of Return Guidelines, Explanatory Statement, p.360.

In other words, the yield at which energy network service providers had actually been issuing debt was still <u>lower</u> than the implied BBB+ estimate calculated based on the two-third BBB/one-third A approach. The AER adopted this approach to reduce the extent of over-compensation that could arise from solely relying on the BBB estimates.

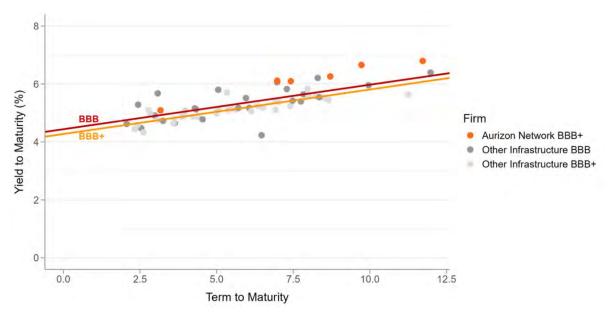
The yields on Aurizon Network bonds

It is therefore relevant to consider where Aurizon Network bonds have been trading in the secondary market relative to other bonds issued by regulated infrastructure providers, as well as in comparison to the estimates produced from third party data sources using the two-third BBB/one-third A approach. The results of an analysis undertaken by Aurizon Network are summarised below.

Comparison to yields on bonds issued by other BBB+ infrastructure providers

Figure 5-7 and Figure 5-8 compare the yields by fitting a curve to Aurizon Network's bond issues compared to other BBB+ infrastructure firms⁵⁶. Aurizon Network repeated the sampling at six monthly intervals (March, October) over the UT5 period up to 2024.

Figure 5-7 Comparison between yields on Aurizon Network bonds and BBB+ infrastructure firms: March 2023 BBB+ infrastructure bonds



-

⁵⁶ The firms in the infrastructure sample are: AusNet Services Holdings, Aurizon Network, Brambles Finance, Australia Pacific Airports Melbourne, Sydney Airport Finance Co, Ausgrid Finance, Network Finance Co, DBNGP Finance, Energy Partnership Gas, AGI Finance, WestConnex, Brisbane Airport Corp and ConnectEast Finance.

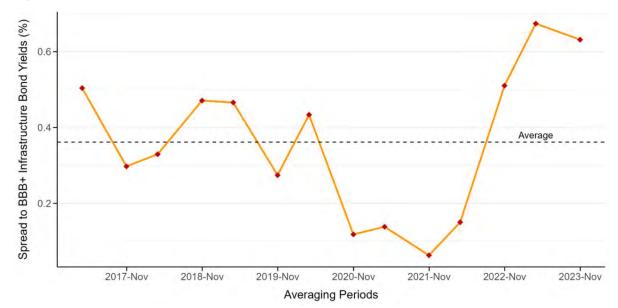


Figure 5-8 Aurizon Network bond yields relative to BBB+ infrastructure bonds (2017-2023)

Source: Aurizon Network analysis

This shows that Aurizon Network bonds have consistently traded at a yield above the average of its BBB+ rated infrastructure peers. This differential has increased materially since 2022.

Comparison to yields on BBB and BBB+ bonds based on expanded bond samples

The next comparison shows the difference between:

- the fitted yield curves for the BBB and BBB+ bonds in the expanded bond samples used in setting Aurizon Network's regulated cost of debt for UT5 (at the commencement of the period and as part of the 2023 reset); and
- the yields on Aurizon Network's bond issues.

This is shown for two averaging periods, the first being the period used to set the starting value of the cost of debt for UT5 in 2017, and the second at the time of the 2023 reset of Schedule F values. For reference, the orange lines are BBB+ (the dotted line is the stand-alone BBB+ regression) and the red line is BBB.

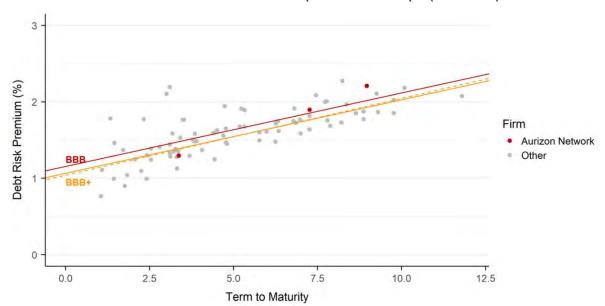
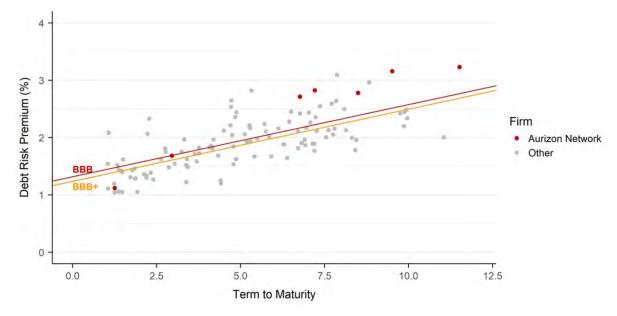


Figure 5-9 Comparison between yields on Aurizon Network bonds and Incenta's expanded sample of BBB and BBB+ bonds: Incenta 2017 expanded bond sample (BBB/BBB+)

Figure 5-10 Comparison between yields on Aurizon Network bonds and Incenta's expanded sample of BBB and BBB+ bonds: 2023 expanded bond sample (BBB/BBB+)



Source: Aurizon Network analysis

This shows that the fitted yield curve for Aurizon Network's bonds clearly sits above the curve for the BBB and BBB+ expanded bond sample and that this was the case in 2017 and 2023.

Comparison to the BBB+ yields obtained from interpolation of the RBA BBB and A curves

Lastly, the following chart shows the spread between the secondary market yields on Aurizon Network's long and short tenor bonds and the average yields on a BBB+ yield curve obtained from applying the two-thirds/one-third method to the broader RBA BBB and A yield curves. This is done by taking a simple average difference of the yield on each individual Aurizon Network bond to the interpolated RBA BBB+ curve with a remaining tenor of zero and five years and between five and 15 years. This spans a ten-year period from October 2013 to October 2023.

Percent 1.0 0.9 8.0 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0.0 -0.1 -0.2 -0.3 J 1/07/2017 1/01/2018 1/07/2018 1/01/2019 1/07/2019 1/01/2020 1/07/2020 1/01/2021 1/07/2021 1/01/2022 1/07/2022 1/01/2023 1/07/2023 1/01/2024 Average (spread) - RBA (5+ year tenor) Average (spread) - RBA (0 to 5 year tenor)

Figure 5-11 Spread between Aurizon Network bonds and BBB+ bonds in the RBA's sample

Source: Reserve Bank of Australia, Aurizon Network analysis

The observed spreads are higher on the longer tenor bonds than the shorter tenor. However, the underlying assumption of both the full trailing average and the hybrid trailing average is that Aurizon Network is placing bonds with an average tenor of ten years. Therefore, it is the spreads on the longer-term tenor that are relevant to determining the applied credit rating.

Figure 5-12 provides a time series of the estimated excess spread by plotting the 12-month average difference of each individual Aurizon Network bond with a tenor between five and 15 years, to the RBA BBB and the interpolated BBB+ curve. It is evident that the 12-month average spread against the BBB+ is always positive, indicating a high degree of statistical confidence of a material and persistent spread of yields on Aurizon Network bonds above the interpolated RBA BBB+ curve.



Figure 5-12 Spread between Aurizon Network bonds and RBA BBB curve and interpolated RBA BBB+ curve

Source: Reserve Bank of Australia, Aurizon Network analysis

This clearly shows that Aurizon Network's bond yields are trading at a material spread (up to 100 basis points) to the BBB+ bonds in the RBA's sample. Further, while not as material, this spread is also evident against the BBB bonds in that sample. This shows that Aurizon Network's bonds are trading closer to the BBB sample than the BBB+.

Conclusions and implications

In conclusion, the preceding analysis clearly shows that it is not appropriate to estimate the benchmark cost of debt for Aurizon Network from third party data sources by applying a two-third weight to the BBB estimate and one-third to the A estimate. This is for a number of reasons.

Over the most recent three averaging periods used to estimate Aurizon Network's cost of debt (since 2017), applying regression analysis to the expanded bond sample and estimating the BBB+ yield using the two-thirds BBB/one-third A approach shows that this estimate is materially downward biased.

The AER's decision to apply the two-thirds BBB/one-third A approach to estimate the BBB+ cost of debt for energy network businesses (introduced in 2018), followed an analysis of the actual yields on bonds issued by those companies in the market. That analysis showed that not only were those bonds trading at (on average) 27 basis points below the BBB curve, but they were also still trading below the estimate resulting from the two-thirds BBB/one-third A approach (although the difference was reduced).

There is clear evidence to show that Aurizon Network's BBB+ bond issues are trading at a spread to:

- other BBB+ infrastructure firms;
- the BBB and BBB+ bonds in the expanded samples; and
- the yields on BBB+ and BBB bonds in the sample used by the RBA to construct its BBB yield curve.

This difference is both material and persistent, that is, it is not just a temporary aberration or short-term trend. In general, Aurizon Network's bonds are trading closer to BBB than BBB+.

This therefore supports the outcomes of the engagement between Aurizon Network and the Customers, which is that Aurizon Network's benchmark cost of debt should be estimated with (sole) reference to the BBB estimates published by the third party data providers.

Debt Change Events

Under the conventional mandatory regulatory framework, a material change in circumstances can be addressed through modifications to that framework at the next regulatory review. Depending on the regulatory framework this would typically be after four to five years (from the commencement date).

The proposed ten-year extension to the term of the 2017 Access Undertaking exposes Aurizon Network to substantive changes in debt market risk associated with changing investor expectations and preferences in respect of investment in coal export infrastructure. This debt market risk could manifest in several ways including:

- investors require additional premiums above the benchmark yields to invest in coal-exposed infrastructure;
- ESG lending criteria reduce depth and liquidity in the market for bonds issued by coal-exposed infrastructure;
- ratings agencies lower ratings metrics or incorporate refinancing risks into ratings; and/or
- the demand for issuances of tenors commensurate with the benchmark tenor may significantly contract.

In view of these risks, following engagement with the Customers, Aurizon Network proposes to implement a Change Event where a Cost of Debt Methodology Change Event has occurred. The Change Event applies to the following general scenarios:

- a downgrading of Aurizon Network's BBB+ credit rating, or equivalent, where the Credit Rating Agency does not predominantly attribute the downgrading to any act or omission of Aurizon Network or a Related Entity ('review applied credit rating');
- a substantive and sustained reduction in the face value of Aurizon Network's outstanding debt below 45% of the value of the RAB for a period of at least 24 consecutive months, where Aurizon Network can produce evidence of debt placements, or prospective debt placements, being at rates commensurate with, or higher than, the sum of the prevailing Risk Free Rate (at the time of debt placements, or prospective debt placements) and the Equity Margin ('review Benchmark Gearing'); and
- a reduced ability to place debt at tenors greater than seven years ('review Benchmark Term').

One or more of these reviews, where they require a change in one or more benchmark cost of debt assumptions, may also require modifications to the weighting to adjust for the change in that assumption. For clarity a variation in the benchmark tenor must be accompanied by a change in the cost of debt base rate term to match the varied benchmark tenor. For example, if the benchmark tenor was reduced from ten years to seven years then the cost of debt base rate would be the yield on AGS with a term to maturity of seven years.

Consistent with the outcomes from the conventional mandatory regulatory framework review processes the Cost of Debt Methodology Change Event must occur within the First Reset Period and the review must be initiated through notification to the nominated representative of the RWG no later than 30 November 2031. Aurizon Network and the nominated representative of the RWG will then seek to agree the identity and terms of reference for the appointment of an Independent Banking Expert who will advise whether a Cost of Debt Methodology Change Event has occurred. Where agreement cannot be reached or an expert cannot be appointed on suitable terms, Aurizon Network may submit to the QCA a DAAU together with supporting evidence as to why it believes a Cost of Debt Methodology Change Event has occurred.

Where the Independent Banking Expert affirms that a Cost of Debt Methodology Change Event has occurred, Aurizon Network will submit a DAAU to the QCA to amend the relevant benchmark input assumptions for the cost of debt methodology. Where the QCA approves the change in the cost of debt methodology that change will take effect from the Second Reset Date.

5.4 Throughput Payment

Enga	gement Methods Used	Engagement Outcome
**	RWG - Representative Panel	Agreed with Customers
0	Technical working group	
	Industry advocates	

Initiatives implemented in the 2019 UT5 DAAU

As part of the 2019 UT5 Final Decision, Aurizon Network committed to a number of operational and performance improvements to further enhance the efficient operation of the CQCN. In the package of amendments negotiated, it was agreed that Aurizon Network would be entitled to earn a staged

increase from the Approved WACC of 5.70% (as set in 2018 UT5 Final Decision) to reflect the value, cost and regulatory and commercial risks to Aurizon Network associated with these improvements.

The additional compensation involved the following post-tax adjustments to the Approved WACC:

- an additional 20 basis points from the Approval Date of the 2019 UT5 DAAU; and
- a further 40 basis points from the Report Date, being the date on which Aurizon Network notified the Chair of the RIG of proposed options for addressing an Existing Capacity Deficit identified in the Initial Capacity Assessment Report.

As the additions to the Approved WACC did not change the benchmark cost of debt or the benchmark gearing and provides additional taxable income, then the uplift to the Approved WACC increased the effective pre-tax cost of equity in the regulatory financial model to achieve the intended increase in the post-tax WACC.

One of the increased risks borne by Aurizon Network that was associated with the additional compensation was from the introduction of Performance Rebate payments. Under this arrangement, where an annual Capacity Assessment conducted by the Independent Expert identifies non-performance arising from specified breaches by Aurizon Network of its contractual obligations, Aurizon Network will be liable to pay an adversely affected End User a Performance Rebate.

The 2019 UT5 Final Decision also allowed for the QCA to undertake a review of the Performance Rebate mechanism at the request of an End User (in January 2023) to assess whether it was achieving its objectives. Depending on the outcome of this assessment, this could result in the QCA recommending amendments to the mechanism. If those amendments were not implemented, a reduction to the Approved WACC would occur at the Reset Date to remove the additional 30 basis point per annum compensation provided to Aurizon Network for bearing this risk.

Under this mechanism, Aurizon Network's exposure to these Performance Rebate payments is effectively subject to a 'soft cap', whereby if the expected value of rebate payments at the Performance Rebate review date exceeded the equivalent value of the 30 basis point WACC adjustment, then Aurizon Network had the option to not agree with the QCA's recommended changes to the Performance Rebate mechanism and forego the 30 basis points adjustment to the Approved WACC.

The QCA's review of this mechanism was undertaken following the receipt of a request from an End User. The QCA completed this review in June 2023, where it concluded that the Performance Rebate objectives had not been met. The QCA recommended amendments to clause 10.8.2(a) of the 2017 Access Undertaking on performance reporting, which were implemented accordingly.

Review of the current mechanism

The effectiveness of this mechanism has been reviewed as part of the engagement on the 2025 UT5 DAAU. In negotiations there was some concern that the application of the additional compensation as an adjustment to the Approved WACC may disproportionately recover the additional revenue from low density systems (i.e., those systems that have low volumes and higher RAB values), where the capacity-related benefits of the negotiated package of amendments contained in the 2019 UT5 Final Decision accrued primarily to high density systems. However, given the Performance Rebates are assumed to be funded by the adjustments to the Approved WACC, then the distribution of the additional revenue is highly correlated with the relativity of the Performance Rebate between systems (i.e., the higher the tariff, then the higher the Performance Rebate).

Aurizon Network has also identified other issues with respect to application of the negotiated uplift in the Approved WACC, including direct benefits through higher Infrastructure Rebates and indirect benefits to owners of Private Infrastructure through an increase in Private Incremental Costs used to reduce the Access Charge. Aurizon Network considers that it is preferable that parties to AFDs and Private Infrastructure Owners should not be obtaining these benefits as they are not subject to:

- the performance risks and the obligation to pay Performance Rebates; and
- any of the negotiated obligations included in the 2019 UT5 Final Decision.

These concerns have been addressed by providing the additional compensation for the negotiated package by way of an adjustment to cash flows in the form of Throughput Payments, rather than an uplift in the Approved WACC, as described below.

Throughput Payments

The outcome of the engagement is that the additional compensation in the cash flows for the negotiated package will be in the form of a 'Throughput Payment', where performance is based on the actual throughput achieved in each Coal System. As the payment is dependent on the performance of the relevant Coal System, this will provide an improved throughput performance incentive when compared to an uplift to the Approved WACC, where the additional cash flows are dependent on the value of the RAB over the regulatory term. The strength of this incentive is intrinsically linked to the materially of the Throughput Payment rates.

Throughput Payment rates

Any additional revenue earned from Throughput Payments will be separate to the Allowable Revenues. The revenue collected from Throughput Payments will be volume-dependent and will be applied as the following Reference Tariff components:

- TP₁, which will be recovered on a dollar per Net Tonne basis, applied to billed tonnes; and
- TP₂, which will be recovered on a dollar per thousand ntk basis, applied to billed ntks.

The TP₁ rate is the Throughput Payment Base Rate (**TPBR**) and will initially be set for the first Year at \$0.06 per net tonne (from 1 July 2027). The Throughput Payment Base Rate will be subject to annual indexation, which will be applied on 1 July in each subsequent Year of the Term based on the change in the CPI in the preceding December quarter from the corresponding quarter in the previous Year.

$$TP_{it} = TPBR_t = TPBR_{t-1}x(1 + CPI)$$

The TP₂ rate for a Coal System for given Year is derived from the expected revenue to be collected from the applied TP₁ rate in that Year. This expected revenue amount will be divided by the forecast thousand ntks applicable to the relevant Coal System as follows:

$$TP_2 = \frac{TP_1x forecast NT}{forecast 000 NTK}$$

*Where: forecast NT and forecast 000 NTK are those values associated with the Gtk Forecast for the relevant Coal System for the relevant Year.

Consequently, the TP₂ rate will be specific to each Coal System and a cross-system train service will be subject to the relevant TP₂ rate for the ntks it operates within each relevant Coal System.

Subject to the adjustments and arrangements discussed below, where the actual billed Net Tonnes and ntks equates to those amounts used in the derivation of TP₂ rate, then Aurizon Network would be expected to earn an additional \$0.12 per billed Net Tonne per year in real terms. The actual revenue Aurizon Network collects from Throughput Payments will be dependent on both System Net Tonne performance and the distribution of those tonnes by haulage distance.

Throughput Payment volume floor

The TP₁ rate in a given Year, and consequently the TP₂ rate, will be subject to adjustment where the CQCN forecast Net Tonnes associated with the aggregate Gtk Forecasts for all Coal Systems is less than 180 million tonnes, as follows:

$$TP_{1t} = TPBR_t x \frac{180 \text{ million tonnes}}{Gtk \text{ forecast (million net tonnes)}}$$

The intention of the volume floor adjustment is to ensure a minimum expected revenue amount is to be collected from Throughput Payments prior to any other adjustments.

Empty wagon performance adjustment

The Throughput Payments mechanism will be subject to adjustment for the empty wagon performance mechanism. This adjustment will be given effect through a variation of the relevant Coal System TP₂ rate with reference to the empty wagon performance in that Coal System over the relevant evaluation period against the baseline (or adjusted baseline) applicable to that evaluation period.

The performance baseline (Baseline Empty Wagon Factor) will initially be set with reference to the empty wagon performance rates in FY2025, where the rate of empty wagons represents the total number of empty wagons departing from the Nominated Loading Facilities in a Coal System as a percentage of empty wagons presented to Nominated Loading Facilities in the relevant Coal System.

If in a given measurement calendar year, the empty wagon performance (Annual Empty Wagon Factor) outperforms the baseline in the applicable Year (Applicable Baseline Empty Wagon Factor), then the performance for that calendar year will become the baseline for the next and every subsequent Measurement Year. The choice of calendar year for the measurement year is to ensure that the period is as close as reasonably practical to the Year in which the adjustment to TP₂ will apply and that the outcome of that assessment is known prior to submission of the annual Review of Reference Tariffs on 28 February prior to that Year.

Where the Annual Empty Wagon Factor in the measurement year:

- exceeds the Applicable Baseline Empty Wagon Factor, then the TP₂ rate will be multiplied by 1.1; or
- does not exceed the Applicable Baseline Empty Wagon Factor, then the TP₂ rate will be multiplied by 0.9.

The practical effect of this empty wagon adjustment mechanism is that the applied TP₂ rate will always be plus or minus 10% of the raw TP₂ rate as calculated above.

The relevant periods for the financial Baseline Years and the calendar Measurement Years applicable to the TP₂ rate over the term of the 2025 UT5 DAAU are shown in Table 5-3.

Table 5-3 Baseline and measurement periods for year of TP2 adjustment

	Year	Year Commencing	
Year	Baseline Year	Measurement Year	Payment Year
1	30-Jun-25	31-Dec-26	1-Jul-27
2	31-Dec-26	31-Dec-27	1-Jul-28
3	31-Dec-27	31-Dec-28	1-Jul-29
4	31-Dec-28	31-Dec-29	1-Jul-30

	Year E	inding	Year Commencing
5	31-Dec-29	31-Dec-30	1-Jul-31
6	31-Dec-30	31-Dec-31	1-Jul-32
7	31-Dec-31	31-Dec-32	1-Jul-33
8	31-Dec-32	31-Dec-33	1-Jul-34
9	31-Dec-33	31-Dec-34	1-Jul-35
10	31-Dec-34	31-Dec-35	1-Jul-36

To illustrate:

- If the FY2025 Baseline Empty Wagon Factor for a Coal System is X, then where the Annual Empty Wagon Factor (Y) is higher than the baseline rate (Y > X) for the calendar year preceding FY2028, then the TP Adjustment Factor applied to TP₂ in that Coal System in FY2028 will be 0.9. In this scenario, the Applicable Baseline Empty Wagon Factor for FY2029 remains the FY2025 Baseline Empty Wagon Factor (X).
- If in the calendar year preceding FY2029, the Annual Empty Wagon Factor (Z) is lower than
 the Baseline Empty Wagon Factor (Z > X), then the TP Adjustment Factor applied to TP₂ in
 that Coal System in FY2029 will be 1.1. In this scenario, the Applicable Baseline Empty
 Wagon Factor for FY2030 and every subsequent year will be reduced to Z.
- The Applicable Baseline Empty Wagon Factor will then remain at Z until the actual rate of empty wagons is lower than Z and then it is adjusted downwards.

The Applicable Baseline Empty Wagon Factor is only ever a reducing performance target. However, in the circumstance where the Annual Empty Wagon Factor in a given year significantly outperforms the Applicable Baseline Empty Wagon Factor, such that the incentive to reduce the empty wagon rate in subsequent years is diminished, the End Users in that Coal System may at their discretion vote to reset the Applicable Baseline Empty Wagon Factor to be used in the next calendar year.

Performance Rebate cap

As discussed at the commencement of this section, the additional compensation for the negotiated package was applied as an adjustment to the Approved WACC (the Performance Rebate) and was subject to a 50% reduction if the Performance Rebate ceased to apply. However, the value of the Performance Rebate was not expressly specified in terms of basis points in the 2019 UT5 Final Decision as the additional compensation provided by the 60 basis points represented the overall package of agreed provisions. This included Aurizon Network assuming additional performance risks, the introduction of new obligations and the provision of greater transparency and control to customers.

In other words, the 60 basis point uplift to the WACC related to the entire package of amendments, including, but not limited to, the assumption of additional performance risks by Aurizon Network. Notwithstanding that it is reasonable to assume that the Performance Rebate operates as an incentive payment at risk for non-performance, the amount at risk does not reflect the full amount of the WACC uplift.

Based on its engagement with the Customers, Aurizon Network proposes to apply a cap on Performance Rebate payments in the 2025 UT5 DAAU of no more than 50% of the revenue collected from the Throughput Payments at a Network level. Where the Performance Rebate payments within a given Year exceed 50% of the Throughput Payment revenue Aurizon Network was entitled to earn in that Year, the amount of Performance Rebate payments above that threshold will be recovered through a variation to the relevant Allowable Revenues at the next annual review of Reference Tariffs (Performance Rebate Cap Adjustment).

The Performance Rebate Cap Adjustment will be apportioned between Coal Systems based on the respective Gtk Forecasts for the Year in which the amounts will be added to the Allowable Revenues. It was agreed that the amount of Performance Rebates is not the appropriate metric for attribution as it would be recovering the difference from Coal System(s) for which performance was lower than the expected benchmark.

Cash flows to equity

As a negotiated outcome between Aurizon Network and the Customers, the 2025 UT5 DAAU represents a balanced allocation of risk and return. As the RWG comprises a group of customers with both common and diverse interests, different customers will place different values on various components of the negotiated package of the retained and amended UT5 access arrangements.

From Aurizon Network's perspective, the negotiated package primarily ensures the revenues Aurizon Network earns are at least commensurate with the commercial and regulatory risks of providing the declared service. While the 2025 UT5 DAAU proposal rolls over the effective ten-year Equity Margin of 4.75% from the 2019 UT5 DAAU, this does not represent Aurizon Network's view on the return expectations of equity investors in coal export infrastructure. Therefore, in evaluating the adequacy of the 2025 UT5 DAAU negotiated outcomes, Aurizon Network has had regard to the total returns to equity, inclusive of the Throughput Payments and Performance Rebates.

In evaluating whether the 2025 UT5 DAAU satisfies the requirements of section 168A of the Act, Aurizon Network has evaluated the post-tax equity margin implied by the additional cash flow payments. A low and high throughput scenario is adopted where the low throughput rate reflects application of the Performance Rebate cap and the high throughput rate reflects no application of Performance Rebates within a relevant year. The equity margin is determined with reference to the expected FY2028 opening RAB value exclusive of rebate assets. As shown in Table 5-4, the Throughput Payments increase the applied asset beta from 0.40 to a range of 0.43 to 0.47.

Table 5-4 Implied asset beta with Throughput Payments

	Low	High
Effective Throughput Rate (net of performance rebates)	\$0.06	\$0.12
/olumes	200 mtpa	220 mtpa
ncremental revenue	\$12.0 million	\$26.4 million
FY28 projected Opening RAB Value less rebate assets)	\$5,856 million	\$5,856 million
Equity %	45%	45%
Equity value	\$2,635 million	\$2,635 million
hroughput Payment pre-tax equity nargin	0.46%	1.00%
mputation adjusted post tax margin	0.38%	0.85%
mplied equity margin	5.13%	5.60%
Applied Market Risk Premium	6.3%	6.3%
Debt beta	0.12	0.12
mplied equity beta	0.82	0.89
mplied asset beta	0.43	0.47

Aurizon Network has compared these implied beta estimates against various comparators in Figure 5-13. All asset betas have been calculated by de-levering the applicable equity beta using the Brealey-Myers approach, based on the relevant gearing and a debt beta of 0.12 as per the QCA's Rate of Return Report.

The lower implied asset beta estimate of 0.43 is proportionate to the asset beta applied in Aurizon Network's Access Undertakings prior to the 2018 UT5 Final Decision and materially less than other regulated railway benchmarks. As such, Aurizon Network considers the effective asset beta for the component of the 2025 UT5 DAAU cash flows to equity that is 'protected' from Performance Rebate payments equates to the minimum benchmark asset beta for a coal export infrastructure provider that assumes:

- equity investors are not compensated for asset stranding risk;
- equity investors rely on asset stranding risk being effectively and prudently mitigated through economic lives and depreciation profiles; and
- any residual asset stranding risk is effectively socialised through a geographically diverse user base⁵⁷.

Conversely, the higher implied asset beta of 0.47 is commensurate with the additional risk assumed through the application of the Performance Rebate mechanism and volume risk. While this value is marginally less than the asset beta of 0.48 applied by the QCA in the Queensland Rail 2025 DAU Final Decision, this decision also included an overall uplift in the cost of debt to 0.60%, which was consistent with the uplift provided in the previous regulatory period (AU2) as compensation for volume risk. Assuming Queensland Rail's actual borrowing costs are not inclusive of this uplift and the additional post-tax cash flows through to equity, then the applied WACC in this decision is equivalent to an asset beta of 0.58, which is materially above the range for the implied asset betas in the 2025 UT5 DAAU.

Therefore, while the implied asset beta range (0.43-0.47) in the 2025 UT5 DAAU appears comparable to the QCA's bottom-up WACC for Queensland Rail (0.48), it remains materially below the QR applied asset beta with the top-down WACC adjustment (0.58).

Aurizon Network

⁵⁷ In the QCA 2018 Final Decision the QCA considered that 'Aurizon Network's exposure to volume, counterparty and asset stranding risk is similar to that faced by regulated energy and water businesses' Queensland Competition Authority (2018) Final Decision: Aurizon Network 2017 Draft Access Undertaking, Appendix F, p. 103

0.82 0.71 0.58 0.51 0.51 0.48 0.43 0.39 0.39 QCA Water QCA UT5 FD QCA UT2-4 QCA QR Low QCA Toll Roads ACCC ARTC QCA QR High ERA ARC (2024) US Class 1 / Energy (2017)(STB 2023)

Figure 5-13 Unlevered asset betas from comparable regulatory determinations

Conclusion

Accordingly, Aurizon Network considers the proposed Equity Margin, Throughput Payments and Performance Rebates collectively represent a combination of factors that clearly satisfies section 168A(a) of the Act. Furthermore, the incentive framework will operate to strongly encourage the promotion of throughput and productivity within the CQCN and is therefore aligned to the objectives in s69E and s168A(d) of the Act.

6. Inflation

6.1 Inflation in the regulatory model

Engagement Methods Used RWG - Representative Panel Technical working group Industry advocates Engagement Outcome Agreed with Customers

This Chapter sets out the 2025 UT5 DAAU positions in respect of the application of forecast and actual inflation in determining Allowable Revenue. During Aurizon Network's stakeholder engagement, it was apparent that not all stakeholders had a full understanding of how inflation was treated within the current UT5 regulatory framework. Therefore, this Chapter provides some background information on how inflation is currently reflected in Allowable Revenues and the RAB. It also discusses:

- how the CPI Forecast will be calculated for the purpose of setting Allowable Revenue; and
- how the RAB will be adjusted annually for actual inflation outcomes and the adjustments necessary to reflect the proposed changes to the depreciation arrangements discussed in Chapter 7.

This Chapter does not address forecast inflation for the purpose of setting the operating expenditure allowance. This is addressed separately in Chapter 8.

Rate of return target

The QCA's 2021 Final Position Paper on Inflation Forecasting summarises its preferred inflation objective as targeting:

...an initial real WACC and then compensate investors for actual inflation. We consider that this is best achieved by providing investors with an initial real return through revenues and then compensating them for inflation by indexing the RAB with actual inflation.⁵⁸

This is generally consistent with Aurizon Network's UT5 financial model, which targets an ex-ante initial real WACC and applies actual inflation in the RAB roll-forward where the inflation-adjusted RAB roll-forward value is used only to set the opening RAB for the next regulatory period. However, in the absence of updating Allowable Revenues during the period through either:

updating the opening RAB in subsequent years for the actual RAB roll-forward values⁵⁹; or

⁵⁸ Queensland Competition Authority (2021). Final Position Paper, Inflation Forecasting, October, p.7.

⁵⁹ For example, in the Hunter Valley Coal Network the Australian Rail Track Corporation applies a real pre-tax WACC to a nominally indexed Regulatory Asset Base each year as approved by the Australian Competition and Consumer Commission, with lag, through the annual compliance assessment.

 smoothing the Allowable Revenue over the regulatory period through a CPI-X approach (where the X represents the smoothing factor and not an efficiency adjustment) and adjusting the smoothed Allowable Revenue for actual inflation;

then the ex-post realised WACC will not align with the real rate of return expectation.

The material differences between these two approaches can be seen in the comparison of the UT5 regulatory framework against that applied under the National Electricity Rules (**NER**) as shown in Figure 6-1. The NER model has been selected as a comparator due to it being a transparent and widely understood approach, noting that is being applied in the regulation of essential electricity networks that have a higher proportion of household customers (and hence where there is also more of a link between customer incomes and inflation).

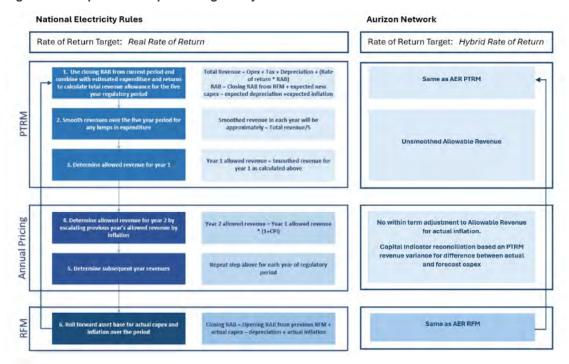


Figure 6-1 Simplified examples of regulatory frameworks under the NER⁶⁰ and UT5

The key difference between the two approaches is that the UT5 regulatory framework does not:

- determine a smoothed allowable revenue for the regulatory period; or
- adjust those unsmoothed allowable revenues for actual inflation during the regulatory period.

The unsmoothed approach is also a function of the annual Reference Tariff review process, variable capital and maintenance indicators, and the lag in the QCA's annual approval of capital expenditure and the RAB roll-forward model. This can be contrasted to UT2⁶¹, which was subject to ex-ante allowances, revenue smoothing with tariff escalation and a fixed capital indicator, with reconciliation between forecast and actual capital expenditure occurring at the end of the regulatory period and then smoothed over the next regulatory period.

⁶⁰ Adapted from Figure 1 in Australian Energy Regulator (2020). Final Position: Regulatory Treatment of Inflation, p. 11.
Available at AER - Final position paper - Regulatory treatment of inflation - December 2020.pdf, Accessed: 18 June 2025.

⁶¹ While tariffs were escalated by inflation the allowable revenue were not adjusted for out-turn inflation. In addition, the unsmoothed MAR and annual review of reference tariffs was introduced in UT3.

There are advantages and disadvantages to the current and proposed approach of fixing cash flows and maintaining a real value of invested capital. It provides overall stability and predictability of Allowable Revenue over the regulatory term, prior to application of the revenue cap and other adjustments. Proposed changes to the Take of Pay framework as outlined in Chapter 11, including the introduction of End-of-Year Adjustment amounts, will further enable this objective by reducing revenue cap adjustment amounts associated with actual network utilisation varying from the forecast used to derive Reference Tariffs.

Conversely, not adjusting Allowable Revenue for actual inflation during the regulatory period may result in:

- the actual rate of return outcomes not aligning to investors' real WACC expectations with higher (/lower) inflation resulting in a lower (/higher) realised real rate of return over the regulatory period; and
- a material variance between the actual and forecast closing RAB in the last year of the regulatory period. For example, the actual closing RAB roll-forward value on 30 June 2023 was \$6.149 million, whereas the forecast closing value in the FY2023 annual review of Reference Tariffs was \$5.809 million.

These effects are observable in Figure 6-2, which shows that linking Allowable Revenue to actual inflation would have resulted in more volatile but higher revenues by the end of the most recent regulatory period. In addition, the difference between forecast and actual inflation resulted in an approximately 6% variance between the two by 30 June 2023. The end of period variance as of 30 June 2023 was also affected by the extension of the initial UT5 pricing term from 30 June 2021 as a result of the 2019 UT5 DAAU.

Index (Base Year June 2017) 135 130 125 120 115 110 105 100 95 June-2017 June-2018 June-2019 June-2025 June-2021 June-2022 June-2023 June-2024 CPI Bris All Groups
 UT5 Forecast Inflation (2.37%)

Figure 6-2 Annual Indexation - Comparison of forecast and actual inflation rates

Source: ABS

There is an implicit trade-off between the stability of revenue within the regulatory period and between regulatory periods. However, in contrast to the regulation of essential services such as water and electricity where there is a more direct linkage between consumer incomes and CPI (at least for residential consumers), the incomes for coal carrying train services are volatile and dependent on coal prices. Consequently, the ability to forecast tariffs for the duration of the regulatory period, which will be further assisted through ToP reforms and the publication of forward-looking Reference Tariffs, is likely more important to Aurizon Network's customers than the movement in tariffs between regulatory periods.

The practical effect is that the UT5 financial model is a hybrid model, in that while it targets a real WACC, it is the realised Internal Rate of Return (IRR) over a regulatory period (where the closing RAB roll-forward value represents the terminal value for the IRR calculation) associated with the variation of actual inflation from forecast inflation that will determine the extent to which the IRR deviates from the real WACC. It is therefore necessary that changes in the regulatory treatment of inflation for capital expenditure discussed in this chapter remain consistent with these rate of return expectations and outcomes. That is, the IRR on capital expenditure should equate to the IRR on the existing assets whether the forecast inflation is compensated in the cash flows or capitalised in the RAB.

6.2 Determining the CPI forecast

As noted above, the QCA completed a review of its inflation forecasting methodology in 2021. This review followed and complemented a review of the regulatory treatment of inflation by the AER in 2020.

Both reviews reached similar conclusions in terms of utilising RBA forecasts with the application of a glide path to an assumed anchor point (CPI forecast) at the end of the estimation period. However, the QCA has taken a different approach to the anchor point. In summary, the QCA concluded that its preferred approach to the estimation of forecast inflation involves:

- matching the term of the inflation forecast with the term of the regulatory period;
- using measures of headline inflation (subject to normal economic conditions);
- using a national measure of the CPI for RAB indexation and determining the expected real WACC;
- deriving CPI forecasts using short-term RBA forecasts for the first two years ahead, and deriving the remaining years' forecasts up to the fifth year ahead using a linear glide path from the RBA's short-term forecast in year two to a rules-based anchor-point forecast in year five;
- where a forecast beyond five years is required, applying the midpoint of the RBA's target range (2.5%) beyond the fifth year ahead;
- determining the anchor point for the fifth year such that where the second-year forecast is:
 - less than or equal to 2 per cent, the anchor point would be set at 2.25 per cent;
 - between 2 per cent and 3 per cent, the anchor point would be set at 2.5 per cent; or
 - greater than or equal to 3 per cent, the anchor point would be set at 2.75 per cent.
- calculating the geometric mean of the annual inflation forecasts.

Aurizon Network proposes to determine the inflation forecast for the purpose of WACC and RAB indexation using the QCA's methodology set out above. This also reflects the outcomes of its engagement with the customers.

Based on the RBA's August 2025 *Statement on Monetary Policy*, Aurizon Network has determined a placeholder inflation forecast of 2.66% as set out in Table 6-1. This value will be updated using the RBA's June 2028 and June 2029 inflation forecasts in the most recent *Statement on Monetary Policy* published prior to the risk free rate averaging period.

Table 6-1 Inflation forecast

	June 26	June 27	June 28	June 29	June 30
CPI Forecast	3.10%	2.60%	2.56%	2.53%	2.50%
1 + CPI Forecast	1.0310	1.0260	1.0256	1.0253	1.0250
Geomean - 1	2.66%				

6.3 Indexation of capital expenditure in the RAB

As discussed in Chapter 7, Aurizon Network has proposed not to index new capital expenditure incurred from 1 July 2027 by forecast inflation in the determination of Allowable Revenue from that point. Consequently, as capital expenditure is not indexed it is no longer necessary to deduct the inflationary gain from depreciation. Aurizon Network remains compensated only once for forecast inflation but does so through the nominal WACC and not via indexation of the RAB.

However, it remains necessary to escalate the capital expenditure annually in the RAB roll-forward for the difference between actual and forecast inflation to ensure Aurizon Network is compensated for actual inflation and achieves the same IRR as earned on the existing assets. For new and existing assets inflation will continue to be compensated once in the regulatory model - the key difference is how this compensation occurs. For example, if capital expenditure incurred from 1 July 2027 is not indexed by the difference between actual and forecast inflation, then the expected WACC will be a nominal rate of return. This would be inconsistent with the hybrid approach applied to existing assets as described above.

Aurizon Network observes that while Dalrymple Bay Infrastructure has commercially negotiated straight-line depreciation on Non-Expansion Capital Expenditure (NECAP) without any inflation indexation, the expectation is that compensation for actual inflation, or at least updated inflation expectations, will be reflected in the change in the nominal risk free rate used to update the WACC applicable to NECAP assets on an annual basis. Therefore, while the objective of being compensated for actual inflation is the same, the methods of achieving that outcome differ.

During the engagement on the depreciation policy changes, Aurizon Network provided participants and their advisors modelling demonstrating the IRR equivalence of the regulatory treatment of inflation on existing assets and new capital expenditure from 1 July 2027. Figure 6-3 summarises the proposed regulatory treatment of inflation for existing and new assets from 1 July 2027.

< 1 July 2027 RAB Assets >= 1 July 2027 RAB Assets ROA = Opening RAB * WACC ROA = Opening RAB * WACC Allowable Revenues O&M Costs **O&M Costs** Tax Allowance Tax Allowance Years 2-5 Pricing RAB Roll-Forward Opening RAB Opening RAB Capital Indicator Forecast Depreciation Closing RAB Closing RAB Year 1 Year 1 Annual RAB Roll-Forward Opening RAB Opening RAB Capital Expenditure Closing RAB Closing RAB

Figure 6-3 Proposed financial model for existing and new assets

7. Depreciation

7.1 Background

Enga	gement Methods Used	Engagement Outcome
***	RWG - Representative Panel	Agreed with Customers
00	Technical working group	
	Industry advocates	
ķī.	Individual customer engagement	

A key component of the building blocks that make up the Allowable Revenue is the return of the invested capital (depreciation) in the RAB back to investors. Investors in regulated infrastructure have a reasonable expectation that the regulatory framework will enable that capital to be recovered over the longer term (and in the absence of appropriate compensation for that risk in regulated tariffs).

In previous decisions the QCA has noted that the risk associated with not being able to recover the invested capital is not a systematic risk compensated in the Approved WACC. Rather it is an asymmetric risk that is most appropriately managed through the depreciation policy settings.

Depreciation policy includes two key matters:

- the recovery period, which is the period of time in which the value of the assets in the RAB would be expected to be fully depreciated; and
- the recovery rate, which determines the profile of the how that capital is returned to investors (i.e., front-loaded or back-loaded).

Aurizon Network expects the CQCN to continue to export coal well beyond the current 2055 economic life constraint, supported by long-term demand from Indian steel production. However, since the approval of the 2017 Access Undertaking there has been increasing structural uncertainty associated with the long-term demand for coal carrying train services in the CQCN, which has increased the uncertainty of Aurizon Network's future recovery of invested capital.

In view of this, Aurizon Network and the Customers have discussed changes in the depreciation policy. This Chapter sets out the proposed changes that reflect the outcomes of that engagement and the economic rationale for those changes.

7.2 Proposed depreciation policy changes

The following proposed policy changes reflect the outcomes of the engagement, as part of the overall UT5 2025 DAAU package.

 All assets in the RAB prior to 1 July 2027 will be subject to 20 year rolling maximum asset lives (i.e., extending the current depreciation policy settings that have applied to investments in the RAB from 1 July 2009 to all assets included prior to 2009).

- Apply straight-line depreciation to the lesser of the physical asset life or the economic life constraint and remove indexation by forecast inflation on assets included in the RAB on or from 1 July 2027 (effectively substituting one form of accelerated depreciation for another).
- Extend the allowable Change Events to include a review of the economic life for each Coal System at the Second Reset Date where one of the following events occurs prior to that reset date:
 - Supply Side Constraint: a Change in Law that has the effect of preventing development of new thermal or metallurgical coal mines in Queensland; or
 - Demand Side Response: a sufficient number of countries associated with at least 75% of CQCN exports over the preceding five years legally commit to a binding net zero emissions target earlier than 2055.

In relation to the Moura System, the following proposed policy changes have been subject to detailed engagement with Customers. While agreement has not been reached, Aurizon Network is proposing to implement these changes as part of the package of amendments. Affected Moura stakeholders have reserved the right to make submissions requesting the QCA review the following proposals against the statutory criteria in sections 138 and 168A of the Act:

- from 1 July 2027, the maximum economic life for assets in the Moura System will be reduced from 2055 to 2048; and
- the maximum economic life for the Moura System will be subject to a compulsory review by the QCA prior to the Second Reset Date.

The rationale for Aurizon Network's proposed approach in relation to the Moura System is set out in section 7.7.

7.3 Stakeholder engagement

Aurizon Network's Stakeholder Engagement Plan identified the following factors that would be relevant to engagement with stakeholders on the depreciation policy:

- A changing regulatory environment: The rate of change to achieve decarbonisation targets and the pathways both domestically and internationally remain highly uncertain. Changes in regulatory arrangements that may influence that uncertainty are beyond the control of Aurizon Network and its customers.
- Changing medium- to long-term demand outlook: A number of factors are likely to influence the medium- to long-term demand for coal carrying train services in the CQCN. While demand for metallurgical coal is forecast to remain stable over the medium- to long-term supported by global steel demand, which is expected to grow to 2.1 billion tonnes by 2050, the demand for thermal coal is less certain. Notably, Australia's significant global role in exporting high quality metallurgical coal positions it favourably in the growing Indian market.

Having regard to these factors, Aurizon Network outlined that it was seeking to make appropriate and effective changes to its regulatory depreciation policies which:

- adopt a more precautionary approach to longer term demand uncertainty;
- retain the expectation that Aurizon Network will recover its current and future investment in the RAB in light of greater uncertainty of technology, regulatory and economic conditions; and
- provide an appropriate rebalancing of risk between current and future users of the CQCN.

In addition, Aurizon Network communicated that in developing the depreciation policy for the 2025 UT5 DAAU it would have regard to the following principles:

- the policy changes are simple to understand, calculate and communicate;

- the policy changes represent a reasonable and proportionate response to the change in asset stranding risks since the last update to depreciation policy settings; and
- those changes do not materially adversely affect the demand for coal carrying train services over the Term of the 2025 UT5 DAAU through a material increase in Reference Tariffs.

Aurizon Network provided explanatory materials and modelling results to Customers demonstrating the impact of the proposed depreciation policy changes on depreciation, RAB values and cash flows to assets.

7.4 Rationale for the proposed changes

Current depreciation policy arrangements

The current depreciation policy arrangements have been in place since the commencement of UT3 and comprise the following:

- a global economic life constraint on all assets of 2055;
- straight-line depreciation on all assets included in the RAB prior to 1 July 2027 over the shorter of their physical or economic life⁶²;
- assets included in the RAB from 1 July 2009 are subject to a 20 year rolling reset where the
 maximum economic life is 20 years at the start of a regulatory pricing period (Pt) and reduce
 annually by one year prior to be being reset to 20 years in the next regulatory pricing period
 (Pt+1) at the next price reset date, as shown in Table 7-1Error! Reference source not found.;
 and
- all assets are subject to current cost accounting, where the value of the assets in the RAB are indexed by inflation annually prior to depreciation.

Table 7-1 Example of rolling 20 Year maximum economic life

	Pt Year 1	Pt Year 2	Pt Year 3	Pt Year 4	Pt+1 Year 1
Maximum Economic Life	20	19	17	16	20

Prior considerations of WAML

Aurizon Network sought to implement a consistent approach to depreciation for all assets in the RAB in its UT4 proposals and consistent with the approach to depreciation in the Hunter Valley Coal Network, proposed to apply a weighted average mine life (WAML) approach with an economic life of 25 years. This value would be subject to review in subsequent regulatory periods. This approach was supported by the QCA's consultant RSM Bird Cameron who noted:

...on the basis that Aurizon Network is not compensated for the risk of additional marketable reserves being not being discovered and assets becoming stranded, we consider adoption of an amended maximum economic life of assets based on the mid-point of the average mine lives weighted by marketable reserves and production rates does not appear unreasonable.⁶³

The QCA did not support the adoption of a WAML approach, or for change from the UT3 depreciation arrangements, on the basis:

⁶² Economic life for mine specific infrastructure may be aligned with expected mine life.

⁶³ RSM Bird Cameron (2014). Aurizon Network 2013 Draft Access Undertaking, Financial Assessment of Operating Expenditure, January, p.82.

- it was unconvinced that there had been a material change in asset stranding risk from UT3 to the 2014 DAU;
- retention of the UT3 approach provided regulatory predictability and stability; and
- the existing depreciation approach adequately dealt with the level of asset stranding risk.

The 2014 UT4 DAU was eventually approved by the QCA on 11 October 2016. Aurizon Network was also required to submit a mandatory DAU, in response to an Initial Undertaking Notice, for the UT5 period no later than 30 November 2016. Given the small period of time that had elapsed between approval of UT4 and the lodgement of UT5, given the QCA view that there was no material change in asset stranding risk Aurizon Network's UT5 proposal retained the depreciation policy arrangements developed in UT3.

In addition, prior to lodgement of Aurizon Network's UT5 proposal, the QCA commissioned Resource Management International (**RMI**) to prepare an updated independent mine life analysis for the DBCT catchment in assessing the 2015 DBCT DAU. This affirmed the previous economic life assessment of 2054 for the terminal. Consistent with the prior economic life assessment the QCA considered prospective projects and resources in the catchment area having regard to DBCT's geographical competitive advantage.

However, Aurizon Network notes that except for the QCA's initial reliance on an assessment of resources in the CQCN undertaken by Barlow Jonker in UT1 to support the demand assumptions for physical asset lives, the economic life constraint for Coal Systems other than the Goonyella System has not been subject to any formal evaluation based on the economic life of the mines utilising those systems.

Change in circumstances

The current depreciation policy settings have been in place since UT3, which was approved in June 2010. Consequently, it has been 15 years since the depreciation policy settings have responded to changes in the long-term demand uncertainty for thermal and metallurgical coal exports from the CQCN.

A key difference between the current and historical circumstances is that prior reviews were primarily focussed on supply-side factors. Given recent and prospective technology and policy settings, the depreciation policy needs to give increasing consideration to the demand-side factors. The demand for coal carrying train services is derived from the demand for the products produced by Central Queensland coal producers. Whether those producers are willing to invest further capital to develop existing or new resources will also be informed by the expected demand for those products.

Aurizon Network considers there has been a clear and material change in circumstances in respect of the long-term demand uncertainty for coal carrying train services using the CQCN. For example, when the depreciation policy settings were approved in UT3 the demand conditions for coal were on a growth trajectory. In recent years coal export forecasts have effectively been steady state, with long-term demand uncertainty increasing the financial risks of investment in new infrastructure. This is evident in the progressively changing coal outlook since 2012 based on the projections of the Australian Office of the Chief Economist, as reproduced in Figure 7-1⁶⁴. In addition, Wood Mackenzie assumes that:

⁶⁴ Plot reproduced from CEG (2025). North Queensland Export Terminal – Criteria (b): A report prepared for NQXT, August, Figure 3-2, p.14. Available at: https://www.qca.org.au/wp-content/uploads/2025/07/nqxt-sub-annexure-b-ceg-criterion-b-aug-2025-public_redacted.pdf

In terms of port and rail infrastructure expansions, based on Wood Mackenzie's coal export forecast, we do not expect most of the expansion projects, including DBCT 8X, to go through due to limited growth in the export market. Wood Mackenzie excepts only the Abbot Point Port and related rail infrastructure expansion to go through, as the expected increase in volumes is anticipated to cross capacity by the end of the next decade. 65

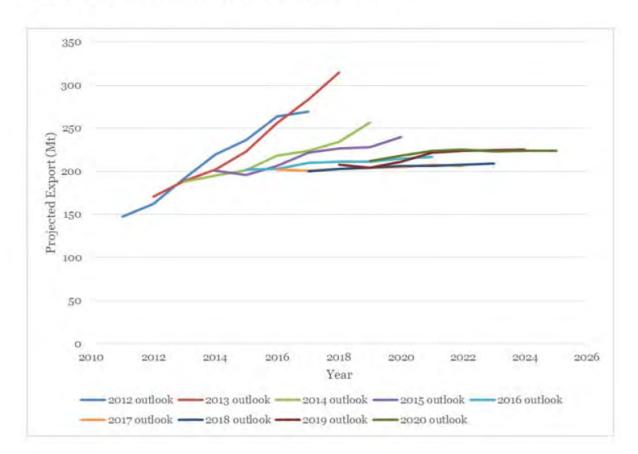


Figure 7-1 Australian thermal coal export forecasts (million tonnes)

Source: Resources and Energy Quarterly Report from Australian Office of the Chief Economist. Note: The first point of each line represents the actual level for that year, with projections for the next six years.

Aurizon undertakes sensitivity analysis of long-term demand uncertainty in the preparation of its annual Sustainability Report using the key drivers of steel making and thermal coal demand set out in Table 7-2.

Table 7-2 Aurizon's Sustainability Report: Key drivers used in sensitivity analysis of demand outlook

Steel-making coal demand	Thermal coal demand
• GDP	• GDP
Climate policy	Climate policy
Crude steel production	Energy intensity
Scrap availability	Energy generation and capacity mix

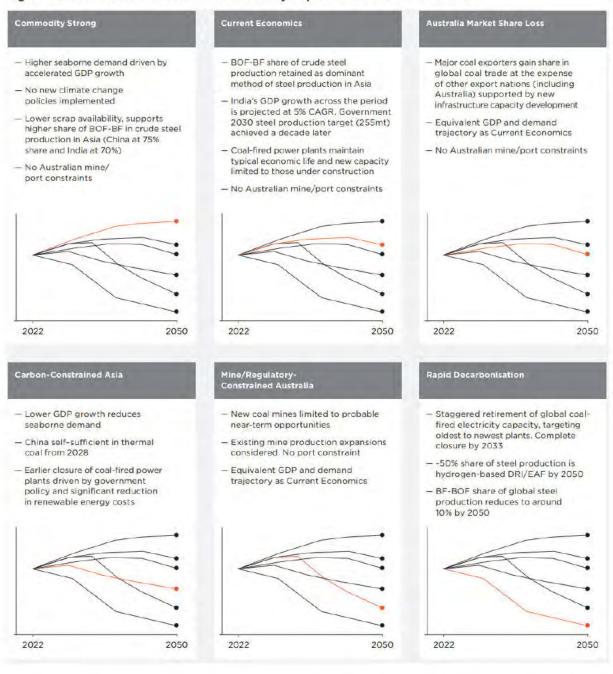
Aurizon Network

⁶⁵ Wood Mackenzie (2025). Weighted Average Mine Life for Blackwater and Moura Coal Systems, Report prepared for Aurizon Network, Public version, August, p.8

Steel-making coal demand	Thermal coal demand
Steel production method	Coal-generation fleet pipeline
Domestic coal supply/import reliance	Domestic coal supply/import reliance

This annual strategic process produces a range of scenarios for coal export volumes. The most recent scenarios from Aurizon's 2024 Sustainability Report are reproduced in Figure 7-2.

Figure 7-2 Coal: Aurizon Network's Sustainability Report - 2024 volume scenarios

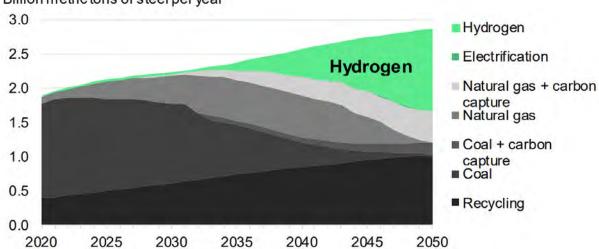


These volume scenarios do not represent forecasts. They represent a range of plausible scenarios that demonstrate the long-term demand outlook uncertainty, although they are broadly consistent with potential scenarios developed by independent analysts. For example, BloombergNEF demonstrated a pathway to net zero in the hard to abate steel sector that approximates the Rapid Decarbonisation

scenario in Figure 7-3. The BloombergNEF⁶⁶ pathway assumes the levelised cost of hydrogen and electrification is lower than the cost of carbon capture and storage, which significantly reduces coal's contribution to steel production as shown in Figure 7-3.

Figure 7-3 Pathway to net-zero emissions for global steel production in 2050, by process, in BloombergNEF's Net Zero Scenario

Billion metric tons of steel per year



Source: BloombergNEF, Scaling Up Hydrogen: The Case for Low- Carbon Steel A BNEF and Climate Technology Coalition White Paper, January 11, 2024, p.3. Available at: https://assets.bbhub.io/media/sites/25/2024/01/Scaling-Up-Hydrogen-The-Case-For-Low-Carbon-Steel-Bloomberg-New-Economy.pdf

Again, the BloombergNEF White Paper is not a projection. It is an assessment of the conditions and policy settings that need to be in place for steel production to achieve net zero by 2050 and for coal to have a reduced contribution to the sector. These policy settings are likely to involve carbon pricing and subsidies, with BloombergNEF also noting that without these policies "Low-carbon production never outcompetes the cheapest existing [BF-BOF] plants but can become a competitive option compared to building a new coal-fired plant." It is a clear example of the uncertainties associated with estimating the long-term demand for metallurgical coal beyond the ten-year Term of the 2025 UT5 DAAU.

Due to the importance the QCA has placed on the need to demonstrate a material change in asset stranding risk to support a change in depreciation policy, Aurizon Network commissioned NERA to prepare a report on depreciation approaches for the Term of the 2025 UT5 DAAU, including whether there has been a change in the long-term demand outlook since the depreciation policies for the CQCN were last reviewed (refer Attachment C).

In summary, NERA identifies the following.

In between its 2017 and 2024 World Energy Outlook (**WEO**) forecasts, the International Energy Agency (**IEA**) has revised down its outlook for global coal use. For example, in the lowest usage case scenario, the global coal trade in 2050 could fall below Queensland's

https://about.bnef.com/insights/industry-and-buildings/the-cost-of-decarbonizing-industry-is-high-but-within-reach/

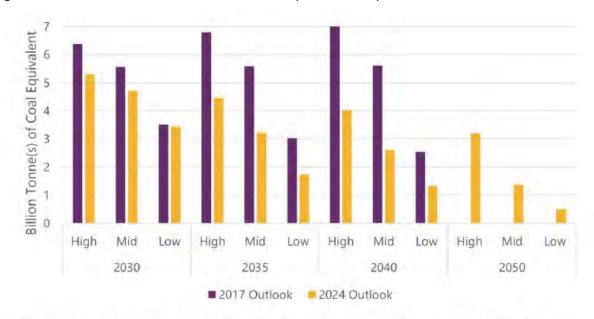
⁶⁶ BloombergNEF, Scaling Up Hydrogen: The Case for Low- Carbon Steel A BNEF and Climate Technology Coalition White Paper, January 11, 2024, p.3. Available at: https://assets.bbhub.io/media/sites/25/2024/01/Scaling-Up-Hydrogen-The-Case-For-Low-Carbon-Steel-Bloomberg-New-Economy.pdf

 $^{^{67}}$ BloombergNEF (2024) The Cost of Decarbonizing Industry is High, But Within Reach.

current level of production. The higher demand scenarios are not as stark, but it is impossible to know which scenario is most likely.⁶⁸

This is shown in Figure 7-4, which is reproduced from the NERA Report.

Figure 7-4 IEA: Global demand outlook 2017 vs 2024 (billion tonnes)



Notes: The IEA's three scenarios differ between their 2017 and 2024 forecasts. For 2024 High = STEPS, Mid = APS, Low = NZE. The 2017 forecast for 2035 is the linearly interpolated value between the 2030 and 2040 forecast. The 2024 forecast for 2040 is the linearly interpolated value between the 2035 and 2050 forecast.

Source: NERA analysis from 2017 IEA WEO forecast and 2024 IEA WEO forecast.

Key points to note are as follows.

- Australian coal exports are dependent on the maintenance of strong trade relationships, some
 of which have become increasingly fraught in the past decade. For example, a recent dispute
 between Australia and China led to a two-year cessation of exports to China.
- On the supply side, coal production in Australia has become increasingly unpopular domestically among investors and the general population for environmental reasons. While this trend does not appear to have significantly influenced state or federal policy with respect to coal exports, these policy changes could be coming. Nevertheless, timeframes for mine approvals are extending and increasingly subject to legal challenge⁶⁹.
- Due to the perception of regulatory risk as well as their own public pledges to act on climaterelated risks, banks, insurers and other similar institutions may limit finance and insurance that is available to coal mines. If financing for new and existing mines becomes restrictive, this

⁶⁸ NERA (2025). Depreciation approaches at UT6, Prepared for Aurizon Network, September, p.2.

⁶⁹ For example, the approvals process for the New Acland Mine was completed in 2022 some 10 years after revisions to project proposal accepted by Commonwealth Minister for the Environment. See https://www.statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/new-acland-coal-mine-stage-3-project

In addition, on 24 July the NSW Court of appeal remitted the approval of the Mount Pleasant mine extension back to the Land and Environment Court to consider the impact of scope 3 emissions on the local environment. Denman Aberdeen Muswellbrook Scone Healthy Environment Group Inc v MACH Energy Australia Pty Ltd [2025] NSWCA 163.

could mean a progressive reduction in coal production in the Central Queensland mine systems 70.

Responding to long-term demand uncertainty

Economic regulators are increasingly adopting a more precautionary approach to managing asset stranding risks. This largely reflects the concern that if a regulator waits for more information to reduce the uncertainty of long-term demand, then it will not have the ability or tools necessary to respond to the change in circumstances. That is, asset stranding becomes a consequence of the 'do nothing' approach. Consequently, it is preferable to take reasonable steps to reduce asset stranding risk where this does not result in a material price increase for existing customers.

It also reflects the fact that depreciation policy changes (when appropriately implemented) meet the necessary condition of being NPV neutral, as observed by the AER in the context of gas networks:

Accelerating regulatory depreciation changes the timing of cash flow to the regulated gas network businesses but does not change the value (in net present value terms) of the costs that regulated businesses recover. It does not add to the costs of providing network services or gas access prices in net present value terms.

Regulatory depreciation can be reviewed at each access arrangement review and it can be adjusted as circumstances change in the future. It can be calibrated at later time intervals to address any material estimation errors made previously.⁷¹

NERA notes that "regulators in Australia, the UK, and New Zealand have all recently implemented (or adjusted) accelerated depreciation or other compensation methods to account for asset stranding risk created by increasing demand uncertainty." Given the potential material adverse effects discussed above of a strict reliance on evidence-based decision-making, NERA summarises that regulators have begun to adopt precautionary or probabilistic approaches to reflect the high level of risk that potential asset stranding poses to network owners and the costs to consumers.

This is particularly relevant to ESG- and fossil fuel-exposed sectors such as gas distribution. NERA cites numerous examples of where regulators have adjusted policies in response to longer term demand uncertainty, including the following.

- The Economic Regulation Authority of Western Australia's decision to apply the Window of Opportunities Past (WOOPS) framework to cap the economic life of the Dampier to Bunbury Pipeline to 2063 citing "current technological and policy uncertainties and their implications for the future usefulness of natural gas pipelines"⁷³.
- The AER demonstrating a willingness to act in a precautionary manner as demonstrated in its Jemena Gas Networks decision to "allow a "measured start" to accelerated depreciation for Jemena Gas Networks in NSW in the 2025–2030 period as a "precautionary step" given uncertainty around future demand".⁷⁴
- The UK energy regulator, Ofgem, has previously applied a sum of digits approach to accelerated depreciation in applying this to gas distribution networks. In its recent draft

⁷⁰ The reduction in banking and insurance services to the coal mining sector was publicly scrutinized by the Joint Standing Committee on Trade and Investment Growth in 2021 with its inquiry into "The Prudential Regulation of Investment in Australia's Export Industries"

Australian Energy Regulator (2021). Regulating Gas Pipelines under Uncertainty, Information Paper, November, p.31. Available at: AER Information Paper - Regulating gas pipelines under uncertainty - 15 November 2021.pdf

⁷² NERA (2025). p.26.

⁷³ Economic Regulation Authority (2021). Final decision on proposed revisions to the Dampier to Bunbury Natural Gas Pipeline access arrangement 2021 to 2025, April, p.351.

⁷⁴ NERA (2025). p.27.

- determination for RIIIO-3 Ofgem has taken a cautious but proactive approach to asset stranding risk and determined that a differentiated approach should be applied for new capital expenditure and the sum of digits approach should be applied to an economic life of 2050.⁷⁵
- The New Zealand Commerce Commission has shortened asset lives in its 2022 gas default price-quality path in expectation that demand for natural gas will decline and has applied an asset adjustment factor to average asset lifetimes.⁷⁶

In addition to these examples, Aurizon Network notes that the AER also cites the decision of the Authority for Consumers and Markets in the Netherlands to front-load asset recovery of the national gas network by removing indexation of the RAB so that "inflation compensation for a given year is charged to gas network users, rather than to future users".

These examples are demonstrative of the precautionary approach to depreciation policy in response to long-term demand uncertainty having regard to:

- the NPV neutrality of the capital recovery profile;
- the minimal impact on prices for existing users; and
- the material consequence to the infrastructure owners and future users where the RAB is required to be recovered from a declining customer base.

7.5 Proposed depreciation policy

Capital recovery period

Aurizon Network has reviewed the economic life constraint for each Coal System and with the exception of the Moura System, proposes to retain the current economic life constraint of 2055 for the reasons summarised in Table 7-3 and as discussed in this section.

Table 7-3 Proposed economic life constraints from First Reset Date

System	Economic Life Constraint	Reasons Diversified system with growth projects.		
Blackwater	2055			
Goonyella	2055	RMI Review of the economic life of DBCT Assets in 2021		
Moura	2048	Small number of large producers with declining metallurgical coal output.		
Newlands	2055	Predominant vertically integrated producer with significant marketable reserves and complementary capital investment.		

Goonyella

As noted earlier the QCA has recently reaffirmed the 2055 economic life constraint for the Goonyella System through its review of the 2019 DBCT DAU. To support this position, the QCA commissioned

-

⁷⁵ https://www.ofgem.gov.uk/consultation/riio-3-draft-determinations-electricity-transmission-gas-distribution-and-gas-transmission-sectors

⁷⁶ https://www.comcom.govt.nz/regulated-industries/gas-pipelines/gas-pipelines-price-quality-paths/gas-pipelines-default-price-quality-path/2022-2027-gas-default-price-quality-path/

⁷⁷ Australian Energy Regulator (2021). p.42.

analysis from RMI to evaluate the economic life of DBCT based on the estimated life of coal reserves in the DBCT catchment area.

Aurizon Network's evaluation of the RMI analysis is that that economic life of the DBCT catchment at the time of the report, without expansion of the terminal capacity and having regard to only operating mines and advanced projects, is between 20.7 years using marketable reserves and 45 years using Indicative Saleable Product (as shown in Table 7-4). Economic life is obtained by dividing the measure by the terminal capacity of 85 million tonnes.

Table 7-4 Economic life assessment for DBCT based on RMI analysis

Measure	Operating Mines	Advanced Projects	Total	Economic Life (Years)
Marketable Reserves	970.5	792	1,762.5	20.7
Indicative Saleable Product	1,892.0	1,922	3,814	45

Given the significant number of advanced projects, the prominence of metallurgical coal and the diverse user base, there is a strong likelihood that sufficient resources will be converted to reserves to continue to support the 2055 economic life constraint for the Goonyella System. This is consistent with the QCA's conclusion on DBCT:

After considering the significant extent of coal supply in the DBCT catchment—and balancing this against the strong, albeit less certain, demand environment over the medium- to long-term—we consider the available evidence supports maintaining the economic life of the Terminal at its current 50-year constraint, until June 2054.⁷⁸

Newlands

The Newlands System is expected to predominantly support thermal coal. The proportion of thermal coal exported through the North Queensland Export Terminal (**NQXT**) is expected to increase as output from the Galilee basin expands.

While the medium- to long-term demand for thermal coal is less certain than for metallurgical coal, the economic life of the Newlands System is intrinsically linked to the economic life of the Carmichael mine. Aurizon Network notes that there are sufficient marketable reserves within the Carmichael tenements to support the 2055 economic life constraint for Newlands. These reserves are estimated by Wood Mackenzie to be in the order of 1,223 million tonnes.⁷⁹

A significant point of difference between the Carmichael mine and other thermal coal mines in the CQCN is that it would be subject to material barriers to exit. Whereas a thermal coal miner may elect to strand its remaining reserves where the market conditions are not favourable due to significant reductions in the seaborne demand for thermal coal, the Carmichael mine has made significant long-term sunk investments in its port and rail infrastructure. Consequently, Bravus cannot cease production at the Carmichael mine without also stranding its own complementary supply chain infrastructure.

⁷⁸ Queensland Competition Authority (2019). Final Decision, DBCT 2019 draft Access Undertaking, p.180.

⁷⁶ Wood Mackenzie (2023) NSW domestic coal pricing study: A report prepared for the Australian Energy Regulator, March, p. 8. Available at: <a href="https://www.aer.gov.au/system/files/Wood%20Mackenzie%20-%20NSW%20domestic%20coal%20pricing%20study%20%E2%80%93%20Prepared%20for%20the%20Australian%20Energy%20Regulator%20%E2%80%93%20March%20203.pdf

These barriers to exit currently support the continuation of the 2055 economic life constraint for the Newlands System.

Blackwater

Aurizon Network commissioned Wood Mackenzie to evaluate the average mine lives of the Southern Basin (refer Attachment D). These are predominantly the mines located in the Blackwater and Moura Systems that service domestic demand and export through coal terminals at the Port of Gladstone.

Wood Mackenzie forecasts the supply of thermal coal to domestic customers to decline substantially from 2037. Aurizon Network requested Wood Mackenzie calculate a WAML for the Blackwater System using:

- marketable reserves; and
- marketable reserves with resource conversion.

The WAML is then estimated as a function of:

$$WAML = \frac{\sum (Mine\ Life\ x\ Total\ Marketable\ Reserves)}{\sum Total\ Marketable\ Reserves}$$

The WAML estimates from this assessment are summarised in Table 7-5.

Table 7-5 Wood Mackenzie Blackwater WAML estimates

Scenario	Sum of Mine Life x Total Marketable Reserves	Total Marketable Reserves	WAML (Years)
JORC Marketable Reserves	34,123	1,599	21
Wood Mackenzie Marketable Reserves	54,300	1,988	27
Resource Conversion	210,183	3,179	66

Wood Mackenzie calculates a WAML of 23 years based on marketable production as the average of the next five years' annual production forecast for each mine and the expected mine life using data from its Coal Supply Service.

The sensitivity of the WAML to the underlying assumptions is apparent in the difference between the JORC and Wood Mackenzie's Marketable Reserves scenarios. The primary difference is the increase in the marketable reserves for the Blackwater mine, which assumes development of South Blackwater tenements. Aurizon Network also notes the Wood Mackenzie WAML estimates include mine projects that currently do not have any production forecasts.

Aurizon Network has therefore also estimated a lower bound for the WAML based on mine lives with current marketable reserves and production estimates from Table 13 (reserves) and Table 14 (average production) of the Wood Mackenzie report. In addition, Aurizon Network has also added German Creek as an existing Blackwater user. Aurizon Network's approach to the weighting is consistent with the methodology used by Australian Rail Track Corporation (ARTC) in the Hunter Valley, which differs slightly from Wood Mackenzie's approach by applying the following formulas:

$$WAML_{\textit{Weight by Reserves}} = \sum_{n=1}^{i} \frac{\textit{Marketable Reserves}_i}{\textit{Total Marketable Reserves}} \times \textit{Mine Life}_i$$

$$WAML_{Weight\ by\ Production} = \sum_{n=1}^{i} \frac{Average\ Annual\ Production_{i}}{Total\ Annual\ Production} \times Mine\ Life_{i}$$

As shown in Table 7-6, the WAML from existing JORC marketable reserves is 18 to 20 years when weighted by production or reserves respectively. These estimates increase to 22 to 33 years when weighted by production or reserves respectively if using the Wood Mackenzie reserves. This demonstrates that the WAML estimated by Wood Mackenzie using JORC and its own Marketable Reserves is particularly sensitive to the inclusion of South Blackwater assumed reserves⁸⁰.

Table 7-6 WAML (production and reserves) from existing JORC marketable reserves (mt)

Mine	Reserves	Production	Mine Life	Reserves Weight	Production Weight
Blackwater					%
Cook					%
Crinium					%
Curragh					%
Ensham					%
German Creek (Capcoal)					8 %
Gregory					%
Jellinbah East					%
Kestrel					%
Meteor Downs South					%
Rolleston					%
Wilton					%
Yarrabee					%
Total	1215.1	68.4			
WAML	19.96	17.76			

Given Wood Mackenzie's high level of confidence in the development of the South Blackwater project and the consequential extension of the Blackwater mine, Aurizon Network considers the:

- diversified customer base;
- predominance of metallurgical coal supports; and
- upside potential from new projects and resource conversion,

supports a continuation of the 2055 economic life constraint for the Blackwater System from the First Reset Date. However, Aurizon Network notes the higher longer-term uncertainty for this system relative to the Goonyella System.

Aurizon Network

⁸⁰ Whitehaven Coal's most recent published reserves and resources statement does not include conversion of South Blackwater resources to reserves. Available at: https://whitehavencoal.com.au/wp-content/uploads/2024/11/Whitehaven-coal-Limited-Resources-Reserves-August-2024.pdf

Moura

The Moura System has a few properties that materially differentiate that system from other Coal Systems within the CQCN, including:

- there is no interconnectivity with other Coal Systems (meaning that a reduction in demand cannot be offset by a rerouting of traffic originating in another Coal System);
- there is a small number of operational coal mines, with System throughput predominantly represented by two coal mines; and
- the System output is expected to become predominantly thermal coal as the current Dawson metallurgical coal reserves deplete.

Aurizon Network has therefore determined that the current economic life constraint of 2055 for the CQCN should not apply to the Moura System. Aurizon Network's analysis of the Moura WAML indicates an economic life constraint of 2048 that should be applied to this Coal System for the First Reset Period. The economic life constraint to apply to Moura in the Second Reset Period will be subject to detailed review prior to the Second Reset Date.

There are similar characteristics between the Moura System and Queensland Rail's Western Coal System in that the cessation of production from one of the two major producers in the System would have a material impact on Access Charges for remaining producers. In addition, and like the Western System, not all Rail Infrastructure in the Moura System is common to all users in that system (which has a combination of short and long hauls). In approving Queensland Rail's 2025 Draft Access Undertaking, Queensland Rail proposed, and the QCA accepted, a 19-year economic life based on marketable reserves.

Current and prospective coal mines

The Moura system currently has three operating coal mines - Dawson, Baralaba North and Callide. These are examined below.

1. The Dawson Complex

The Anglo American owned Dawson Complex holds marketable reserves for both metallurgical and thermal coal. Production is currently solely metallurgical coal for export markets under the current ownership.

The Ore Reserves and Mineral Resources Report 2023⁸¹ shows an estimated reserve life of 13 years comprising:

- 64.6 million saleable tonnes of metallurgical coal; and
- 26.3 million saleable tonnes of thermal coal.

As part of a sale process, on 2 March 2025 Anglo American published its Ore Reserves and Mineral Resources Report 2024, which included revisions to the Dawson Complex's reserve life to 23 years (31 December 2047) comprising:

- 101.6 million saleable tonnes of metallurgical coal; and
- 67.3 million saleable tonnes of thermal coal.

⁸¹ Anglo American (2024). Ore Reserves and Mineral Resources Report 2023, March, p. 77. Available at: https://www.angloamerican.com/~/media/Files/A/Anglo-American-Group-v9/PLC/investors/annual-reporting/2023/anglo-american-ore-reserves-and-mineral-resources-report-2023.pdf

Wood Mackenzie "expects the share of thermal coal production to increase in Dawson's total coal production as the mine's coal quality declines. The mine is expected to become a predominant thermal coal (51%) mine by 2037 and will continue to produce more volumes of thermal coal than metallurgical till the end of its life".82

Wood Mackenzie also notes that the mine produces high-rank coal and is expected to experience strong demand in the longer term but the decline in share of metallurgical coal also poses a downside risk.

2. Baralaba North Mine

The Baralaba North Mine, owned by Baralaba Coal, no longer produces metallurgical coal. Coal production in FY2023 and FY2024 was approximately 1.5 million tonnes per annum of a PCI product solely for export markets. Based on Wood Mackenzie's estimates of reserves and production the mine is expected to cease production by 2035 once existing reserves are depleted. Wood Mackenzie does not expect the company to undertake further exploration or convert resources to reserves for this mine as it moves to develop the Baralaba South pit.

3. Callide

The Callide mine, owned by Batchfire Resources, is the only operational sub-bituminous coal mine utilising the Moura or Blackwater Systems. While the product has a low calorific value of 4,650 kcal/kg Gross As Received (**GAR**) it also has a low level of impurities such as sulphur. Approximately two-thirds of the coal production is for domestic consumption. Wood Mackenzie anticipates that the share of exports is expected to grow over the longer term as domestic demand declines.

Due to the lower quality coal, export demand for Callide product is at risk under various decarbonisation scenarios, with seaborne demand for low-rank coal expected to decline significantly by 2050. However, Wood Mackenzie notes that newly constructed power plants having supercritical and ultra-supercritical boilers in India and other Southeast Asian countries are designed to burn bituminous and sub-bituminous coal. Callide's low-cost structure and market proximity improves its position in this declining market but remains at substantial risk under decarbonisation scenarios.

4. Moura development projects

Wood Mackenzie has identified only one prospective coal project in the Moura System. This is the Baralaba South project, which is expected to commence production in 2036 to coincide with the closure of the Baralaba North pit. The mine is expected to produce only low-volatile PCI coal over its expected life.

Moura Reserve Life estimate

Aurizon Network has evaluated the economic life constraints using two approaches:

- the longest-lived significant metallurgical coal mine; and
- WAML based on current and known marketable reserves.

⁸² Wood Mackenzie (2025). Weighted Average Mine Life for Blackwater and Moura Coal Systems, Prepared for Aurizon Network, August, p.17.

Longest-lived substantive metallurgical coal mine

The premise of the longest-lived substantive coal mine is that while the most significant mine or collection of mines continues to operate, it will likely remain economic for the owner of the facility to continue to service them. That is, there is sufficient output from remaining mines such that Access Charges would remain affordable for those mines to continue operating.

The longest-lived substantive mine approach has been applied by the Independent Pricing and Regulatory Tribunal (**IPART**) since its 2014 Review of the Rate of Return and Remaining Mine Life under the NSW Rail Access Undertaking⁸³ and is applied by:

- identifying those mines with substantive annual production (although this is not defined and is a matter of judgement based on relevant circumstances)⁸⁴; and
- de-mining the longest lived mine by dividing marketable coal reserves by annual production.

IPART extended its approach in its 2019 review to include only existing mines in production noting:

In this review, we have added a further step, which is to consider the impact of regulatory uncertainty, particularly around investment in fossil fuel, and increased energy efficiency and cost efficiency of renewable energy forms. We have used this information to determine an appropriate balance between reducing the risk of asset stranding and moderating customer price impacts.⁸⁵

Aurizon Network agrees with the need to consider a broader range of factors in assessing the longest-lived substantive mines under different demand scenarios. In this context, Aurizon Network considers it prudent to restrict consideration of the longest-lived substantive mines to those that produce metallurgical coal as this is more representative of the likely demand under more aggressive decarbonisation scenarios.

As noted in the discussion above:

- the existing metallurgical coal reserves for the Dawson Complex are expected to be substantively depleted by the end of the current estimated reserve life of 23 years; and
- Baralaba Coal's annual PCI coal production of 1.5 million tonnes per annum is not sufficiently substantive to support recovery of the investment in the Moura Coal System with the current 2055 economic constraint.

In an aggressive decarbonisation scenario where the demand for thermal coal is substantively reduced prior to 2050, the Dawson mine is the longest-lived substantive metallurgical coal mine with an estimated reserve life of **23 years**.

WAML

Aurizon Network commissioned Wood Mackenzie to develop WAML estimates for the Blackwater and Moura Coal Systems under the following assumptions (refer Attachment D):

JORC marketable reserves weighted by reserves;

⁸³ https://www.ipart.nsw.gov.au/Home/Industries/Transport/Reviews/Rail-Access/Review-of-rate-of-return-and-remaining-mine-life-from-1-July-2014/15-Jul-2014-Final-Decision/Final-Report-and-Decisions-NSW-Rail-Access-Undertaking-Review-of-the-rate-of-return-and-remaining-mine-li-1

⁸⁴ Aurizon Network considers a mine will be considered to be in "substantive production" if its expected output is sustainable and sufficient to allow for recovery of Aurizon Network's 'efficient costs' (as defined in section 168A of the Act) of providing the service in the Moura System.

⁸⁵ Independent Pricing and Regulatory Tribunal (2019). Rate of Return and Remaining Mine Life, 2019 to 2024, Final Report, July, p.20.

- weighting by Wood Mackenzie's marketable production; and
- weighting by Wood Mackenzie's estimates for marketable reserves.

All three of these approaches produce a WAML for the Moura system of between 19 and 23 years.

Aurizon Network acknowledges that coal mine marketable reserves are subject to periodic revision where further investment in the resource is made to convert resources to reserves. The timing and reasons for making this investment is dependent on a range of factors, including the likely demand for the product. The tenement owner will likely only commit the funds necessary to develop the resource where there are reasonable prospects of that resource being extracted. These decisions will incorporate and reflect the information prevailing at the time that decision is made.

The demand for coal carrying train services in the Moura System is likely to extend beyond 2048 through the conversion of resources to reserves. For example, Wood Mackenzie has also identified the possibility of a substantive increase in marketable reserves for both Callide and Dawson. However, an assessment as to whether this investment occurs and whether the tenement is developed to extract that resource is speculative as it is ultimately at the discretion of the tenement holder. That is, where demand, price or cost conditions are unfavourable then the tenement holder has the option not to develop the tenement.

Given the resources at Callide and Dawson are assumed to be predominantly thermal deposits, then retaining the economic life constraint for the Moura System transfers the asset stranding risks associated with resource conversion to either other remaining users in the Moura System or to Aurizon Network.

This type of speculative demand risk that is at the commercial discretion of a small number of tenement holders is an asymmetric risk that is uncompensated in the rate of return. Consequently, it may also be necessary for other users within the CQCN to contribute to the recovery of the residual capital base if the economic life constraint remains at 2055 and production volumes decline significantly if existing mine lives are not extended through further investment.

The issue of whether prospective reserves should be included in the estimation of the WAML was evaluated in the ACCC's review of ARTC's 2017 Hunter Valley Access Undertaking proposal. Geoscience Australia's advice to the ACCC was to exclude resources from the WAML estimation noting:

Given the uncertainties regarding the coal outlook, Geoscience Australia suggests that the ACCC gives some consideration to the ARTC's position that only those prospective resources that are deemed by both the producer and the ARTC as being certain of production in the near future be included in the 2017 HVAU, with periodic review.⁸⁶

In contrast, in evaluating the economic life of DBCT in its 2015 Draft Decision on the 2015 DBCT DAU, the QCA had regard to the likely supply of coal over the life of the terminal, which necessarily includes some estimation of resource to reserve conversion and the development of new mine projects. Aurizon Network has carefully considered the QCA's reasoning in this decision and has not sought to reduce the economic life of the Blackwater System from the current 2055 constraint for similar reasons, including:

a diverse number of operating mines that are predominantly metallurgical coal; and

⁸⁶ Geoscience Australia (2017). Geoscience Australia advice to the Australian Competition & Consumer Commission regarding certain geotechnical aspects of the Australian Rail Track Corporation submission to the 2017 Hunter Valley Coal Network Access Undertaking, p.18.

the prospect of further substantive mine development projects.

These conditions are not present in the Moura System and Aurizon Network considers that retaining an economic life constraint for the Moura System beyond 2048 does not satisfy the statutory requirements that Aurizon Network should be able to expect to recover the economic value of its investment in the Moura System.

While there is a non-trivial probability that the existing mines in the Moura System will continue production beyond 2048, there is also a probability that one or mines may cease operation prior to that date in response to adverse movements in the demand for their products. Both outcomes involve uncertainties that can only be resolved over time as more information becomes available.

Whether the WAML should incorporate estimates for resource conversion should consider the consequences of error in its determination, and the materiality of the impact of their exclusion.

Periodic WAML review

There are various inputs into the estimation of a WAML, including whether the marketable reserves and production rates have been over- or under-stated. The risk of this over- or under-statement of a WAML also increases as the number of large producing mines in a system decreases (and the estimate can be statistically biased), as is the case with the Moura System.

The appropriate mechanisms to address these types of issues is through periodic re-evaluation of the WAML to incorporate new information as it becomes known, including information regarding future events, as has occurred through successive reviews in the Hunter Valley.

Aurizon Network has included a requirement in the 2025 UT5 DAAU to consult on and revise the Moura economic life constraint prior to 30 June 2031 to incorporate new information regarding the expected demand and supply conditions (including updates to marketable reserves) for the Moura System. It is reasonable to conclude that should the producers in that Coal System have confidence in the ongoing demand for their products, they will undertake further exploration expenditure to convert resources to reserves prior to the First Reset Date.

Additional Change Events at the Second Reset Date

Aurizon Network has also sought to ensure that the term of the Access Undertaking remains flexible to foreseeable events that might require further revision to the economic life constraint of the CQCN. As described in section 7.2, Aurizon Network has discussed with the Customers to review the economic life at the Second Reset Date.

As evident in the export volume scenarios in Figure 7-2, the two most significant scenarios that effect long-term demand for coal exports are:

- supply-side driven through regulatory intervention in the development of new coal mines in Queensland; and
- demand-side driven through commercial, political and financial levers to achieve NetZero by 2050 or earlier.

In this context, NERA recognises that the proposed depreciation policies are not sufficient to mitigate asset stranding risk under these scenarios and that further regulatory intervention would be necessary:

In the more negative cases, like the Carbon Shock scenario, tariffs increase substantially under both approaches in the final period, but by materially more under the Existing Approach. We expect that in these scenarios, further policy changes would be required to ensure that the full remaining value of CQCN is not paid for only by the few remaining

customers in the few remaining years (which in any case would probably create a demand death spiral in the face of these high tariffs).⁸⁷

In preparing the draft amendments Aurizon Network sought to link the supply-side Change Event to a change in law that has the effect of preventing the development of metallurgical or thermal coal mines in Queensland. This approach considered the possibility that given metallurgical coal's role in the energy market transition, a change in law may be limited to preventing the development of thermal coal mines.

As various Coal Systems have differing degrees of exposure to thermal coal resources, this would likely result in a review of the economic life constraint for select individual coal systems (i.e., Blackwater). It will inevitably be metallurgical coal producers in these Coal Systems that assume the costs and risks of a curtailment in total coal production associated with the prevention of new thermal coal mines. However, this position was not supported by the Customers and the Change Event has been specified as a change in law that has the effect of preventing the development of new coal mines.

The proposed Change Events are intended to ensure a timely regulatory response to triggers driving changes to coal volume profiles that would likely eventuate under these scenarios.

2035 review

The economic life constraint does not represent a point in time when services will cease to utilise one or more Coal Systems in the CQCN. Aurizon Network expects the demand for coal carrying train services to continue well beyond 2055. This raises the pertinent question as to when the economic life could be potentially extended beyond 2055 to ensure prices reflect the economic value from the use of Rail Infrastructure.

Aurizon Network considers expiry of the 2025 UT5 DAAU Term to represent an appropriate point in time for this review. In 2037 the remaining economic life of most systems will be 18 years. As this is less than the 20-year cap the regulatory review period commencing in FY2035 represents an appropriate point in time to assess whether the maximum economic life should be maintained at 20 years at that reset date.

Capital recovery rate

The implications of RAB indexation

The current regulatory financial model was established in the original UT1 Access Undertaking, which reflected the prevailing theories regarding utility regulation and an assumption of GDP-linked demand growth. This was broadly reflected in the application of straight-line depreciation over the physical asset lives. Early regulatory designs also applied current cost accounting principles that were intended to ensure the asset base reflected the current cost of replacing the existing asset in the current period. This would also be the benchmark in a workably competitive market and therefore the regulatory cost base would reflect efficient prices.

This model would require periodic revaluation of the asset base to ensure the assets continued to reflect current replacement costs. Due to the costs and complexity of estimating depreciated optimised replacement costs (**DORC**) regulators 'locked-in' the value of the RAB based on the most

⁸⁷ NERA (2025). Depreciation approaches at UT6, Prepared for Aurizon Network, p.6.

recent DORC valuation and applied the principle of financial capital maintenance⁸⁸ to the RAB to avoid windfall gains or losses to service providers and consumers.

The principle of financial capital maintenance was also the basis for inflation indexation of the RAB to provide a real return to investors in regulated assets. However, indexation is not a necessary condition for providing investors with a real return on capital. Inflation indexation is seen as providing additional benefits to utility regulation, in particular⁸⁹:

- the back-loaded capital recovery profile maintains real prices and revenues on a growing demand base over time and therefore supports inter-temporal equity between current and future users in terms of responsibility for capital recovery; and
- sustaining capital expenditure on a steady state asset with a uniform distribution of asset lives also matched depreciation with replacement capital expenditure and maintained the value of the RAB in real terms.

However, these conditions do not hold where:

- the economic life is truncated to less than the physical asset lives; and
- the long-term demand profile is either stable or declining.

While these conditions hold for assets with perpetual demand such as water pipelines and electricity transmission grids they did not hold for assets with a finite and long-term declining demand such as the CQCN. Accordingly, the back-loading of capital recovery is contrary to the legitimate interests of the service provider. It increases the asset stranding risk and does not facilitate the recovery of the capital base from the larger customer base over the short- to medium-term. This point is also recognised in the Australian Energy Market Commission's assessment of the regulatory treatment of gas distribution in the Netherlands regulatory framework:

The purpose of RAB indexation is to maintain the regulatory value of the RAB in real terms over time so that current network users pay the same amount in real terms for the same service as future users. With the expected decrease in the use of the natural gas network this may lead to a situation in which a decreasing number of natural gas network users bear the cost of the inflation compensation. By using a nominal WACC instead, this has the effect of bringing forward the timing of when the business is compensated for inflation. ACM considered this approach better suited the expected decline in the use of the natural gas network. ⁹⁰

For these reasons, Aurizon Network has discussed with the Customers to:

- maintain RAB indexation for all assets included in the RAB prior to 1 July 2027; and
- apply no indexation to all assets entering the RAB from 1 July 2027.

Straight-line depreciation will continue to be applied to all assets, over the lesser of the physical asset life or the economic life constraint.

⁸⁸ The financial capital maintenance principle, which is also referred to as the NPV=0 principle, is the requirement that the present value of expected capital charges for an asset over its economic life should be equal to the initial asset value or purchase cost

⁸⁹ See AER discussion at: https://www.aer.gov.au/system/files/Fact%20sheet%20-%20Indexation%20of%20the%20regulatory%20asset%20base.pdf

⁹⁰ Australian Energy Market Commission (2025). National Gas Rule Amendments 2026 (Gas networks in transition): Consultation Paper, 18 September, p. 54. Available at: https://www.aemc.gov.au/sites/default/files/2025-09/Consultation%20paper%20-%20GRC0082%20-%20Gas%20networks%20in%20transition.pdf

Impact of the proposed changes

The implications of this back-loading can be demonstrated by the depreciation and RAB outcomes from the following scenarios shown in Figure 7-5 and Figure 7-6:

- straight-line depreciation with indexation (pre-1 July 2009 assets);
- accelerated depreciation with indexation (post-1 July 2009 assets); and
- straight-line depreciation without indexation (2025 UT5 DAAU proposal for capital expenditure).

The scenarios assume an asset whose physical asset life is greater than the economic life constraint with five-year regulatory pricing periods.

Figure 7-5 Indicative annual depreciation expense

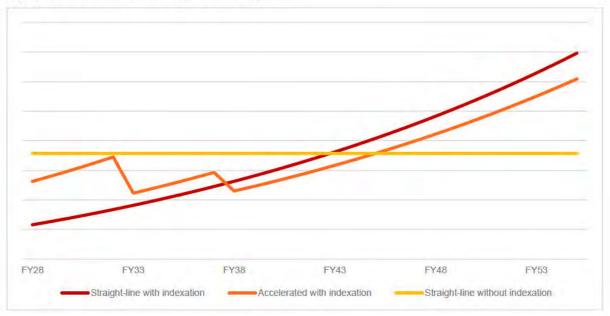
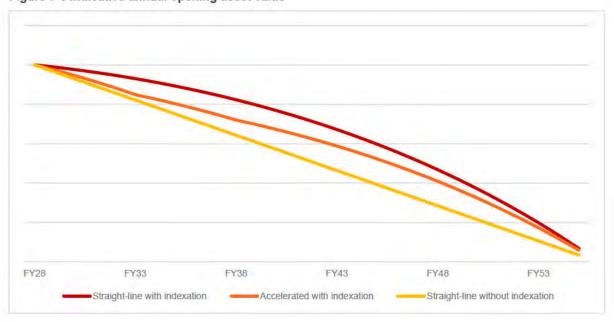


Figure 7-6 Indicative annual opening asset value



It is evident from this example that the profiles of depreciation expenses and RAB values are not materially different between the accelerated depreciation with indexation and straight-line depreciation without indexation options, where the remaining asset life is subject to periodic reset. This is not unexpected as the application of straight-line depreciation without indexation is substituting one form of accelerated depreciation with another. The key difference is that straight-line depreciation without indexation does not continue to back-load capital recovery. That back-loading requires higher rates of depreciation on a higher asset value as the asset approaches the economic life constraint, which is also where the long-term demand is most uncertain.

Aurizon Network recognises that the removal of RAB indexation for all assets within the RAB would have a larger pricing impact on current and expected demand in the short- to medium-term. This would be inconsistent with Aurizon Network's objectives in setting its depreciation policy (refer section 7.3). Therefore, Aurizon Network has discussed with the Customers to restrict the application of straight-line depreciation without indexation to assets entering the RAB from the First Reset Date.

While this has the effect of implementing a differentiated depreciation policy between existing and new assets, this should not be an impediment to its implementation as:

- the current depreciation policy arrangements are already differentiated, and the complete depreciation proposal retains a differentiated approach using two methods;
- a differentiated approach is necessary to avoid the price impacts from the application of straight-line depreciation without indexation to the entire RAB;
- as discussed above, in Ofgem's approach to gas distribution it is not unusual for differential depreciation policy arrangements to apply to current and new assets.

The application of straight-line depreciation without indexation will partially transition to this approach for all assets as asset replacement progressively replaces expiring assets in the RAB over time.

Aurizon Network also notes this policy is also consistent with the negotiated outcomes between Dalrymple Bay Infrastructure and DBCT users to apply straight-line depreciation without inflation indexation on the NECAP program. The key difference between Aurizon Network's proposal and the DBCT NECAP arrangements is that Aurizon Network will continue to apply a consistent real rate of return target by indexing new assets in the RAB by the difference between forecast and actual inflation, as discussed in the Chapter 6.

7.6 Revenue and tariff impacts

Overall impacts

The changes to the depreciation policy that reflect Aurizon Network's discussions, have no impact on prudent capital expenditure added to the RAB between 1 July 2009 and 30 June 2027, which represents approximately two-thirds of the expected RAB opening asset value in FY2028. For major project costs such as GAPE and the Wiggins Island Rail Project there is no change to expected RAB values or net depreciation associated with these changes.

The main impact of the depreciation policy change is the application of accelerated depreciation to the pre-1 July 2009 assets of which, as of 1 July 2027, 52% will comprise the original valuation assets.

The composition of pre-1 July 2009 assets is shown in Figure 7-7. The declining, then static, profile of the original valuation assets broadly reflects the track, signalling and electrical assets reaching the end of their physical lives, with the longer life assets such as bridges, culverts and earthworks having their asset lives capped at 2055. With the exception of the Moura System, which has some remaining track infrastructure, the endorsed asset lives of the original valuation assets in other systems is 2055.

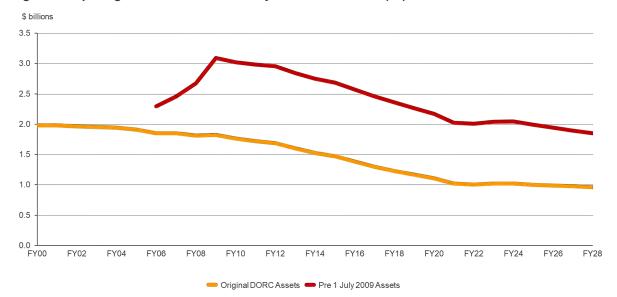


Figure 7-7 Opening asset values of Pre-1 July 2009 RAB assets⁹¹ (\$b)

The practical effect of the depreciation policy change on the original valuation assets is to increase the rate of depreciation from 1 July 2027 by applying a remaining asset life of 20 years as opposed to 28 years.

The combined effects of applying accelerated depreciation to pre-1 July 2009 assets and removal of forecast inflation indexation on capital expenditure from 1 July 2027 is to front-load capital recovery and reduce the value of the RAB relative to the current depreciation policy. As shown in Figure 7-8, for a given capital expenditure profile, the 2025 UT5 DAAU depreciation policy would reduce the closing value of the RAB in FY2037 by approximately 6.4%.

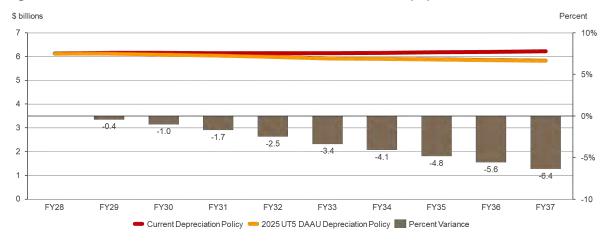


Figure 7-8 Indicative RAB values over First and Second Reset Periods (\$b)

The initial impact of the front-loading in the First Reset Period is to increase the depreciation expense. As the value of the assets subject to non-indexation in the RAB increases over time and the value of the pre-1 July 2009 assets reduces with accelerated depreciation, the depreciation expense decreases over the Second Reset Period, as shown in Figure 7-9.

Aurizon Network

_

⁹¹ Note: UT1 capital expenditure was added to the value of the RAB at the end of the UT1 regulatory period and therefore are included in RAB roll-forward at the UT2 commencement date.

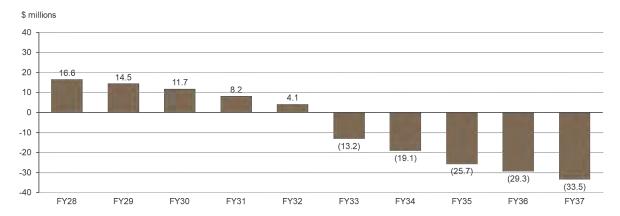


Figure 7-9 Variation in depreciation expense with 2025 UT5 DAAU depreciation policy (\$m)

The aggregate effect of the 2025 UT5 DAAU depreciation policy changes on net depreciation, return on assets and tax allowances is shown in Figure 7-10. The year one impact is 2%, increasing to 3% in year five (FY2032), before declining in the Second Reset Period. The order of magnitude of these variations is consistent with the objective that changes to depreciation policy should avoid a material increase in Access Charges, while providing a proportionate response to the increase in long-term demand uncertainty.

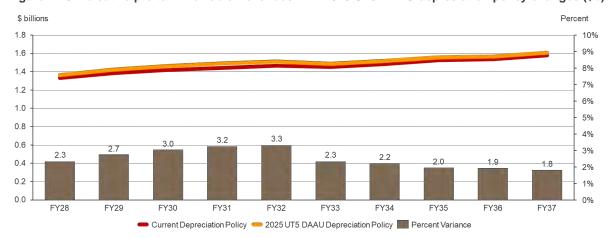


Figure 7-10 Indicative pre-tax Allowable Revenues with 2025 UT5 DAAU depreciation policy changes (\$b)

NERA assessment

Aurizon Network commissioned a report by NERA to independently model and evaluate the impact of the 2025 UT5 DAAU depreciation policy changes on both the short- and long-term average price of access in the CQCN. NERA was provided with indicative volume and capital expenditure profiles associated with three scenarios:

- 1. Base Case scenario, which essentially assumes business as usual;
- Carbon Constrained scenario, in which Asian seaborne demand is lower due to China's thermal self-sufficiency, a higher share of scrap-based Electric Arc Furnace in crude steel production and early retirement of coal-fired power plants driven by government policy and a significant reduction in renewable energy costs; and
- 3. Carbon Shock scenario, in which global demand for coal exports drops significantly, sharply reducing usage across all Coal Systems.

These scenarios coincide with the 'Current Economics', 'Carbon Constrained Asia' and 'Rapid Decarbonisation' scenarios in Aurizon's Sustainability Report, which were shown in Figure 7-2. These scenarios were chosen to represent the range of plausible scenarios. For example, the volume profile for the 'Mine/Regulatory-Constrained Australia' scenario (refer Figure 7-2) lies between the 'Carbon Constrained Asia' and 'Rapid Decarbonisation' scenarios.

Importantly, the volume and capital expenditure profiles provide to NERA do not represent a forecast or projection. Rather they represent a plausible profile broadly in line with third party outlooks such as those provided by the International Energy Agency. NERA's findings are provided in Table 7-7.

Table 7-7 Average CQCN tariff levels by Access Undertaking period (\$/Net Tonne)

6.0	UT6	UT7	UT8	UT9
Base Case				
Existing Approach	4.72	4.94	4.98	5.26
Proposed Approach	4.92	5.00	4.95	5.09
Delta	0.20	0.07	-0.03	-0.17
Carbon Constrained				
Existing Approach	4.90	5.57	6.02	6.27
Proposed Approach	5.11	5.64	5.97	6.05
Delta	0.21	0.07	-0.05	-0.22
Carbon Shock				
Existing Approach	5.06	7.44	9.03	10.53
Proposed Approach	5.28	7.51	8.89	10.03
Delta	0.21	0.07	-0.14	-0.50

Source: NERA Economic Consulting, Depreciation Approaches at UT6, Page 6

It is evident from the NERA analysis that:

- the 2025 UT5 DAAU depreciation policy changes have only a modest impact on access prices;
- the changes do not reduce Reference Tariffs in nominal terms;
- should the more negative scenarios become more likely in the future, then further adjustments
 to depreciation policy would be necessary to provide a reasonable expectation that the value
 of the assets in the RAB will be returned to investors.

These findings lead NERA to conclude:

- Even in an outlook of enduring use of CQCN (i.e. Base Case conditions), a modest frontloading of revenues would not materially harm customers today. In fact, in every single case we model, the accelerated depreciation that Aurizon proposes (including the 2048 Accelerated WAML) serves to flatten tariffs that would otherwise increase under the Existing Approach. In no case does the Proposed Approach produce decreasing tariffs over time, which could be a sign of a policy that goes too far to accelerate depreciation...
- On the other hand, in an outlook of rapidly declining use of the network, the Proposed Approach could substantially reduce the burden faced by the few remaining users of the service and/or mitigate the costs investors in the rail network could be required to bear if assets are stranded.⁹²

⁹² NERA (2025). p.7.

Aurizon Network supports NERA's findings and conclusions that the costs associated with taking modest and pragmatic steps to address longer-term demand uncertainty are efficient and broadly consistent with a precautionary approach to capital recovery.

7.7 Moura life



Moura economic life constraint

Aurizon Network considers that the reduction in the economic life constraint for the Moura System from 2055 to 2048 would not have a material impact on Access Charges within the First Reset Period for the following reasons:

- under the proposed depreciation policy change, all assets within the RAB as at 30 June 2027 will be subject to the rolling 20-year life reset mechanism. The reduction in the economic life constraint to 2048 from 1 July 2027 (where the remaining life will be 21 years) has no effect on the rate of capital recovery on these assets within the First Reset Period; and
- the reduction in economic life from 2055 to 2048 reduces the recovery period from 28 to 21 years, which will increase the rate of capital recovery of non-indexed capital expenditure from 1 July 2027 that will be subject to straight-line depreciation over the economic life. The differential will progressively accumulate over the First Reset Period but does not represent a material increase in revenue over that period, as shown below.

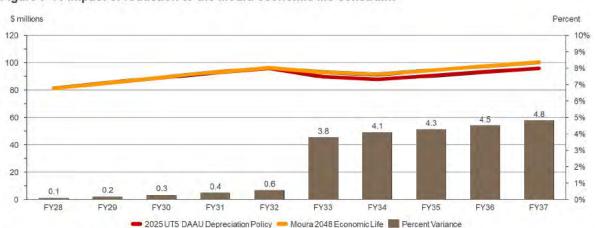


Figure 7-11 Impact of reduction to the Moura economic life constraint

The impact of the reduction in the economic life constraint will be primarily observed over the Second Reset Period where the economic life on 1 July 2032 will be 16 years and reducing, compared to being reset to 20 years under the current 2055 economic life constraint as shown in Table 7-8. However, as discussed above, the economic life constraint is not fixed for the remaining Term of the 2025 UT5 DAAU and will be subject to review prior to the Second Reset Date through a Moura Economic Life Review. Where there is an increase in marketable reserves over the First Reset Period and there is information supporting the likelihood that those reserves will be extracted to meet the demand for those products, then the economic life constraint will be adjusted accordingly.

Table 7-8 Applied maximum remaining life assumptions (years)

Maximum Remaining Life	FY28	FY29	FY30	FY31	FY32	FY33
Pre-1 July 2027 Assets						
2055 Constraint	20	19	18	17	16	20
2048 Constraint	20	19	18	17	16	16
Post 1 July 2027 Assets						
2055 Constraint	28	27	26	25	24	23
2048 Constraint	21	20	19	18	17	16

NERA assessment

Aurizon Network requested NERA also evaluate the short- and medium-term average pricing impacts of reducing the economic life constraint of the Moura System from 2055 to 2048 (refer Attachment C). As shown in Table 7-9, consistent with the conclusion above the reduction has very limited impact on average tariffs in the First Reset Period (indicated by the UT6 column in Table 7-9).

The volume and capital expenditure profile in the Accelerated WAML scenario is a hybrid scenario of the Base Case scenario, which becomes the 'Carbon Constrained Asia' scenario, and then 'Rapid Decarbonisation' scenario as the System becomes predominantly thermal coal, as shown in Figures 5.4 and 5.5 of the NERA report.

Table 7-9 Average Moura tariff levels by Access Undertaking period (\$/Net Tonne)

	UT6	UT7	UT8	UT9
Base Case				
2055 Constraint	4.83	5.23	5.83	7.40
2048 Constraint	4.84	5.65	5.50	7.08
Delta	0.01	0.41	-0.33	-0.32
Accelerated WAML				
2055 Constraint	4.83	5.69	7.77	13.39
2048 Constraint	4.84	6.13	7.29	12.68
Delta	0.01	0.44	-0.48	-0.71

This leads NERA to conclude that:

If something resembling the Accelerated WAML scenario materialises, then tariffs will increase significantly under either policy design, but less so with the 2048 Constraint. In this case, the tariff reductions during UT8 and UT9 and larger than the tariff increase in UT7, relative to the 2055 Constraint tariffs. 93

Assessment against the statutory criteria

The QCA has also previously raised concerns with DBCT's 2015 DAU proposal to truncate the economic life for DBCT as it considered that it would "inappropriately transfers costs from future

⁹³ NERA (2025). p.7.

access seekers to current access holders and seekers, through higher depreciation charges over the forthcoming regulatory period (s. 138(2)(e)". 94

It may also be an outcome that not aligning the economic life constraint with a WAML based on marketable reserves (with periodic review) has the opposite effect of burdening future access seekers with higher average access prices. However, these concerns are unlikely to be applicable to the circumstances in the Moura System. As there are no identifiable development projects from new entrants with coal tenements, then the current Access Holders are also the future Access Holders.

Consequently, the costs of the reduction in the economic life constraint in the Moura System are borne by current users, who are also the beneficiaries of that reduction by not facing higher Access Charges in the future. While there is likely to be some transfers between these users through changes in relative production over time, these matters are neither predictable nor within Aurizon Network's control and therefore should not be a relevant consideration as to whether the proposal results in intertemporal transfers.

Lastly, given the expected declining proportion of coking coal in the production mix in the Moura System over time, the truncated capital recovery period and capital recovery profile proposed for the Moura System more closely reflects the expected declining resource rents in that system over time. This therefore best promotes the economically efficient investment in, operation and use of the Moura System.

Conclusion: economic life constraint for Moura

In summary, the reduction in the Moura economic life constraint to 2048 better satisfies the statutory criteria relative to the maintenance of the current economic life constraint of 2055.

⁹⁴ Queensland Competition Authority (2015). Draft Decision, DBCT Management's 2015 Draft Access Undertaking, April, p.128.

8. Operating Expenditure

8.1 Summary

Engagement Methods Used		Engagement Outcome		
Q	RWG - Representative Panel	520	Methodology agreed with Customers	
	Industry advocates		Allowance and corresponding values to be reviewed by the QCA	

Introduction and overview

The operating expenditure allowance includes two allowances that reflect the operating costs incurred by Aurizon Network in delivering coal carrying train services, being the:

- Non-Electric Operating Expenditure Allowance (NOEA); and
- Electric Operating Expenditure Allowance (EOA).

The key categories reflected in each allowance are summarised below.

Table 8-1 Operating expenditure categories

Cost Allowance	Category Description
Non-Electric	Direct CQCN Operating Costs (formerly System Wide & Regional Allowances) Costs directly related to Network Operations
Operating Expenditure Allowance (NOEA)	Indirect CQCN Operating Costs (formerly System Wide & Regional Allowances) Business management costs indirectly related to Network Operations
	Indirect Costs includes:
	Corporate Overheads Risk & Insurance
Electric Operating Expenditure	Third Party Connection Fees Transmission connection charges related to the Electrified Rail Network that are passed through to Access Holders
Allowance	Insurance – Industrial Special Risks Premium for Electrical Feeder Stations
	Insurance cover for the electrical feeder stations required to operate electric trains within the Blackwater and Goonyella Systems

Figure 8-1 further details the categories, sub-categories and functions captured in the operating expenditure allowances.

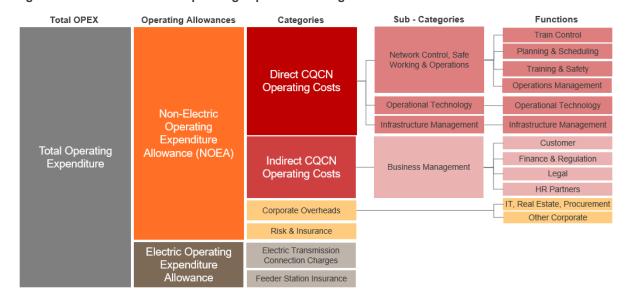


Figure 8-1 Aurizon Network's operating expenditure categories

Current UT5 arrangement

The NOEA is currently a fixed allowance of \$135.6 million per annum, with an annual adjustment where actual CPI in any given year exceeds 2.37%. This was an outcome negotiated with customers that heavily incentivised Aurizon Network to manage its cost base.

The fixed allowance of \$135.6 million was originally determined by referencing the QCA's determination of Aurizon Network's operating expenditure allowance for FY2021 (being the last year of the original UT5 regulatory period) in its December 2018 Final Decision on Aurizon Network's 2017 UT5 DAU⁹⁵ (refer Figure 8-2). This amount was then held constant in nominal terms from FY2022 to FY2027.

Figure 8-2 QCA's Final Decision on Aurizon Network's UT5 operating expenditure (\$m)

Category	2017-18	2018-19	2019-20	2020-21	Total
System-wide and regional costs	65.31	67.23	71.40	72.32	276.26
Corporate overheads ^a	45.15	46.15	53.87	55.15	200.32
Risk and insurance	8.21	8.59	8.84	9.06	34.70
Less: Non-coal allocation	(0.81)	(0.83)	(0.93)	(0.95)	(3.52)
Transmission and connection	72.06	70.20	71.86	73.56	287.68
Total	189.92	191.34	205.02	209.15	795.43

Table 34 QCA decision on Aurizon Network's UT5 operating expenditure (\$m)

Source: Queensland Competition Authority (2018). Decision, Aurizon Network's 2017 Draft Access Undertaking, December, p.95.

The EOA compensates Aurizon Network for the third party costs incurred in the supply of electricity to Railway Operators of electric traction services through its overhead distribution network in the

Aurizon Network

-

⁹⁵ Queensland Competition Authority (2018). Decision, Aurizon Network's 2017 Draft Access Undertaking, December, p.95.

Goonyella and Blackwater Systems. The EOA captures the component of Risk and Insurance costs associated with electrical feeder stations. It also includes Transmission and Connection costs, which are essentially a pass-through, with any changes from the approved costs in the EOA treated as an Endorsed Variation Event (Schedule F Clause 5.3).

Relevant business and operating environment

Aurizon Network acknowledges the challenging market conditions faced by all stakeholders across the CQCN. Coal price volatility remains a persistent feature of the sector, contributing to an environment of uncertainty for producers and supply chain participants.

Since the approval of the 2017 Access Undertaking, the industry and broader macroeconomic landscape have undergone significant shifts, which have materially influenced the structure and trajectory of Aurizon Network's operating costs. These shifts include heightened safety expectations, evolving customer and supply chain dynamics and the growing complexity of cyber security risks. Additionally, increased reliance on data analytics, digital systems and emerging technologies has introduced new cost pressures. These factors are compounded by broader economic challenges such as sustained inflation, tight labour markets, rising insurance costs and global supply chain volatility.

Safety

Safety is a core value of Aurizon and is embedded in its operations through a comprehensive Safety Management System that is aligned with the Office of the National Rail Safety Regulator's expectations for performance-driven, hazard-specific risk management. Since 2017, evolving regulatory standards have directly influenced Aurizon Network's operating cost base, requiring sustained investment in systems training and technology to meet heightened safety obligations.

A recent example of regulatory change requiring increased training was the workplace exposure standard for respirable crystalline silica. To more effectively manage these requirements and ensure consistent implementation across the business, the Safety partnering function has been transitioned from a centralised support role to a dedicated function within Aurizon Network. This structural change reflects the increasing complexity and importance of safety compliance and enables more responsive, operationally aligned support for Aurizon Network staff.

Customer and supply chain evolution

Since 2017, Aurizon Network has experienced a marked increase in complexity across its customer base, rail operator landscape and supply chain interactions, which has been driven by shifting market dynamics and heightened stakeholder expectations. Key developments include:

- a shift from diversified miners (Rio Tinto, BMA) to pure-play and private equity-backed miners (e.g., Whitehaven, Stanmore, Coronado) with varied risk profiles and capital structures;
- the entry of another new Railway Operator, with One Rail Australia expanding the market from three to four;
- greater reliance on major terminals like DBCT and RG Tanna to manage throughput (post BMA's asset sales);
- increased stakeholder scrutiny and demand for transparent data and reporting, particularly around access arrangements and surge capacity;
- a rise in capacity transfer requests requiring careful evaluation, co-ordination and formalisation to ensure regulatory compliance and network integrity;
- elevated stakeholder engagement, with customers and industry participants seeking more frequent and detailed interaction; and
- enhanced train planning, driven by the adoption of the Daily Rolling Plan initiative that brings improved responsiveness, reporting and transparency.

Cyber security

Cyber security has become an increasingly critical focus for Aurizon Network, particularly from 2024 onward as the company has responded to rising digital threats such as the 2024 CrowdStrike incident and increased phishing scams. The key implications of this include:

- strengthened cyber resilience via increased investment in cyber security infrastructure and protocols, in alignment with broader industry trends;
- an increased focus on Operational Technology security given Aurizon Network's reliance on operational systems for train control and network management; and
- implementation of a multi-year cyber security transformation program to continue to enhance and uplift Aurizon Network's ability to protect against, and respond to, cyber security incidents or other technology-related disruptions.

Software as a Service and Enterprise Resource Planning

As organisations increasingly embrace Software as a Service (**SaaS**) models, the traditional approach to Enterprise Resource Planning (**ERP**) is undergoing a fundamental shift. Businesses are moving away from large capital-intensive ERP implementations toward more agile subscription-based solutions, resulting in subscription and implementation costs being recognised as operating expenditure instead of capital expenditure.

Further, SAP announced that mainstream maintenance for its ECC (ERP Central Component) will end in 2027, with extended support available only until 2030 (at a premium cost). This has created a hard deadline for companies to migrate to SAP's next generation ERP platform, S/4 HANA.

A fully supported ERP system is essential to maintain system stability, enable regulatory compliance, manage cyber security risks and adopt continued innovations. Aurizon Network and the Aurizon Group are in the process of developing and delivering an ERP program transition over the next four years, with forecast completion in FY2028 or FY2029. The program is currently at the pre-feasibility stage and therefore the costs are unable to be forecast with sufficient accuracy at this time. Given the nature of the costs to be incurred relate to subscriptions and implementation, they will be recognised as operating expenditure rather than a depreciable capital asset.

Digitisation, data analytics and emerging technology

Digitisation is increasingly seen as a strategic enabler across infrastructure and heavy industry (mining, oil/gas, rail). Whilst the pace and maturity of adoption vary, there is a clear trend towards leveraging technologies such as automation, data analytics, the Internet of Things (e.g., for condition monitoring) and digital asset management. These are being employed to improve efficiency, safety and long-term sustainability by enhancing reliability and reducing lifecycle costs⁹⁶.

Aurizon Network is at various stages of this digital transformation, laying the foundations through initiatives like:

- enhanced asset data accuracy via Network Asset Management System investment;
- the integration of current and future condition monitoring technologies;
- the exploration of data-driven maintenance, renewal and planning models;
- scheduling optimisation and implementation of the Daily Rolling Plan initiative.

⁹⁶ Hatch (2024). The future of railway maintenance: Optimizing condition monitoring and assessment, October; Hatch, EY (2023). How artificial intelligence can unlock a new future for infrastructure; EY, AFRY (2023). Mining digitalisation: Turning challenges into opportunities; AFRY, Bentley Systems (2023). Digital twins drive better outcomes across the rail asset lifecycle.

As Aurizon Network increasingly relies more heavily on data to inform scheduling, asset management and operational decisions, the need for specialist skills in data science, engineering and digital systems has grown, and is likely to continue to grow, rapidly. It is evidenced through the engagement with customers that data-based decision-making is key in seeking approval for forward-looking expenditure.

Workforce strategy: Balancing capability, retention and efficiency

Aurizon Network has navigated, and continues to navigate, workforce pressures amid a tightening labour market and competition from major Queensland and national infrastructure and energy projects such as Cross River Rail, CopperString 2032, Inland Rail, the broader energy transition and cyclical mining operations. As Aurizon Network has staff in regional areas and capital cities, the competition for labour is not limited to one geographical location. Key pressures include rising wage costs, skills shortages and an ageing workforce.

Enterprise agreements (**EA**s) ratified in 2023 and expiring in 2027 are escalating at 4.5% (Infrastructure EA) and 3.3% (Staff EA) per annum, contributing to cost growth. Insights communicated to customers during the July 23 Infrastructure EA/Western Depots update noted that outcomes were comparable to headline peers (3% to 5%). Notably those organisations that renegotiated their EAs in early 2022 secured more favourable conditions, with the Infrastructure EA negotiated against the backdrop of a skills shortage. Labour market challenges are not unique to Aurizon Network, with similar pressures experienced by other entities, as outlined in the September 2024 Maintenance Claim. ⁹⁷

In response to these workforce risks, Aurizon Network has implemented targeted attraction and retention initiatives, particularly in high-risk operational areas such as engineering, train control and regional roles. Actions have included market-aligned pay adjustments, sign-on and retention bonuses and increased investment in apprenticeships and structured capability development. Expanded training aligned with safety and technology requirements has been complemented by refreshed recruitment campaigns and branding to increase candidate reach, boosting train control applicants by 70%.

Recognising high attrition rates (between 9% and 15%) and long training lead times (eight months) in train control, Aurizon Property Pty Ltd is completing a refurbishment of the Network Control Centre (**NCC**) to improve ergonomics and modernise the working environment.

With 18% of Aurizon Network's workforce currently aged over 55, which is expected to reach 23% by FY2028, investment in traineeships and apprenticeships has increased to build a sustainable talent pipeline. Career progression pathways have also been formalised, alongside a shift to embedded People Partnering within the Aurizon Network business to better respond to operational workforce needs.

In parallel, Aurizon Holdings has initiated a group-wide cost reduction program focused on non-operational expenditure (meaning costs not directly related to the operational part of the Aurizon Network business, such as corporate and shared services). For Aurizon Network, this translates to anticipated real reductions in shared service costs across IT, Real Estate and Facilities, Procurement and Governance (around 45% of which comprises labour costs). As noted below, Aurizon Network's proposed operating expenditure allowance includes a \$2.9 million per annum reduction in costs (to be applied as a negative step change), exceeding the minimum \$2 million per annum reduction committed to Customers.

⁹⁷ https://www.qca.org.au/wp-content/uploads/2024/09/aurizon-network-fy24-maintenance-claim-redacted.pdf

Risk and Insurance

Since the review and approval of the 2017 UT5 DAU, the insurance market and Aurizon's self-insurance profile have been shaped by a series of significant events:

- Natural disasters (floods, cyclones, bushfires): Increased frequency and severity have reduced insurance capacity, driven up premiums and led to higher deductibles.
- Global events (Covid-19 pandemic, Crowdstrike outage): Contributed to market volatility and repricing across multiple insurance lines.
- Current market conditions (2025): The market is presently in a soft phase, with premium
 reductions and increased capacity, although this is expected to be temporary. Importantly, the
 current fixed Risk and Insurance allowance was set in 2016. Since then, the insurance market
 has gone through a significant hardening cycle with premiums and deductibles increasing
 substantially over several years before the recent easing.

Stakeholder engagement

Aurizon Network has engaged with the Customers on the operating expenditure allowance since August 2024. The following table summarises the relevant engagement to date on the various matters relating to the operating expenditure allowance.

Table 8-2 Stakeholder engagement

Date	Topic of Engagement
2024	Daily Rolling Plan
	An agreed amendment to the System Rules provided for the recovery of incremental costs that were not captured within the existing operating allowance, subject to being submitted to the QCA for approval.
7 Aug 2024	Aurizon Network Presentation - RWG
	Explanation of the current UT5 operating expenditure allowance
	Explanation of the current NOEA components
	Overview of the Reset Process
	Outline of considerations/forward looking risks and obtain stakeholder feedback (e.g., advancement in technology, system investment trend towards SaaS, increasing requirement for condition monitoring and root cause analysis, concept of an innovation mechanism, re-openers/review events)
29 Jan 2025	Draft - Possible operating expenditure considerations presented - RWG
	Engagement to seek feedback on approach and processes
13 Feb 2025	UT5 Self insurance allowance – Fact Sheet
	Scope and Estimation Methods
25 Feb 2025	Aurizon Network presentation - RWG
	Refresh on current operating expenditure allowance
	Outline NOEA components
	Address RWG feedback on proposed operating expenditure allowance
	Seek further RWG Feedback/input
19 Mar 2025	DRAFT RWG Proposal (response to 25 February 25 Presentation)
	RWG support base-step-trend approach
16 Apr 2025	Aurizon Network proposal
24 Apr 2025	Aurizon Network – information presentation
	Provision of information to RWG as requested
29 April 2025	Operating expenditure allowance Term Sheet principles
-	

Topic of Engagement
More detailed principles in relation to the operating expenditure allowance including treatment of Contingent Projects
RWG proposal
Overall 2025 UT5 DAAU proposal
RWG Revised Proposal
Overall revised 2025 UT5 DAAU proposal
Non-binding Term Sheet principles
Joint letter containing principles agreed between Aurizon Network and the RWG submitted to the QCA
Ongoing development and negotiation of relevant amendments to the 2025 UT5 DAAL
based on the non-binding Term Sheet

In terms of the approach to forecasting the NOEA, the following table summarises the elements agreed with the Customers in the non-binding Term Sheet, which has informed Aurizon Network's approach to this proposal.

Table 8-3 Summary of the aspects of the NOEA as agreed with the Customers

Item	Detail
QCA Review	The QCA will review and approve efficient costs and calculations
Base Cost	Base Year to be FY2025
	 Includes Direct, Indirect and Corporate Overheads
	 Adjustments are to be made for one-off non-recurring and/or recurrent costs not properly accounted for in the Base Year
	 Risk and Insurance costs will reflect an actuarial assessment.
Step Costs	 To the extent that step changes and savings in expenditure are able to be reliably forecast, the Step Costs will be added to the adjusted Base Year, while any associated savings will be removed.
Cost Allocation	 Aurizon Enterprise costs (Corporate Overheads) will be consistent with the methodology applied in UT5 where still relevant and appropriate.
Escalation	 Approved Base Costs to be escalated annually using indices – Wage Price Index (WPI for Labour costs, CPI for Non-Labour costs and other relevant indices for other items.
	 A weighted escalator will be applied, based on the proportions reflecting Aurizor Network's FY2025 actual cost composition, for example:
	 Direct Indirect CQCN Costs - if the FY2025 actual cost mix is 20% Labour costs and 20% Non-Labour costs, then the cost index would be weighted based on 80% WP and 20% CPI
	 the FY2025 actual weightings will be applied to each year of the Term.
Efficiency Factor	 Effective from FY2026, an efficiency factor of 0.5% annually will be deducted from the annual rate of escalation.
	 The efficiency factor will not be applied to Corporate Overhead costs. Instead, a negative step change will be applied to reflect the outcomes of Aurizon's 2025 corporate cos review. This negative step adjustment will be the greater of: (a) the amount approved by the QCA; or (b) \$2 million per annum.

Item	Detail
Mid-Term Opex Reset	 By 30 September 2031, a Mid-Term Opex reset will be triggered if actual costs agains the NOEA allowance exceed the agreed threshold.
	 The materiality threshold will be based on a 3% variance of cumulative actual spend against the QCA approved NOEA for FY2028-FY2031.
	 If costs are more than 3% below the NOEA, the NOEA will be reset based on:
	 the QCA-determined efficient cost base for FY2033-FY2037 using the base-step trend methodology consistent with how the NOEA was determined;
	 The Risk and Insurance component is excluded from the materiality assessment bu will be re-assessed through an independent actuarial assessment prior to the Second Reset Period; and
	 Any reset of the NOEA for the Second Reset Period will be in a downward direction only, unless there is a material change in circumstances that causes costs to be above the escalated allowance.
	 In the event that there is a material change in circumstances resulting in actual component costs exceeding any parts of the NOEA, then Aurizon Network will be able to submit a DAAU to reflect that material change in circumstances. This must also be completed by 30 September 2031.
Allowance Variations	 Provision will be made for the recovery of costs and adjustments to the operating expenditure allowance for Contingent Projects, CIG projects and Innovation Projects.

NOEA: Summary of base-step-trend forecast

Establishment of the Base Year

FY2025 has been agreed with the Customers as the Base Year. Aurizon Network's actual non-electric operating expenditure in FY2025 was \$135.2 million. This actual Base Year expenditure was then adjusted for refinements in cost allocation, non-recurrent costs and costs attributable to non-coal services. This resulted in an adjusted cost base of \$132.8 million, which is \$2.8 million or 2% less than the current QCA-approved allowance of \$135.6 million for that year.

Table 8-4 Adjusted Base Year (Real FY25 \$m)

Base Year Establishment	FY2025 Actual	Refinements	Non- recurrent cost	Non-coal Allocation	FY2025 Adj. Base
Direct & Indirect CQCN Opex	66.8	2.2	(0.7)	(2.1)	66.3
Corporate Overheads	59.4	(1.9)			57.5
Risk & Insurance	9.1		-/		9.1
Total	135.2	0.4	(0.7)	(2.1)	132.8

The refinement to cost allocation includes the re-assignment of Human Resources and Safety Partners from Corporate Overheads to Direct CQCN Operating Costs to reflect the establishment of dedicated functions within Aurizon Network. Non-recurrent costs represent the costs incurred in

FY2025 in developing Aurizon Network's regulatory submission. An adjustment has also been made to remove a proportion of costs allocated to non-coal services⁹⁸.

Step changes

In alignment with the base-step-trend approach and the QCA's step change criteria, the step changes have been limited to the following material variations, by major cost category.

Direct and Indirect CQCN Operating Costs

The step changes in this category comprise:

- recovery of the Daily Rolling Plan licence costs incurred in the current initiative that was endorsed by Customers in February 2025 as part of the System Rules review;
- the forecast appointment of Operational Technology Cyber Specialists in accordance with the multi-year cyber security program outlined to Customers; and
- Aurizon Network's forecast costs to be incurred as part of its key regulatory reviews, being the
 mid-period reset (i.e., just prior to the Second Reset Period) and the next major review prior to
 the expiration of UT5 in FY37. This cyclical expenditure reflects the costs of obtaining expert
 opinions and support on various matters.

Corporate Overheads

The step changes in this category comprise:

 reflects an allowance for the costs payable by Aurizon Network to Aurizon Property Pty Ltd for the refurbishment of the NCC/Train Control, which was completed in FY2026. This was necessitated by the need to address workplace safety and ergonomic risks, workforce retention and engagement and technology and interface limitations within the old premises.

Risk and Insurance

As noted above, these costs are forecast separately based on independent actuarial assessments. Aurizon Network has experienced a substantial increase in its Risk and Insurance costs since the allowance was last approved, noting that the factors driving this increase are largely beyond its control, including conditions in the global insurance market. It is also important to note that the current allowance of \$9.1 million per annum (nominal) has been fixed since FY2021 and was originally based upon independent forecasts obtained in 2016 (i.e., nearly ten years ago). Consistent with the approach used to determine the current allowance, the forecast allowance reflects updated independent expert assessments from Marsh McLennan (External Insurance – refer Attachment E) and Finity (Self Insurance – refer Attachment F).

Trend factor

As noted above, based on the arrangements agreed with customers as part of the 2019 UT5 DAAU, the NOEA is held constant in nominal terms to FY2027, with an adjustment only applying where actual inflation in a year exceeds 2.37%. As part of the 2025 UT5 DAAU, Aurizon Network has discussed that annual escalation will be applied to the approved efficient NOEA based on appropriate indices. This is consistent with the standard base-step-trend approach.

Aurizon Network's proposed trend factor is calculated as a weighted index that combines the Queensland All Industries Private WPI and the Brisbane CPI (the Weighted Index). The weights are based on the actual attribution of labour and non-labour costs in FY2025 and are proposed to remain

⁹⁸ This comprises regulated non-coal services, as well as unregulated services.

fixed for the 2025 UT5 DAAU Term. Aurizon Network's WPI and CPI forecasts have been sourced from Oxford Economics (refer Attachment G).

Efficiency

In the context of the overall package of financial measures in the 2025 UT5 DAAU, the outcome of the discussions is that Aurizon Network will apply an efficiency factor of 50 basis points (0.5%) per annum to the Weighted Index. It has also been determined that this will apply from FY2026, thereby embedding cost reductions into the framework ahead of the First Reset Period.

The efficiency factor will not be applied to Corporate Overheads. Instead, a specific efficiency adjustment will be applied to these costs as a result of Aurizon's 2025 Corporate Cost review. The proposed amount is \$2.9 million per annum (FY2025, real), which exceeds the minimum target of \$2 million per annum. Instead of including this within the efficiency factor, Aurizon Network has presented this as a negative step change to increase transparency. This will be applied for the 2025 UT5 DAAU Term, i.e., from FY2028 to FY2037.

Summary of proposed NOEA

Aurizon Network proposes a total NOEA of \$794.5 million in nominal terms over the First Reset Period. For the five-year period in aggregate this represents a \$10.2 million or 1.5% total increase in real terms above the adjusted Base Year.

Table 8-5 Proposed NOEA (\$m, nominal)

	FY2028	FY2029	FY2030	FY2031	FY2032
Adjusted Base Year (Real FY25\$)	132.8	132.8	132.8	132.8	132.8
Steps (Real FY25\$)	3.3	1.8	1.8	2.1	2.1
Trend	12.8	17.2	22.2	27.1	31.8
Efficiency	(4.0)	(4.4)	(4.8)	(5.3)	(5.7)
Insurance Step (Nominal)	5.5	6.0	6.5	7.0	7.5
Total Nominal	150.4	153.5	158.5	163.7	168.5

Figure 8-3 shows the difference from Aurizon Network's adjusted Base Year expenditure and the proposed NOEA allowance in the first year of the First Reset Period (FY2028), that is, after including the proposed step changes, Risk and Insurance costs and applying the trend and efficiency factors. This shows a \$3.6 million or 3% increase from the adjusted Base Year in real terms, which is predominately driven by the forecast increase in Risk and Insurance costs. It also shows that the other forecast step changes are more than offset by the efficiency target that has been built into Aurizon Network's proposed NOEA.

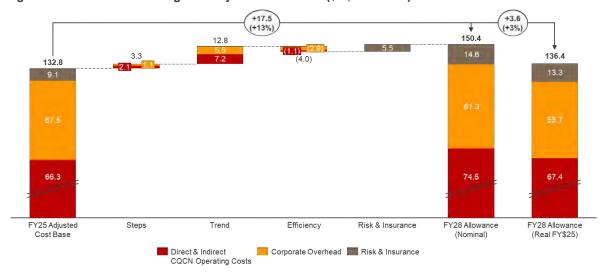


Figure 8-3 NOEA waterfall – against adjusted Base Year (\$m, FY25 real)

Figure 8-4 highlights the journey from the Final Decision for the 2019 UT5 DAAU and the value derived for customers via the commercially negotiated high-powered incentive mechanism contained in the 2019 UT5 DAAU. This has resulted in a well-balanced proposal for the 2025 UT5 DAAU, which includes efficiencies that reflect the outcomes of the engagement.

The proposed FY2028 allowance of \$136.4 million (real, FY2025) represents a 15% total reduction, and a 3% year-on-year reduction, against the fixed NOEA of \$159.9 million (real, FY2025) approved as part of the 2019 UT5 DAAU. It shows that in real terms, the profile of the allowance over the First Reset Period is relatively flat, meaning there is no material growth once inflation is excluded. The main upward pressure above the FY2025 Base Year comes from Risk and Insurance cost growth.

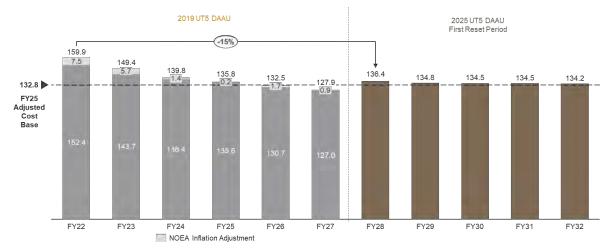


Figure 8-4 NOEA - 2019 UT5 2019 and 2025 UT5 DAAU (\$m, FY25 real)

Proposed allowance by category

Direct and Indirect CQCN Operating Costs

The proportion of Aurizon Network's proposed NOEA that reflects Direct and Indirect CQCN Operating Costs is \$390.5 million (nominal) or \$328.7 million (FY2025, real) over the First Reset Period. This is a total decrease of \$2.7 million or 1.0% (FY2025, real) to the adjusted Base Year allowance for this category over the First Reset Period. This is shown in Table 8-6. This includes the step changes relevant to Direct and Indirect CQCN Operating Costs.

Table 8-6 Direct and Indirect CQCN Operating Cost forecast (\$m, nominal)

Direct and Indirect Opex	FY2028	FY2029	FY2030	FY2031	FY2032
Base (Real FY25\$)	69.0	69.0	69.0	69.0	69.0
Adjustments					
Regulatory Submission	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)
Non-Coal Allocation	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)
Total Adjustments	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Adjusted Base (Real FY25\$)	66.3	66.3	66.3	66.3	66.3
Steps					
Daily Rolling Plan	1.5		-		-
OT - Cyber Specialists	0.7	0.7	0.7	0.7	0.7
Mid Period Reset	12	4	= =	0.3	0.3
Regulatory Reset ¹		(=-	/ /	()	((
Total Steps (Real FY25\$)	2.1	0.7	0.7	0.9	0.9
Adjusted Base + Steps	68.4	67.0	67.0	67.2	67.2
Trend (Weighted Index)	7.2	9.8	12.7	15.5	18.3
Efficiency Factor (0.5%)	(1.1)	(1.5)	(1.9)	(2.4)	(2.8)
Total Nominal	74.5	75.2	77.7	80.4	82.6

¹ Aurizon Network has made provision for such costs in the Second Reset Period.

Corporate Overheads

The proportion of Aurizon Network's proposed NOEA that represents Corporate Overhead costs is \$326.2 million (nominal) or \$278.7 million (FY2025, real) over the First Reset Period. This is a total reduction of \$8.8 million or 3.1% (FY2025, real) to the adjusted Base Year allowance for this category over the First Reset Period.

Table 8-7 Corporate Overheads cost forecast (\$m, nominal)

Corporate Overhead	FY2028	FY2029	FY2030	FY2031	FY2032
Base (Real FY25\$)	57.5	57.5	57.5	57.5	57.5
Steps					
Network Control Centre	1.1	1.1	1.1	1.1	1.1
Total Steps (Real FY25\$)	1.1	1.1	1.1	1.1	1.1
Base + Steps	58.6	58.6	58.6	58.6	58.6
Trend (Weighted Index)	5.5	7.4	9.5	11.5	13.5
2025 Corporate Cost Review	(2.9)	(2.9)	(2.9)	(2.9)	(2.9)
Total Nominal	61.3	63.2	65.2	67.3	69.3

Risk and Insurance

Aurizon Network's proposed non-electric Risk and Insurance allowance is \$77.9 million (nominal) or \$67.0 million (FY2025, real) over the First Reset Period. This is an increase of \$21.7 million or 48% (FY2025, real) to the adjusted Base Year allowance for this category over the First Reset Period.

Consistent with the QCA's original UT5 determination, insurance costs associated with electric feeder stations is separately identified.

Notably, Aurizon Network's actual insurance costs are not referenced as they do not represent the stand-alone cost of insurance. Aurizon Network's insurance is administered at an enterprise level and incorporates Aurizon Holdings' in-house captive insurance company.

Table 8-8 Risk and Insurance cost forecast (\$m, nominal)

Risk and Insurance	FY2028	FY2029	FY2030	FY2031	FY2032
Non-Electric					
External Insurance	3.2	3.2	3.2	3.2	3.2
Self Insurance	5.8	5.8	5.8	5.8	5.8
Total Base	9.1	9.1	9.1	9.1	9.1
Steps					
External Insurance	4.5	4.7	5.0	5.2	5.5
Self Insurance	1.0	1.3	1.5	1.8	2.0
Total Steps	5.5	6.0	6.5	7.0	7.5
Base + Steps					
External Insurance	7.7	8.0	8.2	8.5	8.7
Self Insurance	6.8	7.1	7.4	7.6	7.9
Total Non-Electric	14.6	15.1	15.6	16.1	16.6
Electric					
External Insurance	0.7	0.7	0.7	0.7	0.8
Total Electric	0.7	0.7	0.7	0.7	0.8

8.2 Overview of methodology

Aurizon Network's base-step trend approach is broadly consistent with the QCA's preferred methodology, while having regard to Aurizon Network's relevant business and operating environment and the 2025 UT5 DAAU discussed with its customers and stakeholders.

Consistent with the pricing principles set out in section 168A of Act, Aurizon Network's proposed allowance seeks the recovery of "at least" its efficient operating expenditure incurred in the provision of the declared service. Operating expenditure accounts for approximately 18% of Aurizon Network's Allowable Revenue and it has been rigorous in ensuring its operating expenditure proposal for the 2025 UT5 DAAU Term (FY2028 to FY2037) is robust and reflects the efficient costs of delivering its declared service.

Aurizon Network's Access Undertaking defines Efficient Cost as:

[&]quot;...the cost that would be reasonably expected to be incurred by a Railway Manager adopting efficient work practices in the provision of the Rail Infrastructure to the required service

standard....and including any transitional arrangements agreed between Aurizon Network and the QCA to reflect the transition from Aurizon Network's actual cost to that efficient cost."

With the QCA having approved Aurizon Network's annual operating expenditure allowance for the UT5 period from FY2018 to FY2027, it can be assumed that this approved allowance has met this statutory criterion and represents, at a minimum, the QCA's view of Aurizon Network's efficient costs. While not agreeing with elements of the QCA's original UT5 determination, Aurizon Network accepted it in the interests of achieving regulatory certainty.

Aurizon Network's UT5 Allowable Revenues reflected the QCA's 2018 UT5 Final Decision on operating expenditure, specifically the NOEA forecast for FY2021. It established a high-powered incentive mechanism under which the NOEA would be set as a fixed allowance with an annual CPI Adjustment when CPI exceeded 2.37% (this applied from 1 July 2021). This design imposed a strong cost constraint, incentivising Aurizon Network to actively manage costs below the nominal cap. In being applied to the total NOEA, this incentive also applied to the Corporate Overheads allocated to Aurizon Network, which are shared costs incurred by the Aurizon Group and allocated to Aurizon Network in accordance with the Costing Manual 2020.

Base-step-trend approach

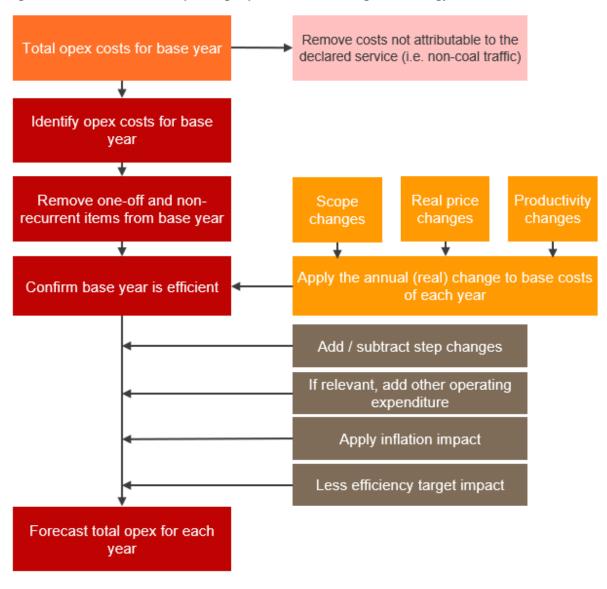
Aurizon Network has developed its forecast operating expenditure for the 2025 UT5 DAAU Term using the base-step-trend approach, as endorsed by the Customers. The base-step-trend approach involves the following key steps.

- 1. Determine an efficient Base Year of operating expenditure:
 - i. the starting point for this is revealed expenditure for the most recently completed financial year, which is FY2025;
 - ii. compare and contrast the prior year's revealed expenditure to validate the Base Year and identify the drivers of any material changes in costs (if relevant), and
 - iii. adjustments are then made for non-recurrent expenditure and/or any normally recurring items of expenditure that were not incurred in the Base Year.
- 2. Identify prudent and efficient step changes. These must meet criteria established by the QCA, as listed below.
 - i. New or changed obligations: are necessary to fulfil new or changed binding statutory or regulatory obligations.
 - Meet customer and/or community expectations: are reasonably required to achieve an outcome that is explicitly endorsed by customers (for example reliability, root cause analysis/reporting, cyber security).
 - iii. <u>No double counting</u>: are not already funded through other components off other approved allowances.
 - iv. <u>Cyclical activity</u>: represent a cyclical activity that are not within annual business-as usual budgets.

- v. <u>Reclassification of expenditure</u>: changes that appropriately reflect the reclassification of capital expenditure as operating expenditure.⁹⁹
- vi. <u>Materiality</u>: Are of sufficient materiality such that costs could not reasonably be met by an efficient entity operating within business-as-usual budget constraints, through prudent prioritisation of expenditures, or be otherwise mitigate.
- 3. Apply trend factors that may account for demand or output growth and input cost escalation.
- 4. Determine if and how incentives need to be provided for efficiency improvements.

Figure 8-5 summarises Aurizon Network's application of this approach.

Figure 8-5 Aurizon Network's operating expenditure forecasting methodology



⁹⁹ These will be one-off changes that can reflect the change in the nature of the expenditure and/or a change in the accounting treatment. The most common example of this is the treatment of Software as a Service (SaaS) expenditure as organisations transition from in-house applications (capital expenditure) to Cloud-based services sourced under licence agreements (operating expenditure).

How this methodology is applied to determine Aurizon Network's forecast operating expenditure for the 2025 UT5 DAAU Term is shown in Figure 8-6.

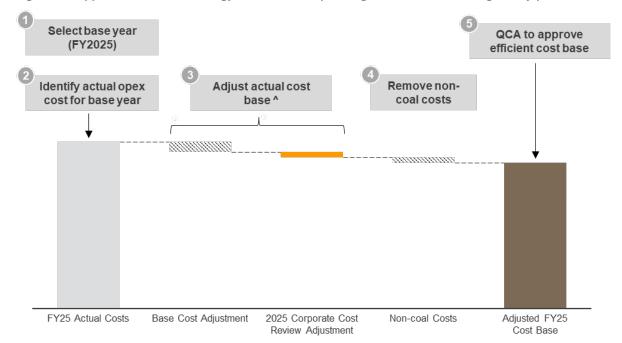
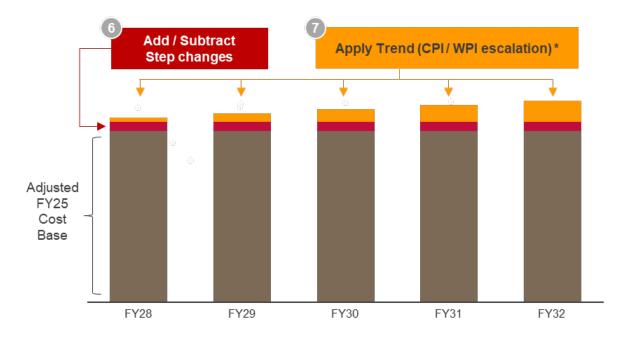


Figure 8-6 Application of methodology to determine operating costs for the next regulatory period

[^] Adjusts for one-off, non-recurring costs and/or costs that are not appropriately accounted for in the base year.



^{*} An Efficiency Factor of 0.5% is deducted from the annual rate of escalation.

Overview of operating expenditure structure

Aurizon Network's operating expenditure structure for the 2025 UT5 DAAU is largely consistent with the methodologies and cost base approved by the QCA in its 2018 Final Decision for the 2017 UT5 DAU.

As noted above, Aurizon Network's operating expenditure allowance comprises two cost allowances – the NOEA and EOA. Costs incurred within these allowances are classified by a cost type that reflects Aurizon Network's level of control.

Table 8-9 Aurizon Network's operating expenditure allowances

Cost Allowance	Description	Cost Control Type	
Non-Electric Operating	Direct CQCN Operating Costs (formerly System Wide & Regional Allowances)	Managed	
Expenditure	Costs directly related to Aurizon Network Operations		
	Indirect CQCN Operating Costs (formerly System Wide & Regional Allowances)	M	
	Business management costs indirectly related to Aurizon Network Operations	Managed	
	Indirect Costs includes:		
	Corporate Overheads	Influenced	
	Risk & Insurance		
Electric Operating Expenditure Allowance	Third Party Connection Fees Transmission connection charges related to the Electrified Rail Network		
	Insurance – Industrial Special Risks Premium for Electrical Feeder Stations	External	
	Electrical feeder stations required to operate electric trains within the Blackwater and Goonyella Systems		

Aurizon Network's operating expenditure is categorised into Direct CQCN Operating Costs, Indirect CQCN Operating Costs, Indirect CQCN Operating Costs, Indirect Opex and External Opex, as illustrated in Figure 8-1. The Direct and Indirect CQCN Operating Cost categories replace the previous category termed System Wide and Regional Allowances.

Direct and Indirect CQCN Operating Costs

The Direct CQCN Operating Costs sub-category relates to the operation and planning of Train Paths and comprises those costs that are directly attributable to the provision of access to the CQCN for coal carrying train services. The Indirect CQCN Operating Costs sub-category includes the costs associated with the commercial, regulatory, financial, legal and human resource tasks required to operate a regulated below rail business ('Business Management').

Table 8-10 Direct and Indirect Operating Costs - sub-categories

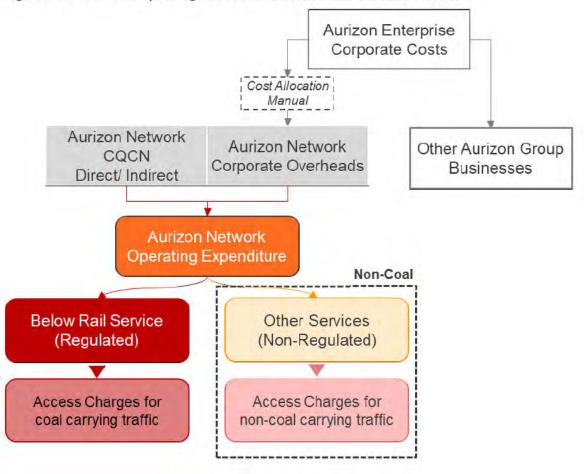
Cost Category	Sub-category	Description	
Direct CQCN Operating Costs	Network Control, Safe Working & Operations	Controls the movement of trains, light engines and track machine as well as the safe working of these vehicles as they traverse the rail infrastructure.	
	Operational Technology	The Software and Hardware required to plan and schedule train paths.	
	Infrastructure Management	Manages the performance of assets required to deliver the declared service, including the safety, reliability and availability of the rail infrastructure.	

Cost Category	Sub-category	Description
Indirect CQCN Operating Costs	Business Management	Performs the commercial, regulatory, financial, human resource partnering and legal tasks required to operate a regulated below rail business.

Non-coal cost allocation

While the CQCN is predominately built for, and used by, coal carrying traffic there are costs that are incurred in the provision of regulated non-coal services and Other Services (unregulated), collectively referred to as 'non-coal'. Figure 8-7 highlights the relationship between costs and non-coal revenue. Notably, as shown in Figure 8-8, non-coal revenue represents less than 2% of Total Below Rail Revenue.

Figure 8-7 Allocation of operating costs to Aurizon Network's allowable revenue



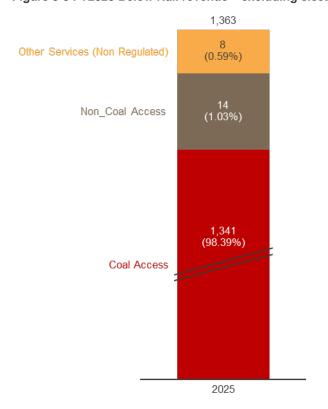


Figure 8-8 FY2025 Below Rail revenue – excluding electric traction (\$m)

A percentage of Direct and Indirect CQCN Operating Costs are allocated to non-coal activities. Table 8-11 highlights the proportion of costs allocated to Below Rail Services. The allocation of Aurizon's Corporate Overhead costs to Aurizon Network reflects the methodology for the calculation of efficient stand-alone corporate costs as set out in its approved Costing Manual¹⁰⁰, based on the core function of providing coal carrying train services.

Based on Aurizon Network's discussions, the methodology for allocating costs is to be consistent with the approach applied by the QCA in its 2018 Final Decision for the 2017 UT5 DAU, where this remains relevant and appropriate. Further, where the need for a departure from this approach is identified, it needs to be sufficiently material to warrant a change in approach.

Accordingly, Aurizon Network's submission reflects the treatment in the QCA's 2018 Final Decision for the 2017 UT5 DAU on the basis that this continues to be relevant and appropriate. The only exception is the notional general non-coal allocation determined by the QCA, which is addressed in section 8.7.

Direct and Indirect CQCN Operating Costs - functional cost allocations

The allocations to most functional areas remain consistent with the current UT5 approach. Table 8-11 includes a summary of any key changes from that approach and the rationale for each adjustment. Notably, Human Resource Partnering and Safety Partnering has been reassigned from Corporate Overhead to Indirect CQCN Operating Costs, reflecting their dedicated function and direct support to Aurizon Network's operations.

https://www.qca.org.au/project/aurizon-network/costing-manual/

Table 8-11 Summary of cost allocations to Below Rail Services by functional area

Functional % of costs Comments Area allocated to the Below Rail Service ¹⁰¹		Comments	Consistent with UT5 Final Decision?	
Group Executive (GE) Network	Nil	GE Network costs are not included as Direct operating expenditure. This avoids any potential duplication with Aurizon CEO costs, which are contained in Corporate Overhead costs.	Yes	
Network Train Operations (Train Control)	94.9%	Responsible for Day of Operations activities, including the execution of scheduled train services and asset activity (yards/maintenance) and coordination of emergency response and recovery efforts where applicable.	Yes	
		While Aurizon Network is not proposing a change from the QCA's previous UT5 determination, it notes that applying an allocation of effort based on the (five year average) of Non-Coal Movements on a GTK basis (1.2%) is more representative of the effort than the application of time-on-track analysis (five year average) (5.1%).		
		Time-on-track does not take into account the complexities associated with the scheduling of coal traffic compared with non-coal traffic. For example, non-coal traffic is timetabled and effectively hard-wired into the Master Train Plan with little week to week alterations. Passenger train movements are prioritised over coal train movements and hence coal traffic requires more stop/start transactions in the cycle to interact with passenger trains and mine/port availability.		
Planning and Scheduling	100%	Responsible for coal chain delivery, integrated planning and scheduling for the CQCN, ensuring that contracted outcomes, maintenance and renewal requirements are balanced. Tasks are required solely for the operation of the CQCN.	Yes	
Safety Partners	100%	Responsible for the Below Rail Service's workplace health and safety, including hazard identification, risk assessments, training program development, delivery and compliance support.	No; Safety Partners was previously ar allocated Corporate	
		The Base Year costs exclude all costs associated with maintenance, capital works and non-regulated services. No further deduction is therefore required.	Overhead Safety Partnering specific to Aurizon	

¹⁰¹ These percentages have been applied to the function's costs excluding depreciation and insurance and included in the Allowable Revenue.

Functional Area	% of costs allocated to the Below Rail Service ¹⁰¹	Comments	Consistent with UT5 Final Decision?
			Network has been established to provide operational support and enable direct cost attribution.
Network Operations Management	100%	Reflects the works required as a Rail Infrastructure Manager in Queensland to ensure the CQCN is maintained and operated in a safe, efficient, effective and sustainable way. This includes driving continued maintenance and track worker operational improvement initiatives of the Aurizon Network Operations function, and developing the skill sets of staff who operate within the track, traction, signalling, telecommunications and civil areas of the business, with a particular focus on safety, competency, quality and efficiency. These activities are essential for promoting the efficient operation of the CQCN.	Yes
Operational Technology	100%	Comprises systems and technology required solely for the planning, scheduling and reporting of train services for the CQCN. Given the focus of technology improvements in planning and scheduling, such as the Daily Rolling Plan and the increasing transition of technology from capex to opex via SaaS, it is important to consider this separately and in conjunction with the wider IT considerations.	Yes, allocation consistent as previously captured under Network Operations Management and Planning & Scheduling
Network Assets	100%	Activities are directly related to the provision of access to customers, including: development of standards for track, electrical, telecommunications and signalling; asset maintenance and renewals planning and execution; and maintenance strategies, plans and programs. Base Year costs exclude all costs associated	Yes
		with maintenance, capital works and unregulated services. No further deduction is therefore required.	

Functional Area	% of costs allocated to the Below Rail Service ¹⁰¹		
Customer/ Commercial	90% 102	The activities performed by the Customer/Commercial team are grouped into three core components: Customer Account Management; Customer Strategy & Engagement; and Customer Projects & Studies, all of which are essential to the provision of access.	Yes
		Customer Account Management - Responsible for managing customer relationships, commercial negotiations and contracts related to access, connections, private infrastructure, interface arrangements and Operator track authorities. Directly related to the provision of access.	
		Customer Strategy & Engagement – Responsible for customer engagement and delivery of various matters within the Access Undertaking including Maintenance Renewals & Strategy Budget, Independent Expert Capacity Assessment, supply chain and capacity planning and modelling and developing/evaluating technical proposals. These are required obligations under the Access Undertaking.	
		Customer Projects & Studies – Provides services to prospective and current CQCN customers and progresses commercial development initiatives with customers and suppliers. Activities are indirectly related to the provision of access. This includes activities relating to studies, major projects, expansion and the negotiation of contracts that were previously the responsibility of the Major Projects team when approved as part of the QCA's 2018 Final Decision for the 2017 UT5 DAU.	
Finance	97.2%	Responsible for billing, budgets, forecasting and preparing financial and statutory reports.	Yes
Regulation	100%	The provision of rail access is a regulated service and this team is responsible for managing Aurizon Network's regulatory framework. Activities include the development of Access Undertakings and Reference Tariffs, compliance,	Yes

A portion of Aurizon Network's annual revenue is earned from non-regulated activities, which supplement the revenue recovered through regulated tariffs. In recognition of this, Aurizon Network has excluded a portion of its forecast operating expenditure when calculating its Allowable Revenue and Reference Tariffs. In its 2018 Final Decision on the 2017 UT5 DAU, the QCA approved a 10% allocation for FY2017, representing the proportion of non-regulated revenue to total revenue. Aurizon Network has applied a 10% deduction consistently across all years of the 2025 UT5 DAAU Term.

Functional Area	% of costs allocated to the Below Rail Service ¹⁰¹	Comments	Consistent with UT5 Final Decision?
		consideration of regulatory policy, the preparation of submission material, regulatory reporting and customer engagement on regulatory matters.	
Legal	90% ¹⁰³	This team provides legal advice on matters pertinent to Aurizon Network in relation to the development and supply of Below Rail Services. The Aurizon Holdings Group maintains its own legal function.	Yes
People Partners	100%	Within the provision of the Below Rail service. People Partners work closely with Senior Leaders to understand business needs and develop strategies to drive people outcomes in alignment with the Enterprise People & Development function.	No; this was previously an allocated Corporate Overhead. People Partnering specific to Aurizon Network has been established to provide operational support and enable direct cost attribution.
Infrastructure (Asset Maintenance) and Mechanised Production	Nil	Included in the maintenance cost allowance.	Yes

Indirect CQCN Operating Costs

Corporate Overheads

Aurizon Network's operating expenditure allowance includes an allocation of certain corporate costs of Aurizon Holdings Limited. This allowance is provided in recognition of the efficient costs that Aurizon Network would be expected to incur if it operated on a stand-alone basis, including, but not limited to, costs to provide for the following.

Table 8-12 Corporate Overheads - cost categories

IT / Real Estate / Procurement	Other Cor	porate Overhead
Information Technology	CEO and Board	Company secretary
Procurement	People and Development	Governance and internal audit

¹⁰³ As per approach to Customer/Commercial.

IT / Real Estate / Procurement	Other C	Corporate Overhead
Real Estate / Facilities	Finance ¹⁰⁴	Health, safety and environment
	General counsel 105	Corporate affairs

The cost allocation methodology in the 2025 UT5 DAAU is largely consistent with the process that the QCA reviewed as part of the 2017 UT5 DAU and was subsequently embedded into Aurizon Network's approved Costing Manual. The Aurizon Group's cost base has been analysed at a cost centre level to determine which costs are to be included and excluded. Costs that are included are:

- directly related to below rail network operations (for example, the cost of Aurizon Network facilities); or
- not directly related to below rail network operations but represent the provision of services to the below rail network business and/or would be required for a stand-alone below rail business.

Costs that are not directly related to below rail network operations and are not relevant to the provision of services to the below rail network business are excluded (for example, Coal Finance Partners).

The drivers applied to allocate the costs to the below rail business where they cannot be specifically identified are in alignment with the Costing Manual with the exceptions as noted in Table 8-13.

Table 8-13 Allocators of Corporate Overhead

Corporate Function	Allocation method	Consistent with UT5?
Board and CEO	Blended allocator (FTE/ EBITDA)	No. Allocation refinement was required to ensure the costs are representative of a stand-alone business (i.e., not subsidised by the Aurizon Enterprise).
Finance		
CFO, Treasury, Tax & Insurance, Investor Relations and Market Intelligence	Direct costs	Yes
Accounts Receivable	Accounts Receivable transactions processed	Yes
Finance Partners – Bulk, Coal, Containerised Freight	Nil	Yes
Accounts Payable	Accounts Payable	Yes
Payroll	Transactions processed FTEs	Yes

¹⁰⁴ Costs of Network Finance are included within Business management costs rather than Corporate Overhead as they directly relate to the Aurizon Network business. Other financial services performed within the Aurizon Group in addition to the activities performed by the Aurizon Network Finance team include: Treasury (including Accounts Receivable), Tax, Insurance, Investor Relations and Market Intelligence, Procurement (including Accounts Payable), and Remuneration & Employee Relations (including Payroll).

¹⁰⁵ Costs of Network Legal are included within Business Management costs rather than Corporate Overheads as they directly relate to the Aurizon Network business. This does not cover all the Legal costs that would be incurred by Aurizon Network as a stand-alone business.

Corporate Function	Allocation method	Consistent with UT5?
Group Accounting, Planning and Reporting	Nil	Yes
People and Development		
Long-term incentive payments	Direct costs	Yes
Capability and Development, Remuneration & Employee Relations, People Strategy & Services	FTEs	Yes
Network People Partners	Included in Business Management costs, moved from Corporate Overhead to Indirect costs	No. People Partnering specific to Aurizon Network has been established to enable dedicated operational support and direct cost attribution.
Enterprise Services		
Enterprise Procurement	Direct costs	Yes, with the exception of the direct allocation to Aurizon Network of the specific Below Rail Procurement cost centre and the exclusion of the specific Above Rail Procurement cost centre.
Information Technology and ERP including:	FTEs FTEs	No. Refinements have been made, driven by
Strategy, Cybersecurity, records management, Data and Reporting	Computer Devices End Users	improved transparency of Below Rail Systems.
Telecommunications End User Computer and Shared IT		
Infrastructure	Directly identifiable	
ERP, Commercial Applications, Data Warehousing	Nil	
Below Rail Systems (i.e., licence costs, support)		
Above Rail Systems (i.e., licence costs, support)		
Enterprise Facilities	Property and associated costs directly identifiable	Yes
	FTEs applied to non- directly identifiable costs	
Corporate Affairs	Direct costs (excluding Branding, Corporate Sponsorship and Events – nil allocation)	Yes
Company Secretary, General Counsel (excluding Network Legal)	Direct costs Included in Business	Yes
Network Legal	Management costs	
A 20-11 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1		

Corporate Function	Allocation method	Consistent with UT5?
Assurance and Risk Services		
Network Safety Partners	Included in Network control, safeworking and operations.	No. Specific Safety Partnering for Aurizon Network has been established to enable dedicated operational support and direct cost attribution.
Governance and Internal Audit, Risk Services	FTEs	Yes

In addition to the exceptions noted above and in line with the QCA's 2018 Final Decision for the 2017 UT5 DAU, the following functions have not been included in the cost allocation:

- Asset Management and Strategy
- Strategy and Mergers and Acquisitions.

As outlined above, the changes to the cost allocation methodology from the approach approved by the QCA in its 2018 Final Decision are limited. Changes to the allocators have primarily been made due to enhancements in the SAP ERP general ledger system to separately capture costs relating to above rail and below rail activities. For example, new cost centres have been established for above rail and below rail procurement and IT systems specific to those businesses.

The net impact of the allocation method refinement is an increase of \$0.4 million.

Board and CEO

Under its Access Undertaking, Aurizon Network is required to maintain separate accounting and governance structures for its Below Rail Services from other Aurizon operations. To support its regulatory obligations, Aurizon Network has a separate Board with its own charter. This Board:

- oversees decisions relating to the regulated services;
- ensures compliance with the Access Undertaking and QCA requirements; and
- provides independent oversight of network operations, investment and pricing.

This governance separation is critical to maintaining stakeholder confidence and ensuring that Aurizon Network's decisions are not unduly influenced by the broader commercial interests of Aurizon Holdings.

The CEO and Board cost allocator has required refinement due to the growth in costs of the other Aurizon Group business units. This growth has resulted in an allocation to Aurizon Network of \$1.0 million using the direct cost allocation approach, which is well below the allowance based on a blended allocation method (i.e., based on 50% FTE and 50% EBTIDA contribution) of \$2.2 million. While Aurizon Network has previously accepted the direct cost allocator as a means of expediting the resolution of previous QCA reviews, it has consistently advocated for a blended allocation approach as per its 2016 submission for its 2017 UT5 DAU. 106

¹⁰⁸ Queensland Competition Authority (2018). p.153.

Aurizon Network has analysed CEO and Board remuneration across government owned corporations in similar industries and ASX-listed companies with similar sized revenue, EBITDA and assets to Aurizon Network. This highlighted that the direct cost allocator results in a significantly lower CEO and Board remuneration than what would be required if Aurizon Network operated as a stand-alone entity.

Aurizon Network therefore proposes to change the allocation approach for CEO and Board costs to the blended allocation approach as previously proposed in its submission for the 2017 UT5 DAU, resulting in an allowance for these costs of \$2.2 million per annum. This is also more consistent with the costs that would be incurred if Aurizon Network were to operate as a stand-alone business.

Consistent with the current corporate cost allocation methodology, remuneration for the Group Executive Network has been excluded from the Direct and Indirect CQCN Operating Costs to avoid any potential duplication of costs in assessing Aurizon Network as a stand-alone entity.

The net impact of this refinement to the allocation method is an increase of \$1.1 million.

Information Technology and ERP

Further changes have been made to the allocation of IT costs where a more causal connection between the cost and the allocator could be identified and data was available to support this. Since the QCA's 2018 Final Decision on the 2017 UT5 DAU, restructuring within the corporate services areas has resulted in the outsourcing of many services including IT support services, Accounts Payable, Procurement and facilities support services.

Outsourced service providers are required to have access to Aurizon's SAP ERP system to perform their services and will also utilise its IT support services when required. As they are not employees of Aurizon, staff of outsourced service providers are not included in FTE numbers. It would therefore be more appropriate to use the number of people with SAP ERP access to allocate the costs of those systems.

The number of FTEs has been retained as the allocator for costs that aren't directly incurred by the outsourced service providers such as IT strategy, cyber security and reporting and analytics. A causal allocator has been applied to other costs that are identifiable by separate cost centres in the SAP ERP system.

The net impact of this refinement to the allocation method is a decrease of \$2.6 million per annum.

Procurement and Enterprise Real Estate

The introduction of a Below Rail Procurement cost centre has enabled direct cost attribution to Aurizon Network, resulting in a net increase in these costs of \$1.5 million per annum.

In addition, Enterprise Real Estate costs, being those costs where Aurizon Network occupies property owned by Aurizon, have increased by \$0.3 million per annum. These costs have been allocated based on arm's length transaction principles.

Risk and Insurance

In providing Rail Infrastructure for coal carrying train services, Aurizon Network is exposed to a range of risks that are beyond its control, as well as risks where avoidance is not feasible or economically justifiable. Aurizon Network mitigates these risks, which are typically asymmetric in nature, through a combination of:

- external insurance;
- self-insurance; or

cost pass-throughs via the approved Review Event mechanism.

As a result, the efficient costs of managing asymmetric risks are recovered either through Aurizon Network's operating expenditure allowance, or via mechanisms within the Access Undertaking. While the majority of Risk and Insurance costs are recovered through the NOEA, costs associated with electrical feeder stations are separately identified and will be recovered via the EOA.

Aurizon Network's approach to forecasting its Risk and Insurance costs for the 2025 UT5 DAAU is explained in section 8.6.

Electric operating expenditure allowance

Aurizon Network supplies and sells electricity to Railway Operators for the purpose of operating electric traction train services in the Blackwater and Goonyella Coal Systems. This occurs via the distribution of electricity through Aurizon Network's overhead power distribution infrastructure.

Transmission and electrical energy charges reflect the costs associated with:

- distributing electricity transmitted from the National Electricity Market (NEM) to the overhead power infrastructure via connections with Transmission Network Service Providers (TNSPs);
- selling electricity sourced from an electricity retailer who procures it from the NEM; and
- procuring insurance for the electrical feeder stations.

The supply and sale of electricity do not form part of the declared service. Nevertheless, Aurizon Network has voluntarily procured these services for the benefit of Railway Operators and other supply chain participants.

Transmission and electrical energy charges fall under the jurisdiction of the AER. The cost forecasts used to set these charges are based on the latest pricing guidance provided by Powerlink for FY2026. Aurizon Network has applied forecast CPI to estimate these charges for the remaining years of the 2025 UT5 DAAU Term.

It is important to note that Aurizon Network provides this service at cost. To the extent that actual charges differ from the forecasts included in this operating expenditure proposal, an ex-post reconciliation takes place through the revenue cap process.

The EOA is a pass through and is deliberately excluded from the NOEA cost submission. For this 2025 UT5 DAAU, outside of the changes outlined within section 16.1 of this submission (the Electric Revenue Adjustment Mechanism), there are no other changes.

Data and expert opinions

In support of its proposed operating expenditure allowance, Aurizon Network has commissioned six expert reports to validate and benchmark key cost categories, along with providing forecasts for insurance and escalation. These reports, which are listed below, ensure the proposed allowances are market-aligned, objectively benchmarked and transparently supported by external evidence.

Savills Property Valuation Report (Attachment H): underpins the market valuation of property assets that are owned by Aurizon Property. This has informed the assessment of the costs payable by Aurizon Network for the refurbishment of the NCC/Train Control, ensuring alignment with the market and that the costs are representative of an arm's length transaction (refer section 8.4).

White and Partners Benchmarking Report (Attachment I): benchmarks the lease cost of premises occupied by Aurizon Network under the lease held by Aurizon Operations at 900 Ann Street, ensuring alignment with market and that the costs are representative of an arm's length transaction.

Minter Ellison Consulting Information Technology Benchmarking Report (Attachment J): underpins the proposed Information Technology allowance by benchmarking costs relative to industry peers, evaluating allocation methodologies and forming a ten-year view on likely current and future requirements.

Marsh Commercial Insurance Reports (Attachment E): estimates the cost and structure of a stand-alone insurance program in line with what would normally be expected of a company such as Aurizon Network, supporting the reasonableness of the commercial insurance allowance (refer section 8.6).

Finity Self Insurance Report (Attachment F): estimates the cost of self-insured losses for the CQCN, supporting the reasonableness of the self-insurance allowance (refer section 8.6).

Oxford Economics Cost Escalation Forecasts (Attachment G): provides forecasts of the relevant escalators for labour and non-labour services, specifically, the All Industries Private WPI for labour cost escalation and the QLD CPI indices for non-labour cost escalation (refer section 8.5).

Matters relevant to the QCA's assessment of costs

In assessing Aurizon Network's efficient operating expenditure for the 2025 UT5 DAAU, relevant considerations include: the operating environment; operational, technological and management systems (new and existing); the cost allocation framework; commercial and structural developments and the efficient costs that would be incurred by a stand-alone provider of coal carrying train services. The following matters are particularly relevant.

Unique characteristics of the CQCN

The CQCN remains a highly complex, heavy haul narrow-gauge system that is challenging to benchmark against standardised or urban rail networks. Its operating context includes:

- geographic dispersion across remote and climatically volatile regions;
- co-existence of electric and diesel operations, which increases control system and resource complexity;
- high exposure to extreme weather, flooding and corrosion, requiring more robust operating and asset management practices; and
- a need for redundancy and operational agility due to the scale and remoteness of the asset base.

FY2021 customer agreement and legacy incentives

As noted previously, as part of the package of amendments agreed with customers as part of the 2019 UT5 DAAU, Aurizon Network agreed to apply a fixed operating expenditure allowance adjusted for CPI where actual CPI in a given year exceeds 2.37%. While Aurizon Network has been able to manage its actual expenditure within this allowance (and maintaining some inflation protection), it is subject to cost pressures within a changing – and highly uncertain – business and operating environment.

There are also new and emerging opportunities and risks that will need to be managed. This has required a re-assessment of its forecast expenditure within the context of the base-step-trend framework, resulting in the identification of a relatively small number of step changes as well as reviewing the trend factor that will be applied to the efficient cost base.

In assessing Aurizon Network's operating expenditure allowance over the ten-year Term of the 2025 UT5 DAAU, it is important to ensure that this allowance supports the future sustainable delivery of access to the Rail Infrastructure while maintaining appropriate incentives to continue to drive future efficiencies, along with initiatives and innovations that could benefit the supply chain. This is reflected

in the new package of financial arrangements and incentives that have been agreed within the 2025 UT5 DAAU.

Explanation of FY2024 to FY2025 cost movements

Consistent with standard regulatory practice in applying base-step-trend, Aurizon Network has nominated FY2025 as the base year and provided customers with a clear articulation of cost movements between FY2024 and FY2025. This analysis was undertaken to demonstrate transparency and to respond directly to customers' concerns regarding potential 'loading' of the Base Year. The analysis, which is presented in section 8.3, gives customers a clear understanding of the factors influencing cost movements, supporting a fair and well-informed evaluation of FY2025 as being representative of Aurizon Network's efficient recurrent costs.

Direct and Indirect CQCN Operating Costs efficiency mechanism

For the 2025 UT5 DAAU Term, Aurizon Network is proposing to apply the conventional 'Index - X' approach. This aligns with established principles of incentive regulation and will drive sustainable productivity improvements.

Aurizon Network discussed with the Customers, the commencement of the Index-X efficiency mechanism from FY2026, which is two years ahead of the commencement of the 2025 UT5 DAAU Term on 1 July 2027. The efficiency factor that will be applied is 50 basis points per annum. This demonstrates Aurizon Network's proactive commitment to disciplined cost control while ensuring service quality and performance are maintained.

2025 Corporate Overhead cost review – efficiency pass through

As part of the market-announced 2025 Aurizon Enterprise Cost Review, Aurizon Network committed to delivering a minimum \$2 million reduction in the (adjusted) 2025 Corporate Overhead cost base. The forecast enterprise efficiencies have been passed through in accordance with Aurizon Network's Cost Allocation Manual, resulting in a \$2.9 million reduction to the 2025 Corporate Overhead cost base, which will flow through to each Year of the 2025 UT5 DAAU Term. This has been applied as a negative step change and therefore Corporate Overheads are not subject to an additional efficiency factor.

Allocation to non-coal activities

Aurizon Network provides services across coal and non-coal sectors (e.g., intermodal, agricultural freight). Its operations, systems and corporate functions are inherently embedded across service types. Given the relatively minor scale of non-coal activities, it would be commercially and operationally impractical to maintain dedicated non-coal resources. Instead, these activities are efficiently managed within Direct and Indirect CQCN Operating Costs, representing only a small portion of the overall operating cost base.

The allocation of costs to non-coal activities has been reviewed to ensure:

- appropriate cost attribution to non-regulated and other regulated services;
- consistency with cost causation principles;
- transparency in the methodology and cost base adjustments; and
- alignment with previous QCA decisions.

Aurizon Network remains committed to avoiding cross subsidisation between service categories. While supporting regulatory scrutiny of its allocation approach, it notes the need for pragmatism given the minor proportion of non-coal activities within the overall cost base and the acceptance of current allocation methods by both customers and the QCA.

Aurizon Network considers that there is no clear rationale to adjust functional allocation methods, noting that it disagrees with the QCA's application of a non-specific allocation in its 2018 UT5 Final Decision. Aurizon Network has made provision to remove non-coal costs from the operating cost base, ensuring the Base Year and subsequent years accurately reflect the costs attributable to the operation of coal carrying train services.

8.3 Non-Electric Operating Expenditure: Base Year

The Base Year is FY2025, which is the most recently completed financial year. Aurizon Network's total NOEA in that year (before adjustments) was \$135.2 million (\$FY2025). The fixed allowance for the year was \$135.6 million based on the 2019 UT5 DAAU. Aurizon Network has reviewed its operating expenditure in the Base Year and removed items of non-recurrent expenditure, as set out further below.

Adjustments to FY2025 Base Year

Impact of cost allocation refinements

As described in section 8.2, Aurizon Network has made refinements to its approach to allocating Corporate Overheads that reflect improved cost transparency. It has also changed the approach used to allocate Board and CEO costs to ensure that they are appropriately reflective of the efficient costs that would be incurred by a standalone entity. The net impact of these changes is an increase of \$0.4 million, as shown below. It should also be noted that in Table 8-14, Risk and Insurance costs reflect the fixed allowance (and not Aurizon Network's actual costs), as explained further below.

Table 8-14 Impact of refinements to cost allocation approach (Real FY25 \$m)

Comparative Assessment FY2025 Actual to FY2025 Base	FY2025 Actual	People / Safety Partners	Allocation Refinement	FY2025 Base
Direct and Indirect CQCN Opex	66.8	2.2	1 2 1	69.0
Corporate Overheads	59.4	(2.2)	0.4	57.5
Risk and Insurance	9.1		-	9.1
Total	135.2		0.4	135.6

Other adjustments

In addition to refinements to the cost allocation approach, the two other adjustments to Base Year expenditure are:

- the removal of regulatory submission costs as these costs are cyclical rather than recurrent; and
- the allocation to non-coal services (refer section 8.2).

These adjustments are shown below.

Table 8-15 Adjustments to actual 2024-25 expenditure (\$)

Item	Adjustment	Comments
Direct and Indirect CQCN Opera	iting Costs	
Regulatory submission costs incurred in FY2025	(676,050)	Costs incurred in FY2025 associated with preparing the regulatory submission, reflecting the costs of various independent experts.
Corporate Overhead		
Allocation refinement	365,119	Corporate Overhead allocation refinement due to improved transparency and arms-length transaction principles.
Non-coal deduction		
Non-coal adjustment	(2,086,269)	A portion of Aurizon Network's annual revenue is earned from non-regulated activities. In recognition of this, Aurizon Network has excluded a portion of its forecast operating expenditures when calculating its Allowable Revenue and Reference Tariffs.
Net Adjustment to base year	(2,397,200)	

The following tables show Aurizon Network's adjusted Base Year expenditure.

In presenting this, it should be noted that consistent with the approach applied in setting Aurizon Network's current operating expenditure allowance (and as discussed with the Customers), Risk and Insurance costs are estimated and captured separately. As explained further in section 8.6, Aurizon Network's insurance costs have increased materially over the UT5 period (to date) given the hardening of the global insurance market. This means that its actual insurance costs in the FY2025 Base Year are higher than the fixed allowance of \$9.06 million set for that year.

Rather than establishing Base Year expenditure with reference to its actual Risk and Insurance costs incurred in that year, Aurizon Network has adjusted its Risk and Insurance costs for FY2025 to align with the fixed allowance of \$9.06 million approved for that year. As discussed with the Customers, Risk and Insurance costs have been subject to a full review and independent actuarial assessment. A step change has then been applied based on the difference between the updated annual forecast cost resulting from that assessment and the \$9.06 million allowance (in real terms) approved for the current period (refer section 8.6).

Table 8-16 Establishment of the Adjusted Base Year (\$m)

Base Year Establishment	FY2025 Base	Non Recurring Items	Non-Coal Allocation	FY2025 Adj. Base
Direct and Indirect CQCN Operating Costs	69.0	(0.7)	(2.1)	66.3
Corporate Overheads	57.5		7	57.5
Risk and Insurance	9.1	_		9.1
Total	135.6	(0.7)	(2.1)	132.8

Table 8-17 Adjusted FY2025 Base Year expenditure (\$m)

ltem	2024-25
Existing Allowance	135.6
Actual expenditure, before adjustments	135.2
Net adjustments to actual expenditure	(2.4)
Adjusted base year expenditure	132.8
Difference: Adjusted Base year expenditure less the Existing Allowance	(2.8)

Aurizon Network's adjusted Base Year expenditure is \$2.8 million below the current allowance as endorsed by customers and approved by the QCA for the 2019 UT5 DAAU.

Comparative assessment FY2024 to FY2025

Aurizon Network has also provided a comparative assessment of the key movements between its actual FY2024 and FY2025 expenditure, along with the approved allowance. This is summarised in Table 8-18.

Table 8-18 Comparative assessment FY2024-FY2025 (\$m)

Comparative Assessment Allowance / FY2024A / FY2025A	Current UT5 Allowance	FY2024 Actual	FY2025 Actual	Variance (FY2024 vs FY2025)
Direct & Indirect CQCN Opex	71.4	61.5	66.8	5.4
Corporate Overheads	55.2	56.9	59.4	2.4
Risk & Insurance	9.1	9.1	9.1	-
Total	135.6	127.4	135.2	7.8

This shows that actual FY2024 and FY2025 expenditure was below the approved allowance in both years, although there was a total increase of just over 6% between FY2024 and FY2025. The key drivers of this increase include:

- application of a notional 3.5% escalation in salary costs, representative of the 2023 Staff Enterprise Agreement (\$2.2 million);
- commencement of the Daily Rolling Plan initiative and the associated incremental increase in licensing costs of \$0.5 million per annum (refer section 8.4);
- appointment of two Dynamic Schedulers in support of the Dynamic Scheduling Initiative (\$0.4 million);
- re-introduction of Trainee Network Controllers to manage succession planning for Network Controllers (\$0.7 million);
- regulatory costs associated with the development of the 2025 UT5 DAAU;
- costs associated with an external manual handling review and switchgear condition assessment; and
- an increase in Corporate Overhead of \$2.4 million, which is predominately driven by an increase in IT expenditure for cyber security (this is ongoing).

8.4 Non-Electric Operating Expenditure: step changes

The following table summarises the proposed step changes for the NOEA.

Table 8-19 Summary of step changes

Step Change	Relevant step change criterion / criteria	Total forecast expenditure FY2028-FY2037
		(2024-25) \$
Direct and Indirect CQCN Operating Costs		
Daily Rolling Plan Implementation	Materiality	\$1,450,682
Operational Technology	Policy compliance	\$683,200
(Cyber)	Materiality	
Mid Period Regulatory Reset	Cyclical	\$500,000
	Materiality	
Final Period Regulatory Reset	Cyclical	\$1,500,000
	Materiality	
Corporate Overheads		
Network Control Centre	Materiality	\$1,131,036
Risk and Insurance – Nominal		
Risk and Insurance - Nominal	Materiality	Detailed in section 8.6

Further explanation is provided below. It should be noted that while applied as a negative step change, the 2025 Corporate Cost Review outcome is explained as part of efficiency (refer section 8.5) so that the Corporate Cost Review efficiency outcome and the CPI-X efficiency outcome can be considered together. The Risk and Insurance forecast and movements within are addressed separately in section 8.6.

Daily Rolling Plan cost recovery for the current period (FY2025- FY2027)

To enhance operational planning, Aurizon Network and Deswick conducted a three-month trial from 1 July 2024 to use RACE (network planning and scheduling tool) on a daily rolling basis ('within the week'). The trial aimed to improve scheduling accuracy, reduce train delays and optimise Network Capacity, delivering tangible benefits to customers and the wider CQCN.

A contractual agreement provided for an additional license fee for 'Race Planner' of \$500,000 per annum, backdated to the trial start, should the trial succeed. This cost reflects a competitively negotiated arrangement with Deswick, supporting the efficiency of the expenditure.

The initiative has been developed in consultation with customers, with the Daily Rolling Plan Trial incorporated into the CQCN System Rules. Under the System Rules, any forecast incremental costs that are additional to Aurizon Network's existing operating expenditure allowance can be submitted to the QCA for review via a DAAU. This was a that was made to address this specific initiative following

approval via the process set out in the System Rules ¹⁰⁷. In accordance with this process, customer input was sought prior to the Second Voting Date and the final vote included approval to recover business as usual costs estimated at \$500,000 per year for licensing. The expenditure was therefore approved under that process.

As Aurizon Network incurred this expenditure in FY2025, it is already reflected in the Base Year and hence will be captured in Aurizon Network's operating expenditure allowance from 1 July 2027. For the period from 1 July 2024 to 30 June 2027, Aurizon Network has had to find savings in other areas to fund these additional costs. While it has been able to do this, it has explicitly agreed with customers that it will be able to seek recovery of the costs incurred in those years via a DAAU under the approved System Rules.

Given the nature and timing of these Daily Rolling Plan costs and the customer approval under the System Rules, as part of the 2025 UT5 DAAU Aurizon Network is seeking the QCA's approval of the additional expenditure that was not within the existing UT5 NOEA allowance, nor part of any subsequent regulatory process that has occurred after the approval of this initiative.

It is recognised that this is of a different nature to the forward-looking costs that are typically captured as a step change within the base-step-trend methodology. This would otherwise have been sought as a separate adjustment (most likely for the FY2028 year) if a separate DAAU had been lodged, which Aurizon Network has agreed with customers that it is entitled to do under the System Rules. Instead, it was considered more efficient to address this approval as part of the 2025 UT5 DAAU. As noted above, the process introduced in the approved System Rules, including the ex-post recovery of additional costs, was specific to the Daily Rolling Plan initiative.

This example highlights the constraints for Aurizon Network in recovering additional costs for new initiatives undertaken within the regulatory period. This requires a more efficient and streamlined process (while still being robust) to incentivise timely investment in these initiatives. This has therefore been the catalyst for the inclusion of the Contingent Project mechanism, or where appropriate, the Continuous Improvement Group initiative within the 2025 UT5 DAAU, as discussed with the Customers and Railway Operators.

Table 8-20 outlines the cost recovery calculation for 1 July 2024 to 30 June 2027, which includes an adjustment based on the current Approved WACC (8.51%). The resulting proposed step change is contained in Table 8-21.

Table 8-20 Daily Rolling Plan cost recovery calculation

Daily Rolling Plan - Recovery	FY2025	FY2026	FY2027	Total
Annual Incremental Fee (\$m)	0.25	0.5	0.5	1.3
WACC	0.1	0.1	0.0	0.2
Total Cost (\$m)	0.3	0.6	0.5	1.5

Table 8-21 Daily Rolling Plan Step Change (\$m)

Daily Rolling Recovery	Plan -	FY2028	FY2029	FY2030	FY2031	FY2032
		1.5	-			

¹⁰⁷ Refer: Aurizon Network's System Rules – CQCN – effective 24 June 2024 for Train Services commencing from 1 July 2024, Available at: https://www.aurizon.com.au/what-we-do/network/central-queensland-coal-network/cgcn-information

Network Asset Management - cyber specialist capability

In alignment with its Cyber Security Transformation Program that aims to protect the organisation from evolving digital threats, strengthen its security posture, ensure regulatory compliance and enhance resilience, Aurizon Network is focussed on the protection of Operational Technology (OT). OT includes critical systems supporting Network operations such as signalling equipment, electrical traction, communication networks and the control centre.

Aurizon's enterprise target is to achieve a secure and resilient IT environment aligned with industry best practice and the Australian Signals Directorate maturity model. The need for this capability uplift has been acknowledged by customers via the RIG.

In November 2022 the RIG was introduced to a multi-year scope program outlining OT Security Architecture requirements. Phase one of the program involved upgrading the functionality of existing OT hardware and was endorsed by the RIG in March 2023 for inclusion in the subsequent Renewals Strategy Budget or Capital Expenditure Claim (September 2025). These costs are not included in the NOEA.

In September 2024, Aurizon's Enterprise Risk and Assurance function identified material gaps in governance and maturity. Based on these finding it was recommended that Phase 2 (Operational Readiness) and Phase 3 (Transition of Critical OT Assets) progress in 2026. Further, the recommendation included the recruitment of three dedicated Cyber Security Specialists within Aurizon Network's Asset Management team in alignment with the long-term operating model, noting the Aurizon Enterprise's cyber program support for Network OT was limited to monitoring and response to support incident response efforts. In August 2025 the Aurizon Investment Committee endorsed these recommendations.

The specific roles are outlined below with forecast costs as per the Decipher Bureau 2024/25 Salary Guide. 108 At the time of preparation of this submission, Aurizon Network has recruited one of the two planned FY2026 roles and will complete recruitment for the remaining FY2026 role and the FY2027 role as scheduled.

Table 8-22 Additional roles: Cyber Security Specialists

Role	Key Responsibilities	\$2024/25
OT Cyber Security Risk Specialist Cyber Governance (FY26) - Reference OT Security Engineer & Cyber Risk / GRC - Mid	OT Security Architecture, Asset Risk Treatment and Governance	\$200k + Oncosts 22%
	Mitigate vulnerabilities and risks in OT Platforms	
	Implement processes and controls to meet organisational Cyber Security Standards	
	Participate in the IT change advisory board to uplift IT service management practices in Aurizon Network	
OT Cyber Defence	ce Cyber Incident Detection & Response	
Analyst Cyber Analyst (FY26) -	Monitor security and vulnerability alerts from OT monitoring tools	Oncosts 22%
Reference Security Analyst – Mid (L2)	Monitor security alerts in the 3.5 environment	
Arialyst – Milu (L2)	Build OT specific alerts in tools and develop response plans inc. ("Drawbridge" – separate Aurizon Network from Enterprise)	

¹⁰⁸ Decipher Bureau Salary Guide 2024-25 inclusive of Super. Oncosts of 22% capture Short Term Incentives 15% and Payroll Tax, Workers Compensation 7%.

Role	Key Responsibilities	\$2024/25
	Report on OT vulnerabilities and trends	
OT Cyber Security	Systems and Process Compliance	\$200k +
Engineer / Architect Role 3 Cyber	Governing BAU and project activities to meet organisational Cyber Security Standards	Oncosts 22%
Advisor (FY27) - Security Architect – Mid	Ensuring stability and usability of OT Security Architecture	
& Cyber Risk / GRC – Senior	Implements processes to improve the end to end life cycle management of assets (vulnerabilities obsolescence, compensating controls)	
	Participate in system design and build	

Network Asset Management team staff complete time sheets in order to allocate their costs across maintenance, renewals and support. The support cost component (part of Direct CQCN Operating Costs) encompasses the strategic, enabling and compliance functions that underpin effective asset management across the CQCN. Specifically, support costs include activities related to:

- development and application of asset management standards;
- establishment and enforcement of processes and controls;
- compliance with regulatory, safety, and internal governance requirements; and
- planning, analysis, and systems support for maintenance and renewal programs

Accordingly, the cyber security roles are forecast to be allocated 100% to support costs.

Table 8-23 OT Cyber Specialist capability step change (\$m)

OT Cyber Specialist Capability	FY2028	FY2029	FY2030	FY2031	FY2032
	0.7	0.7	0.7	0.7	0.7

Regulatory resets

Aurizon Network incurs additional costs as part of major QCA reviews, including the costs of external resources to supplement its own in-house capability and/or provide independent expert advice (including legal fees). These costs are cyclical in nature. As noted in section 8.3, Aurizon Network has removed the costs it has incurred in FY2025 in preparing for the 2025 UT5 DAAU from the Base Year. These cyclical costs are addressed via a step change, having regard to the timing of the relevant review processes.

Aurizon Network is seeking an allowance for the additional forecast costs it will incur as part of the two main regulatory processes to occur during the 2025 UT5 DAAU Term, being:

- the development of the allowances for the Second Reset Period, which will occur towards the end of the First Reset Period (the Second Reset Period review); and
- the next major regulatory reset (UT6), which will occur prior to the expiry of the 2025 UT5 DAAU Term.

As noted previously, based on the outcomes of the engagement with the Customers, the Second Reset Period Review may include a Mid-Term review of the NOEA if the variance between Aurizon Network's forecast NOEA and actual non-electric operating expenditure exceeds a specified materiality threshold. The Risk and Insurance component of the NOEA is excluded from the materiality trigger.

The forecast additional costs associated with the Second Reset Period review is \$500,000, spread evenly over FY2031 and FY2032. The types of activities covered by this forecast include independent

expert reports. To be clear, Aurizon Network will incur costs associated with the Second Reset Period review regardless of whether the Mid-Term Opex Reset is triggered.

The forecast costs of the Second Reset Period review are shown below.

Table 8-24 Second Reset Period review (\$m)

Mid-Term Opex Reset	FY2028	FY2029	FY2030	FY2031	FY2032
				0.3	0.3

The forecast costs for the next major regulatory reset are based on similar expenditure incurred and forecast to be incurred for the 2025 UT5 DAAU. This comprises:

regulatory costs: \$1,000,000

legal fees: \$500,000

These costs are expected to be incurred during the Second Reset Period only.

Table 8-25 Regulatory reset step change (\$m)

Regulatory Reset	FY2033	FY2034	FY2035	FY2036	FY2037
	-	-	0.8	0.8	

The step change for anticipated consultancy expenditure as part of these QCA review processes are a legitimate and necessary expense for Aurizon Network. This includes the opportunity to recover reasonable costs incurred in the review and update prior to the Second Reset Period based on the scope and terms discussed with the Customers.

Consistent with the cyclical nature of this expenditure, to the extent that costs are incurred in the Base Year for the regulatory period commencing 1 July 2037, these costs would be removed from the Base Year and re-forecast as a step change.

Network Control Centre

The NCC is located in the main Aurizon Network office building in Rockhampton known as the Rockhampton Administration Centre (RAC). The Rockhampton Administration Centre is owned and administered by Aurizon Property Services and the relevant property costs are allocated and apportioned to Aurizon business units.

The NCC is responsible for managing the safe and efficient operation of the CQCN. Core functions include: train control and scheduling, network operations co-ordination, safety and incident management, communications, access management and advanced systems for network visibility. The NCC is staffed 24/7 by train controllers, network operations managers and system support personnel.

Recognising that the previous fit-out dated back to circa 1985 and was no longer fit for purpose, the NCC has undergone a comprehensive refurbishment that is expected to be completed towards the end of 2025. This modernisation has significantly improved ergonomics, upgraded the working environment and enhanced staff amenities, which are key factors in improving workforce attraction and retention. The upgraded facility now aligns with the standards expected of a modern control centre.

There are a number of key drivers of this refurbishment, which are listed below.

Workplace safety and ergonomic risks: A 2022 ergonomic assessment by KINNECT identified several critical health and safety risks for staff, including:

- poor desk and monitor adjustability leading to neck, back, and eye strain;
- inadequate posture support due to fixed workstation design;
- unsafe phone and equipment layouts that increase the risk of repetitive strain injuries; and
- ambient noise issues that impact communication and operational safety.

Workforce retention and engagement: Since 2021, staff feedback has consistently highlighted dissatisfaction with the outdated NCC environment. Concerns regarding workplace conditions have been raised through:

- employee engagement workshops;
- annual People Insights surveys; and
- EA negotiations and disputes raised by the Rail, Tram and Bus Union (RTBU).

This negative sentiment has been reinforced in both the 2023 and 2024 People Insights surveys where employees continued to express strong concerns about workplace conditions.

Ongoing ergonomic and environmental issues contribute to above-average staff turnover (of between 9% and 15%) compounded by the demands of 24/7 shift work. The condition of the NCC has become a barrier to staff retention, attraction and engagement.

Operational integration and efficiency: The refurbishment has enabled the co-location of Planning, Scheduling and Aurizon Network Operations teams that have been split across multiple floors. The redesigned layout and co-location supports better integration, collaboration and workflow across control functions.

Technology and interface limitations: Modern digital systems have outpaced the physical workspace, requiring controllers to navigate multi-screen setups in non-ergonomic configurations, in particular:

- six horizontally aligned monitors cause neck and eye strain
- critical interfaces (e.g., radio interface ACOM) are poorly positioned and interfere with other equipment
- Controllers are unable to view the full train diagram at once, impacting situational awareness and decision making.

As the building is owned and managed by Aurizon Property, the NCC refurbishment costs are capitalised to the building with a charge equivalent to the associated depreciation of the refurbishment assigned to Aurizon Network. The total refurbishment costs, which were subject to a competitive tendering process, are shown below.

Table 8-26 NCC refurbishment costs

Item	\$	Assumed life
Refurbishment and fit out	5,948,219	15 years
Technology hardware and implementation	2,549,337	6 years
Total	8,497,556	

Given the requirement to maintain an arm's length relationship between Aurizon Property and Aurizon Network, Savills was engaged to determine an appropriate annual charge for the NCC refurbishment.

The independent valuation determined this charge to be \$1,131,036 per annum. This was determined assuming:

- a capital amount of \$8,500,000 (excluding GST)
- a lease period of ten years
- an interest rate of 7% per annum.

For comparison, Aurizon Network's regulated WACC is currently 8.51%, which if applied on an annuity basis over ten years would result in an annual charge of approximately \$1,285,737. The tenyear period aligns with the approved asset life for the treatment of building facilities within the RAB.

Aurizon Network therefore considers the independently assessed value of \$1,131,036 to be a prudent and efficient commercial charge.

Table 8-27 Network Control Centre refurbishment step change (\$m)

NCC refurbishment	FY2028	FY2029	FY2030	FY2031	FY2032
	1.1	1.1	1.1	1.1	1.1

8.5 Trend factor

Real cost escalation

Aurizon Network's operating expenditure proposal has been developed with reference to costs incurred during FY2025, the Base Year. Base Year costs are expressed in real terms (\$FY2025) and are escalated to determine Allowable Revenue and Reference Tariffs for each year of the 2025 UT5 DAAU Term (expressed in nominal terms). Different price indices are used to escalate labour costs and non-labour costs, which reflects the underlying drivers of those costs over time.

Labour cost escalation

Aurizon Network has escalated FY2025 labour costs with reference to forecast growth in the WPI. This approach is consistent with the QCA's 2018 UT5 Final Decision.

The WPI estimates for FY2026 through to FY2032 have been sourced from Oxford Economics who was engaged by Aurizon Network to provide price forecasts for labour and services (refer Attachment G). The resulting forecasts are shown below. As Oxford Economics' forecasts have only been provided for the First Reset Period, the forecast for the Second Reset Period assumes constant growth based on the average forecast growth for the First Reset Period.

Table 8-28 Forecast labour cost growth - forecast WPI (%)

Labour Cost Escalation	FY2028	FY2029	FY2030	FY2031	FY2032
	3.44	3.74	3.89	3.62	3.39

Source: Oxford Economics Australia (2025). Cost Escalation Forecasts to 2031/32, May.

The forecast is based on the All Industries Private WPI Index. Aurizon Network considers this index reasonable given the demand for labour from ongoing infrastructure investment in Queensland and the strong union presence in the rail and infrastructure sectors.

It is noted that in its 2021 Inflation Forecasting Final Position Paper, the QCA stated that its preferred approach to estimating WPI is to use Queensland Treasury forecasts. ¹⁰⁹ Aurizon Network considers that the use of the All Industries Private WPI Index is more appropriate to its business and operating environment. The forecast has been sought from an independent and reputable third party provider with details of its methodology and assumptions provided in the accompanying report.

Oxford Economics forecasts that total wage costs for the Queensland construction and mining sectors — expressed in WPI terms for the private sector — will average 3.9% and 3.6% per annum respectively, over the five years to 30 June 2032. It notes that while wages growth over the short-term is expected to ease as inflation moderates and the economy cools, the Queensland All Industries WPI will continue to track slightly higher (~1%) than the national average. This trend is expected to continue, due to infrastructure demand, skill shortages and unionisation and capital investment in the Utilities industry.

Aurizon Network notes the expiry its current EAs close to the start of the First Reset Period and the escalation within the current agreements as per below:

- Aurizon Infrastructure Agreement 2023 expiring 28/7/2027 (FY2026 4.0%, FY2027 4.0%)
- Aurizon Staff Enterprise Agreement expiring 23/3/2027 (FY2026 3.5%, FY2027 3.3%).

Non-labour cost escalation

Aurizon Network has escalated FY2025 non-labour costs using a forecast of the Brisbane CPI provided by Oxford Economics.

The QCA has previously approved a forecast rate of CPI set at the midpoint of the RBA target band for inflation (2.5%). The actual rate of inflation observed for the 2019 UT5 DAAU regulatory period has been above the high end of the RBA's target range.

Since the QCA's 2019 UT5 Final Decision, it has undertaken a detailed review of its inflation forecasting approach. In its 2021 Inflation Forecasting Final Position Paper, the QCA concluded that it is reasonable to use location-specific (i.e., Brisbane) cost escalators "in cases where there are underlying cost drivers that are materially different to the national CPI inflation measure." As Aurizon Network submitted to that review, a number of its input costs reflect conditions in the Central Queensland market. Noting that there are no published forecasts of inflation on a regional basis, the Brisbane estimate may be more reflective of local conditions than the national measure. As with WPI, Aurizon Network has sourced its forecast of Brisbane CPI from an independent and reputable third party provider.

Oxford Economics' forecast compared to the current period are shown below. It expects Brisbane CPI to remain above the RBA's mid-point due to the tight labour market, persistent rental inflation, continued pressures on energy costs and food inflation.

¹⁰⁹ Queensland Competition Authority (2021). Final Position Paper, Inflation Forecasting, October, p.15.

¹¹⁰ Queensland Competition Authority (2021). p.44.



Figure 8-9 Brisbane CPI actuals and forecast for the 2019 UT5 DAAU and 2025 UT5 DAAU periods

The rate of CPI applied to real (\$FY2025) non-labour costs for the operating expenditure proposal is summarised in Table 8-29. As with WPI, for the Second Reset Period Aurizon Network has assumed that forecast annual CPI remains at the average rate for the First Reset Period. It is also noted that under the Access Undertaking there is an ex post reconciliation for the difference between actual and forecast CPI as part of the annual adjustments to Allowable Revenue contained in Schedule F.

Table 8-29 Forecast non-labour cost growth - Brisbane CPI (%)

Non-Labour Cost Escalation	FY2028	FY2029	FY2030	FY2031	FY2032
	2.68	2.78	3.02	2.93	2.77

Source Oxford Economics Australia (2025). Cost Escalation Forecasts to 2031/32, May.

Escalation attribution

The attribution of the escalation factors to the key cost categories has been determined based on proportions aligned with Aurizon's Network's actual FY2025 cost composition (for labour and non-labour costs). Table 8-30 provides the escalation attribution between labour and non-labour costs as determined in reference to FY2025 Base Year costs. This will remain fixed for the 2025 UT5 DAAU Term.

Table 8-30 Escalation attribution (%)

Weightings	Labour	Non-Labour
Direct CQCN Operating Costs	88	12
Indirect CQCN Operating Costs	88	12
Corporate Overhead	30	70

Risk and Insurance escalation

Risk and Insurance expenditure has been forecast in nominal terms as per the independent expert reports (refer section 8.6). Aurizon Network proposes that the Risk and Insurance allowance be adopted in nominal terms.

Ex post reconciliation

As noted above, while forecast rates of inflation are applied when deriving the proposed operating expenditure allowances, an ex-post reconciliation will take place as part of the annual review of Reference Tariffs to account for any variance to actual inflation (CPI and WPI).

Efficiency

Direct and Indirect Operating Costs - efficiency factor

The outcome of the engagement is that Aurizon Network will apply an efficiency factor of 50 basis points per annum to the Direct and In-Direct CQCN Operating Cost allowance from FY2026, as shown below (up to the end of the First Reset Period). This will apply for the duration of the 2025 UT5 DAAU Term.

Table 8-31 Efficiency factor (%)

Efficiency Factor	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)

Corporate Overhead efficiency

In alignment with the terms agreed with the Customers an efficiency factor has not been applied to Corporate Overheads. In lieu of an efficiency factor Aurizon Network has committed to a minimum annual cost reduction of \$2 million as a result of the 2025 Corporate Cost review, which is to be applied as a negative step change.

Aurizon Holdings Limited initiated a significant cost-reduction program in FY2025. This program involved a comprehensive review of its support services and non-operational expenditures with a focus on reducing Corporate Overheads rather than impacting frontline operational roles. The initiative reflects Aurizon's strategic response to challenging market conditions and its commitment to improving operational efficiency. As a customer of the corporate services and shared services functions, Aurizon Network is forecast to benefit by a reduction in the costs of shared services for Real Estate and Facilities, Information Technology, Procurement and Governance.

The quantum of the annual cost reduction has been determined by applying the total enterprise forecast benefit at FY2028, deflating it to FY2025 real terms at a cost centre level and applying the 2025 Costing Manual allocations to the associated cost centres. The resulting efficiency saving that has been applied is \$2.9 million per annum (\$FY2025), which is well above the minimum \$2 million commitment to the Customers. This equates to total savings of \$14.5 million (\$FY2025) over each of the First and Second Reset Periods.

Table 8-32 2025 Corporate Cost review step change (\$m)

2025 Corporate Cost Review	FY2028	FY2029	FY2030	FY2031	FY2032
	(2.9)	(2.9)	(2.9)	(2.9)	(2.9)

Trend factors

Table 8-33 and Table 8-34 provide the forecast trend factors for Direct and Indirect Operating Costs and Corporate Overheads. As noted above, the efficiency saving applied to Corporate Overhead costs has been done via a negative step change and hence is not included in the trend factor.

Table 8-33 Forecast Direct and Indirect Operating Costs - trend factors

	FY2028	FY2029	FY2030	FY2031	FY2032
Weighted escalator (%)	3.34	3.62	3.78	3.54	3.31
Efficiency Factor (%)	(0.50)	(0.50)	(0.50)	(0.50%)	(0.50%)
Weighted escalator minus efficiency (%)	2.84	3.12	3.28	3.04	2.81
Forecast Direct and Indirect Operating Costs – Implied index	1.09	1.12	1.16	1.20	1.23

Table 8-34 Forecast Corporate Overheads - trend factors

	FY2028	FY2029	FY2030	FY2031	FY2032
Weighted escalator (%)	2.91	3.07	3.28	3.14	2.95
Forecast Corporate Overheads – Implied index	1.10	1.13	1.17	1.21	1.24

8.6 Risk and Insurance

Approach

Aurizon Network is exposed to a range of risks that are beyond its control, as well as risks where avoidance is not economically justifiable. Aurizon Network mitigates these risks, which are typically asymmetrical in nature, through a combination of:

- external/ commercial insurance;
- self-insurance; or
- cost pass-through via the Review Event mechanism.

In applying a base-step-trend methodology, Risk and Insurance costs are treated separately on a full forward-looking basis rather than reconciled to actual historical costs. A full assessment ensures the operating expenditure allowance reflects the prudent and efficient costs of managing these asymmetric risks. This is supplemented by mechanisms in the Access Undertaking in recognition of the inherent uncertainty in forecasting these costs, which given the size, location and nature of Aurizon Network's below rail operations, are material.

The current Risk and Insurance element of the NOEA was originally approved by the QCA in the 2018 Final Decision. As part of the package of amendments negotiated between Aurizon Network and customers as part of the 2019 UT5 DAAU, it was agreed that this component would remain a fixed allowance of \$9.06 million per annum (as part of the NOEA), with an annual CPI adjustment if actual CPI exceeded 2.37%. The fixed allowance comprised:

- \$3.24 million in commercial insurance (comprising \$2.77 million for non-electric assets and \$0.47 million for electric assets);
- \$5.83 million for self-insurance.

Consistent with the outcomes of Aurizon Network's discussions with Customers, it has undertaken a full review of its Risk and Insurance allowance based on independent expert advice. In determining the proposed amounts for insurance and self-insurance for the First Reset Period of the 2025 UT5 DAAU (i.e., FY2028 to FY2032), Aurizon Network engaged:

- Marsh McLennan Pty Ltd (Marsh) to provide annual external insurance premium costings for corporate and relevant Industrial and Special Risks insurance; and
- Finity Consulting Pty Ltd (Finity) to provide actuarial advice in relation to the self-insured risks of the CQCN.

In estimating the relevant premiums, the consultants applied a methodology that was consistent with the approach approved by the QCA in the 2018 UT5 Final Decision. A copy of each report is included as attachments to this submission (refer Attachment E and Attachment F).

Stakeholder engagement

As discussed with the Customers, the 'base cost' proposal for Aurizon Network's Risk and Insurance allowance will reflect an independent actuarial assessment. A further outcome of these discussions is that Aurizon Network will exclude the following matters from the self-insurance allowance:

- weather-related infrastructure damage;
- operational dewirements (other than third party damage).

Any costs associated with these matters will be recovered on a pass-through basis via the annual Maintenance Costs Claim process or if relevant within the appliable part of the MRSB process in the relevant Year. There is no change to the existing Schedule F Review Events relating to significant damage caused by material weather events.

As noted in section 8.1, as discussed with the Customers, Risk and Insurance costs will be excluded for the purpose of the materiality trigger for a Mid-Term Opex Reset.

External/commercial insurance

This section provides a summary of the coverage and premiums associated with Aurizon Network's external insurance arrangements. A more comprehensive description is provided in the Marsh report (refer Attachment E).

Aurizon Holdings Limited has a comprehensive insurance program specifically designed for its needs, including several different insurance policies placed directly with the insurance market. While the policies maintained by Aurizon Holdings Limited provide coverage for the activities of Aurizon Network, Aurizon Network does not have a separable premium. Marsh was engaged to determine the annual insurance premium that would be applicable to Aurizon Network if it were a standalone entity.

A summary of the coverage and associated premiums for the 2025 UT5 DAAU is outlined in Table 8-35 below. This is compared with the forecast used by Aurizon Network in setting its allowance for

¹¹¹ Queensland Competition Authority (2018). p.180.

the 2019 UT5 DAAU (which also aligned with the approach approved by the QCA in its 2018 Final Decision).

Table 8-35 External/commercial insurance cover and estimated premiums

Insurance Cover	2025 UT5 DAAU Premium (\$)	2019 UT5 DAAU Premium (\$)	Movement \$ (%)	Description
General Liability (Third Party	888,904	712,152	+176,752 (+25%)	Covers Aurizon Network for its legal liability to third parties for personal injury or property damage.
Liability)				The policy also includes coverage (in accordance with standard policy terms and conditions) for Aurizon Network's exposures outlined in the Indemnities and Liabilities provisions in the Standard Access Agreement.
Industrial Special Risks	2,316,481 (including an allowance for Electrical	1,291,705 (including an allowance for Electrical	(including (+79%) an allowance for	Provides coverage for physical loss or damage to Aurizon Network's high value, critical assets. Coverage applies to assets specifically nominated under that policy and is limited to:
	Feeder	Feeder		 specified bridges;
	Stations)	Stations)		 power equipment including feeder stations;
				 other network assets e.g. computer, network control and monitoring equipment;
				 dwellings; and
				 mechanised maintenance plant (e.g. tampers and resurfacing machinery).
				Rail track infrastructure is a specific exclusion from this policy. The premiums associated with covering assets of this extent and value through external insurance arrangements are considered cost prohibitive.
			Aurizon Network self-insures this infrastructure and these arrangements are discussed in the 'Self-insurance' section below.	
Directors and Officers (D&O)	1,939.427	447,293	+1,492,134 (+334%)	D&O insurance indemnifies the officers of the company for losses and advancement of defence costs in the event of a legal action brought for alleged wrongful acts.
Civil Liability Professiona I Indemnity	461.580	60,445	+401,135 (+664%)	Represents the minimum premium that would be required if professiona services were undertaken and is based on a nominal limit of indemnity of \$20 million.

Insurance Cover	2025 UT5 DAAU Premium (\$)	2019 UT5 DAAU Premium (\$)	Movement \$ (%)	Description
Corporate Travel	4,583	8,242	-3,659 (-44%)	Aurizon Network employees undertake a number of journeys for company business. As such a comprehensive Business Travel policy would be needed by a pruden network operator.
Consultanc y Services – broking and risk engineering	300,000	[-]	N/A	Aurizon Network would need to engage a Risk & Insurance Consultancy company for their insurance broking services and needs. These services include the placement of the Insurance program specialist advice, and any additional technical reports. A large portion of Aurizon Network's Insurance program would be placed with London based insurers, the Professional Fees shown also includes remuneration required by the London based brokers, who have to be engaged to place business into the London market.
Contract works	873,705	263,623	610,082 (+231%)	Covers material damage and third- party liability. The premium is based on the value of assets under construction.
Motor Vehicle	903,928	3 <mark>1</mark> 3,215	590,713 (+189%)	Comprehensive Motor Fleet Insurance Policy
Marine cargo	80,809	126,385	-45,576 (-36%)	Covers Aurizon Network for its exposures to loss or damage to goods whilst being transported or "in transit".
Total	7,769,417	3,223,060	+4,546,357 (+138%)	Premium includes and stamp duty and excludes GST.
Total (ex Electric)	7,139,777	2,753,060	+4,386,717 (+159%)	

Marsh highlights a range of factors that has resulted in increased estimated premiums between the QCA's 2018 Final Decision and the 2025 UT5 DAAU, including the increased scale and value of Aurizon Network's assets, the hardening of the global insurance market, inflationary pressures and adverse market claims experience for insurers. Further information is contained in the report in Attachment E.

Marsh estimated the applicable external insurance premiums for FY2026 and in deriving a forecast for the First Reset Period, escalated these premiums:

 to FY2027 based on the CPI for Insurance and Financial Services (5.2% as of 26 March 2025); and from FY2027 to FY2028 and for each subsequent Year, using a projected nominal CPI figure of 3% per annum.

The independent assessment and forecasts provided by Marsh are deemed representative of the prudent and efficient cost of a stand-alone commercial insurance policy for an organisation such as Aurizon Network. Based on discussions, no incentive mechanism will apply to the Risk and Insurance component. This also recognises that these costs are largely beyond Aurizon Network's control.

Self-Insurance

This section provides a summary of the coverage and premiums associated with Aurizon Network's self-insurance arrangements. A more comprehensive description is provided in the Finity report (refer Attachment F).

Aurizon Network engaged Finity to provide actuarial advice in relation to the self-insured risks of the CQCN. There are two types of self-insured losses included in Finity's assessment:

- uninsured risks, which are specifically related to the tracks and associated infrastructure. As
 noted above, these risks are subject to losses that commercial insurance markets typically do
 not have the appetite to underwrite; and
- below-deductable losses, being below-deductable losses on insured risks where the CQCN holds material levels of risk in respect of the self-insured retention, either due to the frequency of such losses or the size of the retention, e.g., property and public liability losses.

The most significant category of uninsured risk relate to the CQCN's uninsured property risk, i.e., the property risk for the uninsured track and associated infrastructure. The CQCN is subject to losses from a range of perils such as:

- derailment;
- dewirement;
- weather (storms, flood and extreme heat);
- earthquake;
- fire and bush fire;
- third party repairs; and
- accidental and malicious damage.

For derailments, dewirements, weather losses and third party repair losses, Finity has estimated future losses for the First Reset Period on the basis of historical observations (refer Table 8-36). In relation to the other perils, such as fire and accidental and malicious damage, where there is no information on the nature and extent of any historical losses Finity has not estimated a cost for these losses, even though in practice the expected losses are greater than zero.

Table 8-36 Comparative Assessment of CQCN loss by type (\$'000)

Table 1.1 - Summary of Estimates for CCQN by Loss Type

Loss Type	2027/28	2028/29	2029/30	2030/31	2031/32	Total	Previous (adjusted) ¹
	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Derailment	4,012	3,810	4,060	4,238	4,388	20,508	24,097
Dewirement	679	656	701	731	775	3,542	1,923
Weather	533	550	568	585	604	2,840	3,322
TP Repairs	746	770	794	819	845	3,975	1,811
Liability ²	1,265	1,350	1,436	1,515	1,572	7,139	5,705
Total	7,237	7,137	7,559	7,888	8,183	38,004	36,857

¹Adjusted for actual exposure, but based on previous frequency and size assumptions

Source: Finity (2025). Review of Self Insurance Risk Premium - Access Undertaking UT6, Aurizon Network, p.3.

In terms of the most material loss type, being derailment losses, Finity notes that the total cost is \$3.7 million (or 15%) lower than the previous assessment, which is driven by the lower expected frequency of derailment.¹¹²

Estimated self-insurance premiums for the First Reset Period

For all loss types, Finity's forecast of Aurizon Network's self-insurance costs estimated for the First Reset Period are set out in Table 8-37.

Table 8-37 Estimated self-insurance premiums (\$m, nominal)

Self Insured Item	FY2028	FY2029	FY2030	FY2031	FY2032
Derailment	4.8	5.0	5.1	5.3	5.5
Weather	0.5	0.6	0.6	0.6	0.6
Dewirement	0.7	0.7	0.7	0.8	0.8
Liability	1.3	1.4	1.4	1.5	1.6
Train Protection Systems	0.7	8.0	0.8	8.0	0.8
Total Nominal	8.0	8.3	8.7	9.0	9.3

However, in accordance with the outcomes of Aurizon Network's engagement with the Customers, for the 2025 UT5 DAAU the following items will be removed from the self-insurance allowance that were included and approved as part of the QCA's 2018 UT5 Final Decision:

- weather-related infrastructure damage; and
- operational dewirements (other than third party damage).

For the 2025 UT5 DAAU, any costs associated with these events will be recovered on a pass-through basis via the annual Maintenance Costs Claim process. These costs will be incorporated into the annual Maintenance budget as a dedicated line item.

After these two items are removed, Aurizon Network's proposed self-insurance premiums for the First Reset Period are show below.

^aLiability amounts are not directly comparable to previous due to deductible difference

¹¹² Finity Consulting Pty Limited (2025). Review of Self Insurance Risk Premium – Access Undertaking UT6, June, p. 23.

Table 8-38 Proposed self-insurance premiums (excluding weather and dewirement) (\$m, nominal)

Self Insured Item	FY2028	FY2029	FY2030	FY2031	FY2032
Derailment	4.8	5.0	5.1	5.3	5.5
Liability	1.3	1.4	1.4	1.5	1.6
Train Protection Systems	0.7	0.8	0.8	0.8	0.8
Total Nominal	6.8	7.1	7.4	7.6	7.9

Variations

The estimated cost of self-insurance is sensitive to changes in volumes as this is one of the variables impacting Aurizon Network's exposure to loss. In order to address any variations to the volume forecasts following the QCA's approval of the 2025 UT5 DAAU, or to accommodate revenue variations attributable to additional Access Rights not contemplated in the Capital Indicator, Aurizon Network requested that Finity provide a unit rate applicable to the relevant exposure metric that could be used to forecast future variations in the cost allowances for the consequential changes in risk. Explanation for the movements in the unit rates are contained within the Finity report with a summary of unit rate movement in the table below.

Table 8-39 Cost per unit of risk

Loss Type	Exposure Measure	Cost per unit of Exposure 2025 (\$)	Cost per unit of Exposure 2017 (\$)
Derailment	gtk (millions)	46,121	54,193
Weather	Track Km	189	221
Dewirement	egtk (millions)	11,618	6,307
Liability	Turnover (millions)	854	686
Third Party Repairs	Track Km	265	121

Aurizon Network's proposed Risk and Insurance allowance: summary

The updated cost estimates provided by Marsh and Finity are provided in Table 8-40.

Table 8-40 Annual insurance premiums (\$m, nominal)

Risk and Insurance	FY2028	FY2029	FY2030	FY2031	FY2032
Non-Electric					
External Insurance ¹	7.7	8.0	8.2	8.5	8.7
Self Insurance	6.8	7.1	7.4	7.6	7.9
Total Non-Electric Nominal	14.6	15.1	15.6	16.1	16.6
Electric					
External Insurance	0.7	0.7	0.7	0.7	0.8
Total Electric Nominal	0.7	0.7	0.7	0.7	0.8

¹ Excludes Industrial Special Risks insurance specifically for electrical assets; a value of \$0.68m for FY2028.

Overall, Aurizon Network's forecast Risk and Insurance costs for the First Reset Period of the 2025 UT5 DAAU are \$5.5 million higher than the fixed allowance originally approved in the QCA's 2018 Final Decision in nominal terms. This increase is predominately driven by movements in the external insurance market, which has since undergone a sustained and significant hardening phase.

Aurizon Network's Risk and Insurance proposal for the 2025 UT5 DAAU reflects:

- an external insurance premium for specific risks insured under the Industrial and Special Risks
 policy. Of the below rail assets, only selected bridges, tunnels and feeder stations are covered.
 Due to the prohibitive cost there is no cover for rail track infrastructure instead this is to be
 managed through self-insurance arrangements;
- an external insurance premium for corporate insurances, which have been costed on the basis
 of Aurizon Network operating as a stand-alone entity; and
- a self-insurance premium for managing the below rail asymmetric risks such as derailments, below-deductible liability losses and train protection system losses.

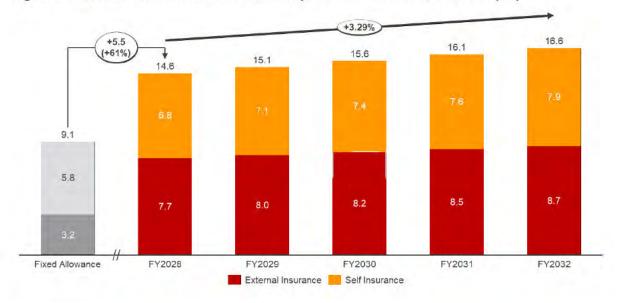
While Aurizon Network has undertaken a full reassessment of its forecast Risk and Insurance costs, it is still captured in the forecast operating expenditure allowance as a step change. This step change been calculated as the total forecast annual Risk and Insurance premium less the fixed allowance that was originally approved by the QCA in its 2018 Final Decision (and applied for the FY2025 Base Year). As a result is not unexpected that the market-based insurance assessment is significantly higher than the fixed allowance.

Table 8-41 Risk and Insurance step change - Non-Electric (\$m, nominal)

Risk and Insurance step change	FY2028	FY2029	FY2030	FY2031	FY2032
External Insurance	4.5	4.7	5.0	5.2	5.5
Self Insurance	1.0	1.3	1.5	1.8	2.0
Total Non-Electric Nominal	5.5	6.0	6.5	7.0	7.5

The total change between the current fixed allowance and the updated forecast is shown in the following figures.

Figure 8-10 External insurance and self-insurance premiums - Non-Electric nominal (\$m)



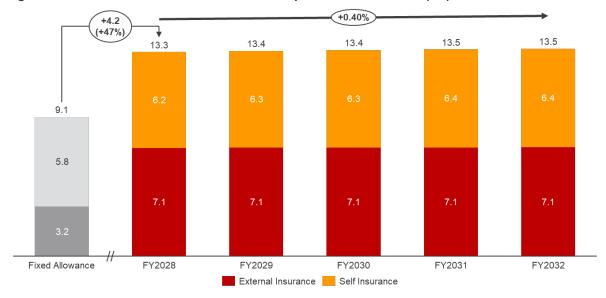


Figure 8-11 External insurance and self-insurance premiums real FY2025 (\$m)

Aurizon Network continues to bear the risk that its actual insurance costs are different from the approved allowance, given the premiums are updated annually in line with market conditions. This similarly applies in the case of self-insured risks, as noted by Finity:

We also note that unlike an insurer, Aurizon Network only gets the opportunity to "re-price" for the new UT period (which historically has been up to 10 years) whereas an insurer has the opportunity to re-price annually thus providing greater certainty as they can re-adjust premiums to recoup losses.¹¹³

Cost pass-though

Consistent with the approved UT5 approach, the Finity analysis concluded that the pass-through option is an efficient way of dealing with extreme events that occur infrequently, are extremely difficult to model and are beyond the normal control of the business. The mechanism for doing so is including a provision such as clause 5 of Schedule F in the 2017 Access Undertaking, which permits Aurizon Network to recover the incremental costs of specified Force Majeure events through a QCA-approved variation to Reference Tariffs.

The Finity analysis (and associated premiums) assumed that the following events will continue to be subject to pass-through:

- major weather events where below rail losses exceed \$1 million¹¹⁴;
- catastrophic damage to the network from perils such as earthquake and other natural disasters where losses exceed \$1 million; and
- liability losses that exceed \$8 million.

For clarity, there is no provision for such events within the external or self-insurance premiums proposed as part of the 2025 UT5 DAAU.

¹¹³ Finity Consulting Pty Limited (2025). p. 4.

¹¹⁴ For clarity, the self-insurance premiums make no provision for a \$1 million deductible in relation to cost pass-through events due to the uncertainty which surrounds the frequency of which these events occur. For example, if an event resulted in a loss of \$1.5 million, the cost pass-through application would be for the full value of the loss (and not \$0.5 million).

8.7 Non-coal operating cost allocation

As noted previously, an allocation of Aurizon Network's operating expenditure is made to non-coal services in recognition of their utilisation of the CQCN and the costs incurred in servicing them.

Approach

For the 2025 UT5 DAAU the percentage of Direct and Indirect CQCN Operating Costs that have been allocated to non-coal activities are provided in Table 8-42, including a summary of the relevant functional costs applied to these activities. Aurizon Network has retained alignment with the QCA's 2019 UT5 Final Decision.

Table 8-42 Functional allocation of costs to non-coal activities

Function	Non-coal allocation	Driver	Consistent with UT5 Final Decision
Network Train Operations (Train Control)	5.1%	Responsible for Day of Operations activities, including the execution of scheduled train services and asset activity (yards/maintenance) and coordination of emergency response and recovery efforts where applicable.	Yes
Network Finance	2.8%	Responsible for invoicing, billing and reporting of non-coal activities ensuring that revenues and costs are accurately captured and allocated.	Yes
Customer	10%	Reflects the FTE contribution of the Customer team.	Yes
Legal	10%	Legal effort for non-coal activities estimated to mirror the customer team allocation given the contractual nature of effort.	Yes

Whilst the functional allocation of costs to non-coal activities is in alignment with the 2018 UT5 Final Decision, Aurizon Network has previously expressed concerns with the QCA's approach to allocating the costs of Network Train Operations using proportional time spent on track data. Aurizon Network remains of the view that the allocator that is more reflective of effort is gtk, which would result in an allocator of 1.1% in FY2025.

Despite this, Aurizon Network has elected to continue to align with the QCA's 2018 Final Decision, noting that proposed adjustments to the non-coal allocation methodologies would not be material in the broader context of these costs as a share of total costs.

However, while Aurizon Network has been prepared to accept the specific allocation approaches to each functional activity, it remains more concerned with the QCA's 2018 Final Decision and rationale for the general allocation of costs to non-coal services, which was determined based on the proportion of actual revenue from non-coal below rail access charges to total revenue from access charges. Aurizon Network notes the QCA's comments in its 2018 Final Decision that Aurizon Network

did not apply any explicit non-coal allocations in its proposed Risk and Insurance costs or allocated Corporate Overheads as part of the 2017 UT5 DAU. 115

Aurizon Network maintains the view that both Risk and Insurance and Corporate Overhead costs are estimated to be consistent with the costs that would be incurred by a standalone provider of below rail coal carrying train services. The exclusion of non-coal activities would have nil impact on the forecast and hence no allocation remains necessary. In particular, Aurizon Network notes the following with respect to these two key categories.

Risk and Insurance:

- Aurizon Network's insurance policy doesn't differentiate between coal and non-coal services (for example the policy covers derailment regardless of service type);
- Aurizon Network has had nil liability claims on third party offerings (for example, Rail Infrastructure Management Services); and
- external works or customer infrastructure works are not within the Insurance program and are traditionally managed by way of a Principal Controlled Insurance Program.
- Corporate Overhead: Non-coal activities are managed within the Direct and Indirect CQCN
 Operating Costs for services of Train Control, Network Finance, Network Customer and
 Network Legal, which has a requisite allowance for non-coal activities. In particular, the shared
 use of Accounts Receivable, whereby costs are allocated based on number of transactions, is
 immaterial (<\$100,000).

Application of functional allocations

In maintaining and accepting the functional allocations in alignment with the 2018 UT5 Final Decision, Aurizon Network has assessed the following:

- gtk movements across the Network;
- time on track analysis;
- proportional revenue assessment

Gross tonne kilometres

The gtk measure considers total weight hauled (payload plus wagons plus locomotives) multiplied by distance travelled and is considered the best measure of overall network utilisation. Further, coal and non-coal below rail access charges are set on a gtk basis. Analysis of the last five years highlights that based on weight and distance, non-coal movements represent only 1.2% of total gtk movements. This is shown in Table 8-43.

Table 8-43 Non-coal movements - billion gtk

Non-Coal Movements	FY2021	FY2022	FY2023	FY2024	FY2025	5yr Avg
Coal GTK	83.8	83.2	81.0	82.1	81.5	82.3
Non Coal GTK	0.93	0.97	0.94	1.06	0.92	0.96
Total GTK	84.8	84.2	81.9	83.2	82.4	83.3
% of Non-Coal / Total GTK	1.1%	1.1%	1.1%	1.3%	1.1%	1.2%

¹¹⁵ Queensland Competition Authority (2018). p.191.

Time on track analysis

Time on track analysis considers the number of hours consumed by coal and non-coal services. Analysis of the last five years highlights that non-coal time on track, excluding maintenance time, represents 7.3% of total track time.

Table 8-44 Time on track analysis

Non-Coal Movements	FY2021	FY2022	FY2023	FY2024	FY2025	5yr Avg
Coal						
Hours	514,333	514,346	546,454	553,882	539,314	533,666
% of total hours	95%	95%	95%	95%	95%	94.9%
Non-Coal						
Hours	27,429	28,934	28,348	29,465	28,857	28,607
% of total hours	5.1%	5.3%	4.9%	5.1%	5.1%	5.1%

While Aurizon Network has provided this analysis as a reference point and for consistency with the QCA's preferred approach, it reiterates that it does not consider that possession hours or time on track is an appropriate measure for the allocation of Train Control costs as it does not account for the complexities associated with the scheduling of coal traffic compared with non-coal traffic. For example:

- non-coal traffic is timetabled and effectively hard-wired into the Master Train Plan with little week to week alteration;
- passenger train movements are prioritised over coal train movements and coal traffic requires more stop/start transactions in the cycle to interact with passenger trains and mine/port availability.

At best, time on track analysis may be considered an arbitrary measure of effort by Aurizon Network's Customer and Legal teams.

However, noting the above concerns, Aurizon Network has formed the view that the allocation for Train Control costs of 5.1%, consistent with the 2018 Final Decision, is reasonable after considering this within the context of its broader overall position. It also notes that an equal blend of the two operational metrics (time on track and gtk movements) would result in an allocation of Train Control costs of 4.25%.

Proportional revenue assessment

Aurizon Network has considered the feedback provided by the QCA in the 2018 Final Decision that suggests that:

Aurizon Network seek to demonstrate transparent and considered approaches to estimating its allocations in future undertaking proposals and in doing so provide a degree of confidence in the appropriateness of the proposed costs and potentially allow a lighter handed investigative and approval process for operating expenditure forecasts.¹¹⁶

¹¹⁶ Queensland Competition Authority (2018). p.126.

Aurizon Network has therefore completed a proportional revenue assessment and alternative scenario analysis as a further cross-check of its proposed allocation of operating costs to non-coal services.

Aurizon Network has also considered the non-coal revenue contribution relative to total below rail revenue (exclusive of electric traction services) over the last five years. Based on a five-year average, non-coal revenue accounts for around 1.5% of total below rail revenue. Applying the 1.5% of revenue to the fixed allowance approved for the current period would imply an allocation of costs to non-coal services of \$2.05 million per annum (five-year average) or \$2.19 million in FY2025 (see Table 8-45).

Table 8-45 Historical implied non-coal allocation - based on % of revenue

	FY2021	FY2022	FY2023	FY2024	FY2025	5yr Avg
Total below rail revenue (ex electric traction) (\$m)	1,177.1	1,143.8	1,184.8	1,345.4	1,363.5	1,258.8
Access charge revenue - other (non- coal) (\$m)	10.6	11.9	10.9	13.9	13.7	12.2
Recurring non- regulatory revenue (\$m)	5.3	6.4	5.9	6.4	7.7	6.3
Total – non-coal revenue (\$m)	15.9	18.3	16.8	20.3	21.4	18.6
Non-coal access /total below rail (%)	0.9	1.0	0.9	1.0	1.0	1.0
Other non-regulatory revenue/total below rail revenue (%)	0.4	0.6	0.5	0.5	0.6	0.5
Total - Non-coal revenue/total below rail revenue (%)	1.4	1.6	1.4	1.5	1.6	1.5
Efficient Cost						
Allowance (\$m)	135.6	135.6	135.6	135.6	135.6	135.6
Add back embedded non-coal deduction (\$m)	2.6	2.6	2.6	2.6	2.6	2.6
Add back QCA 'general' non-coal deduction (\$m)	1.0	1.0	1.0	1.0	1.0	1.0
Total Efficient Cost (\$m)	139.1	139.1	139,1	139.1	139.1	139.1
Implied non-coal allocation based on % revenue	1.88	2.23	1.97	2.10	2.19	2.05

The following table considers the allocation of Aurizon Network's adjusted Base Year expenditure of \$132.8 million to non-Coal activities under two scenarios (after adding back the non-coal adjustment that Aurizon Network has made in arriving at that adjusted Base Year expenditure):

- Scenario 1: allocation factor of 1.6% based on FY2025 non-coal revenue as a percentage of total below rail revenue;
- Scenario 2: allocation factor of 1.8% based on non-coal activities with reference to:
 - five-year average of non-coal gtk movements (1.2%); plus
 - unregulated revenue as a percentage of total below rail revenue for FY2025 (0.6%).

Table 8-46 FY2025 efficient cost allocation to non-coal based on two scenarios

	Scenario 1	Scenario 2
Total Below Rail Revenue (ex Electric Traction) (\$m)	1,363.5	1,363.5
Access charge revenue - Other (Non Coal) (\$m)	13.7	13.7
Recurring Non-Regulatory Revenue (\$m)	7.7	7.7
Total - Non coal Revenue (\$m)	21.4	21.4
Non-Coal Access / Total Below Rail (%)	1.0	1.2
Other Non Reg Revenue / Total Below Rail (%)	0.6	0.6
Total - Non coal Revenue/Total Below Rail Revenue (%)	1.6	1.8
FY2025 Adjusted Base (\$m)	132.8	132.8
Add Back - Proposed Non Coal Deduction (\$m)	2.1	2.1
Total Efficient Cost (\$m)	134.9	134.9
Total Implied Non Coal Allocation Based on % Revenue (\$m)	2.12	2.38

Aurizon Network submits that the functional allocation methodology remains an appropriate basis for determining an allocation of costs to non-coal services. Applying a non-coal allocation on a top-down revenue contribution basis, in addition to the proposed functional allocation, would:

- over-allocate costs to non-coal train services; and
- reduce transparency around the underlying cost drivers in respect of providing access to these services.

Summary

In its 2018 UT5 Final Decision, the QCA applied a functional allocation methodology to determine the cost allocation to non-coal train services. Aurizon Network has applied this same methodology when developing its NOEA proposal for the 2025 UT5 DAAU.

As shown in Table 8-4, Aurizon Network has deducted a non-coal allocation of \$2.09 million from its proposed Base Year expenditure. This is considered appropriate having regard to alternative top-down revenue-based approaches, as described above and summarised in Figure 8-12.

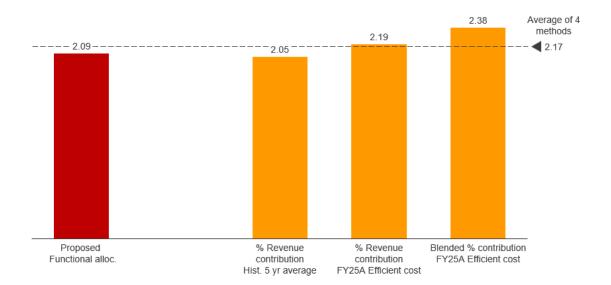


Figure 8-12 Functional allocation vs top-down revenue contribution methods

Aurizon Network notes the following comments from the QCA's 2018 UT5 Final Decision where it concluded that:

On balance the QCA considers that the allocations proposed, while they may in some cases recognise costs associated with providing access to the declared service for non-coal carrying trains, are likely to understate those non-coal costs when taken as an overall portion of operating costs.¹¹⁷

Aurizon Network contends that applying a further notional deduction in addition to the functional allocation risks overstating non-coal costs. This is evident in Table 8-45 above where the FY2021 implied non-coal allocation of \$1.88 million is significantly lower than the QCA's determined allocation of \$3.53 million (comprising \$2.58 million derived via the functional allocation plus the \$0.95 million top-down adjustment).

Aurizon Network highlights that determining the non-coal allocation based on a top-down revenue contribution can either under- or over-state costs. For example, as shown in Table 8-45 the implied non-coal allocation would have ranged from \$1.88 million to \$2.23 million, depending on the variability in total below rail revenue.

Accordingly, Aurizon Network maintains that top-down allocations should only be used as a potential cross-check against the non-coal allocation derived through functional allocation, rather than being used as an additional overlay or substitute methodology.

Non-coal traffic is highly price-sensitive due to competition from road transport. Ensuring an equitable cost allocation and competitive pricing is essential if rail is to remain a viable option for non-coal freight in Queensland. Aurizon Network has sought to improve transparency in respect of non-coal costs by:

-

¹¹⁷ Queensland Competition Authority (2018). p.191.

- retaining a functional allocation methodology, which better accounts for various operational factors relevant to non-coal traffic¹¹⁸ that cannot be achieved under a top-down methodology;
 and
- implementing improved processes in the asset management space, which provides greater transparency in respect of maintenance or capital expenditure incurred on Rail Infrastructure utilised by non-coal traffic. This provides greater accuracy in identifying and excluding non-coal costs from the annual maintenance and capital claims.

8.8 Treatment of other efficient costs

Aurizon Network's operating expenditure proposal excludes the recovery of the following efficient costs. This largely reflects the uncertainty in forecasting these costs prior to the commencement of the 2025 UT5 DAAU Term. While Aurizon Network will continue to bear some of this risk, in specified cases this will be addressed by appropriate mechanisms within the Access Undertaking.

Condition-based assessments

Aurizon Network's operating expenditure proposal excludes a forecast of costs to be incurred to carry out the condition-based assessments required in fulfilling Aurizon Network's obligations under the Access Undertaking. The requirement for a condition-based assessment has reduced since the introduction of the MRSB process whereby Customers are briefed on the condition of the asset on an annual basis and ultimately have a say on the strategy to manage the condition of the asset.

It is therefore proposed that the requirement to undertake any future external condition-based assessments is to be managed via an Endorsed Variation Event (Schedule F, clause 3.2). The last assessment was completed by Advisian Pty Ltd in 2017 under the 2016 Access Undertaking (UT4) at a cost of \$419,964.

As part of periodic reporting and engagement, Customers and supply chain stakeholders receive significantly more information than was previously supplied via a condition-based assessment. This information, coupled with real-time performance information, can be factored into a future condition-based assessment in line with the requirements contained within clause 10.4.3 and costs recoverable under clause 4.4 of Schedule F (Revenue Adjustment).

Continuous Improvement Group and Innovation Mechanism

The proposed policy arrangements for the CIG and Innovation Mechanisms are outlined in Chapter 13.

Aurizon Network's operating expenditure proposal excludes any costs related to the establishment of the CIG. Given the uncertainty as to the scope of the CIG and resourcing requirements, the outcome of the discussions with Customers is that the recovery of the associated costs will be managed through existing Access Undertaking mechanisms including Endorsed Variation Events and the Revenue Adjustment mechanism. This is discussed further in Chapter 13.

Digitisation and Interconnected Asset Management

Digitisation is rapidly transforming infrastructure and heavy industry, with automation, data analytics, IoT monitoring and digital asset systems increasingly used to improve safety, efficiency and lifecycle costs. Aurizon Network is progressing this transformation through initiatives such as integrating

¹¹⁸ Non-Coal train services are easier to schedule, operate at a much smaller scale than coal and, at this stage, do not require dedicated resources from an operating cost perspective.

condition monitoring technologies, developing data-driven maintenance and renewal models and optimising planning and scheduling.

Greater interconnection of data is already delivering value across operations, lifecycle planning and scheduling, while also strengthening resilience to physical climate risks through more proactive asset management. However, the pace of digital advancement, including digital twins, artificial intelligence, automation and machine learning, may introduce emerging costs not contemplated within this submission, beyond the steady state incremental improvements funded under the proposed operating expenditure allowance. Aurizon Network is therefore bearing the risk associated with these additional costs, which will need to be managed within its existing budget.

Contingent Projects

In order for Aurizon Network to ensure continued performance of the Rail Infrastructure over the 2025 UT5 DAAU Term and recover its prudent and efficient costs, based on the outcomes of the engagement, a Contingent Project mechanism is being proposed. Aurizon Network will be able to recover its costs for these Contingent Projects where they are approved by the QCA.

What is a Contingent Project

A Contingent Project is one that:

- involves timing uncertainty and/or has impacts that cannot be reasonably forecast when setting the NOEA;
- is allocated to Aurizon Network as Corporate Overhead in accordance with the 2025 Costing Manual;
- is limited to Technical Services and Planning (namely real estate, technology and inbound supply and procurement activities); and
- includes, but is not limited to, the following initiatives:
 - SAP ERP replacement, incorporating: Core S/4 HANA migration; HR Payroll; and procurement (Ariba or similar);
 - identity management, involving the implementation of Cloud-based Identity Access Management in alignment with obligations (and any future amendments) under the Security of Critical Infrastructure Act 2018 (the SOCI Act);
 - OT, involving the security layer between Enterprise IT and OT systems in alignment with obligations (and any future amendments) under the SOCI Act;
 - operational facilities, involving costs associated with new or upgraded operational
 facilities such as the NCC, Network Disaster Recovery Sites, Maintenance Depots and
 Workshops, Track Access and Interface Facilities. This will include achieving fit-forpurpose facilities and/or to improve the safety, reliability and/or the operation of these
 facilities.

Costs associated with a Contingent Project will be incremental to the Corporate Overheads category of the NOEA. Where the QCA approves the recovery of costs associated with a Contingent Project, Aurizon Network will be entitled to recover these costs through an adjustment to the NOEA for the relevant Year and any subsequent Year (as relevant).

As discussed with the Customers, Aurizon Network has provided a guide as to the nature of the Contingent Projects that it expects may be undertaken during the 2025 UT5 DAAU Term in Table 8-47. To be clear, none of these costs have been included in Aurizon Network's forecast NOEA.

Table 8-47 Contingent projects: current expected activities and indicative costs

Contingent Projects	Insights	Indicative incremental cost (per annum)
SAP ERP Replacement Status: Pre- Feasibility	 Standard support for SAP ECC will cease from December 2027. Extended support (with a fee) is available until December 2030 An unsupported and obsolete ERP will rapidly limit 	\$0.5m - \$2m
	Aurizon's ability to manage system stability and maintenance, regulatory compliance, cyber security risks and innovation	
	 ERP Replacement initiative is a single program of work with three (3) key elements: i) Core S/4HANA migration; ii) HR/Payroll; iii) Procurement (Ariba). 	
	 Project Delivery – 4-5years 	
	 Indicative Enterprise Cost \$90m [+/-25%] 	
Identity Management Status: Concept	 Microsoft Identity Manager (MIM) coming to end of life, transitioning to a Cloud-based IAM platform. The solution improves identity governance across controls and regulatory compliance across IT and OT environments 	\$0.1m - \$0.6m
Operational Technology Status: Concept	 Introduces security segmentation between OT levels, enhances industrial control system (ICS) security. Ensures regulatory compliance, improves threat monitoring and integrates with IT security function. 	\$1.0m - \$2.0m
Operational facilities	 Incremental operational facilities that may be required to support the delivery of below rail services 	\$0.1 - \$3.0m
	 Disaster Recovery Sites — There may be a requirement from an operational or legislative perspective (critical infrastructure act) to implement a secondary disaster recovery site 	
	 Maintenance Depots and Workshops – Notably Gracemere redevelopment and Yukan redevelopment 	
	 Track Access and Interface Facilities — Notably trackside hut (physical security & CCTV enhancements) and bathroom amenities within the rail corridor. 	
	 NCC technology enhancement/evolution resulting in operational investment 	

Governance and cost recovery

Governance and approval of Contingent Projects is via the Aurizon Investment Committee as they are Enterprise-delivered programs. This Investment Committee approach is consistent with the way in which other capital and maintenance expenditure is approved by Aurizon, including capital and maintenance expenditure that is subject to review by the QCA.

Given the timing and cost of these projects is currently uncertain, the recovery of costs will be sought via an Endorsed Variation Event. Approved Contingent Project costs will be treated as incremental to the NOEA.

8.9 Summary: Non-Electric Operating Allowance proposal

Proposed allowance

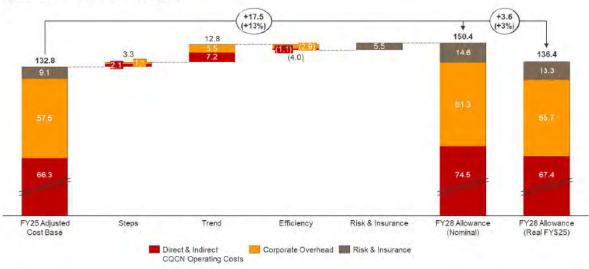
Aurizon Network is proposing a NOEA of \$794.5 million in nominal terms or \$674.4 million in FY2025 real terms over the First Reset Period. This represents a \$10.2 million or 1.5% increase in real terms to adjusted Base Year expenditure in total over the First Reset Period, which is predominantly driven by forecast insurance costs (as determined by the independent actuarial assessment).

Table 8-48 Proposed NOEA (\$m, nominal)

Opex Allowance Summary	FY2028	FY2029	FY2030	FY2031	FY2032
Adjusted Base Year (Real FY25\$)	132.8	132.8	132.8	132.8	132.8
Steps (Real FY25\$)	3.3	1.8	1.8	2.1	2.1
Trend	12.8	17.2	22.2	27.1	31.8
Efficiency	(4.0)	(4.4)	(4.8)	(5.3)	(5.7)
Insurance Step (Nominal)	5.5	6.0	6.5	7.0	7.5
Total Nominal	150.4	153.5	158.5	163.7	168.5

Figure 8-13 highlights the increase in FY2028 expenditure compared to the adjusted Base Year, which is \$3.6 million or 3% in real terms. Notably, the forecast step changes are more than offset by efficiency savings.

Figure 8-13 NOEA waterfall (\$m)



As shown in Figure 8-14, the proposed FY28 allowance in (FY2025 real terms) of \$136.4 million represents a 15% reduction (in total) and a 3% year-on-year reduction against the allowance set for the 2019 UT5 DAAU.

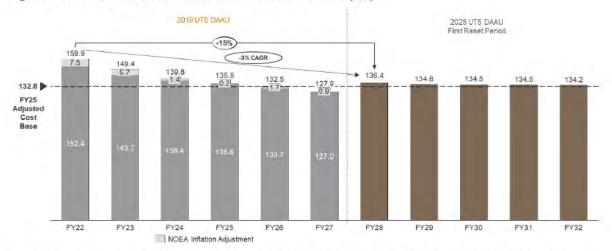


Figure 8-14 NOEA - 2019 UT5 DAAU and First Reset Period (\$m)

It is also evident that the forecast NOEA remains relatively flat over the First Reset Period. This highlights the journey from the 2019 UT5 Final Decision and the value derived for the customer via the commercially negotiated high-powered incentive mechanism contained in the 2019 UT5 DAAU. This has resulted in a balanced forecast proposal for the 2025 UT5 DAAU, which includes efficiencies reflecting the outcomes of Aurizon Network's engagement with the Customers.

Proposed allowance by category

Direct and Indirect CQCN Operating Costs

Aurizon Network's submission proposes an allowance for Direct and Indirect CQCN Operating Costs of \$390.5 million in nominal terms or \$328.7 million in FY2025 real terms over the First Reset Period. In total, this is a reduction of \$2.7 million or 1% in FY2025 real terms to the adjusted Base Year over the First Reset Period.

Table 8-49 Direct and Indirect CQCN Operating Cost forecast (\$m, nominal)

Direct and Indirect CQCN Operating Costs	FY2028	FY2029	FY2030	FY2031	FY2032
Base (Real FY25\$)	69.0	69.0	69.0	69.0	69.0
Adjustments					
Regulatory Submission	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)
Non-Coal Allocation	(2.1)	(2.1)	(2.1)	(2.1)	(2.1)
Total Adjustments	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)
Adjusted Base (Real FY25\$)	66.3	66.3	66.3	66.3	66.3
Steps					
Daily Rolling Plan	1.5		<u> </u>		_
OT - Cyber Specialists	0.7	0.7	0.7	0.7	0.7
Mid Term Reset	-		/4	0.3	0.3
Regulatory Reset	-		, 	ļ -	4
Total Steps (Real FY25\$)	2.1	0.7	0.7	0.9	0.9
Adjusted Base + Steps	68.4	67.0	67.0	67.2	67.2
Trend (Weighted Index)	7.2	9.8	12.7	15.5	18.3

Direct and Indirect CQCN Operating Costs	FY2028	FY2029	FY2030	FY2031	FY2032
Efficiency Factor (0.5%)	(1.1)	(1.5)	(1.9)	(2.4)	(2.8)
Total Nominal	74.5	75.2	77.7	80.4	82.6

Aurizon Network's step changes in the Direct and Indirect CQCN Operating Cost categories are limited to:

- the recovery of the Daily Rolling Plan licence costs incurred in the preceding regulatory period, which was endorsed by customers;
- the forecast appointment of OT Cyber Specialists in accordance with the cyber security multiyear program outlined with customers; and
- costs expected to be incurred as part of QCA reviews (being the mid-period and end of period resets).

The trend factor includes an efficiency factor of 50 basis points per annum, effective from FY2026, embedding cost reductions ahead of the commencement of the 2025 UT5 DAAU Term.

Corporate Overheads

Aurizon Network's submission proposes a Corporate Overhead allowance of \$326.2 million in nominal terms or \$278.7 million in FY2025 real terms over the First Reset Period. In total, this is a reduction of \$9.1 million or 3.0% to the adjusted Base Year over the First Reset Period.

Table 8-50 Corporate Overheads cost forecast (\$m, nominal)

Corporate Overhead	FY2028	FY2029	FY2030	FY2031	FY2032
Base (Real FY25\$)	57.5	57.5	57.5	57.5	57.5
Steps					
Network Control Centre	1.1	1.1	1.1	1.1	1.1
Total Steps (Real FY25\$)	1.1	1.1	1.1	1.1	1.1
Base + Steps	58.6	58.6	58.6	58.6	58.6
Trend (Weighted Index)	5.5	7.4	9.5	11.5	13.5
2025 Corporate Cost Review	(2.9)	(2.9)	(2.9)	(2.9)	(2.9)
Total Nominal	61.3	63.2	65.2	67.3	69.3

Aurizon Network's step changes within the Corporate Overheads category are limited to the capital refurbishment of the NCC that was completed in FY2026 and driven by workplace safety and ergonomic risks, workforce retention and engagement and technology and interface limitations.

A fixed efficiency saving \$2.9 million has been determined as a result of Aurizon's 2025 Corporate Cost review and applied as a negative step change. This proposed efficiency saving exceeds the minimum target of \$2.0 million committed to by Aurizon Network.

Risk and Insurance

Aurizon Network's submission proposes a Risk and Insurance allowance of \$77.9 million in nominal terms and \$67.0 million in FY2025 real terms over the First Reset Period. In total, this is an increase

of \$21.7 million or 47% in FY2025 real terms to the adjusted Base Year over the First Reset Period. This is mainly driven by increases in external insurance costs.

Table 8-51 Risk and Insurance cost forecast (\$m, nominal)

Risk and Insurance	FY2028	FY2029	FY2030	FY2031	FY2032
Non-Electric					
External Insurance	3.2	3.2	3.2	3.2	3.2
Self Insurance	5.8	5.8	5.8	5.8	5.8
Total Base	9.1	9.1	9.1	9.1	9.1
Steps					
External Insurance	4.5	4.7	5.0	5.2	5.5
Self Insurance	1.0	1.3	1.5	1.8	2.0
Total Steps	5.5	6.0	6.5	7.0	7.5
Base + Steps					
External Insurance	7.7	8.0	8.2	8.5	8.7
Self Insurance	6.8	7.1	7.4	7.6	7.9
Total Non-Electric	14.6	15.1	15.6	16.1	16.6
Electric					
External Insurance	0.7	0.7	0.7	0.7	0.8
Total Electric	0.7	0.7	0.7	0.7	0.8

Acknowledging the substantial increase, Aurizon Network notes that its current Risk and Insurance allowance of \$9.1 million per annum has been fixed since FY2021, where that allowance was originally based upon independent expert forecasts commissioned in 2016. Aurizon Network's forecast Risk and Insurance costs for the 2025 UT5 DAAU are based on updated independent expert forecasts by Marsh (external insurance) and Finity (self-insurance).



9. Part 2 - Term of Undertaking

Background

Engagement Methods Used

Engagement Outcome



RWG - Representative Panel



Agreed with Customers

To provide all CQCN stakeholders and Aurizon investors with greater regulatory certainty, Aurizon Network and the Customers that support the 2025 UT5 DAAU propose to extend the Term of the 2017 Access Undertaking for a further ten years. As this 2025 UT5 DAAU seeks an extension of the term of the existing approved 2017 Access Undertaking, the new Term will commence on 1 July 2027 and end on 30 June 2037, unless terminated earlier in accordance with the Act.

The extension to the current 2017 Access Undertaking was a key component of the overall negotiation package that was developed following extensive and broad consultation with a significant number of End Users, Railway Operators and other supply chain stakeholders. The ten-year extension helps to facilitate a range of objectives including balancing regulatory certainty against the uncertainty of future events by:

- the certainty that will be provided to all Customers and Railway Operators through a negotiated outcome that promotes confidence in the regulatory framework and those supporting commitments made by Aurizon Network;
- the greater financial certainty that a ten-year term will provide, enabling efficient investment in the Rail Infrastructure;
- Aurizon Network's ability to manage future risks through defined change event processes that
 provide an opportunity for Aurizon Network to recover its invested capital along with operating
 costs;
- inclusion of mid-period reset mechanisms to update key financial inputs for changes in the financial and operating environment for Aurizon Network;
- the ability to amend the approved Access Undertaking in response to material and unforeseen change in circumstances;
- an ongoing regulatory framework for the full Term for both Aurizon Network and the supply chain to continuously identify and where appropriate implement improvement opportunities to provide real benefits to CQCN stakeholders; retaining the ability for End Users to propose amendments to the approved Access Undertaking through an End User DAAU; and
- the QCA having the ability under the Act to require amendments to the Access Undertaking to ensure it remains consistent with the Act.

10. Part 6A - Extension of Schedule F Values

10.1 Reset of Schedule F inputs

Engagement Methods Used Engagement Outcome Agreed with Customers Industry advocates

Background

As the 2025 UT5 DAAU is expected to be approved prior to its effective extension commencing date of 1 July 2027, a number of the inputs required to determine Allowable Revenues and Reference Tariffs for this submission will be based on forecasts, rather than final known values. The proposed ten-year Term of the 2025 UT5 DAAU also provides some challenges in this regard, as it is generally accepted that long-term forecasts are less accurate than short-term forecasts.

To promote the pricing principles contained in section 168A of the Act, the 2025 UT5 DAAU makes provision for the resetting of specified inputs in respect of two defined periods, namely the:

- First Reset Period: relating to the five-year period commencing 1 July 2027 and ending on 30 June 2032; and
- Second Reset Period: relating to the five-year period commencing 1 July 2032 and ending on 30 June 2037.

Each reset provides an opportunity for Aurizon Network to provide updated information in respect of those specified inputs with a view to minimising the differential between forecast and actual outcomes, ultimately providing pricing certainty to customers.

Aurizon Network's proposal

A reset of financial inputs for a 'new' regulatory period would typically be considered upon submission of a DAU, with relevant updated financial inputs being provided for the first year of the new term. Given the 2025 UT5 DAAU represents the amendment and extension of the term of the existing 2017 Access Undertaking, a distinction is required between the:

- remaining term of the 2017 Access Undertaking, which is in effect until 30 June 2027; and
- commencement of the 2025 UT5 DAAU Term, i.e., from 1 July 2027.

To give effect to this, Aurizon Network has defined:

- a First Reset Date as being 1 July 2027 the commencement date in respect of the first regulatory pricing period for the 2025 UT5 DAAU; and
- a Second Reset Date as being 1 July 2032 in respect of the second regulatory pricing period for the 2025 UT5 DAAU.

As noted above, the Allowable Revenues and Reference Tariffs outlined within Schedule F of the 2025 UT5 DAAU will be based on a number of forecast financial inputs. At various points during the Term, Aurizon Network will provide updated information to the QCA to allow for adjustments to those

Allowable Revenues and Reference Tariffs. This includes the existing process where Aurizon Network will provide the QCA with updated Allowable Revenue inputs and Gtk Forecasts on 28 February of each Year as part of the annual review of Reference Tariffs outlined in Schedule F, clause 4.1. The 2025 UT5 DAAU makes provision for a discrete extension of the scope of the review of Reference Tariffs for FY2028 and FY2033, to give effect to the above resets.

Part 6A of the 2025 UT5 DAAU expressly outlines the additional matters that will be applied in adjusting Schedule F for the period commencing on the First Reset Date and again on the Second Reset Date. The data to be provided by Aurizon Network to the QCA includes the following.

For the First Reset Date:

- the nominated DRP Averaging Period;
- the indicative Reset Risk Free Rate:
- the indicative Reset Inflation Rate;
- the forecast RAB values for each remaining year of the Term including the forecast opening asset value as at 1 July 2027 (noting that an update to this opening asset value, and all subsequent forecast RAB values, will constitute an Endorsed Variation Event upon QCA approval of the FY2027 RAB Roll-forward);
- the Reset Risk Free Rate Averaging Period, which will be provided at least 28 calendar days prior to the commencement date of the nominated averaging period for the First Reset Date;
- any changes to the AT₃ and AT₄ components of applicable Reference Tariffs arising from application of the Alternative ToP Tariff;
- the depreciation component of Allowable Revenue which will reflect a reset of the rolling 20year asset life from the First Reset Date for all assets that:
 - were included in the forecast RAB as at 30 June 2027; and
 - will have a remaining asset life in the forecast RAB greater than 20 years as at the First Reset Date; and
- all consequential amendments and computations to Allowable Revenues and Reference Tariffs to give full effect to the above matters.

For the Second Reset Date:

- the nominated DRP Averaging Period;
- the indicative Reset Risk Free Rate;
- the indicative Reset Inflation Rate;
- the forecast RAB values for each remaining year of the Term including the forecast opening asset value as at 1 July 2032 (noting that an update to this opening asset value, and all subsequent forecast RAB values, will constitute an Endorsed Variation Event upon QCA approval of the FY2032 RAB Roll-forward);
- the forecast Indirect Maintenance Cost Allowance for each Year in the Second Reset Period;
- the depreciation component of Allowable Revenue that will reflect a reset of the rolling 20-year asset life from the Second Reset Date for all assets that were included in the RAB as at 30 June 2027 and have an asset life greater than 20 years at the Second Reset Date;
- the Reset Risk Free Rate Averaging Period, which will be provided at least 28 calendar days prior to the commencement date of the nominated averaging period for the Second Reset Date; and
- all consequential amendments and computations to Allowable Revenues and Reference Tariffs to give full effect to the above matters.

Aurizon Network considers that incorporating these two discrete reset processes within the existing annual review of Reference Tariffs process provides for an effective, well understood mechanism, enabling stakeholder submissions and QCA reviews, through which to give effect to each reset.

It also allows for the reset processes to be considered concurrently with all other 'business as usual' matters that are typically considered through the annual review of Reference Tariff process (for example, updates to the maintenance and capital indicators to reflect the outcomes of the retained MRSB process). Aurizon Network's intent is to have a single, consolidated process through which to establish updated Allowable Revenues and Reference Tariffs in advance of each Year.

To give effect to the First and Second Reset processes the following amendments have been made to the 2025 UT5 DAAU:

- amendments to Part 6A to allow for updates in respect of the First Reset Period and Second Reset Period and to remove redundant drafting;
- amendments to clause 4.1 of Schedule F to allow:
 - Aurizon Network to include the matters outlined in Part 6A as part of the annual review of Reference Tariffs for each of the Years commencing 1 July 2027 and 1 July 2032; and
 - the provision of updates (by 30 April of each Year) to a defined list¹¹⁹ of Allowable Revenue inputs that were not known prior to Aurizon Network's annual review of Reference Tariff submission that must be made by 28 February in that Year. This includes a further update (by 30 April 2027 and 30 April 2032 respectively) for the Reset Risk Free Rate and Reset Inflation Rate.

Given the level of details and the complexities within these processes, for ease of understanding Aurizon Network has provide this diagrammatically within Appendix 2.

Stakeholder engagement

A reset of financial inputs effective from 1 July 2027 (i.e., commencement of the 2025 UT5 DAAU and First Reset Date) and 1 July 2032 (i.e., the Second Reset Date) is part of the package negotiated between Aurizon Network and the Customers. The processes and individual items required at both the First and Second Reset Period were discussed in detailed with customers, with the Access Undertaking drafting taking considerable time to draft and understand by stakeholders.

10.2 Change events

Engag	gement Methods Used	Engaç	gement Outcome
Q	RWG Representative Panel	420	Agreed with Stakeholders
	Industry Advocates		
o ^o	Technical Working Groups		
ķi	Individual customer engagment		

In addition to the matters to be considered in respect of the Second Reset Period, the 2025 UT5 DAAU provides an opportunity for Aurizon Network to make submissions to the QCA in circumstances

¹¹⁹ Inputs include Transmission Network Service Provider costs, IE Pass Through Costs and the value of the electric energy (EC) costs.

where a defined trigger event occurs prior to the Second Reset Date. The following events formed part of the package of positions negotiated with the Customers:

- Mid-Term review of the Non-Electric Operating Expenditure Allowance (refer Chapter 8);
- Economic Life Change Event (refer Chapter 7);
- Cost of Debt Methodology Change Event (refer Chapter 5); and
- Moura Economic Life Review (refer Chapter 7).

The outcomes of those change events may impact Allowable Revenues and Reference Tariffs for the Second Reset Period.

Part 6A of the 2025 UT5 DAAU specifies the process that Aurizon Network must follow in relation to each change event, which may include:

- consultation with relevant parties;
- appointment of an independent and appropriately qualified expert (in the case of a Cost of Debt Methodology Change Event);
- timeframes for any submission to be made by Aurizon Network to the QCA; and
- the matters that should be addressed in that submission.

Aurizon Network will seek to reflect the outcomes of any QCA decision in respect of a change event on a forward-looking basis. Aurizon Network has made provision for this within the proposed changes to the annual review of Reference Tariff process¹²⁰ for FY2033.

In circumstances where the outcomes of the QCA decision cannot be reflected in the annual review of Reference Tariff process, these outcomes will constitute an Endorsed Variation Event for the purpose of Part 5 of Schedule F of the 2025 UT5 DAAU.

¹²⁰ Clause 4.1(c) of Schedule F

11. Part 7 - Available Capacity

11.1 Renewals (rolling Access Agreements)

Engagement Methods Used	Engagement Outcome	
RWG - Representative Panel	Agreed with Customers	
Stakeholder forums		
Industry advocates		
Operator engagment		
Independent Expert participation		

Background

The current Access Agreement framework and the Renewal process within the 2017 Access Undertaking are closely interrelated:

- an Access Holder's right to renew its Access Agreement is negotiated in accordance with the relevant Access Undertaking provisions, including in Parts 4, 5 and 7;
- clause 7.3 in Part 7 of the 2017 Access Undertaking currently sets out an established Renewal
 process that is applicable for Access Holders wishing to exercise their right to renew Access
 Rights in accordance with their relevant Access Agreements (Renewal Provisions).

Aurizon Network currently manages Access Agreements that have been executed throughout several Access Undertaking periods.

For the purposes of a Renewal, an Access Holder, or a person nominated by the Access Holder's Customer, is referred to as the Renewing Access Seeker. A fundamental component of the Renewal provisions is that Aurizon Network is obligated to provide a Renewing Access Seeker with priority when granting Access Rights, subject to the Access Holder's adherence to the relevant requirements set out within clause 7.3 of the 2017 Access Undertaking. 121 This obligation to give priority to a Renewing Access Seeker remains unchanged for coal carrying and non-coal carrying Access Rights that are subject to Renewal pursuant to clause 7.3 of the 2025 UT5 DAAU.

Current Access Agreement framework

Aurizon Network's Access Agreements for coal carrying Train Services are contracted on a fixed-term basis (which period must be the lesser of ten years or the remaining life of the relevant mine), meaning that the Access Agreement commences on the Commencement Date and continues until the last Train Service Expiry Date, unless terminated earlier in accordance with the terms of the Access Agreement. The Renewal Provisions specify minimum fixed-term requirements for Access

Aurizon Network

¹²¹ Clause 7.1

Agreements for coal carrying services that must be met for Renewing Access Seekers to renew their Access Rights.

Current UT5 Renewal process

The fundamental principles of the current Renewal Provisions include that:

- the onus is on the Renewing Access Seeker to notify Aurizon Network of its intention to renew Access Rights within a defined timeframe prior to expiry;
- subject to the provisions in Part 7, the negotiations for a Renewal are subject to the provisions of Part 4 (Negotiation Framework) and Part 5 (Access Agreements) of the Access Undertaking;
- for coal carrying services, the Renewal term must be the lesser of ten years or the remaining life of the relevant mine, as evidenced to Aurizon Network's reasonable satisfaction by the Renewing Access Seeker; and
- Access Rights that are not renewed may become available for contracting by Access Seekers.

Pursuant to Part 7 of the 2017 Access Undertaking, in most circumstances Aurizon Network is obligated to give priority to a Renewing Access Seeker over an Access Seeker when granting Access Rights. 122

Stakeholder engagement

During the 2025 UT5 DAAU stakeholder engagement, Customers expressed interest in moving to a five-year rolling Access Agreement framework to better align with their rail access planning requirements.

Aurizon Network initially agreed with the concept of the rolling Access Agreement given it would provide ongoing certainty to both Aurizon Network and the Access Seeker, although further investigation of the term of the rolling agreement was needed. Ultimately, the outcome of Aurizon Network's discussions with the RWG is the concept of a five-year rolling Access Agreement framework.

Aurizon Network's proposal

Following on from its stakeholder engagement and consistent with the outcomes of its discussions, Aurizon Network has designed a new annual Renewals process for coal carrying services, with a focus on ensuring that the relevant fundamental principles of the Renewal Provisions in the 2017 Access Undertaking are retained. In addition to responding to customer feedback, the transition to a rolling, annual Renewals framework provides an opportunity to optimise contracting arrangements and promotes the efficient utilisation of the Network by providing increased visibility of Available Capacity.

Consistent with the object of Part 5 of the Act, being "to promote economically efficient operation of, use of and investment in, significant infrastructure by which services are provided", the proposed amendments to Part 7 of the 2025 UT5 DAAU are intended to achieve the following.

- Better inform the MRSB: Investments in Rail Infrastructure maintenance and renewal can be
 planned with a higher level of confidence due to better information about Access Holders'
 contractual commitments within the critical five-year planning window.
- Assist with capacity management: Annual updates about Access Holders' contractual commitments will improve Aurizon Network's ability to manage Capacity, which could help in

¹²² Clause 7.1(a)(iii)

improving the allocation of Capacity to those who need it, potentially leading to greater asset utilisation and fewer Expansions.

 Smooth contract profiles: This will assist in eliminating 'contract cliffs' where multiple fixed term Access Agreements are due for expiry in close succession.

The Renewal process will remain unchanged for non-coal Renewing Access Seekers, given they are subject to different contracting requirements than coal carrying train services and are provided a greater degree of flexibility in the duration of their access agreements.¹²³

Proposed 2025 UT5 DAAU amendments

From the Extension Commencing Date of the 2025 UT5 DAAU, Aurizon Network will implement and apply the proposed Renewal process for all coal carrying Renewing Access Seekers. Aurizon Network has incorporated relevant amendments to the Access Agreements and Train Operations Deeds to accommodate the new framework.

Based on its engagement, Aurizon Network proposes the following amendments to the Renewals process.

- The minimum term for a Rolling Access Agreement is five years 124, which can be renewed annually for a further 12 months from the expiry date of the Access Rights subject to the Renewal. There will be revised mine life provisions that will inform the term of the Access Agreement, including a one-time right to re-instate a rolling term where an Access Holder had previously notified Aurizon Network that its Rolling Access Agreement would not be renewed (due to the end of mine life). This provision is included at the request of Customers, who advised that precise mine life forecasts can be uncertain and the ability to review their forecasts closer to the end of mine life will support the efficient contracting outcomes. Aurizon Network considers this appropriate as it does not disadvantage Access Seekers, noting the notice periods required to be complied with.
- The Access Holder must provide a Rolling Renewal Notice within the specified timeframes once every 12 months, with Aurizon Network to provide a reminder notice no earlier than nine months, and no later than six months, prior to each anniversary date.
- In the instance where an Access Holder has not Renewed Access Rights in accordance with the relevant mine life provisions, and has not exercised the one-off right to re-instate its rolling term due to mine life extension 36 months prior to the expiry of those Access Rights, the nonrenewed Access Rights become Available Capacity.

Aurizon Network and the Customers have also negotiated appropriate transitional arrangements to support the implementation of the proposed Renewal process for coal carrying services. From the Extension Commencing Date of the 2025 UT5 DAAU, the following transitional arrangements are proposed to apply to Access Holders and Access Seekers:

- all Renewals for coal carrying services will be negotiated in accordance with the relevant provisions within Part 7 of the 2025 UT5 DAAU; and
- if an Access Holder has less than five years remaining on the Term of its Access Agreement for coal carrying services, an Access Holder may opt to transfer its existing Access Rights to a rolling five-year Access Agreement.

¹²³ Clause 7.3.2

¹²⁴ An Access Agreement can be for less than 5 years if the remaining life of the mine is less than 5 years from the commencement date of the Access Agreement

11.2 Transfers

Engagement Methods Used	t Methods Used Engagement Outcome	
RWG - Representative Panel	Agreed with Customers	
Stakeholder forums		
Industry advocates		
Technical working group		
Operator engagment		
Independent Expert participation		

Background

Part 7 of the 2017 Access Undertaking sets out a framework that allows for Access Holders to Transfer contracted Access Rights between parties. These provisions are fundamentally designed to align with section 106 of the Act (which provides for the transfer of Access Rights under an Access Agreement). Aurizon Network acknowledges the integral role it has in facilitating Transfers, which play a key role in increasing asset utilisation by way of efficient Capacity management. Since the commencement of the 2017 Access Undertaking, the Transfer process has become embedded into ongoing Capacity management practices.

As shown in Figure 11-1, Aurizon Network has experienced a steady increase in the number of Transfer Notices received, as well as a proportionate increase in the number of Transfers that have been effected in accordance with the 2017 Access Undertaking. 125

-

¹²⁵ The 'number of Transfer Notices received in accordance with the Access Undertaking' and the 'number of Transfers effected in accordance with the Undertaking' are all metrics that Aurizon Network is obligated to include in the annual compliance report pursuant to clause 10.5 of the 2017 Access Undertaking.

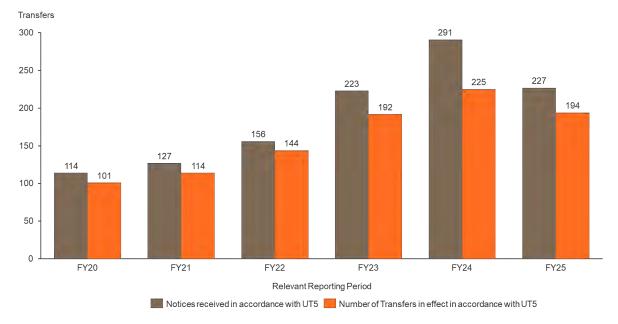


Figure 11-1 Number of Transfer Notices received, and number of Transfers effected

There have been several drivers of the changes in the number of Transfer Notices received by Aurizon Network, which include the introduction of planning and scheduling optimisation initiatives such as the Daily Rolling Plan. The introduction of such initiatives has naturally driven a more agile approach to the management of Access Rights. Short Term Transfers make up approximately 90% to 95% of all Transfer Notices received. For this reason, the time horizon for the Transfer process is the focus of the changes when proposing amendments to the Part 7 Transfer provisions.

Stakeholder engagement

Noting the steady increase in the number of Short Term Transfers as shown in Figure 11-1, Transfers were discussed early on as part of the stakeholder engagement. Customers sought improved transparency, greater certainty, and more flexibility in dealing with the transfer of their Access Rights, particularly with the process for Short Term Transfers.

Aurizon Network has conducted extensive consultation in developing amendments to the Short Term Transfer framework and associated processes that are designed to address these concerns. Additionally, Aurizon Network had a comprehensive engagement with Railway Operators and the Independent Expert to ensure that the proposed Short Term Transfer framework amendments addressed broader stakeholder feedback. Aurizon Network implemented several engagement methods on this matter, such as working group consultation, interactive workshops and one-on-one discussions.

Aurizon Network's proposal

To address Customers' feedback, Aurizon Network proposes amendments to Part 7 of the 2025 UT5 DAAU, including a new Streamlined Transfer Capacity Assessment process for Short Term Transfers that meet specified criteria. These amendments have been discussed with the Customers.

The proposed 2025 UT5 DAAU amendments seek to improve transparency, give greater levels of certainty and provide customers with more flexibility in managing their Access Rights. A key change is the introduction of a Streamlined Transfer Capacity Assessment, which will shorten the turnaround time to approve simple and common Short Term Transfer requests. The Streamlined Transfer Capacity Assessment will apply to a Transfer Notice that meets the following criteria:

- is for a period of up to three months;
- is for commencement within three months;
- where the route for the Transferred Access Rights (excluding mine-specific spur lines and balloon loops) uses the same Rail Infrastructure, or a portion thereof, as the Nominated Access Rights;
- where the Nominated Access Rights are proposed to be transferred to a haul that will be the same or shorter in distance from the junction of the relevant mine-specific spur line or balloon loop to the respective Port Precinct if the Transfer is approved;
- unloads at the same Port Precinct;
- is from a longer to a shorter haul; and
- has an approved Operating Plan in place prior to submission.

Based on the above amendments, Table 11-1 further sets out a comparison of the Transfer criteria for Streamlined Short Term, Short Term and Long Term Transfers.

Table 11-1 Summary of Transfer requirements

Category	Streamlined	Short Term	Long Term
Notice Submission	At least 4 BD prior to close of Train Orders	At least 7 BD prior to close of Train Orders	At Least 25 BD prior to Train Orders
Turnaround Target Time	4 BD from submission	7 BD from submission	As per Part 4 Access process
Haul (Distance in KMs)	Must be longer to shorter	No Restriction	No Restriction
Route	Must use same Rail Infrastructure	No Restriction	No Restriction
Mainline Path	Must be same	Must be same	Must be same
Port Precinct	Must be same ¹	Must be same	Must be same
Operating Plan	Included in most recent ACAR	No change to 2017 Access Undertaking	No change to 2017 Access Undertaking
Renewal Rights	Must not trigger during Transfer term	No restriction	No restriction
Duration	0–3 months	0–24 months	>24 months
Start Date	Within 3 months of approval	No Restriction	Aligned with expiry of IAP (Part 4)
Type of Assessment	Streamlined Transfer Capacity Assessment	Transfer Capacity Assessment	Transfer Capacity Assessment
Assessment Approach	Based on most recent ACAR or revision. Considers up to date information on load point, train loadout, track and port availability, no separate CQCN simulation model required.	Based on the most recent ACAR or revision, and requires the use of CQCN simulation model.	Based on the most recent ACAR or revision, and requires the use of CQCN simulation model.
IE Assessment Timeframes	2 Business Days	5 Business Days	Not specified – Part 4 applicable
Transfer Fee	Not applicable	Not applicable	As per current Transfer Fee process

Category	Streamlined	Short Term	Long Term
Supply Chain Rights	No change	No change	No change

1 For the purpose of Transfers, Stanwell Power Station will be treated as being included in paragraph (c) of the definition of "Port Precinct" (Port of Gladstone)

The proposed amendments reflect further process and administrative efficiencies, including the removal of the requirement for Aurizon Network to issue a Replacement Schedule to a Railway Operator as part of the Transfer process. ¹²⁶ Aurizon Network has also conducted a review of Part 7 to identify redundant drafting and concepts that improve process clarity and certainty for customers about how their Transfer request will be assessed. The result of this review includes the removal of the concept of Mutually Exclusive Access Applications from the Transfer provisions.

Further, the proposed amendments have introduced turnaround timeframes for Streamlined Short Term Transfer and Short Term Transfer processes that further provide certainty for Aurizon Network and customers.

11.3 Take or Pay

RWG - Representative Panel RWG - Representative Panel Stakeholder forums Industry advocates Coperator engagment Independent Expert participation Engagement Outcome Agreed in principle. Some Customers may make submission on the take or pay amendments with outcomes determined through QCA review process. Operator engagment Independent Expert participation

Background

As an Access Agreement provides an Access Holder with an exclusive right to use a Train Path, that right is generally subject to a ToP liability if it is not utilised. This concept is widely adopted in various infrastructure sectors where capacity rights of use are sold.

The ToP arrangements prevailing in the CQCN differ substantially from those typically applied by other coal port and rail export infrastructure providers in that prices are established based on forecast demand rather than contracted capacities. In practice, where the annual demand forecast is an unbiased estimate then the expected outcome is that ToP will not be payable within a Year. Where the demand forecast has overestimated utilisation, the ToP arrangements operate as a make-whole

¹²⁶ There may still be circumstances where Aurizon Network is required to issue a Replacement Schedule or variation to a Train Operation Deed as part of the Transfer Process.

mechanism to collect only those amounts necessary to recover the Allowable Revenue for the relevant Year.

This approach to ToP socialises volume risk across the contracted demand profile within a Coal System. For example, while the System Reference Tariff is based on an aggregate forecast as a percentage of total contracted volumes, some users will utilise more than that percentage of their contracted volumes and other users will use less than that percentage of their contracted volumes. As shown in Figure 11-2, this can be observed in the contract utilisation percentages for each origin to destination combination in the CQCN in FY2025 against a benchmark level of 83%.

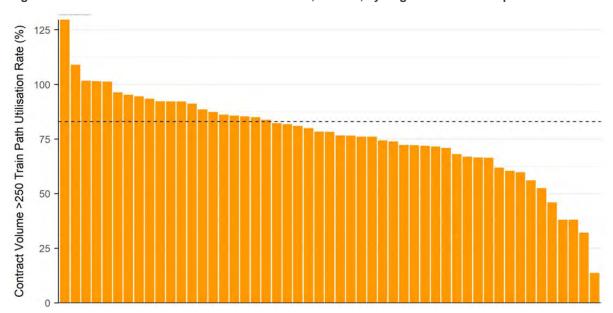


Figure 11-2 Contracted Train Service utilisation rates, FY2025, by origin to destination pairs

This model substantially reduces an Access Holder's exposure to its ToP liabilities through the System capping mechanism. For example, if the System Forecast is 83% of contracted volumes and the System operates at 81% then, all else equal, the revenue shortfall associated with the 2% differential is recovered from 19% of underutilised contracted volumes. Consequently, the cost of holding contracted capacity above real demand is significantly discounted due to the socialisation of demand and volume risk between Access Holders.

At a theoretical level, this approach is broadly consistent with the cyclical nature of the seaborne market for thermal and metallurgical coal. As commodity prices decrease more expensive producers cease operating and those with a higher ability to pay make a greater contribution to common costs (a form of dynamic Ramsey pricing). From another perspective, the approach may also represent a form of industry self-insurance for adverse events¹²⁷, which curtail mine production or reduce port capacity (such as the DBCT stacker-reclaimer failure in 2004).

Issues identified by stakeholders

Notwithstanding these potential benefits, various stakeholders have expressed concern regarding two key issues:

¹²⁷ Events that are otherwise unrelated to the inability to make Rail Infrastructure available for the operation of Train Services. (Aurizon Network Cause).

- the lack of financial accountability on the part of Access Holders for contracted capacity levels;
 and
- the potential scheduling advantages for Access Holders of holding Access Rights above real demand.

In respect of the former, accountability may be addressed through either pricing or administrative controls, such as capacity Resumption. However, as the capacity Resumption threshold required for issuing a Resumption Notice is less than 85% utilisation, the Resumption provisions are unlikely to provide an effective incentive to match contracted capacity to real demand. In addition, the RWG has not sought to modify these provisions.

The potential for scheduling advantages arises from the ability to retain a more favourable month to date, or year to date, utilisation position for the purpose of contested train paths. In contrast, an Access Holder whose Access Rights align with its demand may have used more of their contracted Access Rights in unconstrained periods but not have sufficient Access Rights in constrained periods.

The retention of Access Rights in excess of real demand may also not promote the efficient utilisation of Rail Infrastructure if an Access Holder can include Train Services within the plan but cancel Train Services within the lockdown period without adversely affecting their scheduling position (i.e., they may schedule Train Services with lower likelihood of being operated). For example, the Train Service Entitlement Reconciliation Report for FY2025 shows the aggregate cancellation rate within the scheduled lock-down period for contracted TSEs was 10.7%.

Due to these concerns, a sufficient proportion of the RWG has requested Aurizon Network review and modify the current ToP arrangements to address these issues and achieve the following objectives:

- improve financial accountability for contracted capacity;
- strengthen incentives for the efficient management and use of existing Capacity; and
- reduce Access Charges for Access Holders whose contracted capacity more closely aligns with their demand.

In addition to the issues discussed above, Aurizon Network is also seeking to address a deficiency with the ToP trigger test. Currently, where Aurizon Network is unable to make Rail Infrastructure available for the operation of Train Services, generally due to either a below rail cancellation or a force majeure event outside of Aurizon Network's control, this is reflected in the ToP arrangements in two ways:

- the affected Access Holder is relieved of its ToP liability in respect of the Train Services unable to be provided by Aurizon Network as a result of specified reasons (Aurizon Network Cause which is defined to include an FM cause outside Aurizon Network's control); and
- 2. the Gtk Forecasts used to determine whether ToP is triggered under all Access Agreements for the relevant Reference Tariffs are reduced by the gtk not achieved due to the non-operation of Train Services for an Aurizon Network Cause.

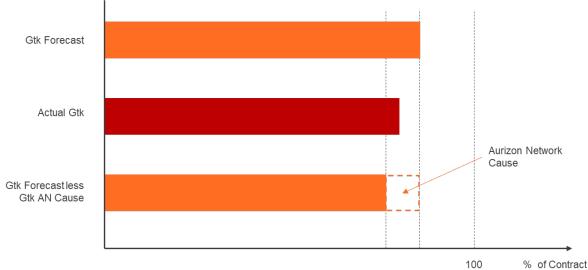
In evaluating how these matters may be addressed Aurizon Network has evaluated ToP arrangements in access arrangements with other coal export infrastructure providers, including the extent to which adjustments are made force majeure events.

The contractual frameworks associated with the provision of access to coal export infrastructure typically do not provide for ToP relief for force majeure events. This is evident in the publicly disclosed standard access arrangements for DBCT and the Hunter Valley Coal Network. Nevertheless, the RWG has requested the ToP arrangements retain the provision of ToP relief for all sources of Aurizon Network Cause, which includes force majeure events.

In addition, the reduction in the Gtk Forecasts for the purpose of the ToP trigger under the current arrangements is an unnecessary requirement where ToP relief is provided through an individual Access Agreement. It should not be necessary to provide ToP relief on the Train Services not operated due to Aurizon Network Cause and to also not collect any ToP on all Train Services not operated for reasons other than Aurizon Network Cause. Therefore, a key part of the reforms is to correct for deficiencies in the current arrangements. This is important because, as stakeholders may make submissions on the proposed reforms, the removal of the Aurizon Network Cause from the ToP trigger is a necessary amendment if the proposed reforms need to rejected or modified for the reasons outlined below.

The implications of this 'double counting' are demonstrated in Figure 11-3. This shows that the aggregate of gtk for all Train Services subject to the relevant Reference Tariff (Actual Gtk) is less than the Gtk Forecast. Consequently, it is expected that Total Actual Revenue from operated Train Services is less than the Allowable Revenue. However, in this example the reduction in the Gtk Forecast for gtk not operated due to Aurizon Network Cause reduces the ToP trigger to less than Actual Gtk and hence ToP is not payable under any Access Agreement for that Reference Tariff.





This scenario usually gives rise to a revenue shortfall for that Year that is then recovered through the revenue cap adjustment amounts. In a year where there has been a significant force majeure event this can lead to large revenue cap adjustment amounts. In addition, if that event is also associated with significant damage to Rail Infrastructure (above the \$1 million Review Event threshold in Schedule F of the 2017 Access Undertaking), the incremental costs of the repairs/restoration are likely to also be recoverable in the same Year as the revenue cap adjustment amounts, which compounds the materiality of the revenue and price volatility.

Aurizon Network's primary objective in modifying the ToP arrangements is to remove the adjustment to the ToP trigger for gtk not achieved due to the non-operation of Train Services for an Aurizon Network Cause. This will provide greater revenue and pricing stability during the regulatory period for the benefit of both customers and Aurizon Network. In addition, there is often uncertainty as to whether ToP will be triggered and in some instances, this has been as late as the last week of the financial year. Addressing this will benefit customers as they will have greater predictability as to whether ToP will be triggered, as well as performance against their own logistics budgets.

Aurizon Network and the RWG have also discussed that any modifications to the ToP arrangements should seek to extend the existing arrangements to the extent possible, which includes retaining:

- socialisation of utilisation rates through System ToP capping; and
- capping across multiple Access Agreements for origin to destination pairs (mine capping).

Stakeholder engagement

Aurizon Network has undertaken broad and deep engagement with stakeholders on ToP, consistent with its engagement design principles. This has included:

- two deep dive technical workshops with the RWG Representative Panel;
- preparation of models and back-casting to demonstrate impacts of possible changes if applied in prior years;
- development of principles papers and other consultation materials;
- presentation of proposed ToP amendments at two stakeholder forums; and
- individual one-on-one meetings with numerous stakeholders including End Users and Railway Operators, often with multiple sessions.

While there are prospective cash flow timing benefits to Aurizon Network from reducing the materiality of revenue cap adjustment amounts discussed above, the ToP arrangements and any modifications to those arrangements is primarily a matter of cost and risk allocation between Access Holders, and where the Access Holder is also an Operator, between the Operator and its customer. Therefore, any modifications to the current ToP arrangements are likely to have redistributive impacts between these stakeholders.

It is not surprising that there is a lack of consensus across the customers on a complete package of changes to ToP. While there is general support for updating the ToP arrangements, there are differing views on the extent of socialisation of volume risk that should be reflected in the volume forecast used to determine Reference Tariffs and the ToP trigger. Aurizon Network has sought to establish a balance between those stakeholders who would prefer a very low level of socialisation with those who would prefer a level of socialisation more closely aligned with the current arrangements.

In addition, not all stakeholders will consider that the ability to relinquish excess Access Rights will provide an effective mitigant against the increased financial risk of reducing the extent of socialisation of volume risk. Furthermore, due to the uncertainty of the Committed Capacity profile over the proposed Term of the 2025 UT5 DAAU in respect of Train Services operating on the Newlands shared rail corridor, some Newlands and GAPE producers are unable to evaluate the potential impacts of proposed modifications (i.e., a back-casting of historic Committed Capacity profiles may not be representative of outcomes under possible future alternate Committed Capacity scenarios).

Due to these potentially divergent views and interests, the ToP modifications submitted in the 2025 UT5 DAAU are not fully supported by all customers and some customers have reserved their rights to make submissions to the QCA in its assessment of the 2025 UT5 DAAU. Aurizon Network acknowledges that some stakeholders will make submissions to the QCA on the changes to the ToP arrangements and supports stakeholders making submissions that identify key issues that are not addressed by the proposed changes. For clarity, any variations required by the QCA to 2025 UT5 DAAU in respect of the ToP amendments should not affect the package of negotiated amendments to the 2017 Access Undertaking.

Overview of proposed amendments to the ToP arrangements

The amendments to the ToP arrangements included in the 2025 UT5 DAAU incorporate the following.

 System Forecasts: The System Forecast used to determine the AT₂-AT₄ Reference Tariff and the ToP trigger (ToP Gtk) will be the higher of:

- the Gtk Forecast; and
- 90% of the contracted Gtk relevant to that Reference Tariff.
- ToP trigger: The volume trigger for ToP will be the ToP Gtk without adjustment for Aurizon Network Cause.
- Port capping: The capping arrangements will be extended from a given origin to destination combination to an origin to Port Precinct combination.
- ToP progress payments: At the end of October and February in each Year, where the Coal System has railed less than the year-to-date proportion of the ToP Gtk and the Access Holders have operated Train Services less than the contractual entitlements for that period, then Aurizon Network, subject to capping arrangements, will be entitled to collect a progress payment towards the annual ToP liability.
- End of Year Adjustment Amounts: Where the revenue collected from AT₁₋₄ in a given year differs from the Allowable Revenue associated with that AT₁₋₄ then:
 - any over-recoveries will be returned to Access Holders in proportion to their contribution to the revenue collected (including ToP); or
 - any under-recoveries will be recovered from Access Holders in proportion to their contracted ToP liabilities (i.e., in proportion to contracted Net Tonnes and ntk).
- Transitional arrangements: To address the increased financial risk associated with holding Access Rights more than necessary to service expected demand the following transitional arrangements will be implemented:
 - Access Holders will be eligible to nominate a reduction in their contracted TSEs for each
 origin to destination up to 25%, subject to aggregate reductions in a System not
 exceeding 10%, without the requirement to pay a Relinquishment Fee;
 - for the first Year of the First Reset Period, an Access Holder will be able to undertake a Long Term Transfer without the requirement to pay a Transfer Fee; and
 - for a period that is the shorter of, at the time the proposed ToP provisions commence, the remaining term of (a) of the Rail Haulage Agreement and (b) the Access Agreement, where the Operator is the Access Holder and ToP is not subject to pass-through arrangements, a differential Access Charge will apply to the applicable origin to destination that aligns to a Reference Tariff based on the Gtk Forecast (as per the current approach).

System forecasts

Currently under the 2017 Access Undertaking, the AT₂₋₄ Reference Tariffs (being the tariff components subject to ToP) are calculated based on Gtk Forecasts that are determined by Aurizon Network and approved by the QCA. Those Gtk Forecasts are included in Schedule F on a Coal System basis.

Under the proposed changes, the AT₂₋₄ Reference Tariffs will be calculated on a 'ToP Gtk', which will be the greater of:

- (A) the Gtk Forecast for the System; and
- (B) 90% of contracted Gtk for the System,

where "Gtk Forecast" is the gtk assessed by Aurizon Network as most likely to be achieved in the relevant Coal System during the applicable Year, following consideration of information provided by coal carrying customers and past experience of Aurizon Network Cause.

Consistent with the current 2017 Access Undertaking, all other Reference Tariff components that are not subject to ToP will be calculated by using the Gtk Forecast (AT₁), or by converting the Gtk Forecast to the relevant pricing unit (e.g., \$/Net Tonne).

Aurizon Network has adopted the minimum volume threshold of 90% of contracted gtk as this represents an appropriate balance of interests and outcomes having regard to the following.

- The operational complexity and variances associated with interactions in multi-user, multi-operator and multi-system supply chains, customers are assumed to hold some contracted capacity more than demand to account for supply chain losses. As discussed above, the average cancellation rate within the schedule lock-down period in FY2024 for non-Aurizon Network causes was 10.7%.
- As Access Holders will retain the benefit of ToP relief for Aurizon Network Cause then provision needs to be made for these deductions. Aurizon Network has reviewed historical Aurizon Network Cause data and notes that at least one Coal System is likely to be subject to a significant force majeure event in a two-year period that will exceed 5% of below rail losses, as shown in Table 11-2. The 90% threshold reduces the likelihood that the proposed end of year adjustment amounts would be material because of a significant force majeure event.
- The preference to retain some level of socialisation of volume risk for unforeseen production or supply chain events or demand conditions.

Table 11-2 Aurizon Network Cause (including force majeure) as a % of FY2024 contracted volume

	Blackwater	Goonyella	Moura	Newlands
FY2017	5.3%	11.5%	3.8%	6.3%
FY2018	4.8%	3.7%	4.0%	1.4%
FY2019	4.2%	2.8%	2.8%	7.0%
FY2020	5.8%	4.2%	3.1%	2.0%
FY2021	4.9%	6.0%	1.8%	1.4%
FY2022	4.3%	6.4%	6.4%	4.9%
FY2023	8.5%	4.2%	4.4%	3.6%
FY2024	4.5%	7.4%	5.4%	1.7%

The use of 90% of contracted gtk also provides the ability to recalibrate settings in future regulatory periods without materially altering the ToP framework. For example, where contracted capacity is materially less than DNC, the percent of contract threshold can be modified to increase the level of socialisation of volume risk.

ToP trigger

For the reasons outlined above, the ToP trigger in clause 3.3(h) of Schedule F will no longer be calculated by deducting from the ToP Gtk an amount represented by the "Gtk not achieved due to the non-operation of Train Services for an Aurizon Network Cause".

Port capping

Currently, mine capping applies to give relief to an Access Holder from ToP liability by calculating the net effect of utilising Train Services for origin to destination pairs across different Access Agreements. However, some customers also service multiple nominated unloading points within the same Port Precinct from the one origin. These services, where subject to the same Reference Tariff, will approximately make the same contribution to common costs per service. In this circumstance, the customer needs to be able to manage variations in utilisation between destinations in the same Port Precinct to manage its ToP liability.

To avoid administrative inefficiencies associated with these transfer arrangements, the proposed reform extends the same type of relief that applies to origin to destination capping to apply to origin to port precinct pairs (**Port Capping**). 'Port Precinct' will have the meaning already given in clause 7.4.1(d) of the 2017 Access Undertaking.

Port Capping will be initially applied within an individual Access Agreement before being applied across multiple Access Agreements that have the benefit of mine capping.

Progressive payments

Components of the regulatory financial model and contractual terms are dependent on the assumption that revenue is collected relatively uniformly within a relevant Year. This includes:

- the half-year WACC discount applied to end of year free cash flow in determining Allowable Revenue;
- the low working capital allowance of 0.3% of Allowable Revenue; and
- the holding of security equivalent to six months' of Access Charges.

This is consistent with the current demand-based pricing where revenue is expected to be recovered from Access Charges relatively uniformly over the relevant Year. However, where the Gtk Forecast is materially less than the ToP Gtk then less revenue is expected to be collected from Access Charges over the relevant Year and more revenue is expected to be collected through end of year ToP amounts and end of year adjustment amounts. For example, if the proposed arrangements had applied in FY2024, Aurizon Network would have collected \$158 million in ToP and end of year adjustment amounts.

The prospect of large end of year revenue collections is not consistent with the elements of the regulatory financial model and the contractual terms described above. Aurizon Network notes this problem does not arise with other regulated coal export infrastructure providers such as Dalrymple Bay Infrastructure or ARTC where the ToP is collected as a fixed monthly payment over the year.

To address the cash flow timing and increased working capital costs associated with moving from demand-based pricing to contract-based pricing, Aurizon Network proposes to implement progress payments towards a prospective end of year ToP liability. This would promote the following objectives:

- reduce the materiality of end of year revenue recoveries payable as an annual ToP payment;
- promote a more uniform collection of revenue over the Year consistent with the underlying assumptions in the regulatory financial model; and
- avoid the requirement for changes to the security clauses in the Standard Access Agreement to reflect the increased counterparty credit risks from material end of year recoveries.

The frequency of the progress payments has been determined having regard to:

- the preference to avoid the return of progress payments if utilisation rates are higher later in the Year than earlier in the Year;
- the expectation that if an Access Holder has a month of poor performance there are sufficient months in that period to recover; and
- the need to ensure that a progress payment is invoiced and Access Rights are able to be suspended for non-payment within the six-month period for which security is held.

Following consultation with the Customers, Aurizon Network is proposing an interval for progress payments of four months, such that progress payments would become payable at the end of October and at the end of February each Year. Based on the seasonally deconstructed historical monthly performance of DBCT and RG Tanna as shown in Figure 11-4 and Figure 11-5, it is evident that the cumulative index is higher in October than in February.

The inference is that if an Access Holder has underperformed in the first four months it is unlikely to recover that under-performance in the subsequent four months given the low throughput seasonal indices that have been observed in January and February. Therefore, if a progress payment is payable at the end of October, then it is unlikely (but not implausible) that an Access Holder would have a negative progress payment in February (noting that the new provisions do not provide for crediting of any amount of the October progress payment if the February progress payment is negative).

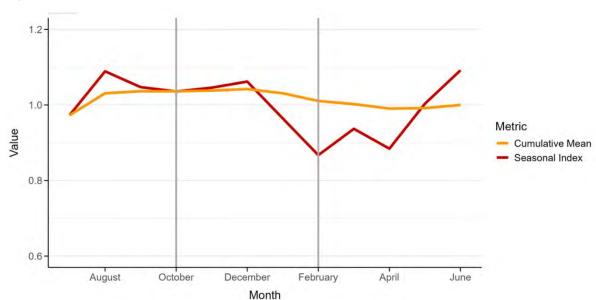
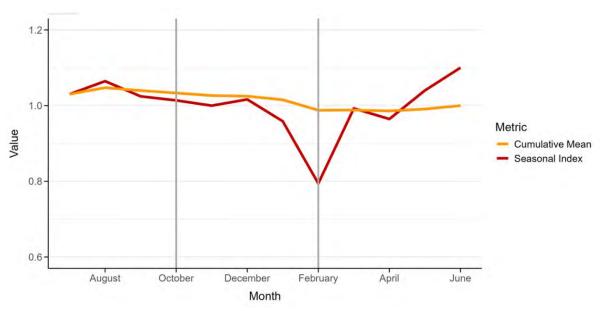


Figure 11-4 DBCT historical performance – monthly seasonal decomposition (July 2009 – June 2025)

Figure 11-5 RG Tanna historical performance – monthly seasonal decomposition (July 2009 – June 2025)



The following steps will be undertaken in determining the October and February progress payments (**Progress Amounts**):

1. The annual ToP Gtk for the relevant Coal System included in Schedule F is used to calculate the gtk thresholds for when Progress Payments may be payable (**PP Trigger Gtk**) as follows:

- a. the October PP Trigger Gtk is one-third of the ToP Gtk; and
- b. the February PP Trigger Gtk is two-thirds of the ToP Gtk.
- 2. An Access Holder will not pay any Progress Amount where the Applicable Gtk exceeds the PP Trigger Gtk for that System.
- 3. If the Applicable Gtk does not exceed the PP Trigger Gtk for that Coal System and an Access Holder rails less than the contracted TSEs for the relevant period in respect of the origin to destination pair in that Access Agreement, then the Uncapped Progress Amount will be calculated with respect to the origin to destination TSEs as being:
 - a. 95% of the revenue Aurizon Network would have expected to earn had the number of TSEs the Access Holder operated, or caused to be operated, for the relevant period been the full number of contracted TSEs; less
 - b. the amount of revenue earned from the AT₂₋₄ Access Charges in respect of the relevant origin to destination:

for the Uncapped October Progress Amount or Uncapped February Progress Amount as applicable.

Where the Uncapped October Progress Amount or Uncapped February Progress Amount, as applicable, is greater than zero, it will be further reduced by applying, where applicable, Port Precinct Capping and Port and Mine Capping across Access Agreements. This is known as the Reduced Uncapped Progress Amount. The intention is that as the October Progress Amounts and the February Progress Amounts are provisional payments and not ToP charges their calculation is administratively simple. Therefore, no relief for Aurizon Network Cause is included in the calculation but an allowance is provided by calculating these amounts against 95% of the contracted TSEs.

4. Aurizon Network will determine the October Progress Amounts and the February Progress Amounts it is entitled to collect by replicating the tariff capping arrangements used to calculate ToP charges. This will be determined by multiplying the [Reduced] Uncapped Progress Amount by the System Capping Rate obtained as follows:

- PP_{max} = (Allowable Revenue (AT2-4) x n) Total Actual Revenue); and
- n = 0.33 for October PToP, 0.67 for February PToP.

The primary purpose of the System Capping Rate is to acknowledge that as the ToP tariffs have been set at less than 100% of contract, there remains some socialisation between End Users who operate more or less than 90% of contract. This capping mechanism ensures that Aurizon Network accounts for the expected tariff capping that would take place in Annual ToP and reduces the likelihood of materially over-collecting Progress Amounts.

In addition, Aurizon Network will not invoice Progress Amounts in October or February where the amounts calculated for an Access Holder after capping is less than \$100,000. This is to reduce the administrative burden of collecting immaterial amounts that do not substantively contribute to working capital costs or risks.

5. As the February Progress Amount is a year-to-date calculation, then any payments received in the October PToP will be deducted from the amounts payable, subject to not being less than zero.

6. The total Progress Amounts collected in October and February in a given Year will be offset against annual ToP Charges. Where the cumulative Progress Amounts collected exceed annual ToP Charges, the difference will be credited to the Access Holder.

End of Year Adjustment amounts

Aurizon Network and Customers have a preference to reduce the materiality of the revenue cap adjustments, particularly those that relate to the difference between the Allowable Revenue (AT₁₋₄) for that Year and the Access Charges collected.

The proposed application of a volume forecast of 90% of contracted gtk, combined with the removal of the gtk unable to be operated for Aurizon Network Cause from the ToP trigger test, means the expected outcome is that Total Actual Revenue from AT₂₋₄ and Access Charges from AT₁ will equate closely to the Allowable Revenue for AT₁₋₄ in that Year.

It is probable that the amount of revenue collected will be more or less than the Allowable Revenue. This will most likely be attributable to forecasting error in the Gtk Forecast resulting in a minor over- or under-collection of the AT₁ Reference Tariff.

However, there remains the possibility that a large revenue shortfall may still arise in a Coal System where a significant force majeure event occurs and the gtk not able to be operated due to an Aurizon Network Cause exceeds 10% of contracted services (i.e., ToP relief exceeds the 10% allowance inherent in setting the ToP Gtk at 90% of contracted gtk). Where such an event occurs, the revenue shortfall will be caused by the combination of:

- the reduction in revenue collected from operated Train Services; and
- the provision of ToP relief in individual Access Agreements for Aurizon Network Cause.

The annual revenue cap adjustment amounts will continue to reflect adjustments made to Allowable Revenue, particularly where these adjustments require either QCA review, approval or validation through the annual revenue cap process (i.e., the calculation of annual Revenue Adjustment Amounts).

To reduce the revenue and price volatility due to utilisation rates, Aurizon Network is seeking to remove the two-year lag that currently applies in addressing any shortfall in, or over-recovery of, the unadjusted Allowable Revenue. To achieve this outcome Aurizon Network is implementing an End of Year Adjustment (EoYA) that will be collected in the same billing period as invoicing of ToP for that same Year (i.e., ToP for the Year needs to be finalised to be able to calculate the EoYA).

The process by which excess revenue is returned through the EoYA will differ from how a revenue shortfall is recovered from an EoYA as follows.

Scenario 1: Total Actual Revenue AT₂₋₄ (including ToP, if applicable) plus AT₁ Access Charges is less than [Allowable Revenue (AT₁) and Allowable Revenue (AT₂₋₄)].

In this scenario, the EoYA will be recovered from all Access Holders in proportion to the contracted Access Rights (converted to AT₃₋₄ on the same basis as ToP calculations).

This approach recognises that any shortfall is expected to be associated with material force majeure events in excess of that accounted for in the ToP Gtk. This ensures the recovery is proportionally distributed between those impacted and not impacted by force majeure events. It also aligns with how the revenue cap adjustment amounts would be expected to be recovered in two years if not for the EoYA.

Scenario 2: Total Actual Revenue AT₂₋₄ (including ToP, if applicable) plus AT₁ Access Charges is greater than [Allowable Revenue (AT₁) and Allowable Revenue (AT₂₋₄)].

In this scenario, the EoYA will be returned to Access Holders in proportion to the actual Access Charges (AT₁₋₄) (including ToP if applicable) paid by that Access Holder.

This approach recognises that Access Holders who have railed above their contracted volumes will have contributed more revenue to the socialised cost base than those Access Holders who have operated less than their contract volumes.

The EoYA does not include amounts relating to the variance between expected revenue and actual revenue on AT₅, the EC, the QCA Levy and the IE Fee.

The exclusion of the Allowable Revenue for AT5 from the mechanism reflects that:

- Access Holders and Railway Operators do not expressly contract for the use of electric capacity;
- the use of the overhead line equipment and associated supply and distribution infrastructure is not subject to ToP obligations;
- electric consists are generally fungible between the Goonyella and Blackwater Systems and therefore can be deployed across the two Systems, noting that AT₅ is not a postage stamp tariff; and
- Railway Operators of electric traction services should not be subject to retrospective price adjustments based on competitor rollingstock allocation and deployment decisions after the volume forecasts have been used to determine the tariff components.

Consequently, any revenue variation in AT₅, the EC or the Electric Revenue Adjustment will continue to be managed under the current revenue cap and review arrangements.

Impact assessment

Aurizon Network has evaluated the redistribution effects of the proposed changes by back-casting the FY2023 and FY2024 Reference Tariffs and ToP outcomes. The practical effect of determining Reference Tariffs using 90% of contracted gtk where those contracted volumes substantially exceed the Gtk Forecast is that the AT₂₋₄ Reference Tariffs will decline due to the increase in the applied volume metrics (Net Tonnes, ntk and Train Paths).

In this circumstance, where an Access Holder holds Access Rights consistent with its utilisation then it would expect its total cost of access to reduce due to the lower Access Charges. Conversely, an Access Holder that holds Access Rights substantially more than its utilisation would expect its total cost of access to increase through an increased ToP liability if that amount exceeds the reduction in Access Charges on its operated services.

On balance, most Access Holders will not be materially impacted by the proposed changes. The access cost variances shown in Figure 11-6 are broadly consistent with the contract utilisation rates shown in Figure 11-2¹²⁸. The observed variance between FY2023 and F2024 are largely attributable to the key factors noted in Table 11-3, which can be summarised as:

- FY2023 was subject to a material volume forecast error with ToP triggering in two Systems;
- FY2024 actuals exceeded the forecast volumes without ToP triggering in any System.

Table 11-3 ToP outcomes - FY2023 and FY2024

	FY2023	FY2024
Total System Forecasts (mt)	226.6	207.8
Total Actuals (mt)	207.6	209.6

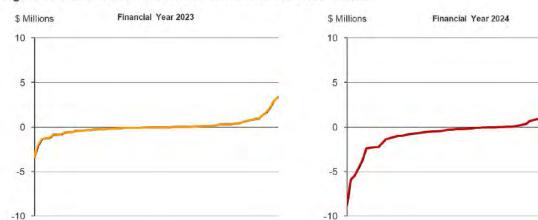
¹²⁸ Analysis excludes UT1 access agreements, cross-system services and GAPE.

	FY2023	FY2024
Forecast Error (mt)	19.0	-1.8
ToP Triggered (Systems)	Blackwater, Goonyella	Nil

In summary, the variances are more pronounced in FY2024 than in FY2023 as the FY2024 System Forecast is relatively lower (and therefore the variance in Access Charges will be greater) and ToP did not trigger. In contrast, under the proposed ToP changes, ToP would have triggered in FY2024 in both Goonyella and Blackwater (actual gtk in Moura and Newlands exceeded 90% of contracted gtk in FY2024).

All Access Holders have been provided with back-casted Access Charges and ToP outcomes for FY2023 to FY2025 to evaluate their individual impacts under the proposed changes.

Figure 11-6 Total Cost of Access Variance with ToP Amendments



Transitional provisions

Where an Access Holder has been granted Access Rights under the current ToP arrangements that socialises volume risk across all contracted Train Services, the changes to the ToP arrangements may involve a substantive increase in financial risk. Therefore, Aurizon Network and the customers have considered a range of transition mechanisms that mitigate the increased financial risk.

Relinquishments

Aurizon Network is prepared to apply fee-free Relinquishments on implementation of the ToP changes, subject to the following limits:

- for an individual origin to destination pair the Access Holder can nominate up to 25% of its Access Rights for Relinquishment (on a fee-free basis) for that origin to destination; where
- the aggregate number of Relinquishments in an individual Coal System does not exceed 10%.

The thresholds have been established on the basis that to the extent that an Access Holder holds excess Access Rights equivalent to 25% of its Access Rights then the Relinquishment of more than that amount would go beyond mitigating the increased financial risk associated with the changes to the ToP arrangements. At a System level, the Relinquishment of more than 10% of Access Rights would substantially and materially diminish the benefits to other Access Holders due to Reference Tariffs being set with reference to a lower contracted gtk.

Aurizon Network also notes the prospective reduction in aggregate Access Rights could still exceed 10% at a System level as some Access Holders may elect not to renew part of their Access Rights prior to the Extension Commencing Date or within the First Reset Period.

The process by which Access Rights may be relinquished will occur over two phases.

- An initial phase where notice(s) to relinquish is/are submitted by the Relinquishment Nomination Date, being the earlier of 31 January 2027 or two months after the Extension Approval Date (being the date that the 2025 UT5 DAAU is approved by the QCA). If the total number of nominations exceeds the System-level Relinquishment threshold of 10%, then the fee-free Relinquishments will be proportionally allocated on the basis of the number of nominated Train Paths to be relinquished, such that the System Relinquishment threshold is not exceeded.
- A second phase whereby if the total number of Relinquishment notices submitted by the Relinquishment Nomination Date is less than the System-level Relinquishment threshold, there will be a second opportunity for Access Holders to provide notices for Relinquishments. The new applications will be processed on a first come, first served basis up to 30 April 2027 until the System-level Relinquishment threshold has been reached.

The proposed timing for the notifications is to ensure that the contracted gtk profile is finalised prior to the determination of Reference Tariffs commencing on 1 July 2027. If Relinquishments occur after the FY2028 Reference Tariffs have been approved by the QCA, then Aurizon Network may incur a material revenue shortfall for that Year due to the reduction in contracted Access Rights subject to ToP. This may also result in material EoYAs that will then be recovered from remaining contracted Access Rights. The proposed timings also provide a sufficient period of notice for an Access Holder to evaluate its demand requirements from 1 July 2027.

Transfers

Aurizon Network has also included amendments to allow Long Term Transfers to occur within the first Year of the First Reset Period. Where an Access Holder is willing to relinquish more than 25% of its Access Rights, or where its total nominated Relinquishments is reduced due to the application of the 10% System limit, it will retain the ability to reduce its Access Rights by way of Transfer without incurring a Transfer Fee. This allows for the efficient redistribution of existing capacity where there is alternate demand for that capacity without diminishing the benefits of the ToP changes for other Access Holders.

Excluded Access Agreements

The most significant barrier to amendments to the ToP arrangements has been the differential arrangements applying between Access Agreements entered into under different Access Undertakings. The most notable difference is between UT1 Access Agreements and subsequent Access Agreements. Aurizon Network notes that the remaining current UT1 Access Agreements expire before the Extension Commencing Date.

There are some remaining Access Agreements in place, notably Access Agreements entered into under the 2008 Access Undertaking, which do not allow for amendment of the relevant schedule to allow for recovery of the EoYA amounts. For these agreements, additional amendments have been incorporated that provide for any EoYA in respect of an excluded Access Agreement to be included in the annual Revenue Adjustment Amount.

The relevant amounts will then be either added to, or subtracted from, the Reference Tariff for that origin to destination in the subsequent annual review of Reference Tariffs. While this does not guarantee those amounts will be quarantined to that origin to destination, any variances are not material other than where the Access Rights in that Access Agreement are not renewed on expiry of that agreement, in which case the amounts will be socialised in the System Reference Tariff.

Operator Access Agreements

While the majority of Access Rights in the CQCN are contracted directly with End Users, some Railway Operators are Access Holders on behalf of the customer. As the Access Holder, all Access Charges and ToP amounts are invoiced to the Railway Operator. The allocation of access and ToP

liability between the Railway Operator and the customer is then subject to the terms of the Rail Haulage Agreement between those parties.

Following detailed engagement with the Customers on the ToP reform principles, Aurizon Network engaged Railway Operators for the purpose of identifying how the new arrangements would affect Railway Operators through their commercial arrangements with End-Users.

During the consultation and engagement with Railway Operators, Aurizon Network was advised by its Related Operator that the changes to the ToP arrangements may have material implications for how ToP liability is allocated between the Railway Operator and an End-User where the commercially negotiated terms do not allow for the straight pass-through of the invoiced ToP charges. Aurizon Network understands this issue is applicable to one or more rail haulage agreement(s).

Aurizon Network is reasonably satisfied that under the circumstance where any Railway Operator would be subject to a material increase in its financial risk associated with the ToP reforms (from holding Access Rights on behalf of End-User that those ToP reforms are intended to address), ensuring contractual accountability by End-Users warrants additional transitional arrangements. This is particularly relevant where the End-User would:

- obtain the benefit of the lower Access Charges; and
- not be subject to increased financial accountability for the Access Rights contracted in the Operator Access Agreement.

Following identification of the need for transitional arrangements, Aurizon Network consulted with the Customers in respect of the principles relevant to the development of these arrangements. Aurizon Network obtained through detailed development and consultation, an 'in principle' agreement from the RWG on the additional transitional arrangements for Operator Access Holders. This is where the Railway Operator is unable to fully pass through ToP charges as invoiced by Aurizon Network directly to the End-User under the Rail Haulage Agreement.

The key requirements of the Customers for these transitional arrangements are that:

- the arrangements seek to replicate the current allocation of risk between the Railway Operator and customer; and
- other Access Holders who are not a party to the Rail Haulage Agreement are not negatively impacted.

The transitional arrangements in the new Clause 6.9.4 and Schedule F Clause 3.3(j) seek to retain the current level of revenue recovered from Access Charges where Reference Tariffs are calculated based on the Gtk Forecast. However, ToP charges will be determined using the System Reference Tariff calculated on the ToP Gtk.

The effect of these transitional arrangements is that the revenue collected from operated Train Services is the same as those amounts that would be collected under the current pricing framework. The increase in revenue collected from Access Charges and the reduction in the uncapped ToP amounts seek to preserve, to the extent feasible, the relativity of Access Charges and uncapped ToP under the current arrangements where the Gtk Forecast is equal to the ToP Gtk.

The Operator Access Holder is subject to the same expected ToP liabilities as another Access Holder who does not utilise its Access Rights as their ToP is calculated using the System Reference Tariff. That is, in the same circumstances where neither Access Holder utilised any Access Rights they would still have the same ToP liability. Consequently, Aurizon Network confirms that:

 the transitional arrangements establish a redistribution between Access Charges and uncapped Take or Pay and therefore other Access Holders are not adversely affected; and other Access Holders obtain a marginal net benefit under all scenarios because of the
additional revenue collected from the higher Access Charges and the increased financial risk
to the Railway Operator not being fully mitigated (at a material level of underutilisation). This is
due to the lower System capping associated with the ToP Gtk exceeding the Gtk Forecast,
thus increasing the total amounts of ToP needing to be collected.

Aurizon Network has provided the QCA with its modelling on a confidential basis, demonstrating how the key requirements described above are satisfied in respect of a nominated origin to destination pair and hence support these conclusions.

The transitional arrangements in Clause 6.9.4 and Schedule F Clause 3.3(j) address the specific commercial arrangements between any Railway Operator and any End-Users subject to an Operator Access Agreement.

Confirmation from all Railway Operators was sought on the extent to which Railway Operators may be subject to misalignment between the proposed ToP arrangements and the Rail Haulage Agreement and whether transitional arrangements would be required to address the misalignment.

Infrastructure Rebates

The interaction between ToP and Infrastructure Rebates was discussed extensively in the Infrastructure Rebates and GAPE RCS DAAU, which was approved by the QCA in October 2024¹²⁹. This noted that Infrastructure Rebates are not payable on ToP charges as this would be incompatible with the NPV=0 assumption where the rebate rates are calculated with reference to forecast demand and not contracted demand.

The subsequent Bauhinia Infrastructure Rebates DAAU, approved by the QCA in April 2025, ¹³⁰ addresses the issue of ToP on rebates for common use infrastructure by aligning rebates with total actual revenue. These arrangements are therefore unaffected by the changes in the ToP arrangements.

Aurizon Network notes that the changes to the ToP arrangements do not strictly require revisions to the rebate arrangements where the rebates are calculated on the forecast tonnes for that origin to destination. Notwithstanding, where an Access Facilitation Deed (AFD) holder is willing to amend its Infrastructure Rebate arrangements in respect of connecting infrastructure, Aurizon Network is willing to implement a fixed rebate arrangement to reflect the expected changes in the revenue profile associated with the complete package of ToP reforms, including the EoYA amounts.

Aurizon Network's preference is also that remaining rebate arrangements on mine-specific infrastructure are replaced with a reduced Access Charge consistent with the arrangements voluntarily implemented in the Infrastructure Rebates and GAPE RCS DAAU. However, consistent with the voluntary nature of that approach substituting the Infrastructure Rebate with a discount to the Access Charge requires the agreement of the AFD holder.

Addressing future incentives to under-contract

The capacity contracting and pricing arrangements may influence the incentives for Access Seekers to enter into long-term Access Agreements. For example, under full contract volume pricing an Access Seeker will have weaker incentives to enter into a long-term Access Agreement for the full amount of its expected demand, if on the balance of probabilities, that Access Seeker considers the supply chain has sufficient capacity to deliver total contracted and uncontracted demand (that is

¹²⁹ https://www.qca.org.au/project/aurizon-network/2017-access-undertaking-ut5/infrastructure-rebates-and-gape-rcs-daau-2/

¹³⁰ https://www.qca.org.au/project/aurizon-network/2017-draft-access-undertaking/bauhinia-infrastructure-rebates-daau-2/

expected demand is sufficiently less than the supply chain capacity such that there is a high likelihood of getting Train Services scheduled without a capacity entitlement).

For example, the ToP arrangements in the Hunter Valley Coal Network were originally developed in a growth environment where capacity was scarce. Under this model access holders are liable for fixed monthly ToP charges (the FCC charges) and pay a variable charge (VCC charge) on services operated, with scheduling priorities given to contracted entitlements. However, where other access holders do not fully utilise their access rights another access holder could operate more than its contracted entitlements (ad hoc services) and effectively pay only the VCC charge to do so (through rebating of the FCC charges). Where capacity is not scarce, and demand is declining, the incentive under this model is to contract for less than demand to obtain some access at the lower variable rate.

To reduce the incentive to under-contract there is scope for price differentiation between contracted and Ad Hoc Train Services based on differences in the risks of providing the two services, such that a surcharge could be applied to Ad Hoc services. The quantification of this premium is likely to be a complex and disputed exercise. However, Aurizon Network considers that a calibrated approach could be developed that modifies how the EoYA amounts are distributed where earned revenues exceed Allowable Revenues (noting that a necessary but not a sufficient condition for a System to be deemed unconstrained and under-contracted is that actual railings exceed total contracted services). For example, this could potentially involve two key changes to the ToP arrangements:

- the Reference Tariff would be set on the lesser of 90% of contract gtk and Gtk Forecast (rather than the higher of); and
- the EoYA distributions for excess revenue would be distributed based on contracted service levels (rather than on revenue).

Under this approach, the excess revenue collected from operated Train Services would only be returned to contracted services. So, while both contracted and uncontracted services pay the same Access Charge during the year (and ToP never triggers as demand exceeds contract) the net cost of access for contracted services in a year, on a like-for-like basis, will be lower than that for uncontracted services following the crediting of the EoYA amounts. The greater the proportion of uncontracted services then the greater the differential in the net cost of access. The mechanism would self-calibrate the effective surcharge with the level of under-contracting and increase the incentive for contracting for likely actual demand.

Aurizon Network has not included arrangements to address the circumstances of under-contracting in unconstrained systems in this 2025 UT5 DAAU as it has not been provided with evidence during the negotiations with the customers that this is a foreseeable outcome during the Term of the 2025 UT5 DAAU. However, Aurizon Network has reached agreement with the customers that should evidence emerge during the Term of the 2025 UT5 DAAU that one or more Coal Systems are unconstrained and there are incentives to under-contract for Access Rights then this will be addressed through a consultation on, and the development of, a DAAU as necessary.

12. Part 7A – Available Capacity

12.1 Independent Expert Reforms – Annual Capacity Assessment Report and System Operating Parameters

Enga	gement Methods Used	Enga	gement Outcome
•	RWG - Representative Panel	(E)	Agreed with Customers
©	Stakeholder forums		
	Industry advocates		
**	Operator engagment		
<u>ө</u>	Independent Expert participation		

Background

As noted previously, in 2019 the QCA approved an agreed package of changes to the 2017 Access Undertaking (the 2019 UT5 DAAU). These changes were designed to provide customers with greater transparency and influence over certain aspects of Aurizon Network's ongoing management and operation of the Rail Infrastructure used for coal carrying Train Services. In exchange, Aurizon Network received ongoing additional financial compensation via a WACC uplift.

This arrangement represented a mutually beneficial value exchange that likely would not have been achievable without prior agreement before submission. The QCA approved the package in its 2019 UT5 Final Decision.

A key component of the negotiated package was the establishment of the Independent Expert, who was tasked with a range of deliverables. The primary responsibility of the Independent Expert was to complete an independent calculation of the Capacity of the CQCN through an Initial Capacity Assessment Report (ICAR) for each Coal System. For the first time, the ICAR considered the operation of third party supply chain infrastructure to determine the DNC of the Rail Infrastructure within its broader supply chain context.

Where the ICAR's DNC was lower than the total TSEs held by customers under Access Agreements, the resulting 'gap'—termed the Existing Capacity Deficit (ECD)—could be addressed through the most efficient means. These included fee-free Relinquishment, operational changes, and/or capital infrastructure solutions.

The ICAR was published by the Independent Expert in 2021. To date, the most significant remedial outcome in the CQCN has been the implementation of the Radio-Controlled Signalling (RCS) project in the Newlands System, which was deemed appropriate by both the Independent Expert and the QCA to resolve the capacity deficit within Newlands. The RCS project was ultimately approved as prudent by the QCA on 20 November 2025.

With the ICAR largely finalised, the Independent Expert's ongoing responsibilities include:

- maintaining a Capacity model to assess Access Seeker Access Requests, as outlined in Parts
 4 and 7 of the 2017 Access Undertaking;
- producing the Annual Capacity Assessment Report (ACAR), as set out in Part 7A;
- conducting an annual review of the System Operating Parameters, as outlined in Part 7A;
- calculating the annual Performance Rebate payment to customers;
- reporting on Aurizon Network's performance, as set out in Part 10;
- developing a System Capacity Assessment following the completion of the ICAR (yet to be commenced).

As part of stakeholder engagement on the 2025 UT5 DAAU, enhancements to the Independent Expert framework have been discussed.

Stakeholder engagement

Consultation on this 2025 UT5 DAAU with the Customers and Railway Operators highlighted three key areas for Independent Expert reform being transparency, accountability and role clarity

Transparency

System Operating Plans (**SOPs**) are critical inputs into the Independent Expert's capacity model. They encompass Access Agreements as well as below rail, above rail, loading and unloading operational characteristics.

Some stakeholders, particularly Railway Operators, have expressed uncertainty about how their feedback is considered by the Independent Expert following the annual SOP consultation process. Specifically, they noted that greater transparency around how SOP feedback is received, assessed and incorporated into updates would improve their confidence in the accuracy of the Independent Expert's modelling outputs.

Aurizon Network acknowledges that SOP-related information provided by stakeholders is generally claimed as confidential by its owners. To enable greater transparency, written consent from the relevant stakeholder would be required to share or disclose such information to other parties.

Accountability

The primary function of the Independent Expert is its role to independently model the Capacity of the CQCN, the outputs of which underpin existing Access Agreements and future Rail Infrastructure capital investment. Key to this role is the maintenance of a trusted and reliable capacity model that provides consistent outputs that reflect the current and expected future operation of the CQCN as closely as possible. Since publishing the ICAR in 2021, the Independent Expert produces the ACAR with updated SOP inputs.

Some stakeholders have indicated that requiring that the Independent Expert to undertake an annual model validation review, with redacted results published following the release of an ACAR, could help to build greater stakeholder trust in the outputs of the capacity model.

In recent years new Railway Operators have entered the market for haulage in the CQCN, which necessarily introduces the operation of additional rollingstock within the Network. More rollingstock on existing track potentially leads to greater levels of congestion, which can have a detrimental impact on Railway Operators' ability to continue to maintain service levels with the same level of investment. Feedback from Railway Operators and the Independent Expert indicated that it is not sufficiently clear how the Independent Expert should consider rail congestion when conducting Capacity assessments and in the ACAR. To address this issue, it has been determined that the Independent Expert will develop and report on congestion metrics in its ACAR.

Role clarity

In addition to its primary functions, the Independent Expert has secondary functions that include reporting on the performance of Aurizon Network and the assessment of the annual Performance Rebate amounts payable to Access Holders. Feedback from some stakeholders was that there would be benefit in clarifying the role of the Independent Expert to reduce the risk of scope creep and duplication of work that is also undertaken by Aurizon Network.

An area where there is some cross-over is the Transfer process, where the Independent Expert undertakes Capacity assessments whilst Aurizon Network manages the process, customer interaction and commercial aspects of the Transfer.

When undertaking an ACAR, the Independent Expert may gain insights into factors that could improve System performance, which technically fall outside of its role but could have benefits for supply chain stakeholders. Aurizon Network and stakeholders think there is an opportunity to clarify where the Independent Expert should provide input as part of its ACAR. Some stakeholders also saw an opportunity for the Independent Expert to observe the meetings of the RIG as part of Capacity-related matters within the Maintenance and Renewals processes within Part 7A.11 of the 2017 Access Undertaking.

Proposed amendments

Based on the above, the following amendments are proposed within the 2025 UT5 DAAU to enhance the quality of the information and levels of transparency from the Independent Expert, leading to better output from the Independent Expert. All of these amendments reflect the outcomes of Aurizon Network's engagement with the Customers and Railway Operators.

- SOPs should be published on an unredacted basis, where prior written consent has been obtained from the affected party.
- A SOP consultation report is to be provided by the Independent Expert to stakeholders, providing details of any submissions received, an explanation of how those submissions have been considered and either: (a) incorporated, or (b) the reasons why those submissions have not been incorporated, into any of the SOP outcomes.
- The Independent Expert will undertake an annual validation of the Capacity model, by testing the model with actual outcomes and parameters to determine the accuracy of the model, any lessons learned that the IE may consider relevant and recommend/implement improvements. The results will be reported annually by the Independent Expert to Aurizon Network, customers and the QCA and Aurizon Network will publish the model validation report on its website.
- Timeframes have been specified for completion of the SOP consultation and annual Capacity assessment, within the context of the broader schedule for the annual planning cycle.
- The Independent Expert will develop and implement a framework for annual reporting of system congestion in each Coal System and will be responsible for the preparation of an annual report on this measure which will be included in the ACAR.
- The Independent Expert will attend RIG meetings in an observer capacity, and if requested, participate in RIG meetings for the purpose of understanding views on Capacity-related matters.
- The Independent Expert may make suggestions on operational, system and other improvements as part of the ACAR, including an estimate of the potential Capacity benefit of the suggested improvements.
- The System Capacity Assessment will only be required if requested by Aurizon Network or a Special Majority of End Users.
- Minor amendments have been made to the Transfer provisions in Part 7 to clarify which parts relate to the role of the Independent Expert, including relevant timeframes that apply to each process.

12.2 Capacity shortfall/Network Development Plan

Engagement Methods Used	Engagement Outcome
RWG - Representative Panel	Agreed with Customers
Industry advocates	
Operator engagment	
Independent Expert participation	

Background

The purpose of the Network Development Plan (NDP) is to outline options that will, or could, be implemented in the short- to medium-term to promote increased Capacity. This includes initiatives related to the development, extension, operation and use of the Coal Systems, as well as capital investment. The NDP is available upon Aurizon website.

The NDP has not been updated between 2020 and 2024, as the establishment of the Independent Expert and its ICAR was intended to reset the Capacity baseline of the CQCN. The ICAR process included consideration of potential infrastructure and operational enhancements. The ICAR process is now largely complete, with a capacity deficit only identified in the Newlands System.

With the ICAR finalised, the NDP regains relevance as a transparent, process-driven mechanism to inform stakeholders of Aurizon Network's plans for future network development.

Improvements identified in the stakeholder engagement

Stakeholders appear generally aligned with Aurizon Network in recognising the opportunity to enhance the NDP as a transparent and consistent mechanism for reporting on initiatives that could improve System Capacity. The proposed improvements include the following.

- Provide a five-year development view: Reframing the NDP's planning horizon to a five-year window will better align with other rail planning and modelling timeframes. This will support a more consistent and integrated approach to asset management planning across the CQCN.
- Incorporate system improvements suggested by the Independent Expert: As outlined
 earlier, the Independent Expert may recommend improvements to Coal System performance
 through its ACAR. The NDP offers a structured opportunity for Aurizon Network to review and
 communicate its position on these recommendations, including outcomes from stakeholder
 consultation and any overlap with broader supply chain initiatives.
- Report on Supply Chain Group initiatives: The NDP will include reporting on initiatives led by Supply Chain Groups where there is a Capacity or Rail Infrastructure impact.
- Include CIG and Innovation Mechanism initiatives: The NDP provides a logical and transparent platform to communicate initiatives progressed by the CIG that have Capacity or Rail Infrastructure implications (refer Chapter 13).
- Address ACAR-identified DNC shortfalls: Where the ACAR identifies a shortfall in DNC, Aurizon Network will consult with stakeholders and, where at least 60% of the End Users by number in the Coal System to which the shortfall relates vote in favour of Aurizon Network doing so, identify preliminary views on options to address the shortfall.

12.3 MRSB Procurement

Engagement Methods Used Engagement Outcome Agreed with Customers Industry advocates

Background

Aurizon Network has been producing the MRSB since the 2019 UT5 DAAU was approved in December 2019. Given the timing of the 2019 UT5 DAAU, the development of the FY2021 MRSB was quickly compiled to comply with the new Access Undertaking obligations. The FY2022 MRSB provided the opportunity to further develop and refine this process, which included the initial design of the very detailed levels of engagement with customers that are seen today.

As part of the ongoing development of the MRSB documentation, each year the engagement has matured—from the early years of being primarily educational and informative to the current arrangement, which fosters genuine collaboration and stakeholder input into the MRSB.

This engagement has led to the inclusion of a range of voluntary matters not initially anticipated in the development of the 2019 UT5 DAAU, such as annual commitments, additional ESG information, extensive engagement commitments throughout the year and visibility of Aurizon Network's material contracts related to the provision of maintenance on the Rail Infrastructure.

During the development of the 2025 UT5 DAAU, one of the matters discussed with the Customers is that the information and transparency relating to future Material Contracts entered into by Aurizon Network for the maintenance and renewals programs should be embedded within the Access Undertaking. At present, such information is provided voluntarily by Aurizon Network throughout the RIG engagement processes.

In addition to Material Contracts, it was also identified through the annual MRSB process that Aurizon Network may procure services necessary for the delivery of regulated maintenance and renewal activities from related parties or otherwise face a limited supplier market. This was seen by the RIG as a risk in terms of Aurizon Network not sourcing materials or services efficiently or on arm's-length terms.

Stakeholder engagement

Engagement on MRSB procurement has been part of historical MRSB processes. As visibility of material and related party procurement activities is already provided voluntarily to the Chair of the RIG or the RIG, the 2025 UT5 DAAU engagement resulted in a formalisation of these voluntary processes.

Aurizon Network's proposal

The following amendments are to be made to the 2025 UT5 DAAU in relation to engagement occurring as part of the annual MRSB processes, reflecting the outcomes of Aurizon Network's discussions with the Customers.

Aurizon Network must provide information to the RIG detailing any procurement activities in respect of a proposed Material Contract and must provide the Chair of the RIG with specified detail of a proposed Material Contract before it is signed and with an opportunity to require an independent third party procurement expert to run the procurement process for that Material Contract.

A Material Contract will be defined as a contract that exceeds a materiality threshold of \$2 million; or

- there is a cumulative value of greater than \$2 million with the same counterparty when considered with all other contracts with that party; or
- where the Material Contract may involve sourcing from a related party; or
- involves a sole source arrangement.

12.4 Independent Expert involvement in the RIG

Engagement Methods Used	Engagement Outcome
RWG - Representative Panel	Agreed with Customers
Industry advocates	
• Independent Expert participation	

Background

The 2017 Access Undertaking outlines the tasks and responsibilities of the Independent Expert. Over time, the role of the Independent Expert has evolved in providing benefits to End Users and Railway Operators on Capacity-related matters for the CQCN.

As part of the early development of key inputs into the annual MRSB process, between May and September, Aurizon Network facilitates a range of consultation events covering scope, integrated closure footprints and budget development. comprehensive Integrated Closure and Scope Preview consultation.

During this time, Aurizon Network engages with all supply chain participants, ranging from broad stakeholder forums, through to specific individual discussions. These engagements aim to identify and address potential impacts or issues at an early stage in the MRSB development life cycle and find workable solutions and alignment

Additionally, Aurizon Network engages with stakeholders throughout the year of execution to provide updates on CQCN performance, including safety, operational metrics and delivery against MRSB expenditure and scope targets.

In respect of all MRSB engagements, Aurizon Network provides relevant information to support stakeholder understanding and facilitate informed feedback.

Aurizon Network's proposal

To formally recognise the value the Independent Expert brings to capacity-related discussions with End User and Railway Operators, Aurizon Network is proposing an amendment to the 2025 UT5 DAAU to formalise the role of the Independent Expert within the RIG meetings. This will establish an obligation for Aurizon Network to invite the Independent Expert as an observer to RIG meetings. This obligation will also extend to relevant meetings held during the formal MRSB consultation period from 30 November to 14 February, as outlined in section 7A.11 in the 2017 Access Undertaking.

Further, the Independent Expert will be provided with the same information distributed to RIG members during these meetings and engagements, ensuring transparency and consistency in access to relevant data. The purpose of providing this information is to further assist the Independent Expert

with the execution of its capacity-related tasks as defined within section 7A.3.1 of the 2017 Access Undertaking.

12.5 RIG Voting Thresholds

Engagement Methods Used Engagement Outcome Agreed with Customers Industry advocates

Background

In accordance with section 7A.11.3 of the 2017 Access Undertaking, there is an established process by which a draft MRSB may be approved for each Year. As part of MRSB approval process, Aurizon Network is obligated to provide the RIG and Non-Coal Access Holders and Customers with:

- the draft Maintenance Strategy and Budget;
- the draft Renewals Strategy and Budget; and
- information in relation to the MRSB reasonably requested by the Chair of the RIG, that may be reasonably required by members of the RIG (subject to confidentiality obligations).

The primary purpose of the RIG is, among other things, to consider and comment on the proposed MRSB and communicate the outcome of voting by End Users on the proposed MRSB. ¹³¹ The requirement for End Users to vote will remain unchanged in the 2025 UT5 DAAU, noting the key proposed amendment focused on changing the voting thresholds to address challenges with voting in smaller Coal Systems. Currently, an End User's Voting Rights for approval of the MRSB are determined in accordance with the respective calculations for an Access Holder's number of Access Rights ¹³² and volumes. ¹³³

Thresholds for voting are currently set in accordance with the respective definitions provided in the 2017 Access Undertaking. Pursuant to section 7A.11.3, a Special Majority of End Users will vote to either:

- approve in full Aurizon Network's final MRSB for the following Year ¹³⁴; or
- approve an alternative MRSB for the following Year¹³⁵; or
- elect to not approve any MRSB for the following Year. ¹³⁶

Generally, where a Special Majority of End Users is required for a relevant Coal System, or any Coal System, Voting End Users are defined in terms of the number of Voting End Users that in aggregate hold at least 75% of the End User Voting Rights (Coal System or Network as applicable) for the Year, and comprise at least 60% of Voting End Users by number at the relevant time.

132 Section 12, definition 'End User Voting Rights (Network)'.

¹³¹ Clause 7A.11.2(c).

¹³³ Section 12, definition 'End User Voting Rights (Coal System)'.

¹³⁴ Clause 7A.11.3(j)(i).

¹³⁵ Clause 7A.11.3(j)(ii).

¹³⁸ Clause 7A.11.3(j)(iii).

Stakeholder engagement

Throughout Aurizon Network's engagement on the 2025 UT5 DAAU, it became evident that customers are seeking improvements to the RIG voting thresholds to address concerns within smaller Coal Systems, particularly in instances where Customers failed to respond to requests to vote on the MRSB. The Special Majority voting methodology set out above for the MRSB has proven to be ineffective in the smaller Coal Systems, such as Moura, if a number of Customers failed to provide a vote.

As part of the engagement on the 2025 UT5 DAAU, the Customers proposed a voting methodology to overcome the issues with the voting arrangements within the 2017 Access Undertaking. Aurizon Network proposed an alternative voting threshold that addressed customer concerns. This proposal was developed based upon previous voting methods used that has been used in other regulatory matters.

As the issue was primarily in the administration of the Voting Rights, Aurizon Network was indifferent between its proposed mechanism and what the Customers had proposed, as long as there was a fair and equitable opportunity for all End Users to be able to vote on the MRSB.

Aurizon Network's proposal

As part of the 2025 UT5 DAAU, with full support from the Customers, Aurizon Network proposes that the draft Maintenance Strategy and Budget, and the draft Renewals Strategy and Budget, are deemed approved if either:

- all of the Voting End Users that voted, voted in favour and those Voting End Users:
 - in aggregate represent at least 50% of the End User voting Rights (Coal System) for the Year; and
 - ii. comprise at least 50% of Voting End Users by number at the relevant time;

or

- a number of Voting End Users that:
 - i. in aggregate hold at least 75% of the End User Voting Rights (Coal System) for the Year; and
 - ii. comprise at least 60% of Voting End Users by number at the relevant time.

For all other matters that are not related to the vote on the MRSB, the existing test for Special Majority of End Users applies as set out above and in the 2017 Access Undertaking.

To give effect to the above changes, the definition of 'Special Majority of End Users' of the 2025 UT5 DAAU has been amended to reflect the above.

13. Part 7B – Continuous Improvement Group and Innovation

Enga	gement Methods Used	Enga	gement Outcome	
***	RWG - Representative Panel	820	Agreed with Customers	
9	Stakeholder forums			
	Industry advocates			
	Operator engagment			
9	Independent Expert participation			

13.1 Background

The current 2017 Access Undertaking offers limited opportunities outside of maintenance and capital allowance setting processes for Aurizon Network and other supply chain participants to explore and advance Coal System continuous improvement and innovation ideas that could benefit the individual Coal Systems or the supply chain operationally. The Operational Performance Project within the definition of an Expansion allowed for under the 2017 Access Undertaking relates to operational improvements associated with an Extension and Expansion of the Network. This mechanism has not been utilised during the current term, so its effectiveness in promoting operational improvements is yet to be tested.

Continuous improvement was a key area identified by both the Customers and Aurizon Network as a priority for consideration when developing amendments for the 2025 UT5 DAAU. Aurizon Network currently undertakes general continuous improvement as part of its normal daily tasks, with a focus on the operational parts of the business. There is also continuous improvement within the corporate areas of the business; however, these are usually incremental in nature, and specific to roles and responsibilities of the relevant areas and functions.

As the Rail Infrastructure provider that links mines to ports through Railway Operators, Aurizon Network is naturally placed to support and/or facilitate the identification and implementation of potential supply chain improvements. The Access Undertaking, through transparent and robust processes provided to CQCN stakeholders, could allow analysis, consultation, approvals and cost recoveries for improvement ideas.

The rigidity of the current Operating Cost Allowance framework prevents material, non-general continuous improvement, as Aurizon Network currently has no formal mechanism through which to propose such initiatives and subsequently recover its additional costs, and may not be incentivised to consider proposals put forward by any CQCN stakeholders. There is also no formal process for stakeholders to propose ideas that could be factored into improvements.

During the early engagement stages with the Customers, Aurizon Network proposed the idea of an Innovation Mechanism. Later in the engagement process, stakeholders strongly advocated for a framework to allow for continuous improvement ideas to be formulated, analysed and implemented

where approved. This created the concept of the Continuous Improvement Group (**CIG**), which established a process for supply chain continuous improvement with a pathway through to the Innovation Mechanism if a resolution is passed to dissolve the CIG.

Both the CIG and the Innovation Mechanism aim to promote whole-of-supply chain improvement initiatives that enhance the cost-effectiveness, operational performance and competitiveness of the CQCN.

Overall, the frameworks for the CIG and the Innovation Mechanism will further support the object of Part 5 of the Act, being "to promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided".

13.2 Stakeholder engagement

Aurizon Network introduced the concept of the Innovation Mechanism at the start of negotiations on the 2025 UT5 DAAU. Following multiple discussions with the Customers, it became clear that they preferred a focus on smaller, ongoing improvements - distinct from business-as-usual activities.

During the engagement and subsequent drafting with Customers, it was evident that there was overlap between the Innovation Mechanism and the CIG. An outcome of this engagement was that the CIG would serve as the primary vehicle for supply chain continuous improvement, with the Innovation Mechanism retained as a fallback if a resolution is passed to dissolve the CIG.

As part of customer engagement, Aurizon Network briefed Railway Operators and Coal Export Terminal operators on the proposed improvement framework. It became clear that these parties needed a voice in progressing potential CI Business Cases, particularly where a negative financial impact might occur. Aurizon Network agreed with this, resulting in a voting process that includes Rail and Coal Export Terminal operators for CI Business Cases where the CIG Project Manager identifies a potential negative impact.

During the discussions on the drafting, the Customers outlined that there must be appropriate governance, reporting and oversight given to them in the development and execution of any CIG projects. This resulted in the detailed governance arrangements that are being proposed including a CIG Steering Committee, with the ability for three representatives from each Coal System to ensure that relevant interests are being met.

Aurizon Network's proposals, which are supported by the Customers, in relation to the CIG and Innovation Mechanism are outlined below.

13.3 The Continuous Improvement Group

To assist and progress the development of continuous improvement within the CQCN, the CIG will be established with the purpose of enabling improvement proposals and projects to improve efficiencies in the delivery of Train Services and their interaction with the supply chains in the CQCN.

The CIG will be established within 90 days of Extension Approval Date, which could be before the commencement of the new extended Term. Membership of the CIG will be open to Aurizon Network, End Users, Railway Operators of coal carrying services and Coal Export Terminal operators.

For overall effectiveness and appropriate levels of governance, a Steering Committee will be formed, with an appointed Chairperson who will be the same person who fulfils the role of the Chair of the RIG. The Steering Committee will be selected from all representative groups of the CIG members, specifically being made up of the following:

- two Aurizon Network employees;
- for terms of 24 months each, in respect of each Coal System, three End User representatives from each Coal System nominated by the then current Chair of the RIG (following a vote of End Users in the relevant Coal System);
- a representative from each coal carrying Railway Operator; and
- a Coal Export Terminal Operator representative of each Coal Export Terminal connected to the CQCN.

There will be a requirement that CIG Steering Committee members will be elected for a period of 24 months to allow other entity perspectives and align with good corporate governance.

In addition to the above members, a CI PM will be appointed, who will be an Aurizon Network employee. The CI PM will be fully funded through a variation to Reference Tariffs as an Endorsed Variation Event that will be submitted to the QCA once the appointment has been made. It was agreed that due to the timing and cost uncertainty, the costs associated with the CIG PM's role were best recovered as an Endorsed Variation instead of as a step trend within the Operational Cost Allowance. The CIG Steering Committee will be appropriately engaged in the appointment of the CI PM.

The role of the CIG Steering Committee will be to identify, scope, consider and prioritise continuous improvement initiatives for consideration and/or development into a Business Case for the approval and development of an Annual Plan. As part of this, the CIG Steering Committee must consider and determine resource allocation and recommendations for projects requiring a funding decision (including amending, prioritising, de-prioritising and terminating projects).

It is expected that the CI PM will report back to the CIG Steering Committee regularly at agreed periodic meetings. The core responsibility of the CI PM will be to develop CI Business Cases at the request of the Steering Committee. If a proposal is considered and approved by the CIG Steering Committee for further analysis, the CI PM will be responsible for completing that further analysis and undertaking necessary consultation with the relevant stakeholders throughout the development of the CI Business Case.

The CI Business Case is an important artefact within the approval process as it must detail a range of matters, including documenting any assumptions and the outcomes from any consultation that the CI PM considers appropriate. This CI Business Case will then be voted upon by the Voting Members of the CIG Steering Committee, which will include Railway Operators and Coal Export Terminal operators where a proposed project will have an adverse financial impact on them. Unanimous approval must be received and will need to be subsequently signed by both the Chair of the CIG Steering Committee and Aurizon Network prior to implementation.

CIG improvement initiatives will be executed through Working Groups formed on a case-by-case basis. There will also be an Annual Plan and Budget, which incorporates a consolidated view and prioritised initiatives for a Year. There will be sufficient flexibility to vary, terminate or re-prioritise initiatives through discussions of the Steering Committee.

As noted above, there will be additional costs incurred by Aurizon Network through the employment of the CI PM and execution of the activities and approved CI Business Cases. Recovery of these costs is consistent with the pricing principles in section 168A of the Act.

At the time of the QCA's decision on this 2025 UT5 DAAU, the CIG costs will not be known and therefore cannot be included within the Operating Cost Allowance submitted by Aurizon Network. Therefore, the following approaches to cost recovery reflect the outcomes of Aurizon Network's discussions:

- Establishment costs: Costs that are incurred by Aurizon Network in the establishment of the CIG, including the ongoing salary of the CIG PM, will be recovered as a variation to reference tariffs as an Endorsed Variation Event and added to the NOEA.
- Annual budget: A forecast annual budget will be included within the annual Review of Reference Tariffs for the forthcoming year (clause 4.1 of Schedule F).
- Reconciliation of the annual budget for actual versus forecast: The additional incremental
 costs incurred by Aurizon Network that the QCA accepts as prudent that were not within the
 budget and therefore not already reflected in Allowable Revenue, will be recovered through
 the Revenue Adjustment Amounts process (clause 4.3 of Schedule F).

To ensure ongoing effectiveness of the CIG, a review of the mechanism by the CIG Steering Committee will occur 36 months after the establishment of the CIG (by 1 July 2030). At this time, there will be either a recommendation to:

- make changes to the CIG and the way it operates; or
- to dissolve the CIG.

The decision will be validated through a vote. In the event that the CIG is dissolved, then any projects that are currently underway will continue to progress and include an effectiveness review once implemented.

13.4 Innovation Mechanism

If the CIG is dissolved as a result of the review referred to above, the Innovation Mechanism will become the primary mechanism for Innovation Projects. As discussed with the Customers, the definition of an 'Innovation Project' is a project that:

- does not form part of business improvement undertaken in accordance with good industry practices; and
- may benefit Aurizon Network and/or Supply Chain Participants by either improving supply chain performance or identifying relevant efficiencies in one or more Coal Systems.

Any stakeholder can propose initiatives for consideration as an Innovation Project. If Aurizon Network determines that a proposed Innovation Project may result in benefits, the entity proposing the initiative (the Innovation Proponent) must, with the assistance of Aurizon Network, develop an Innovation Project Business Case (IP Business Case) with similar levels of required information as the CI Business Case.

Once the IP Business Case has been developed, it must be signed by the Innovation Proponent and Aurizon Network and provided to the Chair of the RIG for relevant End User approval on either a Coal System or CQCN basis. Where the approved IP Business Case allows for the recovery of incremental operating expenditure (or another amount) for an Innovation Project, this will be included as part of the calculation of an Endorsed Variation Event under Schedule F.

For any approved Innovation Project that requires the construction of new infrastructure in the CQCN, any incurred costs (or other agreed remuneration amount) will be recovered through the Capital Claim process in Schedule E. It is expected that Innovation Projects will not generally take the form of capital projects, as these should follow either the Expansion process or the existing capital renewal processes.

Following the implementation of an Innovation Project and within a reasonable time, Aurizon Network will prepare a report on the degree to which the project achieved the IP Business Case objectives, including any lessons learned. The report will be provided to relevant stakeholders for information purposes only. This report and its outcomes will not impact Aurizon Network's ability to recover its costs.

14. Part 8 – Network Development and Expansions

14.1 Committed Expansion Funding Amount



Background

Part 8 of the 2017 Access Undertaking sets out the process for the development and expansion of the CQCN. This includes various processes, commitments and obligations regarding how Expansions are funded.

The 2019 UT5 DAAU approved by the QCA in its 2019 UT5 Final Decision included three key amendments relating to:

- the inclusion of a Committed Expansion Funding Amount;
- revised arrangements for the funding of Expansions; and
- the inclusion of a new process for dealing with Expansion Capacity Deficits, including a commitment to fund Expansions up to \$300 million as a Transitional Arrangement to remedy an Existing Capacity Deficit.

Aurizon Network committed to a Committed Expansion Funding Amount of \$30 million from 1 July 2019. This amount would be indexed annually by CPI and any unexpended portions would be carried over into the following Year.

This commitment was also subject to the conditions that:

- the Expansion will increase the capacity of a Coal System for the benefit of more than one Access Seeker, Customer or Access Holder; and
- the Expansion will be socialised with all relevant Expansion Stakeholders.

At the time of this submission, no Committed Expansion Funding Amounts have been expended, as shown in Table 14-1.

Table 14-1 Committed Expansion Funding Amounts and Unexpended Portion

Year Starting	CPI (%)	Committed Expansion Funding Amount (\$m)	Unexpended Portion (\$m)
1-Jul-19		30.0	30.0
1-Jul-20	1.84	30.5	60.5
1-Jul-21	1.72	31.1	91.6
1-Jul-22	6.01	32.9	124.6
1-Jul-23	7.42	35.4	160.0
1-Jul-24	3.42	36.6	196.6

Year Starting	CPI (%)	Committed Expansion Funding Amount (\$m)	Unexpended Portion (\$m)
1-Jul-25	2.66	37.6	234.1

Aurizon Network's proposal

Amendments are proposed to Part 8 of the 2025 UT5 DAAU to:

- remove the \$300 million funding commitment for Expansions to remedy an Existing Capacity Deficit: and
- adjust the Committed Expansion Funding Amount to \$37 million and set the Unexpended Portion 1 July 2027 to \$0.

All other arrangements negotiated in the 2017 Access Undertaking remain.

The funding commitments associated with remedying an Existing Capacity Deficit are intrinsically linked to the ICAR. It was also expected when negotiating the 2019 UT5 DAAU that the Transitional Arrangements to remedy an Existing Capacity Deficit would be explicitly progressed and addressed within the negotiated extended Term. Therefore, the \$300 million funding commitment for Transitional Arrangements will cease on 30 June 2027 and any Unexpended Portion will cease to apply going forward.

Aurizon Network and the Customers agreed that it was not necessary to roll-over any unexpended Committed Expansion Funding Amounts into the next negotiated regulatory period due to the following factors.

- The commitments in respect of the Committed Expansion Funding Amounts for the period of 1 July 2019 to 30 June 2027 were made based on a 60 basis point increase in the Approved WACC. As discussed in Chapter 5, the negotiated outcomes in the 2025 UT5 DAAU do not include an uplift in the benchmark WACC. Consequently, the circumstances relevant to those funding commitments do not prevail from 1 July 2027.
- In approving the UT5 DAAU the QCA acknowledged that:

The proposed socialisation arrangement does mean that Access Charges for system users that are not party to the expansion may be increased as a result of the committed expansion funding amount. While that may be the case, the relatively small amount of the committed expansion funding amount, when compared to the overall regulatory asset base, decreases the likelihood of this causing a material increase in access charges for a non-expansion user. 137

The unexpended Committed Expansion Funding Amounts are projected to exceed \$300 million by 1 July 2027. Further additions to this amount could result in the socialisation of an Expansion to the benefit of more than one Access Seeker, which also represents a material proportion of the RAB in any given Coal System. This outcome would be contrary to the original negotiated assumption that "socialisation of this funding commitment is appropriate, given the annualised funding commitment is not material relative to the size of the regulatory asset base" 138.

Therefore, Aurizon Network has included amendments to set the balance of any unexpended Committed Expansion Funding Amounts to \$0 as of 1 July 2027.

¹³⁷ Queensland Competition Authority (2019). pp.43-44.

¹³⁸ Aurizon Network, Response to QCA RFI question 53, 23 July 2019, p.16.

The Committed Expansion Funding Amount will be reset to \$37 million as of 1 July 2027 to align with its value at the time of negotiation of the 2025 UT5 DAAU.

The changes to the Expansion funding commitments in Part 8 of the 2017 Access Undertaking reflects the outcomes of Aurizon Network's engagement as part of the overall negotiated package.

14.2 Resumptions and Relinquishments to avoid Expansions

Engage	ement Methods Used	Enga	gement Outcome	
***	RWG - Representative Panel	450	Agreed with Customers	
	Industry advocates			
**	Operator engagment			

Background

Part 8 of the 2017 Access Undertaking sets out the general principles regarding Aurizon Network's rights and obligations to fund, construct or permit the creation of new Rail Infrastructure by way of Expansion.

Capital expansions of the CQCN should only occur once more efficient options for Access Seekers to secure Access Rights from existing Capacity have been exhausted. Outside of the Long Term Transfer provisions, the two processes are via Aurizon Network resuming underutilised capacity and Access Holders relinquishing unwanted capacity.

Recognising the importance of ensuring that these options have been explored before a capital Expansion is progressed, discussions have occurred with Customers in relation to improving these processes and providing increased transparency of process outcomes. This has resulted in amendments to Part 8 and Part 10 of the 2025 UT5 DAAU that have been discussed with the Customers.

Stakeholder engagement

Throughout the engagement, Customers expressed views on greater transparency and visibility to ensure that Aurizon Network is exercising its obligations under Part 8 of the 2017 Access Undertaking in relation to Resumption and Relinquishment processes to avoid Expansions. Customers were extensively engaged throughout the process and the proposed changes outlined below reflect the outcomes of that engagement.

Aurizon Network's proposal

Amendments are proposed to Part 8 of the 2025 UT5 DAAU to clarify the processes to avoid all or part of an Expansion. These additional steps are intended to improve the transparency surrounding the application of Resumption and Relinquishment processes, to provide greater confidence for Access Seekers that these options have been appropriately explored before commencing the capital Expansion process.

The key amendments that have been made to Part 8 of the 2025 UT5 DAAU are as follows.

- In the Demand Assessment Report, Aurizon Network must provide Expanding Users with information on the extent of any under-utilisation of Access Rights, on an aggregate and deidentified basis, over the prior 36 months (including separately, for the last four consecutive quarters).
- Upon finalisation of the Demand Assessment Report, and prior to undertaking a Pre-Feasibility Study, Feasibility Study, or agreeing to undertake an Expansion, Aurizon Network is required to seek offers from Access Holders wishing to relinquish Access Rights in the relevant Coal System to which the potential Expansion relates.
- These Relinquishments would be on a fee-free basis where an Access Seeker entered into an unconditional Access Agreement for the relevant Access Rights, meaning this Relinquishment would be excluded from the application of clause 7.4.8(d).
- An Access Holder must respond to Aurizon Network's request within 30 days of receipt, specifying the Access Rights subject to Relinquishment. This constitutes an irrevocable offer capable of being accepted by Aurizon Network at any time during the period specified in the 2025 UT5 DAAU.
- Aurizon Network will report on any responses in aggregate and on a de-identified basis.

Aurizon Network may issue Resumption Notices to Access Holders in accordance with the terms of relevant Access Agreements if it is following a Concept Study, prior to the commencement of a Pre-Feasibility Study, Feasibility Study or an agreement to undertake an Expansion, and after issuing Information Request Notices. A Pre-Feasibility Study and Feasibility Study will include details of the following (subject to confidentiality obligations):

- the number of Information Request Notices issued relevant to the Expansion study, and the relevant number of TSEs represented in the Information Request Notices;
- the number of TSEs resumed to meet the needs of Expanding Access Seekers;
- the number of TSEs not resumed and a statement of reasons as to why; and
- the number of TSEs not resumed due to Aurizon Network not having a reasonable expectation of sustained alternative demand.

It is important to note that Aurizon Network will not be obligated to accept a Relinquishment Offer or resume Capacity unless an Access Seeker has agreed to enter into an unconditional Access Agreement for those Access Rights subject to Relinquishment or Resumption.

Aurizon Network will also be obligated to include the following in the annual compliance report prepared under Part 10 of the 2017 Access Undertaking:

- the number of times a Resumption Trigger Event has occurred in each Coal System for the relevant Year and the number of TSEs relevant to the Resumption Trigger Event;
- the number of Information Request Notices issued in each Coal System for the relevant Year and the number of TSEs relevant to each Information Request Notice;
- the number of Resumption Notices issued in each Coal System for the relevant Year in accordance with the 2025 UT5 DAAU; and
- any information previously published for Expanding Access Seekers in relation to Relinquishment as set out in Part 8 of the 2025 UT5 DAAU.

Aurizon Network considers that these proposed amendments will provide greater transparency and confidence for Access Seekers applying for Access Rights that will otherwise require an Expansion, without compromising the rights of Access Holders, including confidentiality.

15. Part 10 - Reporting

Engagement Methods Used	Engagement Outcome
RWG - Representative Panel	Agreed with Customers
© Stakeholder forums	
Industry advocates	
Stakeholder workshops	
Operator engagment	
Independent Expert participation	

15.1 Background

Within the 2017 Access Undertaking—particularly within Part 10—there are specific reporting requirements for both Aurizon Network and the Independent Expert. These include:

Table 15-1 Current reporting requirements

Aurizon Network	Independent Expert
Regulated Asset Base Roll-forward	CQCN - Monthly Performance Reports
Compliance Breach Reports	Access Holder – Monthly Performance Reports
Annual Audits and Compliance Reports	Annual Capacity Reports
Network Group Executive Certifications	System Operating Parameters
Information to the Independent Expert	

As part of the QCA's 2019 UT5 Final Decision, the concept of the Independent Expert was approved, which also allowed for the Independent Expert (once established) to commence completing periodic reporting. The Independent Expert began preparing the monthly performance reports on behalf of Aurizon Network approximately 12 months after the 2019 UT5 Final Decision. These reports contain a range of relevant information and analysis to assist Railway Operators and End Users in understanding the performance of the CQCN and how it aligns with their contractual requirements. Aurizon Network provides the necessary raw data to the Independent Expert to enable the compilation of these reports and the required analysis.

15.2 Stakeholder engagement

As part of the development of the 2025 UT5 DAAU, extensive engagement was undertaken regarding the reporting arrangements currently included in the 2017 Access Undertaking. This engagement revealed substantial knowledge asymmetry concerning the number of reports and the level of information available to CQCN stakeholders.

To address this asymmetry, Aurizon Network hosted a series of workshops, both in person and online, to bridge the information gap and understand what was required in terms of amendments to the 2025 UT5 DAAU. Aurizon Network sought input from Railway Operators and the Customers in understanding the requirements of a broad range of users of the reporting suite.

The engagement resulted in a clearer understanding of what information is available to stakeholders and highlighted their desire for Aurizon Network to have an obligation to engage with End Users, Railway Operators and the Independent Expert to continuously improve the format, type and systems used for reporting.

15.3 Aurizon Network's proposal

Following extensive consultation with the Customers and Railway Operators, Aurizon Network proposes amendments to Part 10 of the 2025 UT5 DAAU regarding data collection, data quality and the content of the reporting suite. During the 2025 UT5 DAAU consultation, Customers and Railway Operators highlighted the importance of having a process for feedback and continuous improvement for both Access Undertaking reports and reports that are outside of the scope of the regulated services and Access Undertaking.

This consultation has resulted in new obligations under the 2025 UT5 DAAU for Aurizon Network to initiate a process shortly after the Commencement Date of 1 July 2027. This process will involve engagement with End Users, Railway Operators and the Independent Expert to:

- gather feedback on potential changes;
- review the quality of the reports; and
- consider improvements to the presentation format.

Aurizon Network will report back to End Users, Railway Operators and the Independent Expert on its findings and identify which potential improvements can be reasonably progressed. If any reasonable costs are incurred by Aurizon Network as part of these improvements, recovery will be sought through existing Access Undertaking processes. The estimated costs would be subject to approval by End Users prior to implementation.

If the new consultation process results in changes to the Access Undertaking reporting requirements, Aurizon Network will submit a voluntary DAAU to align its reporting obligations with customer expectations. Although Aurizon Network regularly receives informal feedback from stakeholders, the new process defined within the 2025 UT5 DAAU will be conducted no more frequently than annually, to allow for changes to flow through and for stakeholders to understand the benefits from those changes.

It was also discussed that the timing of the Independent Expert's System performance reports could be reviewed to allow for deeper insights and more meaningful analysis. As a result, clause 10.8.4 has been amended to replace "monthly" with "quarterly" in response to feedback from stakeholders and to ensure that these quarterly reports include an analysis of trends identified by the Independent Expert, macro reasons for System losses and (where relevant) non-binding views on steps which could be taken to address System losses, as well as any other matters that the Independent Expert considers relevant based on information provided by Aurizon Network and any other information available to the Independent Expert.

In addition to the formal review process and the change in reporting frequency, Aurizon Network has committed to ensuring that any updates to information are completed in a timely and accurate manner. If any information is found to be inaccurate, Aurizon Network will adopt a process to inform relevant stakeholders accordingly.

Schedule F

16.1 Electric Revenue Adjustment Mechanism

Engagem	Engagement Methods Used		gement Outcome
RV	VG - Representative Panel	850	Agreed with Customers
	ustry advocates		
	keholder workshops		
	erator engagment		

Background

The Electric Traction DAAU, approved by the QCA in July 2019, introduced changes to the pricing of electric traction services. The DAAU contained a new Electric Revenue Adjustment mechanism as part of the annual Revenue Adjustment Amount calculations.

The purpose of the Electric Revenue Adjustment (clause 4.3(I), Schedule F of the 2017 Access Undertaking) is to address the risk of asset stranding where users can exercise the option to switch between electric and diesel traction without providing any contribution to the existing electric traction network.

The Electric Revenue Adjustment, where applicable, enables any shortfalls in AT5 revenue resulting from a Decline in Electric Utilisation (**DEU**) to be added to the AT5 Revenue Adjustment Amount that can be allocated to AT2-4 Revenue Adjustment Amounts. Two tests need to be satisfied in determining if a DEU has occurred in a relevant Coal System:

- the actual Electric Utilisation Level (EUL) for the Coal System must be lower than the Electric Utilisation Floor (EUF) for that Coal System (71% for the Goonyella System and 65% for the Blackwater System); and
- actual GTK must be lower than the product of System Forecast GTK, the EUF and the Electric Capacity Factor (ECF) for the Coal System.

Issue with the current methodology

An Electric Revenue Adjustment Amount is only triggered if there is both a DEU and an AT₅ Revenue Shortfall in the Year. The AT₅ Revenue Shortfall is assessed by comparing Total Actual Revenue against Adjusted Allowable Revenue for AT₅ in that Year, where Adjusted Allowable Revenue reflects the Forecast EUL that was set for each Coal System when the Electric Traction DAAU was approved by the QCA (in FY2020).

Since that time, this Forecast EUL has been retained at the same percentage. If the Forecast EUL was amended to reflect the latest forecast for each Coal System, then it would mean that while the DEU may be triggered, an AT_5 Revenue Shortfall may not occur.

By not reflecting up-to-date forecasts of electric utilisation, the level of AT₅ under- or over-recovery can be material. A declining EUL would mean the AT₅ under-recovery would continue to grow until the

Electric Revenue Adjustment mechanism triggered. The opposite can also apply with increased utilisation not reflected in lower Reference Tariffs for the railings in that Year.

Stakeholder engagement

This amendment was raised by Aurizon Network as part the ToP/Revenue Cap reform meeting with the Customers. The Customers recognised that this was a way to reduce the Revenue Adjustment Amount while keeping the original Electric Traction DAAU principles. Subsequent discussions with the Customers resulted in some further minor adjustments to drafting.

Aurizon Network's proposal

Amendments are proposed to the 2025 UT5 DAAU to include a definition of Forecast EUL that can be adjusted to reflect the most recent forecast of electric utilisation and to enable the mechanism to work as intended. This requires the following changes.

- A new definition of Forecast Electric Utilisation Level. This is the forecast electric gtk
 (egtk) for a Coal System divided by the total Forecast Gtk for that System. This is then used
 within a new clause in Schedule F, 4.1(b), as proposed below.
- New clause 4.1(b)(ii) of Schedule F. This allows Aurizon Network to update the Forecast EUL to reflect the best estimate of actual electric utilisation, having regard to most recent utilisation. A percentage floor has been included on this Forecast EUL so that once the Forecast EUL reaches this floor, any further reduction in utilisation would trigger a revenue cap shortfall that is then used in the calculation of the Electric Revenue Adjustment Amount detailed in clause 4.3(l) of Schedule F. If the Forecast EUL was to reduce below the floor, then there would be no Electric Revenue Adjustment Amount so the calculations in clause 4.3(l) would not trigger an adjustment despite the volume triggers being attained.

The proposed change means that if the relevant EUL triggers are met, then an amount will be allocated from AT_5 Allowable Revenue to the AT_5 Revenue Shortfall Amount up to the AT_5 Revenue Adjustment Amount for that System. This is in line with the original intent of the Electric Traction DAAU.

16.2 Longer-term Reference Tariffs

Engagement Methods Used	Engagement Outcome
RWG - Representative Panel	Agreed with Customers
Industry advocates	
Operator engagment	

Background

The 2017 Access Undertaking includes two schedules, Schedule F and Schedule K, which convey relevant financial information (including Allowable Revenues and Reference Tariffs) to Access Holders, Railway Operators and other stakeholders. Schedule F has been part of successive approved Access Undertakings and is the primary point of reference for:

 identifying the Allowable Revenues and Reference Tariffs that are relevant to the determination of Access Charges in a Year; and the regulatory processes through which those Allowable Revenues and Reference Tariffs may be varied.

Schedule F is updated frequently (at least annually) to reflect:

- updates to revenue and pricing inputs as part of the annual review of Reference Tariff process;
 and
- the outcomes of regulatory decisions as approved by the QCA from time to time, including Endorsed Variation Events, or the outcomes of DAAUs.

Schedule K was introduced in the 2019 UT5 DAAU to provide greater transparency of the building block components that make up the forecast Allowable Revenue for each System. Schedule K sets out forecast Allowable Revenues, initially for FY2018 to FY2023 and then for the Reset Schedule F values from FY2024 to FY2027. The Schedule K values remained consistent with the QCA's decisions in respect of the 2019 UT5 DAAU and the Reset Schedule F Values and was not periodically updated.

During the engagement for the 2025 UT5 DAAU, there was consensus between Aurizon Network and stakeholders that in circumstances where the information in Schedule K:

- is not updated regularly; and
- is only accurate at the start of each Reset Period,
- there is minimal ongoing value in retaining Schedule K as a separate schedule to the Access Undertaking.

Aurizon Network's proposal

Prior to the commencement of each Year of the Term, Aurizon Network provides updated Allowable Revenues and Reference Tariffs to the QCA for approval in line with the annual review of Reference Tariff process outlined within clause 4.1 of Schedule F.

One of the outcomes of the discussions between Aurizon Network and the Customers is that in addition to providing updates to key inputs for the coming Year as part of the annual review of Reference Tariffs, Aurizon Network will also provide indicative and non-binding Allowable Revenues and Reference Tariffs for the longer-term (i.e., for the following Year and each subsequent Year within the Term) within Schedule F. This will help to ensure that the Allowable Revenues and Reference Tariffs included within Schedule F reflect the latest available inputs and assumptions, thereby assisting all Access Holders with their own processes.

The indicative and non-binding nature of the longer-term values included within Schedule F also recognises that these values will be updated (at least annually) during the Term in accordance with the Access Undertaking.

Aurizon Network has included amendments in the 2025 UT5 DAAU that have the effect of consolidating all Allowable Revenue and Reference Tariff information within Schedule F, including the additional transparency in respect of the revenue building blocks that was previously included within Schedule K. Aurizon Network considers that its proposal will provide Access Holders with relevant and up-to-date information for each Year compared to what was previously contained in Schedule K. Aurizon Network therefore proposes to delete Schedule K from the 2025 UT5 DAAU.

Aurizon Network's covering submission for each annual review of Reference Tariffs in compliance within Schedule F will outline the inputs and assumptions that Aurizon Network has relied upon to determine the longer-term Allowable Revenues and Reference Tariffs for the following Year and each subsequent Year within the Term.

17. Redundant Drafting

In addition to the new provisions in the 2025 UT5 DAAU that have been negotiated with the Customers and described already in this submission, there are a number of provisions that currently exist in the 2017 Access Undertaking that have been deleted in the 2025 UT5 DAAU because:

- Aurizon Network has agreed with the Customers that such provisions are no longer required, relevant or appropriate; or
- given the passage of time, they are no longer relevant.

17.1 Removal of provisions agreed with the Customers as part of the negotiation

Aurizon Network and the Customers have agreed that certain provisions in the 2017 Access Undertaking are no longer required, relevant or appropriate to include in the 2025 UT5 DAAU. These include:

- most of Clause 3.6 this required the approval of a Majority of End Users for any transfer or secondments of any Senior Aurizon Network Employees, Key Aurizon Network Commercial Personnel, Senior Related Operator Employees or Senior Related Competitor Employees between Aurizon Network and a Related Operator or a Related Competitor;
- Clauses 3.9(e) and 3.9(f) this provided an agreement for Aurizon Network to engage an
 independent observer, nominated by the Chair of the RIG on behalf of a Majority of End Users
 to attend Board meetings of Aurizon Network. During the term of the 2017 Access
 Undertaking, the End Users decided not to nominate any such independent observer; and
- Clause 7A.8.1 this required Aurizon Network to develop a proposal for a Supply Chain Coordination Entity across the CQCN and required the participation of Supply Chain Participants across each Coal System.

17.2 Removal of provisions that are no longer relevant given the passage of time

There are a number of provisions in the 2017 Access Undertaking that were stated to apply only for a specific time period or only up until the date that the Initial Capacity Assessment Report was published by the Independent Expert. As that report was published by the Independent Expert on 28 October 2021, Aurizon Network has deleted any provisions that referred to steps to be taken or processes to apply before that date.

Key examples include:

- the removal in clause 2.1 of the reference to an Adjustment Charge for the period between 1 July 2017 and December 2019 when the UT5 Customer DAAU was approved by the QCA;
- the removal of the obligation in clause 3.14 to consider any amendments to the Confidential Information Register within 4 months of the Approval Date;
- amendment to the timing of Indicative Access Proposals under clause 4.6(e);
- the removal of the entire Part 6A that addressed the process for the mid-term reset that has already taken place, and replacing it with a new Part 6A to apply going forward;
- the removal in clause 7A.3.3(a) of the reference to the QCA's review of the appointment of the Independent Expert four years after the Approval Date;

- the removal of redundant provisions in clause 7A.3 4 in relation to the IE Pass Through Costs;
- the removal of redundant provisions in clause 7A.4 in relation to the Independent Expert Initial Capacity Assessment as this assessment has already taken place;
- the removal in clause 7A.6 of the QCA's review of the Rebate mechanism as this has already taken place;
- the removal of provisions in clause 7A.9 that dealt with how System Operating Parameters would be developed prior to the publication of the Initial Capacity Assessment Report;
- the removal of references to Approved Maintenance Approach and the Maintenance Costs claims for FY2019 and FY2020 in clause 7A.11, as these only applied prior to the publication of the Initial Capacity Assessment Report;
- the removal of references in clause 8.3 and 8.9 to steps required to be taken before the publication of the Initial Capacity Assessment Report as this has already taken place;
- the removal of requirements in clause 10.4.1 in relation to publication of financial statements that are no longer relevant;
- the removal of redundant definitions in Part 12;
- the removal of the provisions on Strategic Train Plan principles in clause 2 of Schedule G, as these only applied prior to the publication of the Initial Capacity Assessment Report;
- the removal of the provisions on Master Train Plan principles in clause 3 of Schedule G, as these only applied prior to the publication of the Initial Capacity Assessment Report; and
- the removal of the entire Schedule K, as this information will now be provided as part of Schedule F.

18. Access Agreements and Train Operation Deeds

With the improvements to processes outlined within the Policy section of the Access Undertaking being proposed, there are consequential amendments required to the agreements that support the Access Undertaking

18.1 Stakeholder engagement

Throughout the 2025 UT5 DAAU engagement, Aurizon Network and the Customers sought to identify process improvements to develop a more efficient Transfer process. This prompted Aurizon Network to review the existing requirements that form part of the administrative process of effecting a Transfer to understand the fundamental requirements.

18.2 Aurizon Network's proposal

Standard Access Agreements

Amendments to **Standard Access Agreement** clauses related to the nomination and variation of Railway Operators have been amended to reflect that instead of issuing replacement Schedules, the Train Operations Deed will be deemed to be varied where there is a change in Nominated Monthly Operational Rights and that variation will be visible to the Railway Operators in the 'TSE Reconciliation Report' (as that term is defined in clause 8.2 of Schedule G of the Access Undertaking), which in practice is currently the case.

Aurizon Network's notice details in Schedule 1 - Reference Schedule have been updated.

Train Operations Deed

Amendments to **Train Operations Deed clauses:** Clauses related to the nomination and variation of Railway Operators have been amended to reflect that instead of issuing replacement Schedules, the Train Operations Deed will be deemed to be varied where there is a change in Nominated Monthly Operational Rights and that variation will be visible to the Railway Operators in the 'TSE Reconciliation Report' (as that term is defined in clause 8.2 of Schedule G of the Access Undertaking), which in practice is currently the case.

Additional minor amendments: The definition of "Effective Date" was removed from the Train Operations Deed due to redundancy, and references to Reference Tariff Provisions were deleted from Schedule 2, Part B.

Aurizon Network's notice details in Schedule 1 - Reference Schedule have been updated.

To cater for the introduction of Rolling Access Agreements, the definition of Train Service Expiry Date in Schedule 2 has been updated to refer to either a fixed date, or "such later date resulting from a renewal of the Access Holder's Access Rights, as notified in writing to the Operator by Aurizon Network".

The amount of public liability insurance that a Railway Operator is obliged to effect and maintain has been amended in clause 1(a) of Schedule 7 to the amount of One Hundred and Fifty Million Dollars (\$150,000,000). This change reflects the QCA's 2022 Final Decision and has been included in all Train Operations Deeds executed after that Decision.

19. Glossary

Term	Definition
2017 UT5 FD or 2017 DAU	UT5 2017 Final Decision December 2018 (4 year period 1 July 17 – 30 June 21) [FY18 – FY21]
2019 UT5 DAAU	UT5 2019 Approved DAAU December 2018 (6 year period 1 July 21 – 30 Jun27) [FY22 -FY27]
2025 UT5 DAAU	UT5 2025 Submitted DAAU "19 December 2025" (10 year period 1 July27 – 30 Jun 37) [FY28 – FY37]
ABS	Australian Bureau of Statistics
ACAR	Annual Capacity Assessment Report
ACCC	Australian Competition and Consumer Commission
Access Holder	A person or organisation that holds access rights to the Central Queensland Coal Network
AER	Australian Energy Regulator
AEMC	Australian Energy Market Commission
AFD	Access Facilitation Deed
AGS	Australian Government Securities
ARTC	Australian Rail Track Corporation
ASD	Australian Signals Directorate
ASX	Australian Securities Exchange
ATO	Australian Tax Office
Aurizon Group	The Group of Companies held by Aurizon Holdings Limited, which includes Aurizon Network Pty Ltd
Aurizon Holdings	Aurizon Holdings Limited
Aurizon Network	Aurizon Network Pty Ltd
BD	Business Days
Capex	Capital Expenditure
CEG	Competition Economists Group
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIG	Continuous Improvement Group
CNCC	Coal Network Capacity Co
CPI	Consumer Price Index
CQCN	Central Queensland Coal Network
DAU	Draft Access Undertaking
DAAU	Draft Amending Access Undertaking
DBCT	Dairymple Bay Coal Terminal

Term	Definition
DBCT Users / DBCT User Group	Dalrymple Bay Coal Terminal User Group that represents existing and future users of the terminal
DNC	Deliverable Network Capacity
DORC	Depreciated Optimised Replacement Cost
DRP	Debt Risk Premium
D&O	Directors and Officers
EA	Enterprise Agreement
EAR	Effective Annual Rate
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortisation
EC	Electric energy charge
EOA	Electric Operating Expenditure Allowance
ERP	Enterprise Resource Planning
ESG	Environmental, Social and Governance
egtk	Electric gross tonne kilometres
First Reset Date	1 July 2027
First Reset Period	The first 5-year period of the 2025 UT5 DAAU, 1 July 27 – 30 Jun 32
Frontier	Frontier Economics
FTE	Full Time Equivalents
FY	Financial year
GAPE	Goonyella to Abbot Point Expansion
GAR	Gross As Received
GE	Group Executive
Gtk	Gross tonne kilometres
GAWB	Gladstone Area Water Board
HER	Historical Excess Returns
JORC	Joint Ore Reserves Committee
IAP2	International Association for Public Participation
ICAR	Initial Capacity Assessment Report
ICT	Information and Communications Technology
IE	Independent Expert
IEA	International Energy Agency
IPART	Independent Pricing and Regulatory Tribunal
IRR	Internal Rate of Return
ICS	Industrial Control System
Mt	Million tonnes
MRP	Market Risk Premium

Term	Definition
MRSB	Maintenance and Renewal Strategy and Budget
Mtpa	Million tonnes per annum
MTN	Medium Term Note
NCC	Network Control Centre
NDP	Network Development Plan
NECAP	Non-Expansion Capital Expenditure
NER	National Electricity Rules
NMOR	Nominated Monthly Operational Rights
NOEA	Non-Electric Operating Expenditure Allowance
NPV	Net present value
NQXT	North Queensland Export Terminal
nt	Net tonnes
ntk	Net tonne kilometres
OAV	Opening Asset Value
Opex	Operational Expenditure
ОТ	Operational Technology
PCI	PCI coal - a type of metallurgical coal that is utilised in steelmaking
PV	Present value
QCA	Queensland Competition Authority
QCA Act	Queensland Competition Authority Act (Qld) 1997
QR	Queensland Rail Limited
QRC	Queensland Resources Council
QR Network	The subsidiary of QR which was established in 2008 to own and manage the Queensland Rai network, now Aurizon Network
RAB	Regulatory Asset Base
RAC	Rockhampton Administration Centre
RACE	Network Planning & Scheduling Tool
RBA	Reserve Bank of Australia
RFR	Risk free Rate
RIG	Rail Industry Group
RMI	Resource Management International
RT	Reference Tariffs
RTBU	The Rail, Tram and Bus Union
RWG	Queensland Resources Council's Rail Working Group
Second Reset Date	1 July 2032

Term	Definition
Second Reset Period	The second 5-year period of the 2025 UT5 DAAU 1 July 32 – 30 Jun 37 [FY32 – FY37]
SAA	Standard Access Agreement
SAP ERP	SAP Enterprise Resource Planning
SOP	System Operating Parameters
SOCI Act	The Security of Critical Infrastructure Act 2018
TPBR	Throughput Payment Base Rate
TMR	Total Market Return
TNSP	Transmission Network Service Provider
TOD	Train Operations Deed
ТоР	Take or Pay
ToP Gtk	Take or Pay Gross tonne kilometres
TSE	Train Service Entitlement
UT1	The period from 2001 to 2006, being the term of QR's first Access Undertaking
UT2	The period from 2006 to 2010, being the term of QR's second Access Undertaking covering the CQCN
UT3	The period from 2010 to 2016, being the term of the 2010 Undertaking, being the third Access Undertaking covering the CQCN
UT4	The period from 2016 to 2019, being the term of the 2010 Undertaking, being the third Access Undertaking covering the CQCN
UT5	The undertaking for the Term commencing 2 February 2019, being the fifth Access Undertaking covering the CQCN
WACC	Weighted Average Cost of Capital
WACD	Weighted Average Cost of Debt
WAML	Weighted Average Mine Life
WOOPS	Window of Opportunities Past framework from the Economic Regulation Authority of Wester Australia.
WPI	Wage Price Index
QCA's Rate of Return Report	The QCA 2021 Rate of Return Review Final Repor

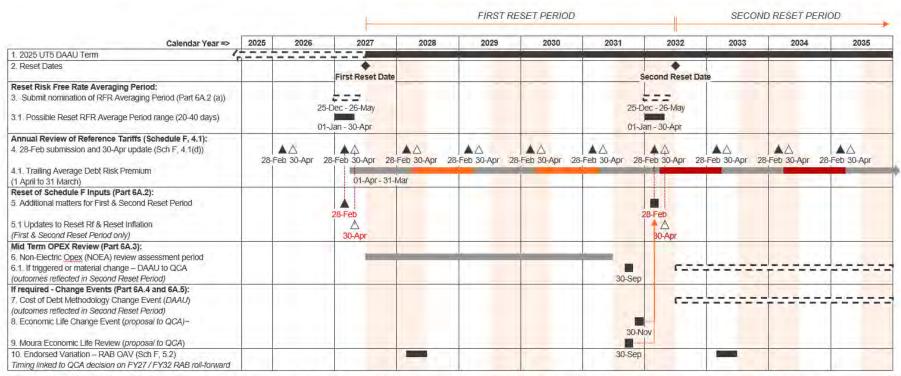
Appendix 1: List of Customers providing letters of support

The Customers listed below are expected to have provided or will provide on or around the date of this submission, letters addressed to the QCA in support of various elements of the 2025 UT5 DAAU.

- Anglo American Steelmaking Coal Pty Ltd
- BM Alliance Coal Operations Pty Ltd
- Ensham Resources Pty Ltd
- Glencore Coal Assets Australia Pty Ltd
- Jellinbah Mining Pty Ltd
- Lake Vermont Resources Pty Ltd
- MetRes Pty Ltd
- Middlemount Coal Pty Ltd
- Peabody Energy Australia Pty Ltd
- Pembroke Olive Downs Pty Ltd
- Stanmore IP Coal Pty Ltd
- Stanmore SMC Pty Ltd
- Whitehaven Project Pty Ltd

Appendix 2: First and Second Reset Processes

- Network will rely on the annual review of Reference Tariff (ARRT) process (Sch F, cl 4.1) to provide rolling annual updates to the Schedule F Values.
- . With this QCA approval date, various revenue and tariff inputs for FY2028 will require updating prior to the commencement of the extended Term on 1 July 2027.



Regarding item 7, Network will consult with a nominated representative of the Rail Working Group regarding the appointment of Banking Expert to advise whether such a change event has occurred. Regarding items 8 and 9, Network will seek comments from affected Access Holders and Access Seekers prior to submitting a proposal to the QCA.

First Reset - 28 February 2027

The First Reset will operate in conjunction with ARRT process for FY2028 (due 28 February 2027), essentially, a one-off extension of the scope of the ARRT for that year. Scope includes:

Volume Forecast (incl ToP Gtk & electric utilisation level)	Capital Indicator and Maintenance Indicator	Revenue Adjustment Amounts
Capital Expenditure Allowable Revenue Adjustment	TNSP Charges (prelim) EC (prelim)	IE Pass Through Cost (prelim)
Cost of Debt (new) (prelim)	NOEA Adjustments (new)	Throughput Payment (new)
Performance Rebate Cap Adjustment (new)	Continuous Improvement Group budget (new)	
ARRT Process (Standard) – :	30 April Update	
Cost of Debt*	EC (timing change)	TNSP / IE Pass Through
FY2028 ARRT - Scope Exten	sion for First Reset Period	-
Opening Asset Value**	Reset Risk Free Rate (Indicative at 28-Feb with 30 April update)	Reset Inflation Rate (Indicative at 28-Feb with 30 April update)
DRP period nomination	Indirect Mtce Cost base^	Depreciation (20yr reset) ^A

ARRT submission will outline the updates to all Allowable Revenues and Reference Tariffs to reflect change in inputs.

Second Reset - 28 February 2032

The Second Reset will operate in conjunction with the ARRT process for FY2033. Scope includes;

Volume Forecast	Capex / Mtce Indicator	Revenue Cap
Capital Expenditure Allowable Revenue Adjustment	TNSP Charges (prelim) EC (prelim)	IE Pass Through Cost (prelim)
Cost of Debt (prelim)	NOEA Adjustments	Throughput Payment
Performance Rebate Cap Adjustment	Continuous Improvement Group budget	
ARRT Process (Standard) – 30	April Update	
Cost of Debt*	• EC	TNSP / IE Pass Through
FY2033 ARRT - Scope Extens	ion for Second Reset Period	
Opening Asset Value**	Reset Risk Free Rate (Indicative at 28-Feb with 30 April update)	Reset Inflation Rate (Indicative at 28-Feb with 30 April update)
DRP period nomination	Indirect Mtce Cost base	Depreciation (20yr reset)
Subject to Trigger / Change E	vent	
Mid-Term Opex Reset	Economic Life Change Cost of Debt Review	Moura Economic Life Review

^{*} Cost of Debt impacts WACC, which will have flow on impact to other matters, e.g. Indirect Mtce Costs Allowance.

[^] In respect of the First Reset Period, the Indirect Maintenance Cost Allowance and Depreciation rolling life will be submitted to the QCA as part of the 2025 UT5 DAAU.

^{*} Cost of Debt impacts WACC, which will have flow on impact to other matters, e.g. Indirect Mtce Costs Allowance.

^{**} At the First Reset, OAV updated to reflect latest approved RAB Roll-forward (likely FY26) and actual CPI outcomes. Following QCA approval of FY27 Capex Claim & RAB Roll-forward (expected 1HCY2028), Endorsed Variation will be submitted to reset the RAB values for each Year of the UT5 DAAU term. Exact timing is uncertain. Will impact Allowable Revenues.

^{**}At the Second Reset, OAV updated to reflect latest approved RAB Roll-forward and actual CPI outcomes. Following QCA approval of FY32 Capex Claim & RAB Roll-forward, Endorsed Variation will 6 be submitted to reset the RAB values for each remaining Year of the UT5 DAAU term. Exact timing is uncertain. Will impact Allowable Revenues.

Appendix 3: Allowable Revenue movements by System

The graphs below outline the movements (by building block component) from FY27 to FY28. This analysis is provided for the total Allowable Revenue in each system, i.e. for both electric and non-electric assets.

Figure A3-1 Allowable Revenue Movements - FY27 to FY28 - Total CQCN (\$m)

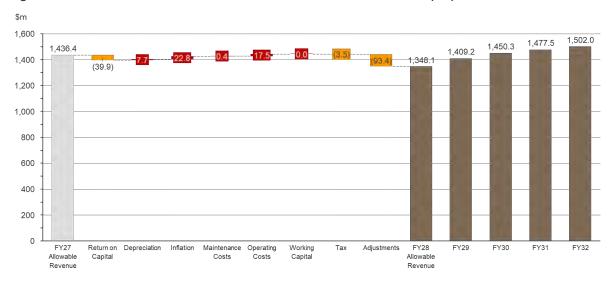


Figure A3-2 Allowable Revenue Movements - FY27 to FY28 - Total Blackwater (\$m)

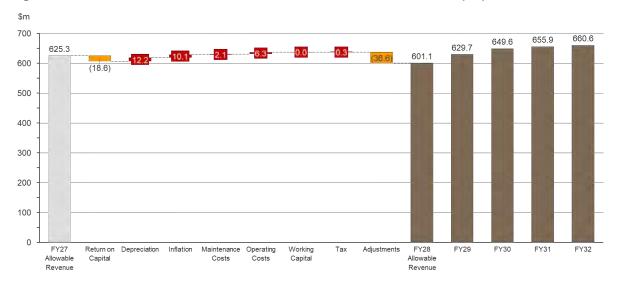


Figure A3-3 Allowable Revenue Movements - FY27 to FY28 - Total Goonyella (\$m)

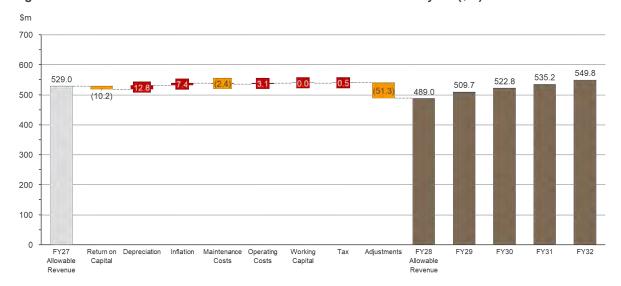


Figure A3-4 Allowable Revenue Movements – FY27 to FY28 – Moura (\$m)

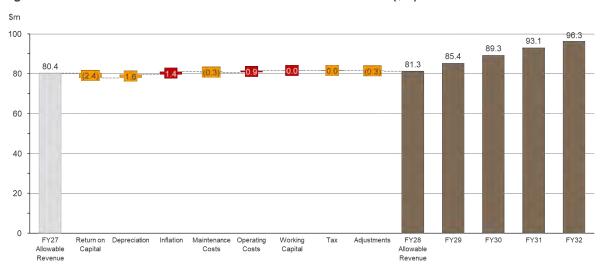


Figure A3-5 Allowable Revenue Movements - FY27 to FY28 - Newlands (\$m)

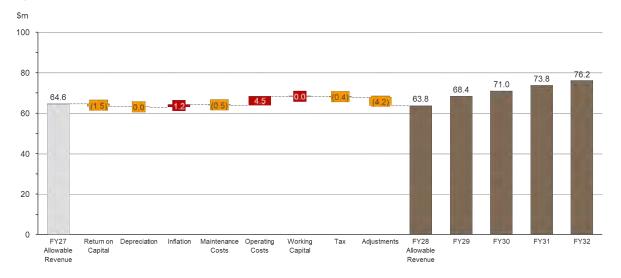
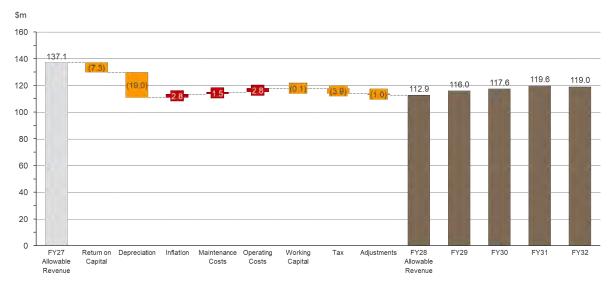


Figure A3-6 Allowable Revenue Movements – FY27 to FY28 – GAPE (\$m)



Appendix 4: Longer Term Allowable Revenues and Reference Tariffs

The tables below outline the estimated longer term Allowable Revenues and Reference Tariffs for each Coal System. Please note that: these values are indicative and non-binding and may be subject to change in accordance with this Undertaking; and the revenues presented below exclude any Throughput Payments.

Allowable Revenue by Building Block - Total CQCN

Table A4-1 Allowable Revenue - Total CQCN (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	479.4	480.8	479.5	476.9	473.8	470.5	470.1	469.3	467.7	467.1
Depreciation	510.6	542.6	560.2	567.5	573.5	537.7	547.0	562.6	554.9	575.8
Inflation	(154.2)	(145.4)	(136.2)	(127.0)	(118.2)	(109.7)	(102.8)	(96.3)	(90.0)	(84.4)
Direct Maintenance	206.6	214.6	220.4	226.1	232.0	238.0	244.1	250.5	257.0	263.6
Indirect Maintenance	16.7	16.7	16.2	15.4	14.6	14.6	14.6	14.6	14.6	14.6
Non-Electric Opex	150.4	153.5	158.5	163.7	168.5	173.2	178.5	184.9	188.9	193.5
Electric Opex	79.5	81.6	83.8	86.1	88.3	90.7	93.1	95.6	98.1	100.7
Working Capital	3.9	4.0	4.1	4.2	4.3	4.2	4.3	4.4	4.5	4.6
Тах	55.1	60.8	63.8	64.7	65.2	58.2	59.3	61.5	59.6	62.4
Adjustments	-	-	-	-	-	-	-	-	-	-

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Total	1,348.1	1,409.2	1,450.3	1,477.5	1,502.0	1,477.3	1,508.2	1,547.0	1,555.1	1,598.0

Table A4-2 Allowable Revenue – Total CQCN – Non-Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	435.9	437.5	436.7	434.7	432.3	429.4	429.1	428.5	427.2	426.3
Depreciation	455.8	486.5	502.4	508.0	517.7	486.8	494.7	507.3	508.8	527.3
Inflation	(140.2)	(132.4)	(124.3)	(116.2)	(108.5)	(101.0)	(94.9)	(89.2)	(83.8)	(78.7)
Direct Maintenance	187.4	194.7	199.8	204.9	210.2	215.6	221.2	226.9	232.8	238.8
Indirect Maintenance	16.5	16.5	16.1	15.3	14.5	14.5	14.5	14.5	14.5	14.5
Non-Electric Opex	150.4	153.5	158.5	163.7	168.5	173.2	178.5	184.9	188.9	193.5
Electric Opex	-		-	-	-	-	-	-	-	-
Working Capital	3.3	3.5	3.6	3.6	3.7	3.7	3.7	3.8	3.9	4.0
Тах	48.7	54.0	56.7	57.3	58.6	52.4	53.3	54.9	54.6	57.2
Adjustments	-	-		-	-			-	-	
Total	1,157.8	1,213.8	1,249.4	1,271.3	1,297.0	1,274.7	1,300.1	1,331.7	1,346.9	1,382.9

Table A4-3 Allowable Revenue – Total CQCN – Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	43.5	43.3	42.8	42.2	41.5	41.0	41.0	40.8	40.5	40.8
Depreciation	54.7	56.1	57.7	59.5	55.7	50.8	52.3	55.2	46.2	48.4
Inflation	(14.0)	(13.0)	(11.9)	(10.8)	(9.7)	(8.7)	(7.9)	(7.1)	(6.2)	(5.6)
Direct Maintenance	19.3	19.9	20.6	21.2	21.7	22.3	22.9	23.5	24.1	24.8
Indirect Maintenance	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Non-Electric Opex				~	ω		<u>.</u>	_		
Electric Opex	79.5	81.6	83.8	86.1	88.3	90.7	93.1	95.6	98.1	100.7
Working Capital	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Тах	6.5	6.8	7.1	7.4	6.7	5.8	6.0	6.6	4.9	5.2
Adjustments	-				-			-	-	-
Total	190.3	195.5	200.9	206.2	205.0	202.6	208.1	215.3	208.3	215.1

Allowable Revenue by Building Block - Blackwater

Table A4-4 Allowable Revenue – Blackwater – Non-Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	190.8	191.3	190.8	189.7	189.0	188.1	188.4	188.3	188.0	187.4
Depreciation	198.7	213.5	221.1	217.9	220.3	206.8	213.5	217.9	224.2	231.6

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Inflation	(61.5)	(58.2)	(54.6)	(51.0)	(47.8)	(44.7)	(42.2)	(39.8)	(37.5)	(35.3)
Direct Maintenance	80.0	82.2	84.5	86.7	88.9	91.2	93.5	95.9	98.4	100.9
Indirect Maintenance	7.2	7.2	7.0	6.7	6.3	6.3	6.3	6.3	6.3	6.3
Non-Electric Opex	59.0	60.2	62.2	64.2	66.1	68.0	70.0	72.5	74.1	75.9
Electric Opex		-	-	-		-	-	-	-	-
Working Capital	1.4	1.5	1.5	1.5	1.6	1.5	1.6	1.6	1.7	1.7
Тах	20.9	23.6	24.9	24.2	24.5	21.8	22.9	23.4	24.5	25.5
Adjustments	-	-	-	(46)	-		-	-		-
Total	496.5	521.3	537.4	540.0	548.9	539.1	554.1	566.3	579.7	594.1

Table A4-5 Allowable Revenue – Blackwater – Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	24.7	24.3	23.8	23.2	22.4	21.9	21.9	21.9	21.7	22.0
Depreciation	32.2	34.0	35.9	37.8	33.1	27.4	28.1	29.6	24.6	25.9
Inflation	(8.2)	(7.6)	(6.9)	(6.2)	(5.4)	(4.8)	(4.4)	(3.9)	(3.5)	(3.1)
Direct Maintenance	9.2	9.4	9.6	9.9	10.1	10.4	10.7	11.0	11.3	11.6
Indirect Maintenance	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Electric Opex	-	-	-		-	-	4.5	-	2	-

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Electric Opex	42.6	43.7	44.9	46.0	47.3	48.5	49.8	51.1	52.5	53.9
Working Capital	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Тах	3.7	4.1	4.5	4.8	3.9	2.9	3.0	3.3	2.4	2.6
Adjustments		-		-		-	-	-	-	-
Total	104.6	108.4	112.2	115.9	111.7	106.7	109.5	113.4	109.4	113.1

Allowable Revenue by Building Block - Goonyella

Table A4-6 Allowable Revenue - Goonyella - Non-Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	138.9	140.7	141.9	143.0	143.9	144.5	145.8	146.9	147.8	148.6
Depreciation	153.4	162.9	165.8	169.0	173.3	166.7	171.7	176.0	179.4	186.1
Inflation	(44.0)	(41.4)	(38.7)	(36.1)	(33.6)	(31.3)	(29.3)	(27.6)	(25.9)	(24.3)
Direct Maintenance	70.6	73.3	75.6	77.6	79.6	81.6	83.8	85.9	88.1	90.4
Indirect Maintenance	7.2	7.1	6.9	6.5	6.1	6.1	6.1	6.1	6.1	6.1
Non-Electric Opex	60.8	62.1	64.1	66.2	68.1	70.1	72.2	74.8	76.4	78.3
Electric Opex	-	-		_	12	12	_	=		-
Working Capital	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5
Тах	15.3	16.8	17.1	17.4	17.9	16.5	17.1	17.5	17.8	18.6

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Adjustments	(44)	: 44	-	-	-	-	J -	-	-	195
Total	403.3	422.7	434.1	444.9	456.6	455.6	468.6	481.0	491.2	505.3

Table A4-7 Allowable Revenue – Goonyella – Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	18.8	19.0	19.0	19.0	19.1	19.1	19.1	19.0	18.8	18.9
Depreciation	22.5	22.1	21.9	21.7	22.7	23.4	24.3	25.6	21.5	22.6
Inflation	(5.8)	(5.4)	(5.0)	(4.6)	(4.3)	(3.9)	(3.5)	(3.2)	(2.8)	(2.5)
Direct Maintenance	10.1	10.4	11.0	11.3	11.6	11.9	12.2	12.6	12.9	13.2
Indirect Maintenance	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Electric Opex	-	4	_	_	_	- 12	-	14	-	
Electric Opex	37.0	38.0	39.0	40.0	41.1	42.2	43.3	44.4	45.6	46.8
Working Capital	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Tax	2.7	2.7	2.6	2.6	2.8	2.9	3.0	3.2	2.5	2.6
Adjustments	-	-	-	-	/ -		-	-	-	-
Total	85.7	87.0	88.8	90.3	93.2	95.9	98.6	102.0	98.8	102.0

Allowable Revenue by Building Block - Moura

Table A4-8 Allowable Revenue - Moura - Non-Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	30.3	30.2	30.2	30.0	29.6	29.1	28.8	28.7	28.6	28.3
Depreciation	31.0	33.3	35.3	37.6	39.6	36.3	34.0	35.5	37.5	39.2
Inflation	(9.8)	(9.3)	(8.7)	(8.1)	(7.5)	(6.9)	(6.4)	(6.1)	(5.7)	(5.3)
Direct Maintenance	18.1	18.9	19.7	20.2	20.8	21.3	21.9	22.5	23.0	23.7
ndirect Maintenance	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Non-Electric Opex	6.7	6.8	7.0	7.3	7.5	7.7	7.9	8.2	8.4	8.6
Electric Opex	-	-		-	-	=	-	<u>-</u>	-	-
Working Capital	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Тах	3.8	4.1	4.5	4.8	5.1	4.5	4.0	4.2	4.5	4.7
Adjustments	-		-	_	-	-	-	-	-	-
Fotal	81.3	85.4	89.3	93.1	96.3	93.1	91.4	94.3	97.5	100.4

Allowable Revenue by Building Block - Newlands

Table A4-9 Allowable Revenue - Newlands - Non-Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	28.9	29.8	30.2	30.5	30.7	30.9	31.2	31.5	31.7	31.9
Depreciation	25.1	27.3	28.8	30.2	31.3	28.8	30.5	31.4	31.4	32.9
Inflation	(9.1)	(8.8)	(8.4)	(7.9)	(7.5)	(7.1)	(6.7)	(6.4)	(6.1)	(5.8)
Direct Maintenance	7.1	7.8	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.1
Indirect Maintenance	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Non-Electric Opex	8.2	8.3	8.6	8.9	9.1	9.4	9.7	10.0	10.2	10.5
Electric Opex	-	-		-	-	-	-	-	-	-
Working Capital	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Тах	2.9	3.2	3.4	3.7	3.9	3.4	3.7	3.8	3.8	4.0
Adjustments					-	-	-	-	-	-
Total	63.8	68.4	71.0	73.8	76.2	74.2	77.4	79.7	80.5	83.3

Allowable Revenue by Building Block - GAPE

Table A4-10 Allowable Revenue - GAPE - Non-Electric Assets (\$m)

Building Block (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
Return on Capital	46.9	45.4	43.5	41.4	39.2	36.9	34.9	33.1	31.2	30.0
Depreciation	47.6	49.5	51.4	53.4	53.2	48.2	45.1	46.4	36.3	37.5
Inflation	(15.7)	(14.9)	(14.0)	(13.1)	(12.1)	(11.1)	(10.2)	(9.4)	(8.6)	(8.0)
Direct Maintenance	11.6	12.6	12.3	12.6	13.0	13.3	13.6	14.0	14.4	14.7
Indirect Maintenance	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
Non-Electric Opex	15.7	16.0	16.6	17.1	17.6	18.1	18.7	19.3	19.8	20.2
Electric Opex	-	-	-	-	-	-	+	-	-	-
Working Capital	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Тах	5.8	6.3	6.7	7.1	7.2	6.3	5.7	6.0	4.1	4.3
Adjustments	-				-	-	-	-	-	-
Total	112.9	116.0	117.6	119.6	119.0	112.6	108.7	110.3	98.0	99.7

Allowable Revenue by Reference Tariff Component

Table A4-11 Allowable Revenue by Reference Tariff Component - Blackwater (\$m)

Blackwater (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	38.8	39.8	40.9	42.0	43.1	44.2	45.4	46.6	47.8	49.1
AT2 - AT4	457.8	481.5	496.6	498.0	505.8	494.9	508.7	519.7	531.9	545.0
AT5	104.6	108.4	112.2	115.9	111.7	106.7	109.5	113.4	109.4	113.1
Total	601.1	629.7	649.6	655.9	660.6	645.8	663.6	679.7	689.1	707.3

Table A4-12 Allowable Revenue by Reference Tariff Component – Goonyella (\$m)

Goonyella (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	27.9	28.7	29.5	30.2	31.0	31.9	32.7	33.6	34.5	35.4
AT2 - AT4	375.3	394.0	404.6	414.6	425.6	423.7	435.8	447.4	456.7	469.9
AT5	85.7	87.0	88.8	90.3	93.2	95.9	98.6	102.0	98.8	102.0
Total	489.0	509.7	522.8	535.2	549.8	551.5	567.2	583.0	590.0	607.3

Table A4-13 Allowable Revenue by Reference Tariff Component - Moura (\$m)

Moura (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	8.2	8.4	8.6	8.9	9.1	9.4	9.6	9.9	10.1	10.4
AT2 - AT4	73.1	76.9	80.6	84.2	87.2	83.8	81.8	84.5	87.4	90.0
AT5	-	-	-	-	-	-	-	-	-	-
Total	81.3	85.4	89.3	93.1	96.3	93.1	91.4	94.3	97.5	100.4

Table A4-14 Allowable Revenue by Reference Tariff Component – Newlands (\$m)

Newlands (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	10.4	10.7	11.0	11.3	11.6	11.9	12.2	12.5	12.9	13.2
AT2 - AT4	53.3	57.7	60.0	62.5	64.7	62.3	65.2	67.1	67.7	70.1
AT5	-	-		-	-	-	-	-	-	-
Total	63.8	68.4	71.0	73.8	76.2	74.2	77.4	79.7	80.5	83.3

Table A4-15 Allowable Revenue by Reference Tariff Component – GAPE (\$m)

GAPE (\$m)	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	16.2	16.6	17.1	17.5	18.0	18.5	18.9	19.4	20.0	20.5
AT2 - AT4	96.8	99.4	100.5	102.1	101.1	94.2	89.7	90.9	78.0	79.2
AT5		-		-	-	-	-	-	-	-
Total	112.9	116.0	117.6	119.6	119.0	112.6	108.7	110.3	98.0	99.7

Reference Tariffs

Table A4-16 Blackwater Reference Tariffs (\$)

Blackwater	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	1.16	1.19	1.22	1.25	1.29	1.32	1.36	1.39	1.43	1.47
AT2	2,862.84	2,938.99	3,017.16	3,097.41	3,179.79	3,264.37	3,351.19	3,440.32	3,531.83	3,625.77
AT3	9.00	9.49	9.79	9.71	9.83	9.56	9.82	10.03	10.26	10.51
AT4	2.97	3.13	3.23	3.20	3.24	3.15	3.24	3.31	3.38	3.47
AT5	4.31	4.47	4.63	4.78	4.61	4.39	4.51	4.67	4.51	4.66
EC	1.35	1.38	1.42	1.46	1.50	1.54	1.58	1.62	1.66	1.71
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185	0.0190	0.0195	0.0200	0.0205	0.0211
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250	0.0256	0.0263	0.0270	0.0277	0.0285
TP1	0.060	0.062	0.063	0.065	0.067	0.068	0.070	0.072	0.074	0.076
TP2	0.167	0.172	0.176	0.181	0.186	0.191	0.196	0.201	0.206	0.212

Table A4-17 Goonyella Reference Tariffs (\$)

Goonyella	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	0.80	0.82	0.85	0.87	0.89	0.91	0.94	0.96	0.99	1.02
AT2	1,813.78	1,862.02	1,911.55	1,962.39	2,014.58	2,068.17	2,123.18	2,179.65	2,237.62	2,297.14
AT3	6.59	6.92	7.09	7.27	7.45	7.38	7.59	7.78	7.93	8.15
AT4	1.35	1.42	1.46	1.49	1.53	1.52	1.56	1.60	1.63	1.67
AT5	2.58	2.61	2.66	2.70	2.79	2.86	2.93	3.00	2.91	3.01
EC	1.35	1.38	1.42	1.46	1.50	1.54	1.58	1.62	1.66	1.71
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185	0.0190	0.0195	0.0200	0.0205	0.0211
						-				

Goonyella	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250	0.0256	0.0263	0.0270	0.0277	0.0285
TP1	0.060	0.062	0.063	0.065	0.067	0.068	0.070	0.072	0.074	0.076
TP2	0.298	0.306	0.314	0.323	0.331	0.340	0.349	0.358	0.368	0.378

Table A4-18 Moura Reference Tariffs (\$)

Moura	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	2.15	2.21	2.27	2.33	2.39	2.46	2.52	2.59	2.66	2.73
AT2	847.89	870.45	893.60	917.36	941.76	966.81	992.53	1,018.93	1,046.03	1,073.85
AT3	14.62	15.41	16.17	16.90	17.50	16.76	16.32	16.86	17.45	17.98
AT4	2.35	2.47	2.59	2.71	2.81	2.69	2.62	2.71	2.80	2.89
AT5	-		-	-	-		-	-	-	-
EC		-	-	(44)		4	_	-	-	-
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185	0.0190	0.0195	0.0200	0.0205	0.0211
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250	0.0256	0.0263	0.0270	0.0277	0.0285
TP1	0.060	0.062	0.063	0.065	0.067	0.068	0.070	0.072	0.074	0.076
TP2	0.374	0.384	0.394	0.405	0.415	0.426	0.438	0.449	0.461	0.474

Table A4-19 Newlands Reference Tariffs (\$)

Newlands	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	2.24	2.30	2.36	2.43	2.49	2.56	2.63	2.69	2.77	2.84
AT2	383.41	393.61	404.08	414.83	425.86	437.19	448.81	460.75	473.01	485.59

Newlands	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT3	9.57	10.31	10.70	11.12	11.38	10.89	11.37	11.70	11.77	12.18
AT4	1.33	1.44	1.49	1.55	1.59	1.52	1.59	1.63	1.64	1.70
AT5	-	-				-	-	-	-	
EC		-	-	-	-		-	-	-	
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185	0.0190	0.0195	0.0200	0.0205	0.0211
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250	0.0256	0.0263	0.0270	0.0277	0.0285
TP1	0.060	0.062	0.063	0.065	0.067	0.068	0.070	0.072	0.074	0.076
TP2	0.430	0.442	0.454	0.466	0.478	0.491	0.504	0.517	0.531	0.545

Table A4-20 GAPE Reference Tariffs (\$)

GAPE	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37
AT1	1.81	1.85	1.90	1.95	2.01	2.06	2.11	2.17	2.23	2.29
AT2	11,785.81	12,131.61	12,266.47	12,464.03	12,318.13	11,447.55	10,880.19	11,013.58	9,344.96	9,491.12
AT3	0.80	0.79	0.80	0.81	0.82	0.80	0.79	0.81	0.81	0.81
AT4	-	-	-	-	-		-	-	-	
AT5	4		-	-			-	-	-	-
EC	+	-	-	-	-			-		-
QCA Levy	0.0166	0.0171	0.0175	0.0180	0.0185	0.0190	0.0195	0.0200	0.0205	0.0211
IE Fee	0.0225	0.0231	0.0237	0.0243	0.0250	0.0256	0.0263	0.0270	0.0277	0.0285
TP1	0.060	0.062	0.063	0.065	0.067	0.068	0.070	0.072	0.074	0.076
TP2	0.186	0.191	0.197	0.202	0.207	0.213	0.218	0.224	0.230	0.236

List of Attachments

Α	Frontier Economics (2025) – The Allowed Return on Debt
В	Competition Economists Group (2021) – Efficient Regulatory Benchmarks, and Transitions, for the Cost of Debt
С	NERA (2025) – Depreciation Approaches at UT6
D	Wood Mackenzie (2025) – Weighted Average Mine Life for Blackwater and Moura Coal Systems
E	Marsh (2025) - Conceptual Insurance Program Design and Pricing
F	Finity (2025) – Review of Self Insurance Risk Premium – Access Undertaking UT6
J	Oxford Economics Australia (2025) - Cost Escalation: Forecasts to 2031/32
н	Savills (2025) – Aurizon Network Rental Report
11	White and Partners – Letter to Aurizon Network dated 17 July 2025 re Benchmarking of 900 Ann Street Rent for Premises Occupied by Aurizon Network (For Publication)
	White and Partners – Letter to Aurizon Network dated 17 July 2025 re Benchmarking of 900 Ann Street Rent for Premises Occupied by Aurizon Network (Confidential)
J	Minter Ellison Consulting (2025) – Aurizon: Network UT6 Information and Communications Technology (ICT) Expenditure, 10 Year Outlook Report (For Publication)
	Minter Ellison Consulting (2025) – Aurizon: Network UT6 Information and Communications Technology (ICT) Expenditure, 10 Year Outlook Report (Confidential)
K	2025 UT5 Draft Amending Access Undertaking
L	2025 UT5 Standard Access Agreement - Aurizon Network UT5 2025 DAAU - 19 December 2025
M	2025 UT5 Standard Train Operations Deed - Aurizon Network UT5 2025 DAAU - 19 December 2025