



Aurizon Network FY2025 Capital Expenditure Claim

Prepared by Aurizon Network
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1. Executive Summary

Aurizon Network Pty Ltd (**Aurizon Network**) welcomes the opportunity to submit to the Queensland Competition Authority (**QCA**) its capital expenditure claim (**Capex Claim**) for the Financial Year ending 30 June 2025 (**FY25**). This submission provides evidence to support the QCA's prudence and efficiency assessment of the FY25 Capex Claim and the subsequent inclusion of Aurizon Network's capital expenditure into the Regulatory Asset Base (**RAB**).

Capitalised terms in this submission have the meaning given in UT5, unless otherwise defined.

Aurizon Network notes that the FY25 Capex Claim follows the obligations and collaborative requirements of the 2017 Access Undertaking (**UT5**). Aurizon Network's FY25 Renewals Strategy and Budget (**Approved RSB**) was approved by the Rail Industry Group (**RIG**) on 14 February 2024 for all Coal Systems in the Central Queensland Coal Network (**CQCN**). Throughout FY25, Aurizon Network has sought, wherever reasonably possible, to deliver asset replacement and renewals activity in each Coal System in a manner that is consistent with the Approved RSB.

This submission seeks QCA approval of Aurizon Network's FY25 Asset Replacement and Renewal Expenditure (**Renewals Capex Claim**) of \$364.1m including Interest During Construction (**IDC**). This submission:

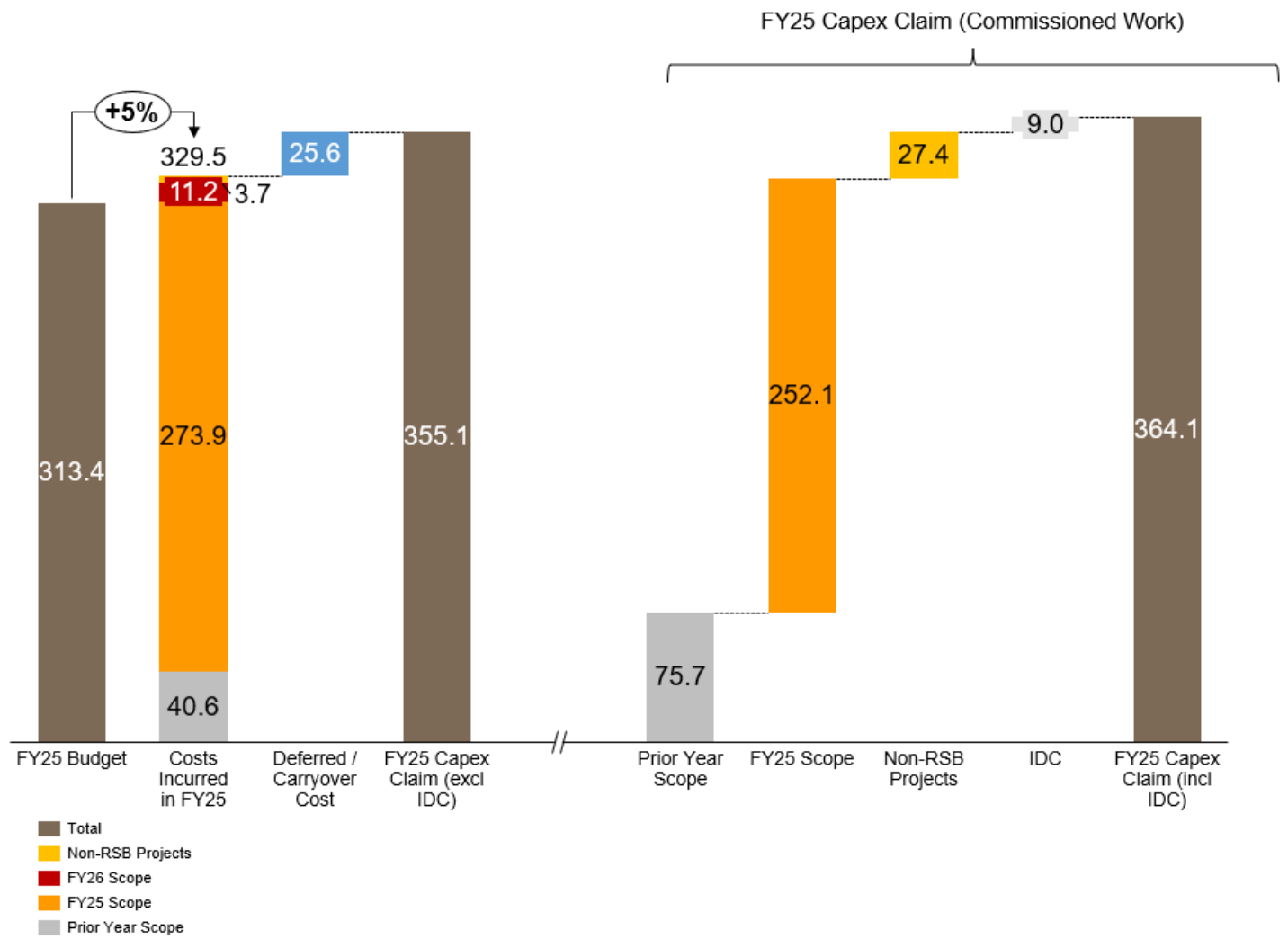
- i. demonstrates the extent to which Aurizon Network's capital expenditure and scope of work is consistent with the Approved RSB for each Coal System;
- ii. seeks QCA approval of additional costs where the Renewals Capex Claim departs from the Approved RSB for each Coal System in accordance with clause 7A.11.6 (b)(iv)(B); and
- iii. seeks QCA approval for the prudent and efficient value of the applicable assets where Aurizon Network's capital expenditure and scope of work was not included in the Approved RSB for any Coal System in accordance with Clause 2.2 of Schedule E of UT5.

Table 1 Renewals Capex Claim by Coal System

Coal System	Approved RSB (\$m)	Costs Incurred (\$m)	Variance (\$m)	Capex Claim excluding IDC (\$m)	Capex Claim including IDC (\$m)
Blackwater	148.1	150.1	2.0	161.2	164.9
Goonyella	110.6	127.1	16.5	130.6	134.4
Moura	22.3	24.0	1.7	19.0	19.5
Newlands / GAPE	32.3	28.3	(4.0)	44.3	45.3
Total CQCN	313.4	329.5	16.1	355.1	364.1

Figure 1 FY25 Renewals Program provides a comparison between the FY25 Approved RSB and the FY25 Capex Claim including a breakdown of total claimed costs for all Coal Systems.

Figure 1 FY25 Renewals Program



2. Introduction

Aurizon Network is the accredited Rail Infrastructure Manager (**RIM**) of the CQCN, the largest open-access coal rail network in Australia and one of the country's most complex rail freight networks. The CQCN is comprised of over 2,670 kilometres of heavy haul railway track, linking more than forty mines to five coal export terminals across four major Coal Systems and the Goonyella to Abbot Point Expansion (**GAPE**).

On 14 February 2024, the Chair of the RIG advised Aurizon Network that a Special Majority of End Users for each Coal System approved each of the corresponding RSBs.

Aurizon Network has sought to implement the FY25 Approved RSB for each Coal System and has delivered the renewals program in a manner that has had regard to the UT5 Maintenance Objectives in terms of:

- Seeking to ensure that Committed Capacity is delivered;
- Appropriately balancing cost, reliability and performance of the Rail Infrastructure; and
- Coordinating outages with other Supply Chain Participants wherever reasonably possible with a view to maximising throughput.

In doing so, Aurizon Network notes that cost and scope variances do exist for some items when compared to the relevant RSB. Aurizon Network considers that the information included within this submission and within the supporting documentation provided to the QCA, demonstrates that these variations were prudent and efficient and should be approved for inclusion in the RAB.

2.1 Renewals Capex Claim

Aurizon Network submits its Renewals Capex Claim for FY25. This Renewals Capex Claim details the:

- expenditure incurred;
- scope of works undertaken; and
- procurement strategy and methodology used.¹

The FY25 Approved RSB provided for a forecast spend of \$313.4m for the CQCN in aggregate. Aurizon Network incurred total capital expenditure of \$329.5m during FY25; \$16.1m higher than the aggregated budget. It should be noted that Aurizon Network's stakeholder engagement framework results in the variances from the Approved RSB being communicated to the RIG throughout the year at quarterly meetings and through reports.

The FY25 Renewals Capex Claim reflects the value of assets commissioned during the year. Aurizon Network successfully commissioned a multitude of asset replacement and renewal activities throughout the CQCN, representing a total value of **\$355.1m** excluding IDC (\$364.1m including IDC). The breakdown for each Coal System is shown in Table 1 above.

The scope of works delivered by Aurizon Network during FY25 is comprised of:

- FY25 scope planned in accordance with the Approved RSB;
- scope originally planned for delivery in FY24, but subsequently rolled forward to FY25 due to operational reasons; and
- additional (or substitute) scope that was identified as requiring prioritisation during FY25.

¹ Clause 7A.11.6 (a) of UT5

FY25 was a challenging 12 months for both Aurizon Network and the broader supply chain. A combination of factors saw asset renewal expenditure exceed the Approved RSBs in the Blackwater, Goonyella, and Moura Coal Systems. Contributing factors included:

- Completion of significant renewal scope that was unable to be completed during FY24.
- Above-budget cost escalation, particularly on material costs, which have been impacted by increased demand across the global supply chain.
- The availability of key labour resources in design and construction which resulted in several scope items being partially completed in FY25 or rolled forward for completion in future years.
- Continued impacts of prolonged wet weather which led to an increase in reactive renewal activity.

Aurizon Network's asset monitoring and analysis, however, resulted in multiple programs reprioritising scope to a later year due to reduced degradation, therefore improving the life of the asset. Implementation of improved procurement processes also drove effective purchasing outcomes.

Additional commentary outlining Aurizon Network's performance against the Approved RSB can be found within the relevant section for each Coal System.

3. Assessment of the Renewals Capex Claim

3.1 UT5 Requirements

This submission provides the QCA with the details of capital expenditure that Aurizon Network considers should be included in the RAB. In circumstances where:

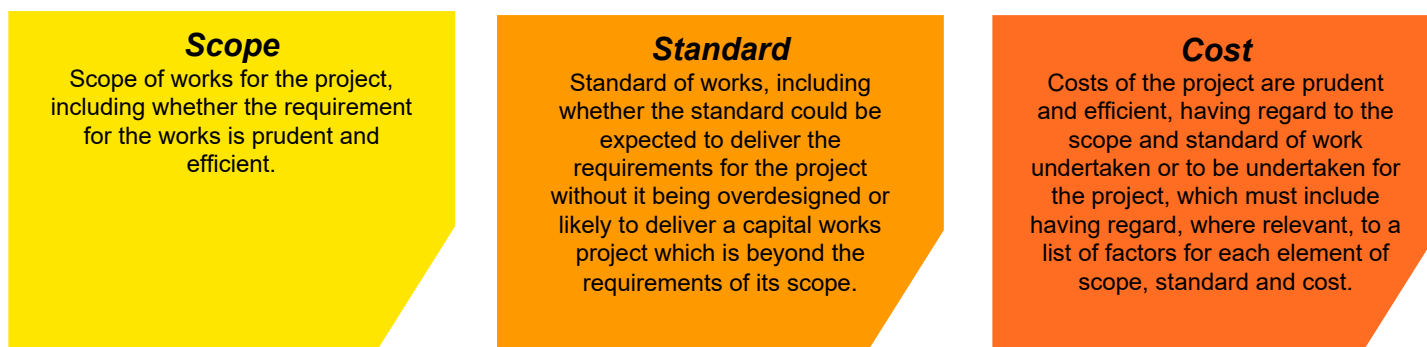
Capital Expenditure is consistent with the Approved RSB:

The QCA must determine the extent to which the FY25 Renewals Capex Claim is consistent with the FY25 Approved RSB for each Coal System in line with Clause 7A.11.6 (b)(iii). To the extent that the FY25 Renewals Capex Claim for a Coal System is consistent with the applicable Approved RSB, the relevant End Users are deemed to support the relevant elements of the Renewals Capex Claim. Accordingly, the QCA will approve the Renewals Capex Claim.

Capital Expenditure departs from the Approved RSB:

The QCA must determine the extent to which the FY25 Renewals Capex Claim departs from the FY25 Approved RSB for each Coal System in line with clause 7A.11.6 (b)(iv). To the extent that the FY25 Renewals Capex Claim for a Coal System departs from the applicable Approved RSB, the QCA will determine whether those additional costs specified are prudent and efficient.

In determining the prudence and efficiency of capital expenditure, the QCA must have regard to the following three matters outlined in Clause 2.2 of Schedule E:



The QCA must assess, in accordance with Clause 2.2(b) of Schedule E, whether the capital expenditure is prudent and efficient and in doing so, must consider only the circumstances relevant at the time of making the decision to incur the capital expenditure (or in relation to assessing prudence of costs, at the time when the costs were incurred, or the capital expenditure project was undertaken, as applicable).

3.2 Demonstrating consistency with the Approved RSB

Aurizon Network has provided a comparison of actual costs incurred and scope delivered against the Approved RSB for each Coal System. This information is presented for each individual Coal System within this submission and is aligned to the information voluntarily provided to the RIG in Quarterly Reports.

Clause 1.3(a)(ii) of Schedule E allows Aurizon Network to submit the costs of assets that were *commissioned* during the year to the QCA for approval within the annual Capex Claim. Aurizon Network has included additional information to clearly outline the capital expenditure that has been *incurred* during the year versus what it is seeking to claim (commissioned assets) and include in the RAB.

To support the QCA's assessment of the Renewals Capex Claim, Aurizon Network has prepared End of Financial Year Status Reports (**EOFY Reports**) for the 6 categories of asset renewal activities identified in the Approved RSB. These EOFY Reports:

- articulate the extent to which scope and cost is consistent with the Approved RSB;
- identify departures from the Approved RSB; and
- provide supporting commentary or evidence to justify the prudence and efficiency of any variations.

The 6 categories of asset renewal activities with EOFY Reports are:

EOFY Report	Activities Included
1. Permanent Way	Rail Renewal Sleeper Renewal Track Upgrade Turnout Renewal Turnout Components Turnout Design Permanent Way Other
2. Ballast Cleaning	Mainline Undercutting Mainline Excavator Undercutting Turnout Undercutting Bridge Rollout Monumenting Ground Penetrating Radar (GPR)
3. Structures	Bridges Bridge Design Culvert Renewal Culvert Design
4. Civil Renewals	Formation Renewal Formation Reactive Formation Other Slope Stability Level Crossing Renewal Level Crossing Design Level Crossing Other Access Points and Access Roads Corridor Fencing and Security
5. Control Systems Assets	Safe working – Asset Protection Safe working – Interlocking Safe working – Train Detection Safe working – Minor Power Resilience Telecommunications Assets Transmission and Data Renewal UTC/DTC System Upgrades Other Control System Renewals
6. Electrical Traction Assets	Overhead Line Equipment Power Systems

EOFY Report	Activities Included
	Goonyella Ports OHLE Traction Substation

3.3 Demonstrating prudence and efficiency

As per Clause 7A.11.6(b)(iv), to the extent that a Renewals Capex Claim for an individual Coal System departs from the applicable Approved RSB, the QCA must assess any *additional* costs specified within the Renewals Capex Claim. The QCA must approve Aurizon Network's additional costs to the extent they are prudent and efficient.

Aurizon Network has sought to identify, for each individual Coal System, capital expenditure that has departed from the Approved RSB within this submission.

3.3.1 Aurizon's Enterprise Investment Framework supports prudent and efficient investments

Aurizon Network adheres to the Aurizon Enterprise Investment Framework (**Framework**). In addition to that Framework, Aurizon Network has its own internal governance requirements which ensures the appropriate review and internal approvals, including the Aurizon Network Group Executive. The overall Framework is a rigorous governance process undertaken prior to the commitment of any capital investments. The purpose of the Framework is to facilitate sound investment decisions and to ensure that:

- Investment proposals are rigorously assessed;
- Investment decisions are made on a consistent basis;
- Capital is optimised; and
- Learnings from past investments are recorded and taken into consideration as part of Aurizon Network's commitment to continuous improvement.

Investment Approval Requests (**IARs**) are provided to the relevant members of the Network Leadership Team and ultimately the Aurizon Investment Committee for review and endorsement as required.

The Framework and supporting documentation are informed by the requirements of UT5 and promote the prudence and efficiency of scope, standard and cost for capital expenditure. To inform and assist the internal governance process, Aurizon Network referred to the Approved RSB for each Coal System and the associated Capital Indicators which were ultimately approved by the QCA in its decision on the FY25 review of Reference Tariffs.

3.3.2 Documentation available to demonstrate prudence and efficiency

Aurizon Network has prepared comprehensive documentation to support the QCA's assessment of prudence and efficiency of the scope, standard and cost for the capital expenditure which departs from the Approved RSB. This documentation is outlined in Table 2 and can be provided to the QCA on request.

Table 2 Supporting documents available with this submission

Document	Scope	Standard	Cost
FY25 Approved RSB	✓	✓	✓
End of Financial Year (EOFY) Status Reports	✓	✓	✓
Capital Expenditure Workbook			✓
Quarterly Reports FY25 Q1-Q4	✓		✓

Document	Scope	Standard	Cost
FY25 – Detailed Scope Report	✓		
<i>Automated Track Inspection System (ATIS) Feasibility IARs</i>	✓	✓	✓
<i>Customer-Specific Rail Infrastructure Connection Deed (RICD)</i>	✓	✓	✓
<i>Network Cyber Security IAR & RIG Presentation</i>	✓	✓	✓

3.4 Identification of Capital and Operating Expenditure

Aurizon Network's approach to identifying capital expenditure is generally aligned to the Australian Accounting Standard AASB 116 Property, Plant and Equipment. This approach ensures that costs categorised as operating expenditure are not included within the Renewals Capex Claim.

Those costs which have been categorised as capital expenditure for work commissioned in FY25 are contained within this submission for inclusion in the RAB. For the FY25 Capex Claim, Aurizon Network has identified commissioned assets as those that were installed and ready for use on or before 30 June 2025.

Clause 1.3(a)(ii) of Schedule E allows Aurizon Network to claim the costs of commissioned assets during the year within the annual Capex Claim. The Approved RSB, however, reflects that renewal spend expected to be incurred during the year. Aurizon Network has included additional information within this submission to reconcile the total costs that have been incurred during the year with the costs that have been included in the Capex Claim (i.e. commissioned assets) for subsequent inclusion in the RAB.

3.5 Interest During Construction (IDC)

Aurizon Network's approach to calculating IDC is consistent with the methodology that has been previously approved by the QCA. The regulatory model assumes that all capital expenditure is included in the RAB in the middle of the relevant financial year (being 31 December). IDC is therefore calculated up to and including the mid-point of the year in which the project was commissioned.

IDC is calculated using an S-curve methodology, whereby monthly cash flow values are multiplied by the applicable interest rate. The monthly cash flows for each project are extracted from Aurizon Network's financial accounting system, SAP. The applicable interest rate is the QCA approved Weighted Average Cost of Capital (**WACC**) for the relevant year within the regulatory period.

3.6 Key Terminology

3.6.1 Costs Incurred

Costs incurred refer to costs that Aurizon Network has incurred when delivering capital expenditure works throughout the year.

3.6.2 Costs Claimed

Clause 1.3(a)(ii) of Schedule E requires that Aurizon Network claim costs associated with assets that have been commissioned during the year. Please note that the value of Aurizon Network's Capex Claim may also include costs incurred in a prior year that were unable to be claimed because the asset was not commissioned in the prior year.

3.6.3 Scope Achieved

Scope achieved refers to scope undertaken throughout the year and is reflective of the costs incurred and costs claimed.

In accordance with Clause 7A.11.6(a)(i)-(iii) of UT5, Aurizon Network has provided a summary of costs incurred and scope achieved within each Coal System, outlining where Aurizon Network has remained consistent with or has departed from the Approved RSB. For further details on the scope of work Aurizon Network completed during FY25 (relating to both FY25 RSB and other scope items), please refer to the supporting documentation provided.

Aurizon Network has also included waterfall graphs in Appendix A to assist with the comparison of actual incurred asset renewals expenditure versus the value of commissioned assets.

Throughout the year, Aurizon Network has communicated changes and variations with the Approved RSB to the RIG through the provision of Quarterly Reports. The following sections summarise Aurizon Network's asset replacement and renewals performance for the year by Coal System. Please note that the totals presented in the tables below may not add due to rounding.

4. Blackwater System

4.1 Cost Incurred and Scope Achieved for the year

Please refer to Table 3 for details of the costs incurred and scope achieved for each item within the Blackwater system. Aurizon Network considers that its performance should be assessed as consistent where costs are in line with or below the Approved RSB and/or the scope delivered is equal to or more than the Approved RSB.

Table 3 Blackwater System Costs Incurred & Scope achieved for the year

Renewal Item	Note	Actual Cost (\$m) FY	Budget (\$m) FY	Var	Actual Scope FY	Budget Scope FY	Var
Permanent Way	1	33.9	33.8	0.2			
Rail Renewal		13.2	13.2	0.0	30.6	31.0	(0.4)
Sleeper Renewal		1.6	1.4	0.2	877.0	1,185.0	(308.0)
Track Upgrade		6.9	8.1	(1.2)	4.4	4.7	(0.3)
Turnout Renewal		4.6	6.0	(1.4)	3.0	4.0	(1.0)
Turnout Components		5.0	3.3	1.7			
Turnout Design		0.5	0.4	0.1			
Permanent Way Other		2.1	1.3	0.8			
Ballast Cleaning	2	54.1	54.2	(0.1)			
Mainline Undercutting		32.2	34.6	(2.4)	44.4	52.5	(8.1)
Mainline Excavator Undercutting		6.5	7.4	(0.9)	8.2	10.6	(2.4)
Turnout Undercutting		4.9	2.7	2.2	25.0	17.0	8.0
Bridge Rollout		8.7	7.7	1.0	1,351.0	994.0	357.0
Monumenting		1.0	1.0	0.0			
GPR		0.8	0.8	(0.0)			
Structures	3	24.9	23.6	1.2			
Bridge Renewal		15.5	13.1	2.4	5.0	5.0	0.0
Bridges Design		0.0	0.0	0.0			
Culvert Renewal		8.4	9.6	(1.2)	13.0	12.0	1.0
Culvert Design		1.0	0.9	0.1			
Civil Renewals	4	14.5	14.4	0.1			
Formation Renewal		5.7	4.4	1.3	1.3	0.8	0.5
Formation Reactive		2.8	3.8	(0.9)			
Formation Other		0.2	0.0	0.1			
Slope Stability		0.5	0.2	0.4			
Level Crossing Renewal		3.6	3.7	(0.1)	4.0	3.0	1.0
Level Crossing Design		0.2	0.3	(0.1)			
Level Crossing Other		0.2	0.2	(0.0)			
Access Points and Access Roads		0.6	0.5	0.1			
Corridor Fencing and Security		0.7	1.2	(0.5)			
Control Systems Assets	5	20.3	18.1	2.2			
Safe working - Asset Protection		1.6	1.6	(0.0)	4.0	2.0	2.0
Safe working - Interlocking		4.8	3.7	1.1	7.0	7.0	0.0
Safe working - Train Detection		0.9	0.1	0.8	-	1.0	(1.0)

Renewal Item	Note	Actual Cost (\$m)	Budget (\$m)	Var	Actual Scope	Budget Scope	Var
Safe working - Minor		3.9	4.5	(0.6)			
Power Resilience		-	-	-			
Telecommunication Assets		3.9	4.0	(0.1)	34,491.0	26,981.0	7,510.0
Transmission and Data Renewal		3.3	3.2	0.1	22.0	24.0	(2.0)
UTC/DTC System Upgrades		1.8	0.9	0.8	8.0	-	8.0
Other Control Systems		0.0	-	0.0			
Electrical Assets	6	4.3	4.0	0.3			
Overhead Line Equipment		1.0	1.1	(0.1)	2.0	1.0	1.0
Power Systems		3.0	2.9	0.1	7.0	14.0	(7.0)
Traction Substation		0.3	-	0.3			
RSB Total		149.9	148.1	1.8			
Non-RSB Projects	7	0.3	-	0.3			
ATIS		(0.0)	-	(0.0)			
Network Cyber Security		0.3	-	0.3			
Total		150.1	148.1	2.0			

Variation Commentary:

1. Permanent Way

During FY25, Aurizon Network incurred \$33.9m delivering Permanent Way renewal activities in the Blackwater System, which was \$0.1m above budget. Major factors that impacted the overall program include:

- Above-budget spend for Turnout Components, predominately driven by an increased trend of steelwork components requiring replacement. Aurizon Network increased preventative hand grinding maintenance in FY25 to contain the risk of steel defects becoming a longer-term trend, these hand grinding costs will be reflected within the FY25 Maintenance Cost Claim.
- A decision in Q1 to cancel several FY25 sites to prioritise incomplete scope that had been rolled forward from FY24.

Specific variations to scope and cost against the RSB were due to the following:

- 30.6km of rail renewal scope was completed, which included:
 - 1.4km of new scope identified through condition monitoring. As formation renewal was already scheduled for Marmor-Bajool in FY25, the opportunity was taken to replace the rail concurrently. This approach minimised cost impacts, as support resources and track removal were already required for the formation works, making combined delivery more cost-effective.
 - 2.5km of scope rolled forward from FY24 due to its integration with the ballast replacement over the Calliope River that had been rolled forward to preserve capacity.
 - 4.4km of which was cancelled from FY25 due to a review of rail condition which indicated that the degradation at three sites was less than forecast and could be replanned into future years.
- Only 74% of the planned sleeper renewal scope was required. The original planned quantity was from a desktop assessment based on the total number of sleepers in the section however through a site walkout, it was identified that there were two turnouts where sleeper replacement was not required.
- 0.3km of track upgrade scope was cancelled from the FY25 program due to the criticality and the prioritisation of scope rolled forward from FY24.

- One turnout renewal was cancelled from FY25 and will be replanned as required. The condition of the turnout has not deteriorated at the predicted rate and is expected to be suitable for rail traffic until approximately FY27.

2. Ballast Cleaning:

During FY25, Aurizon Network incurred \$54.1m in delivering the Ballast Cleaning activities in the Blackwater System, which was \$0.1m below budget. Major factors that impacted the overall program include:

- Mainline undercutting (performed by the RM902 consist) had a reduction in scope as detailed below. Due to a fixed internal resource profile, the cancellation of scope did not have a corresponding reduction in spend and thus a slightly higher unit rate than planned was actualised.
- Minor adjustments in original scope quantity during execution, although the actual scope objective was achieved. This was particularly evident in the excavator undercutting scope adjacent to turnouts.

Specific variations to scope and cost against the RSB were due to the following:

- 85% of the planned mainline undercutting scope was completed, with the variation due to:
 - 3.7km of lost scope following a low-speed derailment of the Ballast Cleaning Machine (**BCM**) during the November 2024 integrated closure. This scope was rescheduled for April 2025, however an embankment failure near Lilyvale prevented the BCM from mobilising to site. Scope will be replanned into FY26.
 - 0.78km scope reduction at Bajool due to site specific characteristics not originally identified, and the scope being unable to be executed by the RM902 consist.
 - Ballast condition at Westwood-Windah which had deteriorated beyond the original condition assumption, reducing the screenability of the site (a risk that had been identified as 'high' in the Approved RSB). An additional eight-hour access window extension would have been required to execute the full scope; therefore a decision was made to minimise unplanned impacts to capacity and cancel 0.5km of the least fouled scope within the area.
- 8.2km of mainline excavator undercutting scope was completed, which included:
 - 0.2km of scope rolled forward from FY24 due to the contractor experiencing machinery breakdown.
 - 3.9km of reactive scope due to condition.
- Throughout FY25 the asset condition deteriorated at four sites which necessitated additional turnout undercutting scope. The net outcome was an addition of ten turnouts, and one turnout planned for FY26 being executed early. Offsetting this was a review in Q1 FY25 that indicated three turnouts had not deteriorated at the predicted rate and would be expected to remain suitable for rail traffic until FY27.
- An additional 357m of bridge rollout scope that had been rolled forward from FY24 to preserve capacity was completed.

3. Structures:

During FY25, Aurizon Network completed Structures renewals equivalent to 106% of the planned scope. Contributing to this were three additional culvert renewals that had been carried forward from FY24 due to:

- the latent condition of excessive deflection at two sites, which required deflection monitoring, reviewing the construction methodology with the designer, and taking additional track time to complete; and
- a breakdown of the contractor's Cured-In-Place Pipe (**CIPP**) lining truck that resulted in an extended project timeline for the CIPP installations for another site.

One planned culvert renewal was rolled forward to Q1 FY26 due to site conditions that required a change in methodology. Another planned culvert renewal was cancelled from FY25 scope following a review of its condition, which determined that, with some additional maintenance, it would not require replacement until FY27.

Overall, culvert renewal spend was lower than budget. Aurizon Network implemented changes to its procurement process for FY25, as advised in the FY24 Capex Claim and through RIG reporting, which delivered improved cost outcomes for customers. These changes include:

- Allowing contractors to select individual sites that suit their capability, rather than predetermining which sites are packaged together. Historically packages included variable delivery methods, which may not suit all contractors.
- Changes to contracting terms to provide more shared risk by purchasing and issuing materials and offering variable cost escalation clauses.
- Virtual site “walk-outs” using drone footage/aerial imagery, allowing for a better understanding of site constraints.
- Early engagement and release of tender, allowing more time for site evaluation.
- Increased competition in the tender process.

4. Civil Renewals

During FY25, Aurizon Network completed Civil renewals equivalent to 140% of the planned scope. Contributing to this was the completion of:

- 0.5km formation renewal scope that had been carried forward from FY24 due to wet weather; and
- a level crossing renewal that had been carried from FY24 due to track access and resource availability.

Spend on reactive formations, and reactive corridor fencing and security, was below budget due to a decision to prioritise incomplete scope from previous years. This resulted in any new reactive scope going above the revised forecast needing Change Board approval prior to proceeding.

Level Crossing spend is also lower than budget. Aurizon Network implemented changes to its procurement process for FY25 which delivered improved cost outcomes for customers, as discussed above in the Structures commentary.

5. Control Systems:

Aurizon Network incurred \$20.3m delivering Control Systems renewals in FY25 which was \$2.2m above budget, largely due to the completion of additional scope. Major factors that impacted the overall program include:

- In September 2024, a comprehensive review of the portfolio’s deliverability was undertaken, considering a combination of factors including access constraints, cumulative scope carried forward from previous years, and overall delivery capacity. As a result of this review, certain planned FY25 works were rolled forward to future years. Additionally, some scope items were cancelled. These cancelled items will be reassessed during future planning cycles and, if deemed necessary, may be reintroduced in a subsequent RSB period.
- Continued above-budget cost escalation, particularly on the cost of materials and componentry, which have been impacted by demand across the global supply chain.

Specific variations to scope and cost against the RSB were due to the following:

- Asset Protection: Four scope items were completed which had been carried forward from FY24 due to resource availability and material delays. The remaining FY25 scope has been replanned for FY26.

- Interlocking: Seven scope items were completed, five of which had been carried forward from FY24 due to resource constraints. Callemondah scope was over budget due to:
 - Additional staging requirements - resulting from several additional location cases requiring upgrade (alongside additional new cabling) that were identified as the design matured from Issued for Planning to Issued for Construction.
 - Latent site conditions – cable route was identified in several locations at a non-standard depth of 1.4m (standard depth 600mm) which created additional work and cost.
 - Higher labour costs than initially estimated.
- Train Detection: One site was rolled forward to FY26 due to resource constraints.
- Telecommunications Assets: An additional 7,510m of scope was completed due to asset condition.
- Transmission & Data: 22 sites were delivered against a planned 24, three of which had been carried forward from FY24. Remaining scope has either been rolled forward to FY26 or was not required.
- UTC/DTC System Upgrades: Eight sites carried forward from prior years were completed below budget.

6. Electrical:

During FY25, Aurizon Network incurred \$4.3m delivering electrical renewal activities in the Blackwater System, compared to the approved budget of \$4.0m. Additional Overhead Line Equipment (**OHLE**) scope was delivered, with an unplanned Section Insulator renewed at Rocklands due to condition. 50% of the planned Power Systems scope was completed, as a result of:

- The availability of key labour resources in design and construction which resulted in several scope items being partially completed in FY25 or rolled forward to future years.
- In September 2024, a comprehensive review of the portfolio's deliverability was undertaken, considering a combination of factors including access constraints, cumulative scope carried forward from previous years, and overall delivery capacity. As a result of this review, certain planned FY25 works were rolled forward to future years. Additionally, some scope items were cancelled. These cancelled items will be reassessed during future planning cycles and, if deemed necessary, may be reintroduced in a subsequent RSB period.

Traction Power has been further impacted by continued above-budget cost escalation, particularly on the cost of materials and componentry, which have been impacted by demand across the global supply chain. For example, Auto Transformers had an actual cost escalation of 17% vs the forecast cost escalation of 6.1% in the Approved RSB.

7. Non-RSB Projects: Costs incurred as a result of ATIS and Network Cyber Security which were not included in the Blackwater RSB are discussed in section 8.

4.2 Cost Incurred versus Claimed Amount

In line with Clause 1.3(a)(ii) of Schedule E of UT5, please refer to Table 4 for details of the costs incurred for the year versus the claimed amount for the Blackwater System.

Table 4 Blackwater System Costs Incurred versus Claimed Amount

Item	Total Costs Incurred in FY25 (\$m)	FY25 Scope Claimed in FY25 (\$m)	Prior Year Scope Claimed in FY25 (\$m)	Future Year Scope Claimed in FY25 (\$m)	Total Claimed Expenditure (\$m)	IDC (\$m)	Total Claimed Amount including IDC (\$m)
Permanent Way	33.9	30.5	3.6	-	34.1	0.4	34.5
Ballast Cleaning	54.1	49.2	4.5	-	53.6	0.6	54.2
Structures	24.9	19.8	13.4	-	33.2	1.2	34.4
Civil Renewals	14.5	9.7	4.6	-	14.3	0.4	14.7
Control Systems Assets	20.3	9.5	10.2	-	19.8	0.8	20.6
Electrical Assets	4.3	2.9	0.8	-	3.7	0.2	3.9
Non-RSB Projects	0.3	-	2.5	-	2.5	0.2	2.7
Total	150.1	121.6	39.5	-	161.2	3.7	164.9

5. Goonyella System

5.1 Cost Incurred and Scope Achieved for the Year

Please refer to Table 5 for details of the costs incurred and scope achieved within the Goonyella system. Aurizon Network considers that its performance should be assessed as consistent where costs are in line with or below the Approved RSB and/or the scope delivered is equal to or more than the Approved RSB.

Table 5 Goonyella System Costs Incurred & Scope achieved for the Year

Renewal Item	Note	Actual Cost (\$m) FY	Budget (\$m) FY	Var	Actual Scope FY	Budget Scope FY	Var
Permanent Way	1	32.4	30.8	1.6			
Rail Renewal		10.2	11.0	(0.8)	23.7	24.0	(0.3)
Sleeper Renewal		0.0	-	-	-	-	-
Track Upgrade		15.0	14.3	0.8	10.1	8.3	1.8
Turnout Renewal		1.3	-	1.3	-	-	-
Turnout Components		3.8	3.6	0.2			
Turnout Design		0.7	0.9	(0.3)			
Permanent Way Other		1.5	1.0	0.4			
Ballast Cleaning	2	37.4	35.8	1.6			
Mainline Undercutting		24.0	25.3	(1.3)	34.1	42.6	(8.5)
Mainline Excavator Undercutting		8.3	5.7	2.6	8.6	7.6	1.0
Turnout Undercutting		4.2	3.3	0.9	26.0	19.0	7.0
Bridge Rollout		0.1	-	0.1	-	-	-
Monumenting		0.1	0.8	(0.7)			
GPR		0.7	0.7	(0.0)			
Structures	3	8.6	8.2	0.4			
Bridge Renewal		-	-	-	-	-	-
Bridge Design		0.0	0.1	(0.1)			
Culvert Renewal		7.9	7.5	0.5	11.0	8.0	3.0
Culvert Design		0.7	0.6	0.0			
Civil Renewals	4	16.8	11.3	5.5			
Formation Renewal		5.8	3.2	2.6	1.8	0.6	1.2
Formation Reactive		5.8	3.0	2.8			
Formation Other		0.1	0.0	0.1			
Slope Stability		0.2	0.2	0.0			
Level Crossing Renewal		3.0	3.0	(0.0)	2.0	2.0	-
Level Crossing Design		0.2	0.1	0.0			
Level Crossing Other		0.5	0.1	0.4			
Access Points and Access Roads		0.5	0.5	(0.1)			
Corridor Fencing and Security		0.8	1.1	(0.3)			
Control Systems Assets	5	19.4	14.7	4.7			
Safe working - Asset Protection		0.8	0.2	0.6	2.0	2.0	-
Safe working - Interlocking		0.3	-	0.3	-	-	-
Safe working - Train Detection		9.2	8.6	0.6	9.0	6.0	3.0

Renewal Item	Note	Actual Cost (\$m)	Budget (\$m)	Var	Actual Scope	Budget Scope	Var
Safe working - Minor		1.9	1.7	0.2			
Power Resilience		0.1	-	0.1			
Telecommunication Assets		3.6	-	3.6	55,161.0	-	55,161.0
Transmission and Data Renewal		2.1	1.7	0.4	12.0	19.0	(7.0)
UTC/DTC System Upgrades		1.4	1.9	(0.5)	2.0	10.0	(8.0)
Other Control Systems		0.2	0.7	(0.5)			
Electrical Assets	6	10.8	9.8	1.1			
Overhead Line Equipment		2.8	3.5	(0.8)	19.0	27.0	(8.0)
Power Systems		3.2	3.8	(0.6)	21.0	29.0	(8.0)
Goonyella Ports OHLE		4.6	2.4	2.1			
Traction Substation		0.3	0.0	0.3			
RSB Total		125.9	110.6	15.3			
Non-RSB Projects	7	1.1	-	1.1			
ATIS		(0.0)	-	(0.0)			
Customer-Specific Connection		0.9	-	0.9			
Network Cyber Security		0.3	-	0.3			
Total		127.1	110.6	16.5			

Variation Commentary:

1. Permanent Way

During FY25, Aurizon Network incurred \$32.4m delivering Permanent Way renewal activities in the Goonyella System, which was \$1.6m above budget, largely due to the completion of additional, prior year scope.

1.9km of additional track upgrade scope was completed that had been rolled forward from FY24. 100% of the required FY25 scope was delivered, noting rail renewal had a minor scope adjustment of 0.3km during execution.

2. Ballast Cleaning:

During FY25, Aurizon Network incurred \$37.4m delivering Ballast Cleaning activities in the Goonyella System, which was \$1.6m above budget. Major factors that impacted the overall program include:

- Mainline undercutting (performed by the RM902 consist) had a reduction in scope as detailed below. Due to a fixed internal resource profile, the cancellation of scope did not have a corresponding reduction in spend and thus a slightly higher unit rate than planned was actualised.
- Minor adjustments in original scope quantity during execution, although the actual scope objective was achieved. This was particularly evident in the excavator undercutting scope adjacent to turnouts.

Specific variations to scope and cost against the RSB were due to the following:

- 80% of the planned mainline undercutting scope was completed:
 - 2.615km of scope was unable to be completed at Bolingbroke following wet weather preventing vehicle access to the site, delays in the plant being transported to site by rail, and a machine breakdown during operations. Aurizon Network reviewed options to reschedule this scope during FY25, however an additional 52 hours of track closure would have been required. Therefore, this scope was cancelled and will be reassessed in future years.

- 0.4km of scope was unable to be completed at another Bolingbroke site due to heavily fouled ballast condition, which reduced screenability and slowed production. Scope was reduced to preserve possession handback time and has been rolled forward to FY27 to align with an adjacent track/ballast renewal.
- 5.474km of incomplete scope near Wotonga due to wet weather and inability to access site at the start of the closure. Rescheduling this site would have led to significant cancellations and other sites were of a higher priority to recover with available resources, so decision was made to cancel until future years.
- 8.6km of mainline excavator undercutting scope was completed, which included:
 - 0.15km of scope rolled forward from FY24 due to an inability to access site due to wet weather.
 - 5.1km of reactive scope due to condition.
- An additional seven turnouts were undercut, including:
 - One turnout at Balook which was rolled forward from FY24 due to an inability to access site due to wet weather.
 - Three turnouts at Jilalan and Isaac Plains due to deteriorating ballast condition that had resulted in Temporary Speed Restrictions (**TSR**). The TSRs were subsequently lifted.
 - Three turnouts at Hatfield to address track and overhead alignment issues.

3. Structures:

During FY25, Aurizon Network completed Structures renewals equivalent to 140% of the planned scope. Contributing to this were four additional culvert renewals that had been carried forward from FY24 due to:

- the contractor having to redo the concrete trial mix and subsequent testing because the first and second test cylinders were compromised during curing which led to delay of scope completion for one site (note this did not result in additional contractor costs); and
- a breakdown of the contractor's CIPP lining truck that resulted in an extended project timeline for the CIPP installations for three sites.

One culvert renewal was rolled forward to Q1 FY26 after a contractor sustained a minor injury on a separate maintenance site which saw works suspended until the investigation was complete and satisfactory corrective actions undertaken by the contractor.

Overall, the culvert renewal unit rate was lower than budget. Aurizon Network implemented changes to its procurement process for FY25 which delivered improved cost outcomes for customers, as discussed in the Blackwater variation commentary.

4. Civil Renewals

During FY25, Aurizon Network completed Civil renewals equivalent to 146% of the planned scope. Contributing to this was the completion of 1.2km formation renewal scope that had been carried forward from FY24 due to non-conforming capping material being supplied to the worksite by the contractor.

Significant additional reactive formation renewal activities (1.6km) were required within FY25 to address accelerated deterioration caused by compounding impacts of ongoing wet weather. Sites saw failures and deterioration demonstrated by track defects, with repetitive holding works attempted but not effective. Most sites completed were under Temporary Speed Restrictions (**TSR**), with rectification works allowing for the TSRs to be lifted.

Formation Renewal unit rate is lower than budget. Aurizon Network implemented changes to its procurement process for FY25 which delivered improved cost outcomes for customers, as discussed in the Blackwater variation commentary.

5. Control Systems:

Aurizon Network incurred \$19.4m delivering Control Systems renewals in FY25 which was \$4.7m above budget, largely due to the completion of additional scope. Major factors that impacted the overall program include:

- In September 2024, a comprehensive review of the portfolio's deliverability was undertaken, considering a combination of factors including access constraints, cumulative scope carried forward from previous years, and overall delivery capacity. As a result of this review, certain planned FY25 works were rolled forward to future years. Additionally, some scope items were cancelled. These cancelled items will be reassessed during future planning cycles and, if deemed necessary, may be reintroduced in a subsequent RSB period.
- Continued above-budget cost escalation, particularly on the cost of materials and componentry, which have been impacted by demand across the global supply chain.

Specific variations to scope and cost against the RSB were due to the following:

- Asset Protection: Two scope items were completed, one of which had been carried forward from FY24 due to resource constraints. Remaining FY25 scope has been replanned for FY26.
- Train Detection: Nine sites were completed, five of which had been carried forward from prior years due to resource constraints and prioritisation of more urgent scope. Remaining FY25 scope has been replanned for FY26.
- Telecommunications Assets: An additional 55,161m of scope was completed which had been carried forward from prior years due to the external vendor exceeding construction time frames and a lengthy easement agreement with an external party.
- Transmission & Data: 12 sites were delivered against a planned 19, two of which had been carried forward from prior years due to resource constraints and site access issues. Remaining scope has either been rolled forward to FY26 or was not required.
- UTC/DTC System Upgrades: Two sites carried forward from prior years due to procurement and technical delays were completed below budget. Remaining scope has either been rolled forward to FY26 or was not required.

6. Electrical:

During FY25, Aurizon Network incurred \$10.8m delivering electrical renewal activities in the Goonyella System, compared to the approved budget of \$9.8m. 70% of the planned OHLE scope was delivered, and 72% of the planned Power Systems scope, as a result of:

- The availability of key labour resources in design and construction which resulted in several scope items being partially completed in FY25 or rolled forward to future years.
- In September 2024, a comprehensive review of the portfolio's deliverability was undertaken, considering a combination of factors including access constraints, cumulative scope carried forward from previous years, and overall delivery capacity. As a result of this review, certain planned FY25 works were rolled forward to future years. Additionally, some scope items were cancelled. These cancelled items will be reassessed during future planning cycles and, if deemed necessary, may be reintroduced in a subsequent RSB period.

Traction Power has been further impacted by continued above-budget cost escalation, particularly on the cost of materials and componentry, which have been impacted by demand across the global supply chain. For example, Auto Transformers had an actual cost escalation of 17% vs the forecast cost escalation of 6.1% in the Approved RSB.

7. **Non-RSB Projects:** Costs incurred as a result of ATIS, a customer-specific connection and Network Cyber Security which were not included in the Goonyella RSB are discussed in section 8.

5.2 Cost Incurred versus Claimed Amount

In line with Clause 1.3(a)(ii) of Schedule E of UT5, please refer to Table 6 for details of the costs incurred for the Year versus the claimed amount for the Goonyella System.

Table 6 Goonyella System Costs Incurred versus Claimed Amount

Item	Total Costs Incurred in FY25 (\$m)	FY25 Scope Claimed in FY25 (\$m)	Prior Year Scope Claimed in FY25 (\$m)	Future Year Scope Claimed in FY25(\$m)	Total Claimed Expenditure (\$m)	IDC (\$m)	Total Claimed Amount including IDC (\$m)
Permanent Way	32.4	27.5	3.9	-	31.4	0.8	32.2
Ballast Cleaning	37.4	34.7	1.6	-	36.2	0.2	36.5
Structures	8.6	6.1	2.5	-	8.6	0.4	9.0
Civil Renewals	16.8	12.5	5.2	-	17.7	0.6	18.3
Control Systems Assets	19.4	8.6	14.7	-	23.3	1.0	24.3
Electrical Assets	10.8	4.4	4.6	-	9.1	0.4	9.5
Non-RSB Projects	1.1	—	4.3	-	4.3	0.4	4.7
Total	127.1	93.8	36.8	-	130.6	3.8	134.4

6. Moura System

6.1 Cost Incurred and Scope Achieved for the Year

Please refer to Table 7 for details of the costs incurred and scope achieved within the Moura system. Aurizon Network considers that its performance should be assessed as consistent where costs are in line with or below the Approved RSB and/or the scope delivered is equal to or more than the Approved RSB.

Table 7 Moura System Costs Incurred & Scope achieved for the Year

Renewal Item	Note	Actual Cost (\$m) FY	Budget (\$m) FY	Var	Actual Scope FY	Budget Scope FY	Var
Permanent Way	1	4.7	5.5	(0.8)			
Rail Renewal		2.9	2.8	0.2	4.9	4.9	-
Sleeper Renewal		0.7	-	0.7	1,211.0	-	1,211.0
Track Upgrade		0.0	1.9	(1.9)	-	0.9	(0.9)
Turnout Renewal		(0.0)	-	(0.0)	-	-	-
Turnout Components		0.4	0.7	(0.3)			
Turnout Design		0.0	-	0.0			
Permanent Way Other		0.7	0.1	0.5			
Ballast Cleaning	2	7.3	5.2	2.1			
Mainline Undercutting		3.7	2.5	1.3	6.9	8.1	(1.3)
Mainline Excavator Undercutting		2.8	2.0	0.8	3.6	2.8	0.8
Turnout Undercutting		0.3	0.3	0.0	1.0	2.0	(1.0)
Bridge Rollout		0.0	0.0	0.0	-	-	-
Monumenting		0.4	0.4	(0.0)			
GPR		0.1	0.0	0.1			
Structures	3	2.6	2.7	(0.0)			
Bridge Renewal		-	-	-	-	-	-
Bridge Design		-	-	-			
Culvert Renewal		2.4	2.5	(0.2)	3.0	3.0	-
Culvert Design		0.3	0.1	0.1			
Civil Renewals	4	4.9	4.3	0.6			
Formation Renewal		0.0	-	0.0	-	-	-
Formation Reactive		2.6	1.6	1.0			
Formation Other		0.0	0.0	(0.0)			
Slope Stability		-	-	-			
Level Crossing Renewal		1.2	1.3	(0.1)	1.0	1.0	0.0
Level Crossing Design		0.4	0.5	(0.1)			
Level Crossing Other		0.3	0.2	0.0			
Access Points and Access Roads		0.1	0.3	(0.2)			
Corridor Fencing and Security		0.4	0.3	0.0			
Control Systems Assets	5	3.0	4.7	(1.6)			
Safe working - Asset Protection		0.2	1.5	(1.3)	2.0	2.0	-
Safe working - Interlocking		1.0	1.2	(0.2)	-	1.0	(1.0)
Safe working - Train Detection		-	-	-	-	-	-

Renewal Item	Note	Actual Cost (\$m)	Budget (\$m)	Var	Actual Scope	Budget Scope	Var
Safe working - Minor		1.2	1.2	(0.0)			
Power Resilience		0.0	-	0.0			
Telecommunication Assets		-	-	-	-	-	-
Transmission and Data Renewal		0.5	0.7	(0.1)	4.0	6.0	(2.0)
UTC/DTC System Upgrades		0.1	0.1	(0.1)	1.0	-	1.0
Other Control Systems Renewals		-	-	-			
RSB Total		23.9	22.3	1.6			
Non-RSB Projects	6	0.0	-	0.0			
ATIS		0.0	-	0.0			
Network Cyber Security		0.0	-	0.0			
Total		24.0	22.3	1.7			

Variation Commentary:

1. Permanent Way:

During FY25, Aurizon Network incurred \$4.7m delivering Permanent Way renewal activities in the Moura System, which was \$0.8m below budget.

Specific variations to scope and cost against the RSB were due to the following:

- An additional 1,211 sleepers were replaced at Earlsfield based on condition.
- 0.9 km track upgrade scope was cancelled following a review of rail condition which identified that the existing asset can be maintained, and the renewal completed in future years.

2. Ballast Cleaning:

During FY25, Aurizon Network incurred \$7.3m delivering Ballast Cleaning activities in the Moura System, which was \$2.1m above budget.

Specific variations to scope and cost against the RSB were due to the following:

- In August 2024, 1.253km of mainline undercutting scope was not executed at Belldreen due to heavily fouled ballast condition, which reduced screenability and slowed production. Scope was reduced to preserve capacity and ensure the closure was handed back on time. The outstanding portion of scope was cancelled as it was not viable to remobilise to complete the outstanding works in the February 2025 closure. This was due to the resources being prioritised elsewhere within CQCN. Actual costs for these works exceeded budget due to:
 - Materials (ballast) and transport was higher than estimated as ballast had to be sourced from a quarry further from site. This was due to the inability of a local quarry to produce ballast to specification to meet the actual execution date.
 - Estimates that did not allocate the appropriate level of fixed costs (internal labour) to this site.
- One of the planned turnout undercutting sites at Stowe and the adjacent mainline excavator undercutting scope was already executed in FY24 due to asset condition which was impacting the performance of the system (with a TSR that had been imposed subsequently removed). A portion of costs were included in the FY24 Capex Claim for the turnout works. The FY25 Capex Claim includes remaining costs for the turnout and actual costs incurred for the mainline portion of works.
- An exceedance of the mainline excavator undercutting reactive provision to improve Moura System performance (3.43km was completed against a planned 2.5km).

3. Structures:

During FY25, Aurizon Network completed Structures renewals equivalent to 100% of the planned scope.

Overall, culvert renewal spend was lower than budget. Aurizon Network implemented changes to its procurement process for FY25 which delivered improved cost outcomes for customers, as discussed in the Blackwater variation commentary.

4. Civil Renewal

During FY25, Aurizon Network completed the Boundary Hill level crossing renewal below budget. Aurizon Network implemented changes to its procurement process for FY25 which delivered improved cost outcomes for customers, as discussed in the Blackwater variation commentary.

Significant additional reactive formation renewal activities (0.94km) were required, however, within FY25 to address accelerated deterioration caused by compounding impacts of ongoing wet weather. Sites saw failures and deterioration demonstrated by track defects, with repetitive holding works attempted but not effective. Most sites completed were under Temporary Speed Restrictions (TSR), with rectification works allowing for the TSRs to be lifted.

5. Control Systems:

Aurizon Network incurred \$3.0m delivering Control Systems renewals in FY25 which was \$1.6m below budget. Major factors that impacted the overall program include:

- In September 2024, a comprehensive review of the portfolio's deliverability was undertaken, considering a combination of factors including access constraints, cumulative scope carried forward from previous years, and overall delivery capacity. As a result of this review, certain planned FY25 works were rolled forward to future years. Additionally, some scope items were cancelled. These cancelled items will be reassessed during future planning cycles and, if deemed necessary, may be reintroduced in a subsequent RSB period.
- Continued above-budget cost escalation, particularly on the cost of materials and componentry, which have been impacted by demand across the global supply chain.

Specific variations to scope and cost against the RSB were due to the following:

- Asset Protection: Two scope items were completed, both of which had been carried forward from FY24 due to resource constraints. Remaining FY25 scope has been replanned for FY26.
- Interlocking: Scope replanned for FY26 due to a delay in finalising the procurement strategy.
- Transmission & Data: Four sites were delivered against a planned six, three of which had been carried forward from prior years due to additional staging requirements and resource constraints. Remaining scope has either been rolled forward to FY26 or was not required.
- UTC/DTC System Upgrades: One site carried forward from FY23 due to procurement delay was completed below budget.

6. Non-RSB Projects: Costs incurred as a result of ATIS and Network Cyber Security which were not included in the Moura RSB are discussed in section 8.

6.2 Cost Incurred versus Claimed Amount

In line with Clause 1.3(a)(ii) of Schedule E of UT5, please refer to Table 8 for details of the costs incurred for the Year versus the claimed amount for the Moura System.

Table 8 Moura System Costs Incurred versus Claimed Amount

Item	Total Costs Incurred in FY25 (\$m)	FY25 Scope Claimed in FY25 (\$m)	Prior Year Scope Claimed in FY25(\$m)	Future Year Scope Claimed in FY25 (\$m)	Total Claimed Expenditure (\$m)	IDC (\$m)	Total Claimed Amount including IDC (\$m)
Permanent Way	4.7	4.3	0.2	-	4.6	0.1	4.7
Ballast Cleaning	7.3	7.0	0.4	-	7.4	0.2	7.6
Structures	2.6	1.9	0.9	-	2.8	0.1	3.0
Civil Renewals	4.9	3.7	0.1	-	3.8	0.1	3.9
Control Systems Assets	3.0	-	0.3	-	0.3	0.0	0.3
Non-RSB Projects	0.0	-	0.1	-	0.1	0.0	0.1
Total	24.0	17.0	2.0	-	19.0	0.5	19.5

7. Newlands System and Goonyella Abbot Point Expansion Project (GAPE)

7.1 Cost Incurred and Scope Achieved for the Year

Please refer to Table 3 for details of the costs incurred and scope achieved for each item within the Newlands System and GAPE. Aurizon Network considers that its performance should be assessed as consistent where costs are in line with or below the Approved RSB and/or the scope delivered is equal to or more than the Approved RSB.

Table 9 Combined Newlands System and GAPE Costs Incurred & Scope achieved for the Year

Renewal Item	Note	Actual Cost (\$m) FY	Budget (\$m) FY	Var	Actual Scope FY	Budget Scope FY	Var
Permanent Way	1	7.2	9.2	(2.1)			
Rail Renewal		1.8	0.4	1.4	4.6	0.9	3.7
Sleeper Renewal		(0.0)	0.7	(0.7)	-	964.0	(964.0)
Track Upgrade		3.8	6.2	(2.4)	1.8	4.3	(2.5)
Turnout Renewal		0.7	1.2	(0.6)	2.0	2.0	-
Turnout Components		0.6	0.6	(0.0)			
Turnout Design		0.1	0.0	0.1			
Permanent Way Other		0.2	0.1	0.1			
Ballast Cleaning	2	6.2	7.8	(1.6)			
Mainline Undercutting		4.4	4.4	0.0	9.6	9.6	(0.0)
Mainline Excavator Undercutting		0.2	1.4	(1.2)	0.2	1.3	(1.1)
Turnout Undercutting		0.3	0.6	(0.3)	2.0	3.0	(1.0)
Bridge Rollout		0.9	0.9	-	209.0	80.0	129.0
Monumenting		0.3	0.4	(0.1)			
GPR		0.1	0.2	(0.1)			
Structures	3	6.2	9.2	(3.0)			
Bridge Renewal		0.0	-	0.0	-	-	-
Bridge Design		0.1	0.0	0.1			
Culvert Renewal		5.8	8.9	(3.1)	8.0	7.0	1.0
Culvert Design		0.2	0.2	(0.0)			
Civil Renewals	4	5.2	5.1	0.1			
Formation Renewal		3.5	3.9	(0.3)	0.9	0.8	0.2
Formation Reactive		0.8	0.5	0.3			
Formation Other		0.0	0.0	(0.0)			
Slope Stability		-	-	-			
Level Crossing Renewal		0.0	0.0	0.0	-	-	-
Level Crossing Design		0.1	0.0	0.0			
Level Crossing Other		0.3	0.1	0.3			
Access Points and Access Roads		0.1	0.3	(0.2)			
Corridor Fencing and Security		0.4	0.3	0.1			
Control Systems Assets	5	0.9	1.0	(0.1)			
Safe working – Asset Protection		0.4	-	0.4	2.0	-	2.0
Safe working – Interlocking		-	-	-	-	-	-

Renewal Item	Note	Actual Cost (\$m)	Budget (\$m)	Var	Actual Scope	Budget Scope	Var
Safe working – Train Detection		-	-	-	-	-	-
Safe working – Minor		0.0	0.0	(0.0)			
Power Resilience		0.0	-	0.0	-	-	-
Telecommunication Assets		-	-	-	-	-	-
Transmission and Data Renewal		0.3	0.6	(0.3)	4.0	10.0	(6.0)
UTC/DTC System Upgrades		0.2	0.4	(0.2)	1.0	0.0	1.0
Other Control Systems Renewals		-	-	-			
RSB Total		26.0	32.3	(6.3)			
Non-RSB Projects	6	2.3	–	2.3			
ATIS		0.0	–	0.0			
Network Cyber Security		0.1	–	0.1			
Remote-Control Signalling		2.2	–	2.2			
Total		28.3	32.3	(4.0)			

Variation Commentary:

1. Permanent way

During FY25, Aurizon Network incurred \$7.2m delivering Permanent Way renewal activities in the Newlands and GAPE System, which was \$2.1m below budget.

Specific variations to scope and cost against the RSB were due to the following:

- 3.7km of additional rail renewal scope was completed which had been rolled forward from FY24 due to a reduction in the planned March 2024 integrated closure and the introduction of a new integrated closure in July 2024.
- 1.6km of track upgrade and 964 sleepers at the Kaili to Durroburra section were cancelled from the FY25 program. This scope was included in the program as this section currently has a sleeper type which uses a “fist clip” fastener, which is prone to corrosion defects. However, Aurizon Network reprioritised scope to complete FY24 scope that had been rolled forward to FY25, and the replacement of the fist clip sleepers was considered less critical.
- Wet weather impacted the planned track upgrade near Aberdeen in Q3. Resources had mobilised to site, however, were unable to complete the works. This work will now be completed in FY26.

2. Ballast Cleaning:

During FY25, Aurizon Network incurred \$6.2m delivering Ballast Cleaning activities in the Newlands and GAPE System, which was \$1.6m below budget.

Specific variations to scope and cost against the RSB were due to the following:

- In Q1 FY25, a condition review indicated one site (Sonoma 9A) and the adjacent mainline had not deteriorated at the predicted rate and would be expected to remain suitable for rail traffic until FY27. This removed 0.15km of mainline excavator undercutting scope and one turnout from the FY25 program.
- A lower trend in reactive scope than budgeted led to a reduction in the total mainline excavator undercutting scope and costs.
- An additional 129m of bridge rollout scope was completed at Eaglefield Creek that had been rolled forward from FY24 to achieve efficiencies in execution by completing alongside FY25 scope at Suttor Creek.

3. Structures:

During FY25, Aurizon Network completed Structures renewals equivalent to 114% of the planned scope. Contributing to this were three culvert renewals that had been carried forward from FY24 due to a breakdown of the contractor's CIPP lining truck that resulted in an extended project timeline for the CIPP installations.

One culvert renewal was rolled forward to Q2 FY26 due to pipe size discrepancies found on site. A new liner was required to complete the CIPP lining works at this location. Linings are a long lead time item as they are sourced internationally.

Overall, culvert renewal spend was lower than budget. Aurizon Network implemented changes to its procurement process for FY25 which delivered improved cost outcomes for customers, as discussed in the Blackwater variation commentary.

4. Civil Renewals:

During FY25, Aurizon Network completed formation renewals equivalent to 125% of the planned scope. Contributing to this was the completion of 0.2km additional formation renewal scope that had been carried forward from FY24 due to a reduction in the length of the March 2024 Integrated Possession.

Despite the additional scope, formation renewal spend was still lower than budget. Aurizon Network implemented changes to its procurement process for FY25 which delivered improved cost outcomes for customers, as discussed in the Blackwater variation commentary.

Additional reactive formation renewal activities (0.77km) were required within FY25 to address accelerated deterioration caused by compounding impacts of ongoing wet weather. Sites saw failures and deterioration demonstrated by track defects, with repetitive holding works attempted but not effective. Most sites completed were under Temporary Speed Restrictions (TSR), with rectification works allowing for the TSRs to be lifted.

5. Control Systems:

Aurizon Network incurred \$0.9m delivering Control Systems renewals in FY25 which was \$0.1m below budget. Major factors that impacted the overall program include:

- In September 2024, a comprehensive review of the portfolio's deliverability was undertaken, considering a combination of factors including access constraints, cumulative scope carried forward from previous years, and overall delivery capacity. As a result of this review, certain planned FY25 works were rolled forward to future years. Additionally, some scope items were cancelled. These cancelled items will be reassessed during future planning cycles and, if deemed necessary, may be reintroduced in a subsequent RSB period.
- Continued above-budget cost escalation, particularly on the cost of materials and componentry, which have been impacted by demand across the global supply chain.

Specific variations to scope and cost against the RSB were due to the following:

- Asset Protection: Two scope items were completed, both of which had been carried forward from FY24 due to resource constraints.
- Transmission & Data: Four sites were delivered against a planned ten, two of which had been carried forward from prior years due to resource constraints. Remaining scope has been rolled forward to FY26 due to the reprioritisation of key resources.
- UTC/DTC System Upgrades: One site carried forward from FY23 due to procurement delay was completed below budget.

6. Non-RSB Projects: Costs incurred as a result of ATIS, Network Cyber Security and Remote-Control Signalling which were not included in the Newlands and GAPE RSB are discussed in section 8.

7.1.1 Allocation of costs and revenue from Asset Replacement and Renewal Expenditure

The QCA approved Aurizon Network's GAPE and Newlands pricing DAAU in February 2024, which applies a causation-based approach to allocating costs and revenue from asset replacement and renewals expenditure in the shared rail corridor between GAPE and Newlands System users.

The methodology identifies the fixed and variable portions of capital expenditure, with the:

- fixed component being allocated to the relevant Coal System where the replaced asset financially resides; and
- variable component being added to the Newlands RAB, and the associated Allowable Revenues being allocated between Newlands and GAPE Train Services.

Applying the above methodology to the FY25 Capex Claim would see the:

- GAPE RAB include:
 - \$1.9m expenditure between North Goonyella Junction and Newlands Mine Junction (the GAPE Link);
 - \$0.1m, being the fixed portion of the Replacement Capex on GAPE RAB Assets in the Newlands Shared Rail Corridor; plus
 - \$20.5m reflecting capital expenditure associated with the installation of Remote-Control Signalling between Collinsville and Newlands Junction, noting that the forecast costs of this project were included within the GAPE Capital Indicator.
- Newlands RAB include:
 - \$9.3m, being the fixed portion of the Replacement Capex on Newlands RAB Assets in the Newlands Shared Rail Corridor; plus
 - \$13.4m, being the variable proportion of Replacement Capex.

As noted above, Allowable Revenues associated with the \$13.4m variable proportion of Replacement Capex would then be allocated between Newlands and GAPE Train services.

7.2 Cost Incurred versus Claimed Amount

In line with Clause 1.3(a)(ii) of Schedule E of UT5, please refer to Table 10 for detail on the costs incurred for the Year versus the claimed amount for the Newlands System and GAPE.

Table 10 Combined Newlands/GAPE System Costs Incurred versus Claimed Amount

Item	Total Costs Incurred in FY25 (\$m)	FY25 Scope Claimed in FY25 (\$m)	Prior Year Scope Claimed in FY25 (\$m)	Future Year Scope Claimed in FY25 (\$m)	Total Claimed Expenditure (\$m)	IDC (\$m)	Total Claimed Amount including IDC (\$m)
Permanent Way	7.2	4.3	1.6	-	5.9	0.2	6.0
Ballast Cleaning	6.2	5.5	0.5	-	6.0	0.1	6.1
Structures	6.2	5.4	0.4	-	5.8	0.1	6.0
Civil Renewals	5.2	4.5	0.7	-	5.2	0.2	5.4
Control Systems Assets	0.9	0.0	0.9	-	0.9	0.1	1.0
Non-RSB Projects	2.3	-	20.5	-	20.5	0.3	20.8
Total	28.3	19.7	24.6	-	44.3	0.9	45.3

8. System Wide

8.1 Projects not included in the FY25 RSB

As part of this FY25 capital expenditure claim, Aurizon Network is seeking QCA approval to include capital expenditure of \$27.4m (excluding IDC) into the RAB which relates to the following key improvement initiatives:

8.1.1 Automated Track Inspection System

The Automated Track Inspection System (**ATIS**) comprises a suite of measurement systems that replace and extend Aurizon Network's rail corridor condition monitoring capability by using proven technology fitted to revenue rollingstock to monitor infrastructure assets, including:

- Track Geometry Measurement System (**TGMS**) – measuring track geometry condition.
- Wire Geometry Measurement System (**WGMS**) – measuring overhead wire alignment relative to track position
- Pantograph Collision Detection System (**PCDS**) – measuring the interface between the pantograph and the overhead wire.

ATIS leverages Aurizon Network's previous investments in vehicle telemetry, IT, telecommunications infrastructure, and process improvement to provide an autonomous data collection system that is designed to generate insights and plan track geometry corrective maintenance work automatically via the OneSAP system.

The primary benefit to the supply chain is the reduction in unplanned maintenance and renewal events and associated system disruption and constraints (i.e. temporary speed restrictions and cancellations). ATIS also enables cost and capacity benefits via a reduction in paths consumed by the previously utilised Track Recording Vehicle along with its associated costs.

In FY22, support was received from the RIG for a \$10.5m investment in the full deployment of ATIS, with the total capital investment to be assessed as part of a capital claim(s) for RAB inclusion with a 10-year asset life.

TGMS is now in use within all four Coal Systems. WGMS is now in use within both the Goonyella and Blackwater Systems. All planned PCDS units have been installed to electric locomotives in the Goonyella and Blackwater Systems. The production data captured through these measurement systems is being fed into the graphical user interface application which is being actively reviewed by the Network Asset Management team to:

- monitor asset performance;
- investigate anomalous readings; and
- inform planned track and overhead wiring maintenance activities.

As detailed in the FY24 Capex Claim², some benefits were deferred to FY25 due to delays in program completion associated with design, supply chain and installation challenges, as presented during the March 2024 RIG producer meeting. A key performance indicator update was provided to the RIG in July 2025, and ATIS is performing at or above target for all operational metrics identified in the FY22 business case.

Aurizon Network is now seeking QCA approval of the remaining ATIS project costs as part of the FY25 Capex Claim. These costs are presented in Table 11.

² [20240910-qca-submission-fy24-capital-expenditure-claim-redacted.pdf](#)

8.1.2 Customer-Specific Rail Infrastructure Connection Deed

Pembroke Resources (**Pembroke**) acquired the Olive Downs project in May 2016. [REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

Aurizon Network is now seeking QCA approval of the remaining Olive Downs RICD project costs as part of the FY25 Capex Claim, noting the project has been delivered below budget. These costs are presented in Table 11.

8.1.3 Network Cyber Security

The Network Cyber Security project was initiated to enable the implementation of system security architecture to reduce the risk of a cyber event impacting Aurizon Network's operational technology (**OT**) infrastructure, for example, the Network Control Centre (Train Control System and Digital Radio System), Rail Signalling Equipment and/or the Power Supervisory SCADA System. As cyber security is a continuously evolving risk, it is expected that ongoing reviews and expenditure on OT cyber security will present itself in future years.

A \$1.9m investment in Aurizon Network's OT Cyber Security (**Network Cyber Security**) was presented to and endorsed by the RIG on 30 March 2023, with the scope planned to be delivered across FY23 and FY24. This included the implementation of a security layer for operational technologies to mitigate an above-appetite risk of losing between 0.4mt and 6.9mt across the CQCN in the event of a cyber-security attack.

This security layer included design and deployment of server infrastructure and software for:

- Identity Management and Access Control - the process of a human or a computer logging onto the OT infrastructure and being authenticated.
- Security Continuous Monitoring - the process of monitoring logs produced by servers, firewalls and routers to look for anomalies of activity occurring on devices. Alerts can be investigated, preventing unauthorised access to systems.

³ [20240910-qca-submission-fy24-capital-expenditure-claim-redacted.pdf](#)

- Vulnerability Management - management of advertised vulnerabilities. Vulnerabilities are equivalent to a recall notice for a motor vehicle.
- Network Segregation and Separation – separation of OT and IT systems to close the door on threats coming from IT Users accessing OT systems.

Aurizon Network is now seeking QCA approval of the Network Cyber Security project costs as part of the FY25 Capex Claim. These costs are presented in Table 11.

8.1.4 Remote-Control Signalling

On 16 November 2022, the QCA approved Transitional Arrangements for the Newlands and GAPE System. These Transitional Arrangements included an Expansion of Remote-Control Signalling (**RCS**) between Collinsville and Newlands Junction, with the Decision Notice⁴ stating:

Based on the estimated cost for implementing this transitional arrangement and the expected capacity created, we consider that the installation of remote-control signalling will form part of the overall solution for resolving the existing capacity deficit at the lowest net present cost to access holders.

On 23 May 2024, the QCA approved Aurizon Network's proposed FY25 capital indicator, which noted⁵:

As the installation of RCS is largely a demand deferred project under the commercially negotiated GAPE Deeds to create the capacity needed to satisfy the GAPE contracted volumes, the costs associated with the installation of RCS between Collinsville and Newlands Junction have been added to the GAPE Capital Indicator. Aurizon Network expects RCS to be commissioned in July 2024 at an estimated cost of \$22 million.

In its Decision Notice⁶, the QCA confirmed the costs were “consistent with our decision on the transitional arrangements”.

Aurizon Network is now seeking QCA approval of the RCS project costs as part of the FY25 Capex Claim. These costs are presented in Table 11.

8.2 Cost Incurred versus Claimed Amount

In line with Clause 1.3(a)(ii) of Schedule E of UT5, please refer to Table 11 for details of the costs incurred for the Year versus the claimed amount for the projects not included in the FY25 RSB. These values have been accounted for in the individual system tables for consistency, however the total amount attributable to these projects has been presented here separately for clarity. Please note the amounts presented in Table 11 are not in addition to what has already been presented.

⁴ [cqcn-capacity-deficit-transitional-arrangements-decision-notice-final14810852.pdf](#)

⁵ [aurizon-network-arrtfy25-submission-final_public_redacted.pdf](#)

⁶ [Annual review of reference tariffs, 2024–25](#)

Table 11 Other Improvement Initiative (Non-RSB) Costs Incurred versus Claimed Amount

Item	Claimed Expenditure (\$m)	IDC (\$m)	Total Claimed Amount including IDC (\$m)
ATIS	4.4	0.5	4.9
Customer-Specific Connection	1.0	0.1	1.1
Network Cyber Security	1.8	0.0	1.8
Remote-Control Signalling	20.2	0.3	20.5
Total	27.4	0.9	28.3

9. Procurement Strategy and Inventory

In completing asset replacement and renewals work for FY25, Aurizon Network has endeavoured to procure resources in an effective and efficient manner, an outcome that was supported through the execution of the procurement strategy and methodology outlined within the Approved RSB. This approach saw Aurizon Network seek to maximise utilisation of its internal delivery teams and where appropriate augment these internal resources with suitably qualified contractor staff and plant where additional resources were required to complete identified scope.

When engaging external resources, Aurizon Network utilised, wherever reasonably possible, a series of engineering and technical service contractor panels, established through its Enterprise Procurement group. These include asset-specific service panels, skilled labour hire, plant hire and plant transportation services. Where scope required a specific skill set or if the required plant was not held within the Aurizon Network group, Aurizon Network sought to engage pre-qualified contractors to perform work either under direct supervision or if approved, as principal contractor for short periods. Aurizon Network applies an assurance program and a performance-based governance framework for external contractors to ensure they meet the required business and safety processes and policies.

Aurizon Network will continue to work with our customers and internal teams across the Aurizon business to assess our existing procurement practices with a view to identifying improvement opportunities that will deliver value to our business and to our customers.

10. Capital Expenditure for inclusion into the RAB by System

This submission provides the QCA with the details of capital expenditure that Aurizon Network considers should be included in the RAB in accordance with Clause 2.2 of Schedule E of UT5. Details for each Coal System are contained within the following tables:

10.1 Blackwater System

Table 12 Blackwater System - Claimed Expenditure excluding IDC (\$m)

Project Number	Project Name	RIG Category	Claimed Expenditure (\$m)
IV.00448	Structures Renewal Package 3	Structures	0.1
IV.00463	Turnout Renewal Package 3	Permanent Way	0.1
IV.00505	Power Systems Renewal Package 3	Electrical	0.0
IV.00678	Optical Fibre Renewal	Control Systems	4.1
IV.00692	Train Detection Renewal Central Line	Control Systems	0.5
IV.00693	Interlocking Renewal - NCL	Control Systems	0.0
IV.00694	Control Sys Renewal Callemondah	Control Systems	8.4
IV.00802	FY23 Track Renewal	Permanent Way	0.0
IV.00803	FY24 Track Renewal	Permanent Way	2.8
IV.00805	FY23 Bridge Ballast Renewal	Ballast Cleaning	1.2
IV.00806	FY24 Bridge Ballast Renewal	Ballast Cleaning	1.6
IV.00808	FY23 Formation Renewal	Civil Renewals	0.0
IV.00809	FY24 Formation Renewal	Civil Renewals	2.1
IV.00811	FY23 Level Crossing Renewal	Civil Renewals	0.6
IV.00812	FY24 Level Crossing Renewal	Civil Renewals	1.5
IV.00813	FY22 Turnout Renewal	Permanent Way	0.1
IV.00814	FY23 Turnout Renewal	Permanent Way	0.1
IV.00815	FY24 Turnout Renewal	Permanent Way	0.5
IV.00816	FY22 Culvert Renewal	Structures	0.3
IV.00817	FY23 Structures Renewal	Structures	0.8
IV.00818	FY24 Structures Renewal	Structures	11.7
IV.00819	Bridge Renewal	Structures	0.5
IV.00820	FY22 Control Systems Renewal	Control Systems	0.0
IV.00821	FY23 Control Systems Renewal	Control Systems	0.9
IV.00822	FY24 Control Systems Renewal	Control Systems	3.6
IV.00823	FY22 Power Systems Renewal	Electrical	0.2
IV.00824	FY23 Power Systems Renewal	Electrical	0.0
IV.00825	FY24 Power Systems Renewal	Electrical	0.4
IV.00827	FY23 Electrical Overhead Renewal	Electrical	0.1
IV.00828	FY24 Electrical Overhead Renewal	Electrical	0.0

Project Number	Project Name	RIG Category	Claimed Expenditure (\$m)
IV.00832	FY23 Ballast Renewal	Ballast Cleaning	0.0
IV.00833	FY24 Ballast Renewal	Ballast Cleaning	1.7
IV.00835	FY23 Civil Renewals	Civil Renewals	0.1
IV.00836	FY24 Civil Renewals	Civil Renewals	0.3
IV.01508	FY25 Track Renewal	Permanent Way	21.6
IV.01511	FY25 Turnout Renewal	Permanent Way	8.9
IV.01514	FY25 Ballast Renewals	Ballast Cleaning	41.3
IV.01517	FY25 Bridge Ballast Renewal	Ballast Cleaning	7.5
IV.01520	FY25 Formation Renewal	Civil Renewals	5.6
IV.01523	FY25 Civil Renewals	Civil Renewals	1.4
IV.01526	FY25 Level Crossing Renewal	Civil Renewals	3.1
IV.01529	FY25 Structures Renewal	Structures	19.8
IV.01532	FY25 Control Systems Renewal	Control Systems	2.2
IV.01535	FY25 Power Systems Renewal	Electrical	2.1
IV.01538	FY25 Electrical Overhead Renewal	Electrical	0.8
RSB Projects Total			158.7
IV.00841	ATIS	Non-RSB Project	1.8
IV.01407	Network Cyber Security	Non-RSB Project	0.7
System Total			161.2

10.2 Goonyella System

Table 13 Goonyella System - Claimed Expenditure excluding IDC (\$m)

Project Number	Project Name	RIG Category	Claimed Expenditure (\$m)
IV.00448	Structures Renewal Package 3	Structures	0.0
IV.00457	Control Systems Renewal Package 3	Control Systems	0.0
IV.00505	Power Systems Renewal Package 3	Electrical	0.0
IV.00678	Optical Fibre Renewal	Control Systems	7.2
IV.00691	Signalling Sys Renewal Goonyella Trunk	Control Systems	0.0
IV.00802	FY23 Track Renewal	Permanent Way	0.7
IV.00803	FY24 Track Renewal	Permanent Way	3.0
IV.00805	FY23 Bridge Ballast Renewal	Ballast Cleaning	-0.1
IV.00806	FY24 Bridge Ballast Renewal	Ballast Cleaning	0.0
IV.00808	FY23 Formation Renewal	Civil Renewals	1.8
IV.00809	FY24 Formation Renewal	Civil Renewals	3.0
IV.00811	FY23 Level Crossing Renewal	Civil Renewals	0.1
IV.00812	FY24 Level Crossing Renewal	Civil Renewals	0.1
IV.00813	FY22 Turnout Renewal	Permanent Way	0.0
IV.00814	FY23 Turnout Renewal	Permanent Way	0.0
IV.00815	FY24 Turnout Renewal	Permanent Way	0.2
IV.00816	FY22 Culvert Renewal	Structures	0.2
IV.00817	FY23 Structures Renewal	Structures	0.2
IV.00818	FY24 Structures Renewal	Structures	2.1
IV.00820	FY22 Control Systems Renewal	Control Systems	0.2
IV.00821	FY23 Control Systems Renewal	Control Systems	1.6
IV.00822	FY24 Control Systems Renewal	Control Systems	5.7
IV.00823	FY22 Power Systems Renewal	Electrical	0.2
IV.00824	FY23 Power Systems Renewal	Electrical	0.4
IV.00825	FY24 Power Systems Renewal	Electrical	0.6
IV.00827	FY23 Electrical Overhead Renewal	Electrical	0.1
IV.00828	FY24 Electrical Overhead Renewal	Electrical	0.7
IV.00829	Goonyella Ports Overhead Renewals	Electrical	3.5
IV.00832	FY23 Ballast Renewal	Ballast Cleaning	0.0
IV.00833	FY24 Ballast Renewal	Ballast Cleaning	1.6
IV.00835	FY23 Civil Renewals	Civil Renewals	0.0
IV.00836	FY24 Civil Renewals	Civil Renewals	0.2
IV.01508	FY25 Track Renewal	Permanent Way	23.8
IV.01511	FY25 Turnout Renewal	Permanent Way	3.7
IV.01514	FY25 Ballast Renewals	Ballast Cleaning	34.7

Project Number	Project Name	RIG Category	Claimed Expenditure (\$m)
IV.01520	FY25 Formation Renewal	Civil Renewals	8.3
IV.01523	FY25 Civil Renewals	Civil Renewals	0.8
IV.01526	FY25 Level Crossing Renewal	Civil Renewals	3.5
IV.01529	FY25 Structures Renewal	Structures	6.1
IV.01532	FY25 Control Systems Renewal	Control Systems	2.3
IV.01535	FY25 Power Systems Renewal	Electrical	1.3
IV.01538	FY25 Electrical Overhead Renewal	Electrical	2.4
IV.01582	Goonyella Branch Line Train Detection	Control Systems	6.4
RSB Projects Total			126.3
IV.00841	ATIS	Non-RSB Project	2.6
IV.00970	Customer-Specific Connection	Non-RSB Project	1.0
IV.01407	Network Cyber Security	Non-RSB Project	0.7
System Total			130.6

10.3 Moura System

Table 14 Moura System - Claimed Expenditure excluding IDC (\$m)

Project Number	Project Name	RIG Category	Claimed Expenditure (\$m)
IV.00448	Structures Renewal Package 3	Structures	0.0
IV.00803	FY24 Track Renewal	Permanent Way	0.2
IV.00805	FY23 Bridge Ballast Renewal	Ballast Cleaning	0.0
IV.00806	FY24 Bridge Ballast Renewal	Ballast Cleaning	0.1
IV.00809	FY24 Formation Renewal	Civil Renewals	0.0
IV.00811	FY23 Level Crossing Renewal	Civil Renewals	0.0
IV.00812	FY24 Level Crossing Renewal	Civil Renewals	0.0
IV.00813	FY22 Turnout Renewal	Permanent Way	0.0
IV.00814	FY23 Turnout Renewal	Permanent Way	0.0
IV.00815	FY24 Turnout Renewal	Permanent Way	0.0
IV.00816	FY22 Culvert Renewal	Structures	0.0
IV.00817	FY23 Structures Renewal	Structures	0.6
IV.00818	FY24 Structures Renewal	Structures	0.2
IV.00819	Bridge Renewal	Structures	0.0
IV.00820	FY22 Control Systems Renewal	Control Systems	0.0
IV.00821	FY23 Control Systems Renewal	Control Systems	0.1
IV.00822	FY24 Control Systems Renewal	Control Systems	0.2
IV.00833	FY24 Ballast Renewal	Ballast Cleaning	0.3
IV.00835	FY23 Civil Renewals	Civil Renewals	0.0
IV.00836	FY24 Civil Renewals	Civil Renewals	0.0
IV.01508	FY25 Track Renewal	Permanent Way	4.1
IV.01511	FY25 Turnout Renewal	Permanent Way	0.2
IV.01514	FY25 Ballast Renewals	Ballast Cleaning	6.8
IV.01520	FY25 Formation Renewal	Civil Renewals	2.6
IV.01523	FY25 Civil Renewals	Civil Renewals	0.2
IV.01526	FY25 Level Crossing Renewal	Civil Renewals	1.1
IV.01529	FY25 Structures Renewal	Structures	1.9
RSB Projects Total			18.9
IV.00841	ATIS	Non-RSB Project	0.0
IV.01407	Network Cyber Security	Non-RSB Project	0.1
System Total			19.0

10.4 Newlands System and GAPE

Table 15 Newlands System and GAPE - Claimed Expenditure excluding IDC (\$m)

Project Number	Project Name	RIG Category	Claimed Expenditure (\$m)
IV.00803	FY24 Track Renewal	Permanent Way	1.6
IV.00805	FY23 Bridge Ballast Renewal	Ballast Cleaning	0.0
IV.00806	FY24 Bridge Ballast Renewal	Ballast Cleaning	0.5
IV.00808	FY23 Formation Renewal	Civil Renewals	0.0
IV.00809	FY24 Formation Renewal	Civil Renewals	0.7
IV.00811	FY23 Level Crossing Renewal	Civil Renewals	0.0
IV.00812	FY24 Level Crossing Renewal	Civil Renewals	0.0
IV.00814	FY23 Turnout Renewal	Permanent Way	0.0
IV.00816	FY22 Culvert Renewal	Structures	0.2
IV.00817	FY23 Structures Renewal	Structures	0.1
IV.00818	FY24 Structures Renewal	Structures	0.2
IV.00819	Bridge Renewal	Structures	0.0
IV.00820	FY22 Control Systems Renewal	Control Systems	0.0
IV.00821	FY23 Control Systems Renewal	Control Systems	0.1
IV.00822	FY24 Control Systems Renewal	Control Systems	0.7
IV.00835	FY23 Civil Renewals	Civil Renewals	0.0
IV.00836	FY24 Civil Renewals	Civil Renewals	0.0
IV.01508	FY25 Track Renewal	Permanent Way	2.9
IV.01511	FY25 Turnout Renewal	Permanent Way	1.4
IV.01514	FY25 Ballast Renewals	Ballast Cleaning	4.7
IV.01517	FY25 Bridge Ballast Renewal	Ballast Cleaning	0.5
IV.01520	FY25 Formation Renewal	Civil Renewals	3.8
IV.01523	FY25 Civil Renewals	Civil Renewals	0.6
IV.01526	FY25 Level Crossing Renewal	Civil Renewals	0.3
IV.01529	FY25 Structures Renewal	Structures	5.4
IV.01532	FY25 Control Systems Renewal	Control Systems	0.0
RSB Project Total			23.8
IV.00841	ATIS	Non-RSB Project	0.0
IV.01407	Network Cyber Security	Non-RSB Project	0.3
IV.01220	Remove Control Signalling (RCS)	Non-RSB Project	20.2
System Total			44.3

Appendix A: Incurred Renewal Expenditure vs Commissioned Asset System Graphs

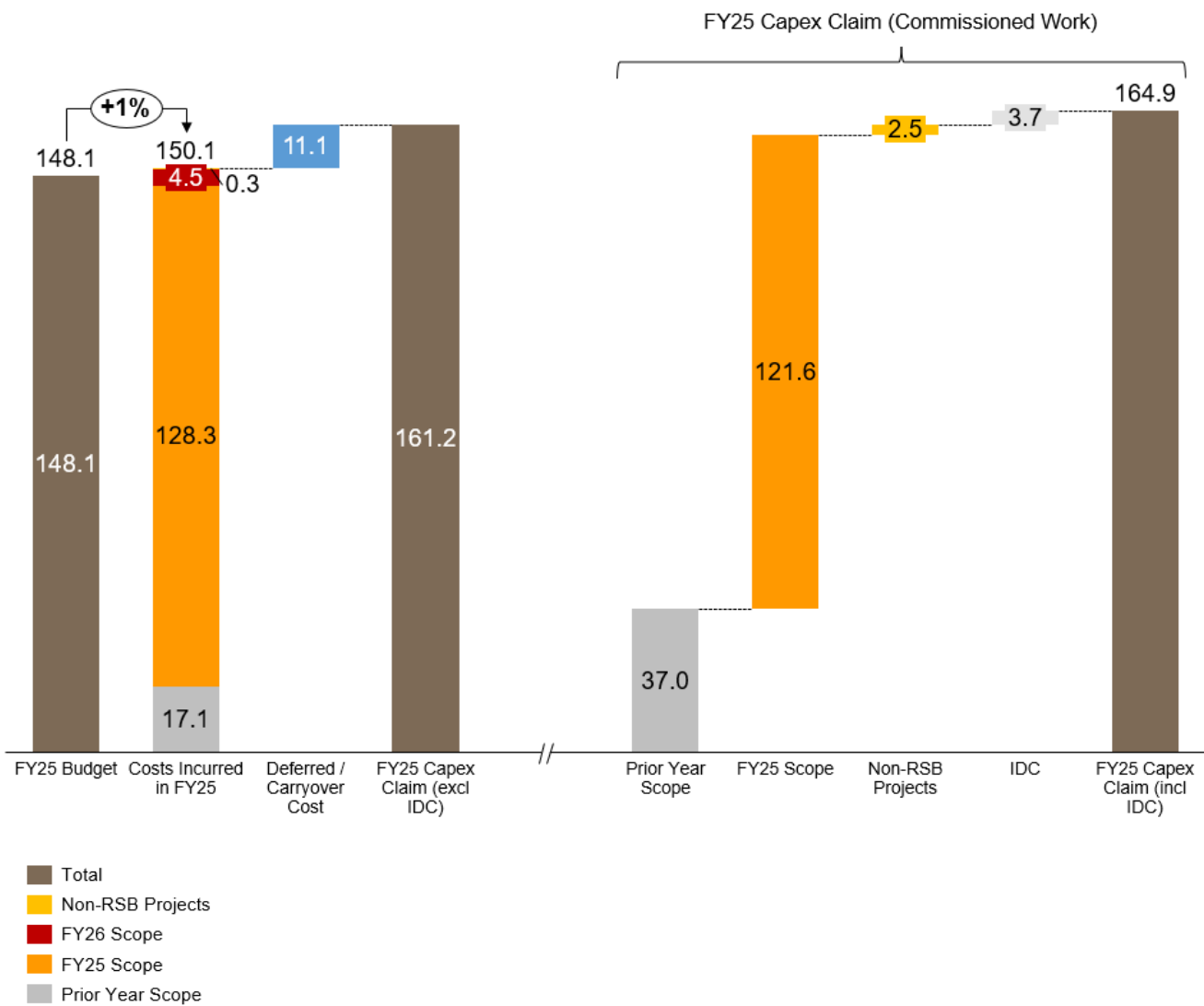
Aurizon Network has included the following waterfall graphs to assist with the comparison of actual incurred Asset Renewals Expenditure to the value of commissioned assets for each program that is included within this submission.

Please note that the following graphs reflect the expenditure that Aurizon Network has incurred while delivering the FY25 Asset Replacement and Renewals program. While incurred expenditure provides an appropriate comparison against the Approved RSB, in some circumstances this may differ from the amounts Aurizon Network is seeking QCA approval of through this Capex Claim (which reflects commissioned assets). Aurizon Network has sought to separately identify incurred versus claimed costs for comparison. Please note that variances between incurred and claimed expenditure can exist where incurred expenditure is awaiting an administrative process (e.g. receipt of a final invoice) before the asset in question can be commissioned and subsequently transferred to Aurizon Network's Fixed Asset Register (**FAR**).

Further waterfall graphs illustrating the above for each renewal category within each Coal System are available upon request.

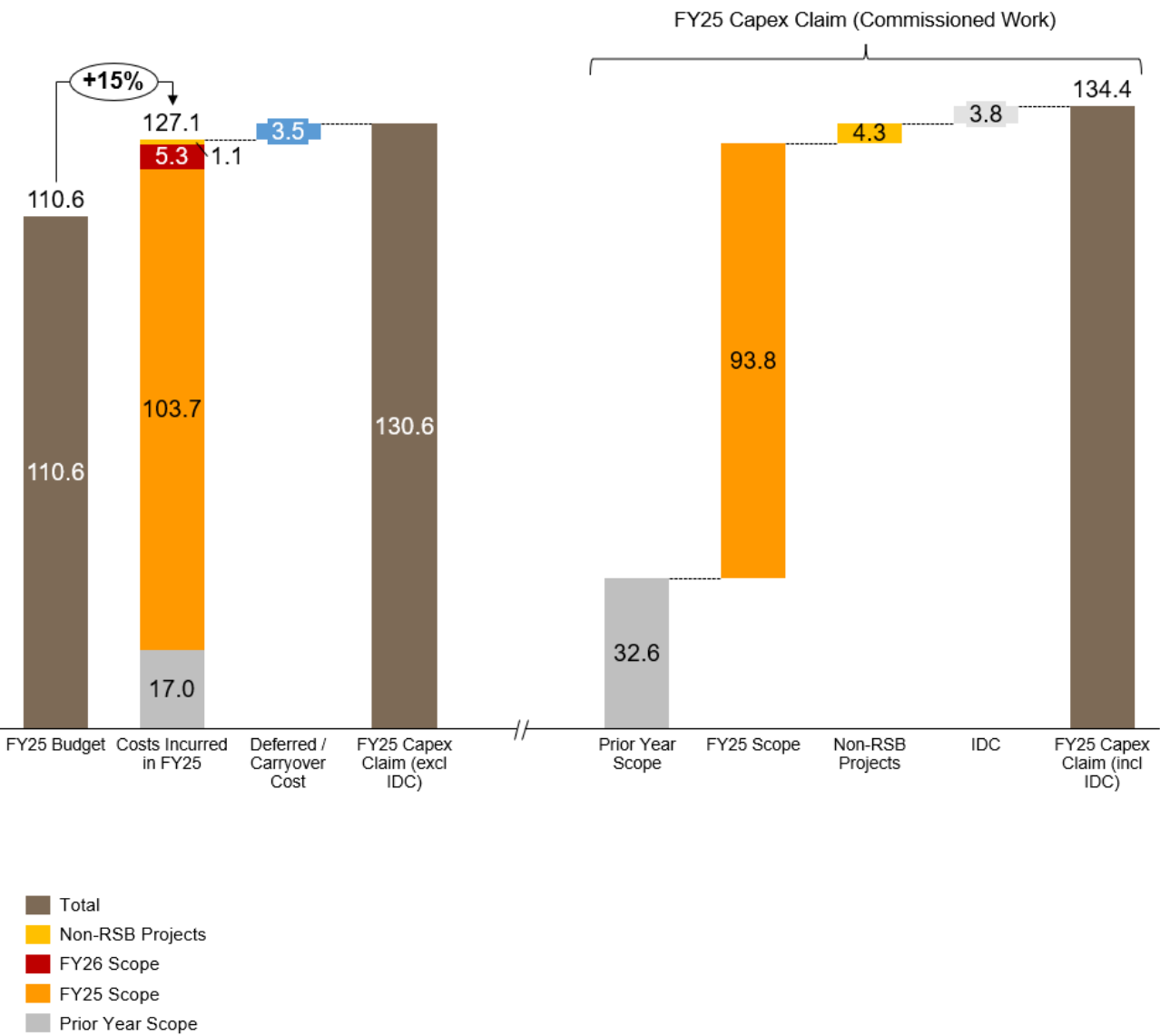
Blackwater

Figure 2 FY25 – Blackwater System



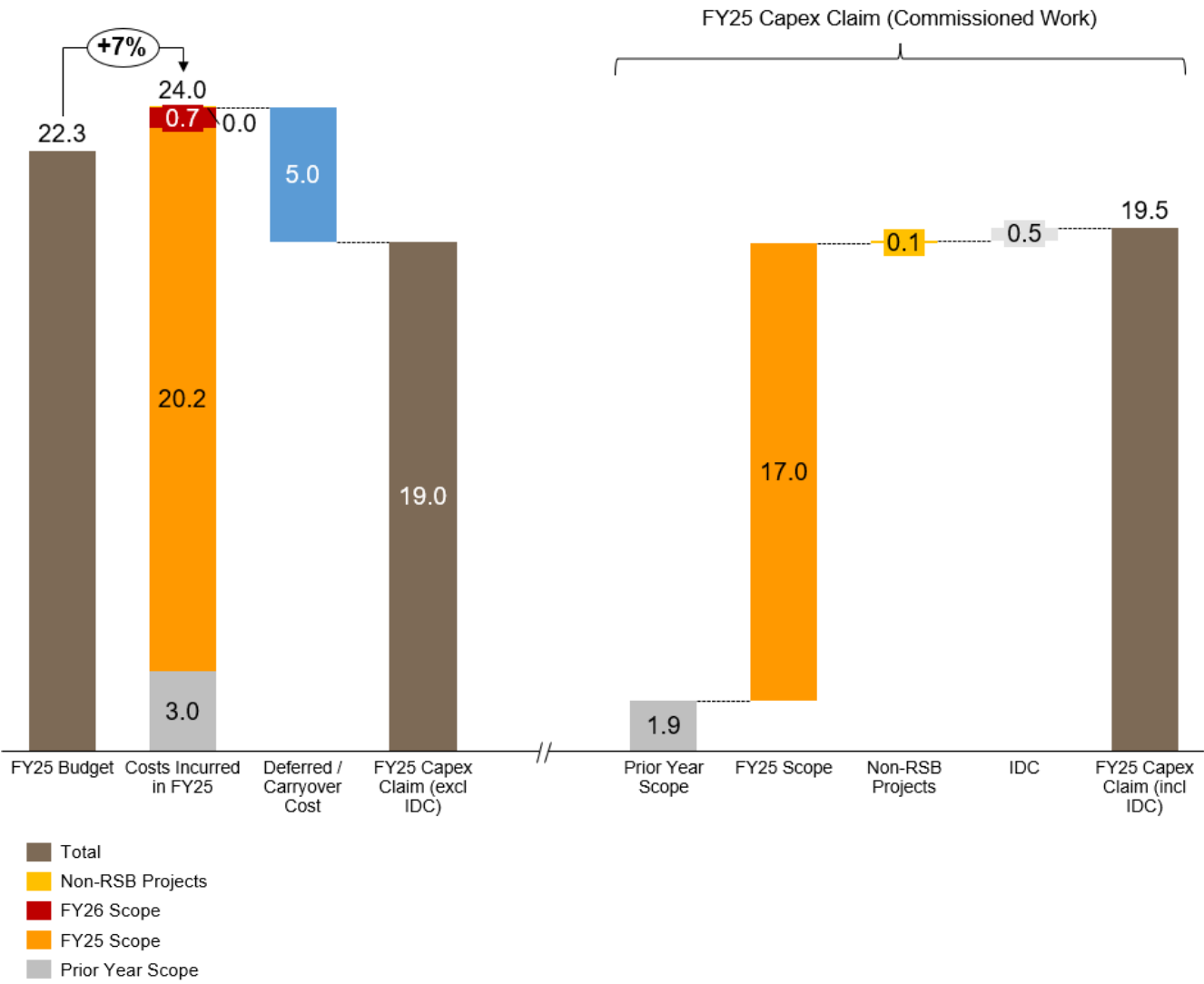
Goonyella

Figure 3 FY25 System - Goonyella



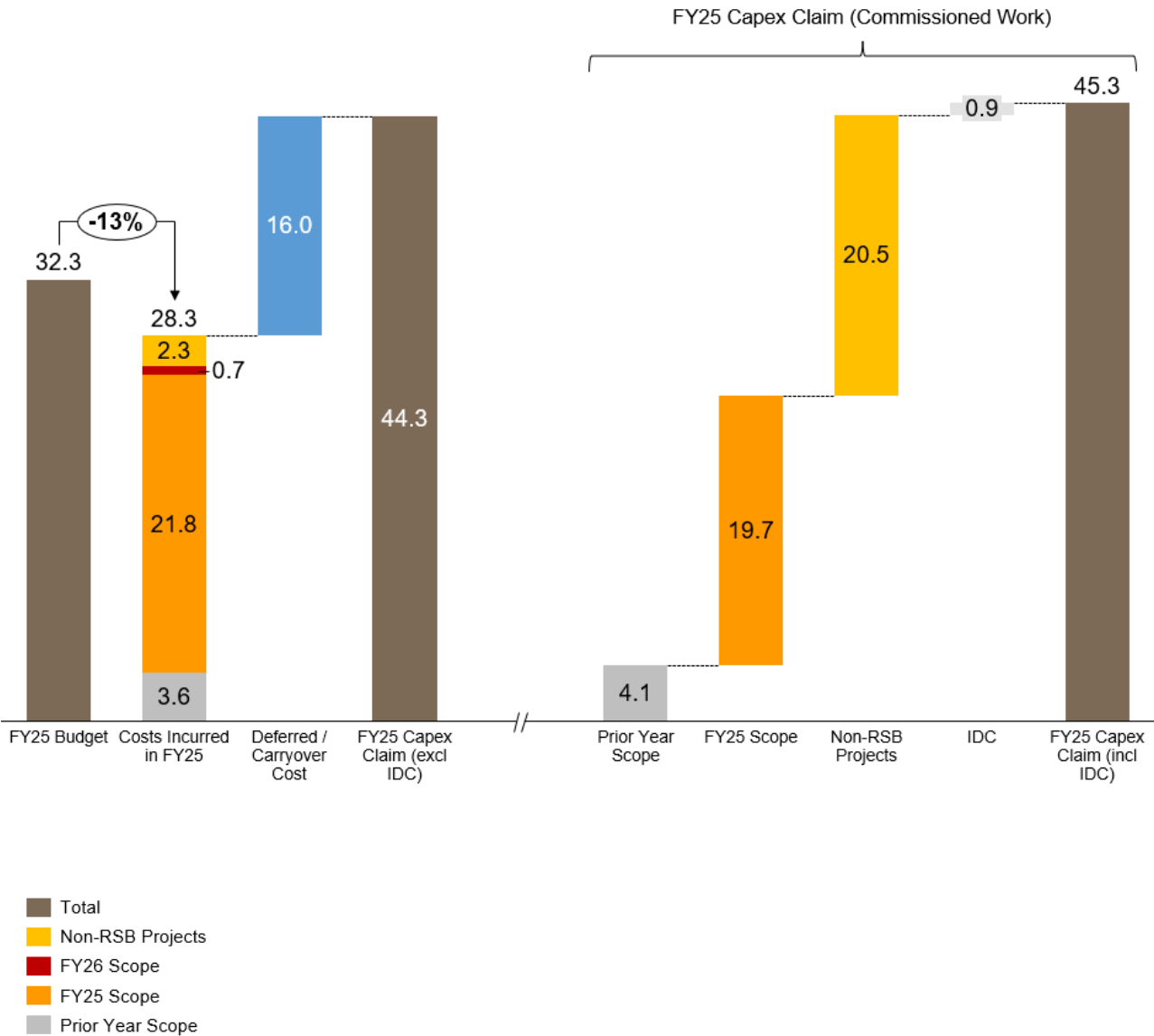
Moura

Figure 4 FY25 System - Moura



Newlands and GAPE

Figure 5 FY25 System – Newlands and GAPE



Appendix B: Supporting Documentation