

George Passmore  
Director Business Performance  
Queensland Competition Authority  
Level 27, 145 Ann Street  
Brisbane QLD 4000

23 March 2020

Dear George,

**Aurizon Network Pty Ltd (Aurizon Network) – FY2019 Capital Expenditure Submission**

Aurizon Network submitted its FY2019 Capital Expenditure claim (**FY2019 Capex Claim**) for \$126.4 million (**\$m**) to the Queensland Competition Authority (**QCA**) for approval. As part of its assessment, the QCA engaged Flagstaff Consulting Group (**Flagstaff**) to assess whether the FY2019 Capex Claim is prudent and efficient in accordance with clause 2 of Schedule E of Aurizon Network's 2017 Access Undertaking (**UT5**).

While Flagstaff found the FY2019 Capex Claim to be generally prudent and efficient in terms of scope, standard and cost, it supported the inclusion of only \$122.7m (before Interest During Construction (**IDC**)) into Aurizon Network's Regulatory Asset Base (**RAB**); a proposed reduction of \$3.6m in comparison to Aurizon Network's submission.

Flagstaff proposed capital expenditure adjustments (**Capex Adjustments**) to the following five (5) projects:

- IV.00449 Bridge Ballast Renewal (\$0.06m);
- IV.00470 Corridor Security (\$1.4m);
- IV.00476 Track Renewal Package 1 (\$1.0m);
- IV.00503 Electrical Renewals (\$0.8m); and
- IV.00360 Network Asset Management System Tranche 2 (\$0.3m).

(collectively, the **Adjusted Projects**.)

Aurizon Network has thoroughly reviewed Flagstaff's assessment and agrees with Flagstaff's assessment of project "IV.00449 Bridge Ballast Renewal", which was to defer claiming these capital costs. Aurizon Network will seek QCA approval of this capital expenditure in a future years capital expenditure claim.

Aurizon Network does not agree with Flagstaff's conclusions in relation to the remaining 4 Adjusted Projects;

- IV.00470 Corridor Security (\$1.4m);
- IV.00476 Track Renewal Package 1 (\$1.0m);
- IV.00503 Electrical Renewals (\$0.8m); and

- IV.00360 Network Asset Management System Tranche 2 (\$0.3m);

which represent an aggregate spend of \$3.5m (**Capex Adjustments**).

The purpose of this submission is to:

- address the key issues raised by Flagstaff in relation to the Adjusted Projects; and
- to provide further information to support the inclusion of the Capex Adjustments into the RAB in FY2019.

Aurizon Network welcomes the opportunity to discuss any queries the QCA or Flagstaff may have and can provide access to the relevant experts to discuss any of the points in this submission.

If you have any questions in relation to this correspondence, please do not hesitate to contact Jenna Cameron on 07 3019 1123 or via email [Jenna.Cameron@Aurizon.com.au](mailto:Jenna.Cameron@Aurizon.com.au)

Yours sincerely,



Jon Windle  
Manager Regulation  
Aurizon Network

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## Background

Aurizon Network's Regulatory Asset Base (**RAB**) represents the asset value of Rail Infrastructure within the Central Queensland Coal Network (**CQCN**) that is required for the purpose of developing Reference Tariffs for coal carrying Train Services.

The value of the RAB is approved by the Queensland Competition Authority (**QCA**) in accordance with Aurizon Network's 2017 Access Undertaking (**UT5**). Schedule E of UT5, outlines the QCA process for the review and subsequent approval of any changes to the RAB over time.

On 25 October 2019, Aurizon Network submitted to the QCA its FY2019 Capital Expenditure Submission (**FY2019 Capex Claim**) seeking approval to include FY2019 capital expenditure into the RAB. The FY2019 Capex Claim was subsequently amended (reduced) on 22 November 2019 and 19 December 2019<sup>1</sup>.

In the financial year 1 July 2018 to 30 June 2019 (**FY2019**), Aurizon Network commissioned capital projects with a value of **\$126.4m** excluding Interest During Construction (**IDC**). This capital value encompasses 48 individual projects across the CQCN; details of which are outlined in Appendix A – Aurizon Network's FY2019 Capital Expenditure Project List.

On 31 October 2019, the QCA notified Aurizon Network that they had engaged Flagstaff Consulting Group (**Flagstaff**) to assess whether the projects within the FY2019 Capex Claim were prudent and efficient, as required by clause 2 of Schedule E of UT5.

Flagstaff's February 2020 Assessment of Aurizon Network's Capital Expenditure Claim (**Assessment Report**), recommended that the QCA approve \$122.7m (excluding IDC) of the total \$126.4m (excluding IDC) submitted by Aurizon Network in its FY2019 Capex Claim.

Flagstaff recommended adjustments to the value of 5 projects suggesting that the associated costs should be either reduced, deferred or rejected. Flagstaff recommendation is that the QCA should not accept a total of \$3.6m for inclusion into the RAB in FY2019. A summary of Flagstaff's recommendations is outlined in Appendix B – Summary table of Flagstaff's FY2019 Assessment Recommendations.

Aurizon Network appreciates Flagstaff's recommendation that the QCA include \$122.7m (before IDC) into the RAB. Aurizon Network does, however, disagree with Flagstaff's conclusions in relation to the 4 of the 5 projects, a total of \$3.6m;

- IV.00470 Corridor Security (\$1.4m);
- IV.00476 Track Renewal Package 1 (\$1.0m);
- IV.00503 Electrical Renewals (\$0.8m); and
- IV.00360 Network Asset Management System Tranche 2 (\$0.3m);

(collectively, the **Adjusted Projects**.)

For the 5<sup>th</sup> project, IV.00449 Bridge Ballast Renewal (\$0.06m), Aurizon Network agrees with Flagstaff's assessment and will seek QCA approval of this capital expenditure in a future capital expenditure claim.

In providing this response, Aurizon Network has focused on addressing the concerns raised by Flagstaff in their Assessment Report in relation to the Adjusted Projects. In particular, Aurizon Network has sought to provide clarity about the circumstances relevant at the time of making the decision to incur the capital expenditure.

In addition to the \$122.7m already recommended by Flagstaff for inclusion in the RAB, Aurizon Network is seeking QCA approval to include a further \$3.5m relating to the 4 Adjusted Projects.

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<sup>1</sup> Flagstaff, Assessment Report, 14 Feb 2020, Page 9

Table 1. Summary of Aurizon Network's Response to Flagstaff's Reject or Defer Recommendations

Project	Aurizon Network submitted (\$)	Flagstaff's recommendation (\$)	Variance (\$)	Flagstaff's Reason:	Aurizon Network's response (\$)	Aurizon Network's Reason:
IV.00476 Track Renewal Package 1	\$15,193,594	\$14,174,922	(\$1,018,672)	<b>Partially Reject</b> due to conflicting cost information.	\$1,018,672	<b>Disagree</b> The original cost breakdown of this project that was provided by Aurizon Network on 20 November 2019 and contained an administrative error which incorrectly allocated all indirect costs to two jobs, specifically, the 'bad order siding', rather than apportioning them across all activities within the Track Renewal package. The effect of this was that the bad order siding costs appeared to be materially higher than normal.  This error was thought to have been corrected by Aurizon Network when an updated cost estimate was provided to Flagstaff on 9 December 2019. However, the Assessment Report still appears to be based on the incorrect information provided on 20 November 2019. Aurizon Network has provided a corrected cost breakdown (correctly apportioning the indirect costs between systems) within this response which demonstrates the prudence of costs incurred.  Consequently, these costs should be approved for inclusion in the RAB.
IV.00449 Bridge Ballast Renewal Package 1	\$8,567,512	\$8,509,462	(\$58,050)	<b>Deferral</b> Flagstaff's assessment noted that all costs incurred related to works which were rescheduled for completion at a later date.	\$0	<b>Agree</b> Aurizon Network agrees with Flagstaff's assessment and will seek QCA approval of these costs (through a subsequent Capex Claim) upon commissioning of works at the sites in question.
IV.00470 Corridor Security Package 1	\$1,381,137	\$0	(\$1,381,137)	<b>Deferral</b> Flagstaff's assessment considered that these discrete projects were part of a single program of works.	\$1,381,137	<b>Disagree</b> Although these renewal projects were incorporated into a single Investment Approval Request for the purpose of Aurizon Network's own internal governance processes, each individual project represents a discrete package of works.  The expenditure included within the FY2019 Capex Claim relates to assets that have been commissioned and are being utilised for the provision of the Declared Service.  In light of this, the capital expenditure should be deemed appropriate for inclusion in the RAB.
IV.00503 Power Systems Renewal Package 1	\$835,307	\$0	(\$835,307)	Flagstaff considered that it would be premature to claim the costs of these projects in FY2019, given overall progress on the collective package of work. Flagstaff suggest Aurizon Network claim these costs in future Capex Claims when the project(s) is further developed in the entire program of works	\$835,307	
IV.00360 Network Asset Management System Tranche 2	\$323,399	\$0	(\$323,399)		\$323,399	
<b>TOTAL</b>	<b>\$26,300,949</b>	<b>\$22,684,384</b>	<b>(\$3,616,565)</b>		<b>\$3,558,515</b>	

# Response to Flagstaff's Assessment Report

## IV.00476 - Track Renewal Package 1

Figure 1. Flagstaff's Assessment Report – IV.00476

Table 7.12: IV.00476 Track Renewal Package 1

Prudency		Cost	AUD 2019
Scope	✓ <sup>35</sup>	Aurizon claim	15,193,594
Cost	✓ <sup>37</sup>	FCG Adjustment	1,018,672
Standard	✓ <sup>39</sup>	FCG Recommendation	██████████

Source: Flagstaff, FY2019 Capital Expenditure Claim, Assessment Report, page 58

### Flagstaff's Primary Concern:

Flagstaff have reviewed the scope, cost and standard for IV.00476 Track Renewal Package 1 in accordance with clause 2 of Schedule E of UT5 and recommended the QCA approve \$14.2m of the \$15.2m Aurizon Network submitted within it FY2019 Capex Claim.

Flagstaff recommended that the QCA does not approve \$1.0m as it had received conflicting information which misrepresented the cost of the completed bad order sidings, making them appear disproportionately high for these tasks.

### Aurizon Network's Response:

The original cost breakdown of this project that was provided by Aurizon Network on 20 November 2019 to Flagstaff contained an administrative error which incorrectly allocated all indirect costs to two jobs, specifically, the 'bad order sidings', rather than apportioning them across all activities within the Track Renewal package. The effect of this was that the bad order siding costs appeared to be materially higher than normal, hence Flagstaff's recommendation that these costs be excluded from the RAB.

Aurizon Network provided an updated cost breakdown to Flagstaff on 9 December 2019<sup>2</sup>. This cost breakdown sought to demonstrate the correct (and prudent) costs of each element of the Track Renewal Package, including the bad order sidings, by separately identifying the direct costs of each element and the indirect project costs. The cost breakdown provided on 9 December 2019, reflected the year to date spend rather than the value of commissioned assets as at 30 June 2019.

Aurizon Network contends that in making its final determination, the QCA should have regard to the corrected cost breakdown, which has been provided as Appendix C of this submission. The corrected cost breakdown illustrates the value of commissioned assets as at 30 June 2019 and demonstrates that the Track Renewal Package meets the relevant prudency and efficiency requirements of UT5, Schedule E. Consequently, Aurizon Network considers that the costs provided in Appendix C should be approved by the QCA for inclusion in Aurizon Network's RAB.

Aurizon Network understands the QCA requires all costs to be apportioned at a system level for inclusion into the RAB and as such Aurizon Network has provided that cost breakdown (\$15.2m) within Appendix C - Breakdown of Commissioned Costs for IV.00476 - Track Renewal Package 1.

<sup>2</sup> RFI-004 from Flagstaff to Aurizon Network, 19 Nov 2020

## IV.00449 - Bridge Ballast Renewal Package 1

Figure 2. Flagstaff's Assessment Report – IV.00449

Table 7.21: IV.00449 Bridge Ballast Renewal Package 1 summary

Prudency		Cost	AUD 2019
Scope	✓ <sup>44</sup>	Aurizon claim	8,567,512
Cost	X <sup>45</sup>	FCG Adjustment	(58,050)
Standard	✓ <sup>46</sup>	FCG Recommendation	8,509,462

Source: Flagstaff, FY2019 Capital Expenditure Claim, Assessment Report, page 75

### Flagstaff's Primary Concern:

Flagstaff have reviewed the scope, cost and standard for IV.00449 - Bridge Ballast Renewal Package 1 and recommended the QCA approve \$8.5m of the \$8.6m Aurizon Network submitted within its FY2019 Capex Claim.

Flagstaff recommended the QCA should not approve \$0.058m of the total submitted claim. The basis of Flagstaff's recommendation was the identification of two bridges (Byellee and Dalrymple Bay bridges) where costs had been incurred<sup>3</sup>, but the scope was ultimately removed from the FY2019 program.

### Aurizon Network's Response:

Flagstaff's Assessment Report included a review of both the Byellee and Dalrymple Bay bridges. These bridges were initially included in the original scope for IV.00449 - Bridge Ballast Renewal Package 1, however were subsequently removed from the FY2019 program to reflect a reprioritisation of scope.

While the capital expenditure for the Byellee and Dalrymple Bay bridges was incurred in FY2019 (expenditure related to early design and works such as; soil testing, kerb raising, rail, material delivery and management costs) Aurizon Network agrees with Flagstaff's recommendations for the purpose of the FY2019 Capex Claim. Aurizon Network confirms that it will seek QCA approval of these costs for inclusion into the RAB (via a Capital Expenditure claim submitted in accordance with Schedule E of UT5) at a future point in time once all of the required scope at these specific locations has been executed.

<sup>3</sup> Flagstaff, Assessment Report, 14 Feb 2020, page 10

## IV.00470 - Corridor Security Package 1

Figure 3. Flagstaff's Assessment Report – IV.00470

Capital Expenditure Type	Project	Submitted Value (2019 AUD)	FCG Assessment Value (2019 AUD)	Documentation Quality		
				Scope	Cost	Standard
IV.00470	Corridor Security Package	1,381,137	0 <sup>6</sup>	✓	✗	✓

Source: Flagstaff, FY2019 Capital Expenditure Claim, Assessment Report, page 13

### Flagstaff's Primary Concern:

For this Capital Expenditure, the Assessment Report concludes that:

*"...it is too early, in terms of work completed, in this program of works to include in a capital expenditure claim. This program has incurred \$1,381,137 cost to date of a total program value of \$30.7 m. FCG recommend this program of works be reported comprehensively as a series of projects over a number of years describing scope achieved and cost incurred for every year of the project."*<sup>4</sup>

### Aurizon Network's Response:

In its Assessment Report, Flagstaff refer to the total program value of \$30.7m which can be found in the Investment Appraisal Request (IAR) titled 'FY19 Corridor, Road Interface and Turnouts'<sup>5</sup>. The total spend of \$30.7m is split across 5 discrete projects over 3 years.

In prior years, each of the 5 projects would've require separate and distinct IAR's to be drafted and submitted to the Aurizon Investment Committee (AIC) to ultimately decide whether or not to proceed with the investment. For multi-year asset renewal programs (i.e. investments that are required to continue to deliver Committed Capacity), Aurizon Network has sought to implement administrative efficiencies into its investment governance framework by permitting the funding requests for multi-year asset renewal programs to be consolidated within a single IAR. The single IAR will be for multiple renewal projects over multi-years resulting in individual projects of a differing asset types. This process improvement ultimately reduces the administrative burden associated with ongoing asset renewal programs.

Flagstaff's Assessment Report stated that for the Corridor Security Package, it is *"too early, in terms of work completed, in this program of works to include in a capital expenditure claim"*. It is important to note the IAR reflects an Aurizon Network internally approved budget. Aurizon Network only claims commissioned values as at 30 June annually in Capex Claims. There will likely always be a disconnect from the commissioned values claimed verses expenditure incurred as administrative process for the completion of the final year are undertaken.

Aurizon Network reiterates that the IAR is a composite of 5 separate and distinct projects. The actual project costs for the Corridor Security project (\$1.4m) should be compared to the individual Corridor

<sup>4</sup> Flagstaff, Assessment Report, page 11

<sup>5</sup> FY19 Capex Claim SharePoint, IV.00470 - Corridor Security Package 1, 22 Oct 2019



Security project budget (\$0.8m) in the combined IAR, not the entire budget (\$30.7m) for all 5 of the independent projects. Aurizon Network did not receive an RFI from Flagstaff to clarify this.

To provide further clarity, Aurizon Network has detailed below; the IAR<sup>6</sup> budget for each of the 5 individual projects within the IAR, the Spend to Date as at 30 June 2019 for each project and the actual commissioned costs claimed in the FY2019 Capex Claim:

**Table 2. FY19 Corridor, Road Interface and Turnouts (IAR): Variance between Budget, Spend to Date & Commissioned Costs explained**

FY2019 Projects	FY2019 IAR Budgeted Amount	Spend to Date as at 30 June 2019	FY2019 Capex Claim (based on commissioned assets only)	Aurizon Network's Comments
<b>Corridor Security (IV.00470)</b>	\$800,000	\$2,855,110	\$1,381,137	<ul style="list-style-type: none"> <li>The spend to date (\$2,855,110) represents all project expenditure 'as incurred', i.e. regardless of whether assets have been commissioned or are still under construction.</li> <li>Aurizon Network claimed more costs (\$1,381,137) than originally anticipated (\$800,000) due to an opportunity to execute more works than originally anticipated.</li> <li>The FY2019 Capex Claim (\$1,381,137) represents the capital expenditure associated with the assets that were commissioned at the time the Capex Claim was submitted to the QCA, 25 Oct 2019. The remainder was unfortunately not transferred to the FAR in time.</li> </ul>
<b>Access Roads (IV.00467)</b>	\$610,000	\$478,621	\$478,621	<ul style="list-style-type: none"> <li>The commissioned amount and the spend to date amounts are the same because the entire amount spent was commissioned spend (i.e. Commissioned Asset), therefore claimed in the FY2019 Capex Claim.</li> </ul>
<b>Access Points (IV.00465)</b>	\$715,000	\$130,052	\$0	<ul style="list-style-type: none"> <li>The amount spent to date (\$130,052) on this project was not commissioned prior to the conclusion of FY2019.</li> </ul>
<b>Turnout Renewal (IV.00461)</b>	\$16,974,000	\$14,108,981	\$14,053,345	<ul style="list-style-type: none"> <li>The commissioned amount and the spend to date amounts are quite similar because the majority of the amount spent was commissioned spend (i.e. Commissioned Asset), therefore claimed in the FY2019 Capex Claim (\$14,053,345).</li> <li>The difference of \$55,635 was not yet processed as commissioned spend (i.e. Commissioned Asset) prior to 30 June 2019, and therefore not included in the FY2019 Capex Claim.</li> </ul>
<b>Level Crossing Renewal (IV.00458)</b>	\$5,858,000	4,063,360	\$4,048,374	<ul style="list-style-type: none"> <li>The commissioned amount and the spend to date amounts are quite similar because the majority of the amount spent was commissioned spend (i.e. Commissioned Asset), therefore claimed in the FY2019 Capex Claim (\$4,048,374).</li> <li>The difference of \$14,986 was not yet processed as commissioned spend (i.e. Commissioned Asset) prior to 30 June 2019, and therefore not included in the FY2019 Capex Claim.</li> </ul>
<b>TOTAL FY2019 -</b>	<b>\$24,957,000</b>	<b>\$21,636,124</b>	<b>\$19,961,477</b>	

<sup>6</sup> IAR, FY19 Corridor, Road Interface and Turnouts

## FY2019 Capex Claim relates to assets commissioned in FY2019

Aurizon Network notes that the IAR approved 21 Feb 2018 detailed an approved spend of \$0.8m for a planned Corridor Security scope of 29.74km during FY2019.

During FY2019, Aurizon Network had the opportunity to bring forward scope and execute more works than originally anticipated. Aurizon Network delivered 63.94km of commissioned scope, for a submitted cost of \$1.4m. It should be noted that these works were delivered at a more efficient unit rate due to taking advantage of an already mobilised workforce, than originally contemplated within the IAR<sup>7</sup>.

The FY2019 Capex Claim for project IV.00470 - Corridor Security Package 1 (Corridor Security) relates the cost of commissioned Rail Infrastructure that is currently in use throughout the CQCN. In light of this, and the administrative improvements mentioned above in relation to the IAR, it is inappropriate for Flagstaff to compare the spend of an individual discrete project (1 of 5) to the aggregate IAR value.

Aurizon Network contends that the QCA should take into consideration Aurizon Network's progress for each individual project into consideration when making their final decision. In relation to the Corridor Security expenditure specifically, the strong scope and unit rate performance achieved during FY2019 and reflected in the FY2019 Capex Claim.

## IV.00503 - Power Systems Renewal Package 1

Figure 4. Flagstaff's Assessment Report – IV.00503

Capital Expenditure Type	Project	Submitted Value (2019 AUD)	FCG Assessment Value (2019 AUD)	Documentation Quality		
				Scope	Cost	Standard
IV.00503	Power Systems Renewal Package 1	835,307	0 <sup>7</sup>	✓	✗	✓

Source: Flagstaff, FY2019 Capital Expenditure Claim, Assessment Report, page 13

### Flagstaff's Primary Concern:

Flagstaff commented within its Assessment Report;

*"FCG assess that it is too early, in terms of work completed, in this program of works to include in a capital expenditure claim. This program has incurred \$835,307 cost to date of a total program value of \$12.7m. FCG recommend this program of works be reported comprehensively as a series of projects over a number of years describing scope achieved and cost incurred for every year of the project."<sup>8</sup>*

### Aurizon Network's Response:

In the Assessment Report, Flagstaff refer to the IAR titled 'Electrical Assets Renewal Program FY19\_POST NIC FINAL1' which requests the release of \$12.7m for funding two programs of work, specifically 'Power Systems' and 'Overhead Renewals'. Each of these programs are comprised of a multitude of jobs at discrete locations.

<sup>7</sup> IAR, FY19 Corridor, Road Interface and Turnouts, page 4

<sup>8</sup> Flagstaff, Assessment Report, page 11

Aurizon Network has sought to implement administrative efficiencies into its investment governance framework by permitting the funding requests for multi-year asset renewal programs to be consolidated within a single IAR. Essentially, the idea of the combined IAR is to reduce administration time and reduce the time the Aurizon Investment Committee (**AIC**) required to read, review and approve multiple IARs.

Aurizon Network's 'balanced' asset management approach requires it to make a number of trade-offs in each and every day, which take into account factors such as safety, asset reliability, access and cost into consideration. Aurizon Network contends that although the AIC approved a level of funding for Power System renewals in FY2019, this does not necessarily require that all approved funds had to be spent in that year.

Re-prioritisation of tasks based on asset condition and criticality may seek tasks pushed into subsequent financial years or brought forward to mitigate against the risk of failure. This is good asset management practice.

While Aurizon Network's IAR requested estimated funding of \$5.4m for the Power Systems program during FY2019, Aurizon Network's FY2019 Capex Claim of \$0.9M relates to the costs incurred for an individual job and assets that were deemed necessary for execution in 2019. These assets have been commissioned, specifically:

- 2 x Auto Transformer replacements; and
- 6 x Motorised Isolator's.

These assets are operational and are being utilised in the provision of the Declared Service.

Aurizon Network would be prepared to accept Flagstaff's recommendation had the IAR been for a single job/activity, that relied on the completion of all sub-components before an operational asset was available to be utilised. This is not the case in this instance, where all costs claimed relate to assets that are fully commissioned and operational.

Consequently, Aurizon Network contends that these costs are appropriate for inclusion in the RAB. In forming its final decision on the FY2019 Capex Claim, Aurizon Network considers that Flagstaff and the QCA, should seek to ascertain whether the scope, standard and cost associated with the specific assets that were commissioned in FY2019 were prudent and efficient. In this instance, it would be inappropriate to use the relative under-spend against the IAR as the basis for refusing to include the value of these assets in the RAB.

To provide further clarity, Aurizon Network has detailed the IAR Budget for each of the projects within the IAR, the Spend to Date as at 30 June 2019 for each project and the actual commissioned costs claimed in the FY2019 Capex Claim below:

**Table 3. Electrical Assets Renewal Program: Variance between Budget, Spend to Date & Commissioned Costs explained**

FY19 IAR Projects	FY19 IAR Budgeted Amount	Spend to Date (June 2019)	FY2019 Capex Claim  (commissioned costs claimed)	Aurizon Network's Comments
<b>Power Systems</b>  (IV.00503)	\$5,419,000	\$2,717,557	\$835,307	<ul style="list-style-type: none"> <li>The difference between spend to date and the FY2019 Capex Claim of \$1,882,250 relates to assets which were not commissioned in time, prior to 30 June 2019, for the FY2019 Capex Claim.</li> </ul>
<b>Overhead Renewals</b>  (IV.00506)	\$4,330,000	\$4,433,247	\$0	<ul style="list-style-type: none"> <li>The spend to date amount (\$4,433,247) which was not commissioned in time, prior to 30 June 2019, for the FY2019 Capex Claim.</li> </ul>
<b>TOTAL FY2019 -</b>	<b>\$9,749,000</b>	<b>\$7,150,804</b>	<b>\$835,307</b>	

## IV.00360 - Network Asset Management System Tranche 2

**Figure 4. AECOM Assessment Report – IV.00343**

**Table 7.37: IV.00360 Network Asset Management System Tranche 2 Summary**

Prudency		Cost	AUD 2019
Scope	✓ <sup>85</sup>	Aurizon claim	323,399
Cost	✗ <sup>86</sup>	FCG Adjustment	(323,399)
Standard	✓ <sup>87</sup>	FCG Recommendation	0

Source: Flagstaff, FY2019 Capital Expenditure Claim, Assessment Report, page 125

### Flagstaff's Primary Concern:

Flagstaff commented within its Assessment Report;

*"FCG understand the merit of this project. However, this is a significant transformational project and should be claimed in a future capital expenditure review when it is more progressed."*<sup>9</sup>

<sup>9</sup> Ibid

**Aurizon Network's Response:**

Aurizon Network disagrees with Flagstaff's comment and notes that this expenditure relates solely to post commissioning costs associated with IV.00360 - Network Asset Management System Tranche 2.

This project has been completed and the majority of capital expenditure associated with the Network Asset Management System (**NAMS**) project (\$5.3m) has already been approved for inclusion in the RAB by the QCA through previous Capital Expenditure Claims<sup>10</sup>.

Aurizon Network suspects that there may be confusion between the costs claimed in the FY2019 Capex Claim, and the NAMS Next project, which commenced on 1 January 2020. NAMS Next is effectively Tranche 3 of the NAMS project suite.

Aurizon Network contends that the post-commissioning costs included within the FY2019 Capex Claim for NAMS Tranche 2 are completely separate and distinct from the 'NAMS Next' project.

Aurizon Network will seek QCA approval for NAMS Next capital expenditure through a future Capital Expenditure.

It should be noted that Aurizon Network did not receive an RFI from Flagstaff pertaining to this project and therefore did not receive an opportunity to clarify this matter prior to publication of the Assessment Report.

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<sup>10</sup> QCA - Final decision AN FY18 Capex, page 6.

## Appendix A – Aurizon Network’s FY2018 Capital Expenditure Project List

Project Number	Project Name	Project Type	Project Discipline	Asset Type	System	Claimable Expenditure (pre-escalation)
<b>MATERIAL PROJECTS</b>						
IV.00425	Rail Renewal Program Package 1	Capital Renewal	TACA	Rail	System Wide	26,572,373
IV.00446	Structures Renewal Package 1	Capital Renewal	TACA	Structures	System Wide	15,465,451
IV.00476	Track Renewal Package 1	Capital Renewal	TACA	Track	System Wide	15,193,594
IV.00461	Turnout Renewal Package 1	Capital Renewal	TACA	Turnouts	System Wide	14,053,345
IV.00452	Formation Renewal Package 1	Capital Renewal	TACA	Formation / Ballast	System Wide	9,851,560
IV.00449	Bridge Ballast Renewal Package 1	Capital Renewal	TACA	Formation / Ballast	System Wide	8,567,512
IV.00455	Control Systems Renewal Package 1	Capital Renewal	Systems	Network Controls	System Wide	6,875,112
IV.00473	Sleeper Renewal Package 1	Capital Renewal	TACA	Sleepers	System Wide	6,317,874
IV.00458	Level Crossing Renewal Package 1	Capital Renewal	Systems	Level Crossings	System Wide	4,048,374
IV.00049	Radio System Replacement	Capital Renewal	Systems	Network Controls	System Wide	3,609,098
<b>Sub total</b>						<b>\$110,554,292</b>

Project Number	Project Name	Project Type	Project Discipline	Asset Type	System	Claimable Expenditure (pre-escalation)
<b>NON-MATERIAL PROJECTS</b>						
IV.00437	Callide Infrastructure Upgrade	Other	TACA	Track	Moura	2,298,631
IV.00555	FY19 Minerva Infrastructure Upgrade	Other	TACA	Track	Blackwater	1,379,635
IV.00470	Corridor Security Package 1	Capital Renewal	Corridor	Corridor Access	System Wide	1,381,137
IV.00399	2017 Cyclone Debbie Rectification	Capital Renewal	TACA	Various	System Wide	1,156,299
IV.00329	Structures Renewal FY18	Capital Renewal	TACA	Structures	System Wide	926,232
IV.00004	Traction Fault Locator Renewal	Capital Renewal	Electrical	Electrical	System Wide	881,498
IV.00376	FY18 Access Points	Capital Renewal	Corridor	Corridor Access	System Wide	843,497
IV.00346	Package 1 FY18 Control Systems Renewal	Capital Renewal	Systems	Network Controls	System Wide	815,826
IV.00503	Power Systems Renewal Package 1	Capital Renewal	Systems	Network Controls	System Wide	835,307
IV.00283	Traction SCADA System	Capital Renewal	Systems	Network Controls	System Wide	811,715
IV.00364	Turnout Renewal FY18	Capital Renewal	TACA	Turnouts	System Wide	696,543
A.04313	Gauge Face Lubrication Asset Renewal	Capital Renewal	TACA	Track	System Wide	564,946
IV.00334	Bridge Ballast Renewal Program FY18	Capital Renewal	TACA	Formation / Ballast	System Wide	493,610
IV.00467	Access Roads Package 1	Capital Renewal	Corridor	Corridor Access	System Wide	478,621
IV.00321	Sleeper Renewal Program FY18	Capital Renewal	TACA	Sleepers	System Wide	336,966
IV.00344	Formation Renewal FY18	Capital Renewal	TACA	Formation / Ballast	System Wide	330,989
IV.00374	CQ Access Roads FY18	Capital Renewal	Corridor	Corridor Access	System Wide	337,699
IV.00360	Network Asset Mgt System Tranche 2	Capital Renewal	Systems	Systems	System Wide	323,399
IV.00343	Level Crossings Renewal Program FY18	Capital Renewal	Systems	Level Crossings	System Wide	311,435
IV.00322	Rail Renewal FY18	Capital Renewal	TACA	Rail	System Wide	210,734
IV.00154	FY17 Autotransformer Renewal Project	Capital Renewal	Electrical	Power Systems	System Wide	185,545
IV.00145	Track Upgrade FY17	Capital Renewal	TACA	Track	System Wide	154,769
A.01731	WIRP1: DINGO TO BLUFF DUPLICATION	Growth	TACA	Track	Blackwater	108,391
A.04599	Havilah Culverts Upgrade	Growth	Expansion	Structures	Newlands	73,476
IV.00495	Coppabella Walkways Relocation	Other	Corridor	Corridor Access	Goonyella	59,417
A.02976	WIRP1: North Coast Line	Growth	TACA	Track	Blackwater	47,818
IV.00184	Network Capacity Model	Capital Renewal	Systems	Systems	System Wide	30,469
IV.00040	Train Detection Renewal Program	Capital Renewal	Systems	Network Controls	Goonyella	14,961
IV.00261	Telecommunications Infrastructure Renewal	Capital Renewal	Systems	Telecommunication	System Wide	7,105
A.03686	WIRP1: MOURA SYSTEM UPGRADE	Growth	TACA	Track	Moura	7,189

IV.00266	Transmission Renewal FY17	Capital Renewal	Systems	Network Controls	System Wide	6,281
A.03735	WIRP1: Bauhinia NORTH Upgrade	Growth	TACA	Track	Blackwater	1,194
IV.00465	Access Points Package 1	Capital Renewal	Corridor	Corridor Access	System Wide	0
IV.00506	Electrical Overhead Renewal Package 1	Capital Renewal	Electrical	Electrical	System Wide	0
IV.00177	Structures Renewal FY17	Capital Renewal	TACA	Structures	System Wide	-16,709
IV.00316	Access Points Renewal Program	Capital Renewal	Corridor	Corridor Access	System Wide	-56,746
IV.00384	OH Equipment Renewal FY18	Capital Renewal	Electrical	Electrical	System Wide	-113,497
IV.00144	Rail Renewal FY17	Capital Renewal	TACA	Rail	System Wide	-117,009
IV.00184	Network Capacity Model	Capital Renewal	Systems	Systems	System Wide	30,469
IV.00040	Train Detection Renewal Program	Capital Renewal	Systems	Network Controls	Goonyella	14,961
IV.00261	Telecommunications Infrastructure Renewal	Capital Renewal	Systems	Telecommunication	System Wide	7,105
A.03686	WIRP1: MOURA SYSTEM UPGRADE	Growth	TACA	Track	Moura	7,189
IV.00266	Transmission Renewal FY17	Capital Renewal	Systems	Network Controls	System Wide	6,281
A.03735	WIRP1: Bauhinia NORTH Upgrade	Growth	TACA	Track	Blackwater	1,194
IV.00465	Access Points Package 1	Capital Renewal	Corridor	Corridor Access	System Wide	0
IV.00506	Electrical Overhead Renewal Package 1	Capital Renewal	Electrical	Electrical	System Wide	0
IV.00177	Structures Renewal FY17	Capital Renewal	TACA	Structures	System Wide	-16,709
IV.00316	Access Points Renewal Program	Capital Renewal	Corridor	Corridor Access	System Wide	-56,746
IV.00384	OH Equipment Renewal FY18	Capital Renewal	Electrical	Electrical	System Wide	-113,497
IV.00144	Rail Renewal FY17	Capital Renewal	TACA	Rail	System Wide	-117,009

**Sub total \$15,807,373**

**TOTAL \$126,361,665**



# Appendix B – Summary table of Flagstaff’s FY2019 Assessment Recommendations

Table 8.1: Detailed assessment of projects

Capital Expenditure Type	Project	Submitted Value (2019 AUD)	FCG Assessment Value (2019 AUD)	Documentation Quality		
				Scope	Cost	Standard
<b>TOTAL</b>	<b>TOTAL CAPITAL SUBMISSION</b>	<b>126,361,666</b>	<b>122,745,101</b>			
<b>Sustaining</b>	<b>Total Sustaining</b>	123,411,682	120,118,516			
IV.00425	Rail Renewal Program Package 1	26,572,373	26,572,373	✓	✓	✓
IV.00446	Structures Renewal Package 1	15,465,451	15,465,451	✓	✓	✓
IV.00476	Track Renewal Package 1	15,193,594	14,174,922 <sup>88</sup>	✓	✓	✓
IV.00461	Turnout Renewal Package 1 <sup>89</sup>	14,053,345	14,053,345	✓	✓	✓
IV.00452	Formation Renewal Package 1	9,851,560	9,851,560			
IV.0449	Bridge Ballast Removal Package 1	8,567,512	8,509,462 <sup>90</sup>	✓	✗	✓
IV.00455	Control Systems Renewal Package 1 <sup>91</sup>	6,875,112	6,875,112	✓	✓	✓
IV.00473	Sleeper Renewal Package 1	6,317,874	6,317,874	✓	✓	✓
IV.00458	Level Crossing Renewal Package 1	4,048,374	4,048,374	✓	✓	✓
IV.00049	Radio System Replacement	3,609,098	3,609,098			
IV.00555	Minerva Infra Upgrade	1,379,635	1,379,635			
IV.00470	Corridor Security Package	1,381,137	0 <sup>92</sup>	✓	✗	✓
IV.00399	Cyclone Debbie Rectification	1,156,299	1,156,299	✓	✓	✓
IV.00329	Structures Renewal FY 18	926,232	926,232			
IV.00004	Traction Fault Locator Renewal	881,498	881,498	✓	✓	✓
IV.00376	FY 18 Access Points	843,497	843,497			
IV.00503	Power Systems Renewal Package 1	835,307	0 <sup>93</sup>	✓	✗	✓
IV.00346	Package 1 FY 18 Control Systems Renewal	815,826	815,826			
IV.00283	Traction SCADA System	811,715	811,715			
IV.00364	Turnout Renewal FY 18	696,543	696,543			
A.04313	Gauge Face Lubrication	564,946	564,946			
IV.00334	Bridge Ballast Renewal Program FY 18	493,610	493,610			
IV00467	Access Roads Package 1	478,621	478,621			

Capital Expenditure Type	Project	Submitted Value (2019 AUD)	FCG Assessment Value (2019 AUD)	Documentation Quality		
				Scope	Cost	Standard
IV.00374	CQ Access Roads FY 18	337,699	337,699			
IV.0321	Sleeper Renewal Program	336,966	336,966			
IV.00344	Formation Renewal FY 18	330,989	330,989 <sup>11</sup>	✓	✓	✓
IV.00343	Level Crossings Renewal Program FY 18	311,435	311,435			
IV.00322	Rail Renewal FY 18	210,734	210,734			
IV.00145	Autotransformer Renewal Project	185,545	185,545	✓	✓	✓
IV.00145	Track Upgrade FY17	154,769	154,769	✓	✓	✓
IV.00040	Train Detection Renewal Program	14,961	14,961			
IV.00261	Telecom Infrastructure Renewal	7,105	7,105			
IV.00266	Transmission Renewal FY17	6,281	6,281			
IV.00177	Structures Renewals FY17	(16,709)	(16,709)			
IV.00316	Access Points Renewal Program	(56,746)	(56,746)			
IV.00384	Electrical Equipment Renewal FY 18	(113,497)	(113,497)			
IV.00144	Rail Renewals FY17	(117,009)	(117,009)			

Capital Expenditure Type	Project	Submitted Value (2019 AUD)	FCG Assessment Value (2019 AUD)	Documentation Quality		
				Scope	Cost	Standard
Growth	<b>Total Growth</b>	238,068	238,068			
A.01731	WIRP1: Dingo to Bluff Duplication	108,391	108,391	✓	✓	✓
A.04599	Havilah Culverts Upgrade	73,476	73,476			
A.02976	WIRP1: North Coast Line	47,818	47,818			
A.03686	WIRP1: Moura System Upgrade	7,189	7,189			
A.03735	WIRP1: Bauhinia North Upgrade	1,194	1,194			
Transformation	<b>Total Transformation</b>	2,711,916	2,388,517			
IV.00437	Callide Infrastructure Upgrade	2,298,631	2,298,631	✓	✓	✓
IV.00360	Network Asset Mgt System Tranche 2	323,399	0 <sup>25</sup>	✓	✗	✓
IV.00184	Network Growth Other	30,469	30,469			
IV.00495	Coppabella Walkways Relocation	59,417	59,417			

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<sup>11</sup> Flagstaff's Assessment of Aurizon Network's Capital Expenditure Claim (FY19), page 128-131

## Appendix C – Breakdown of Commissioned Costs for IV.00476 Track Renewal Package 1

Track Upgrade Package 1 - FY19 - IV.00476									
Activity Name	System	Finish	Approved Length	Actual Length	No. Rails Planned	No. Rails Actual	No. Sleepers Planned	No. Sleepers Actual	SAP Actual Cost
<b>Track Upgrade Package 1 - FY19</b>		<b>30-Jun-19 16:00 A</b>	<b>10375.00</b>	<b>10821.00</b>	<b>194.00</b>	<b>195.00</b>	<b>11860.00</b>	<b>11960.00</b>	<b>\$15,193,593.59</b>
<b>Blackwater &amp; NCL</b>		<b>03-May-19 16:00 A</b>	<b>3769.00</b>	<b>3805.00</b>	<b>69.00</b>	<b>70.00</b>	<b>3650.00</b>	<b>3660.00</b>	<b>\$3,945,987.23</b>
Jul 2018		<b>27-Jul-18 16:00 A</b>	<b>1349.00</b>	<b>1365.00</b>	<b>25.00</b>	<b>25.00</b>	<b>1422.00</b>	<b>1422.00</b>	<b>\$1,339,520.32</b>
ID - TU BW Boonal BALLOON 180.660km - 182.009km MANUAL 25 Rails	Blackwater	27-Jul-18 16:00 A	1349.00	1365.00	25.00	25.00	1422.00	1422.00	\$1,339,520.32
Aug 2018		<b>28-Aug-18 16:00 A</b>	<b>357.00</b>	<b>363.00</b>	<b>6.00</b>	<b>7.00</b>	<b>480.00</b>	<b>480.00</b>	<b>\$703,491.63</b>
ID3243/4 - TU BW Tunnel - Edungalba Down 79.360km-79.663km Both TLM (772)	Blackwater	14-Aug-18 16:00 A	303.00	309.00	5.00	6.00	443.00	443.00	\$655,656.34
ID3036 - TU BW Arona - Duaringa DN RD 096.376km - 096.430km B B 1 Rails MANUAL	Blackwater	28-Aug-18 16:00 A	54.00	54.00	1.00	1.00	37.00	37.00	\$47,835.29
Nov 2018		<b>14-Nov-18 16:00 A</b>	<b>876.00</b>	<b>877.00</b>	<b>16.00</b>	<b>16.00</b>	<b>260.00</b>	<b>270.00</b>	<b>\$704,831.60</b>
ID4192 - TU BW Westwood - Windah DN RD 049.388km - 050.252km B B 16 Rails Manual + 260 Sleepers	Blackwater	14-Nov-18 16:00 A	876.00	877.00	16.00	16.00	260.00	270.00	\$704,831.60
Apr 2019		<b>20-Apr-19 12:00 A</b>	<b>433.00</b>	<b>433.00</b>	<b>8.00</b>	<b>8.00</b>	<b>621.00</b>	<b>621.00</b>	<b>\$269,353.87</b>
ID4193 - Westwood Dn 44.898km - 45.331km Both 8 Rails (722)	Blackwater	20-Apr-19 12:00 A	433.00	433.00	8.00	8.00	621.00	621.00	\$269,353.87
May 2019		<b>03-May-19 16:00 A</b>	<b>754.00</b>	<b>767.00</b>	<b>14.00</b>	<b>14.00</b>	<b>867.00</b>	<b>867.00</b>	<b>\$928,789.81</b>
ID3241/2 - TU BW Westwood - Windah Down 47.144km-47.468km Both Manual (772)	Blackwater	03-May-19 16:00 A	324.00	334.00	6.00	6.00	249.00	249.00	\$388,356.06
ID - TU BW Callemondah Yard Powerhouse Road 1.379km-1.809km Both 8 Rails Manual	Blackwater	03-May-19 16:00 A	430.00	433.00	8.00	8.00	618.00	618.00	\$540,433.75
<b>Goonyella System</b>		<b>11-Apr-19 16:00 A</b>	<b>4554.00</b>	<b>4809.00</b>	<b>84.00</b>	<b>84.00</b>	<b>5193.00</b>	<b>5223.00</b>	<b>\$4,367,385.84</b>
Sep 2018		<b>14-Sep-18 13:00 A</b>	<b>1850.00</b>	<b>1850.00</b>	<b>34.00</b>	<b>34.00</b>	<b>2606.00</b>	<b>2606.00</b>	<b>\$1,893,258.64</b>
ID3251/2 - TU GA Braeside - Mindi Down 107.910km-109.760km Both TLM	Goonyella	14-Sep-18 13:00 A	1850.00	1850.00	34.00	34.00	2606.00	2606.00	\$1,893,258.64
Oct 2018		<b>05-Oct-18 16:00 A</b>	<b>1188.00</b>	<b>1216.00</b>	<b>22.00</b>	<b>22.00</b>	<b>370.00</b>	<b>385.00</b>	<b>\$852,530.77</b>
ID4326 - TU GA Tootoolah - Macarthur Junction Up 135.349km-136.537km Both Manual	Goonyella	05-Oct-18 16:00 A	1188.00	1216.00	22.00	22.00	370.00	385.00	\$852,530.77
Dec 2018		<b>18-Dec-18 16:00 A</b>	<b>220.00</b>	<b>424.00</b>	<b>4.00</b>	<b>4.00</b>	<b>325.00</b>	<b>325.00</b>	<b>\$290,012.39</b>
ID3177 - GA Waitara - 100.602km to 100.833km UP RD Both 4 Rails (441)	Goonyella	18-Dec-18 16:00 A	220.00	424.00	4.00	4.00	325.00	325.00	\$290,012.39
Apr 2019		<b>11-Apr-19 16:00 A</b>	<b>1296.00</b>	<b>1319.00</b>	<b>24.00</b>	<b>24.00</b>	<b>1892.00</b>	<b>1907.00</b>	<b>\$1,331,584.04</b>
ID3253/4 - TU GA Mindi - South Walker Junction 123.390km-124.686km DN RD Both TLM	Goonyella	11-Apr-19 16:00 A	1296.00	1319.00	24.00	24.00	1892.00	1907.00	\$1,331,584.04
<b>Moura System</b>		<b>07-Jun-19 16:00 A</b>	<b>2052.00</b>	<b>2207.00</b>	<b>41.00</b>	<b>41.00</b>	<b>3017.00</b>	<b>3077.00</b>	<b>\$2,709,423.68</b>
May 2019		<b>31-May-19 16:00 A</b>	<b>1546.00</b>	<b>1701.00</b>	<b>31.00</b>	<b>31.00</b>	<b>2297.00</b>	<b>2357.00</b>	<b>\$2,526,777.55</b>
ID3248 - TU MA Boundary Hill Balloon 4.237km to 5.783km Exit RD (2257 Sleepers)	Moura	31-May-19 16:00 A	1546.00	1701.00	31.00	31.00	2297.00	2357.00	\$2,526,777.55
Jun 2019		<b>07-Jun-19 16:00 A</b>	<b>506.00</b>	<b>506.00</b>	<b>10.00</b>	<b>10.00</b>	<b>720.00</b>	<b>720.00</b>	<b>\$182,646.13</b>
IDXXXX - TU MA Earlsfield Bad Order Siding -0.325km	Moura	05-Jun-19 16:00 A	356.00	356.00	7.00	7.00	509.00	509.00	\$87,370.28
IDXXXX - TU MA Beldeen 155.220km Bad Order Siding	Moura	07-Jun-19 16:00 A	150.00	150.00	3.00	3.00	211.00	211.00	\$95,275.85
<b>All Systems</b>		<b>30-Jun-19 16:00 A</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>\$4,170,796.84</b>
Jun 2019		<b>30-Jun-19 16:00 A</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>\$4,170,796.84</b>
Shared Cost including Management and Project Wide Cost	All Systems	30-Jun-19 16:00 A	0.00	0.00	0.00	0.00	0.00	0.00	\$4,170,796.84

System	Direct Costs	Indirect Costs	Total by System
Blackwater	3,945,987	1,493,070	5,439,057
Goonyella	4,367,386	1,652,517	6,019,903
Moura	2,709,424	1,025,183	3,734,607
Newlands	--	--	--
<b>Total Cost (\$)</b>	<b>11,022,797</b>	<b>4,170,770</b>	<b>15,193,567</b>