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

20 January 2023

Dear George,

Aurizon Network Pty Ltd (Aurizon Network) – Reset Schedule F Preliminary Values - Response to the QCA's draft Decision

Aurizon Network welcomes the opportunity to respond to the Queensland Competition Authority's (**QCA**) Draft Decision on the Reset Schedule F Preliminary Values (**Draft Decision**).

Part 6A of the 2017 Access Undertaking (**UT5**) requires that Aurizon Network establish Reference Tariffs, Allowable Revenues and Gtk Forecasts for each Coal System and for each year of the UT5 Reset Period (i.e. FY2024 to FY2027). This is achieved through a 2-stage process, whereby:

- Reset Schedule F Preliminary Values are submitted to the QCA by 31 July 2022 (**Preliminary Reset Values**); and
- Reset Schedule F Values are submitted to the QCA by 31 July 2023 (**Final Reset Values**).

With the submission of the Preliminary Reset Values to the QCA on 29 July 2022, Aurizon Network outlined its proposed approach for determining the necessary revenue and pricing inputs for the UT5 Reset Period.

The Draft Decision indicates that AN's approach is appropriate for all relevant inputs, with the exception of the Debt Risk Premium.

This submission outlines AN's proposed next steps in relation to each revenue and pricing input for the UT5 Reset Period.

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

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System Forecasts – engagement update

In November 2022, Aurizon Network sought input from end-user mining customers (End-Users) on their future coal tonnage forecast for Financial Years 2024-2027. The engagement primarily followed the Aurizon Network developed customer-centric process that was adopted for setting of the coal tonnage forecast for FY2023.

The focus of the November 2022 engagement was primarily to seek input for FY2024, as the remaining years will be informed by the Annual Review of Reference Tariff Process. In engaging with customers, Aurizon Network provided individual coal tonnage information including:

- actual net tonnes for FY21 to FY22;
- 12 months rolling actual net tonnes for the year to October 2022;
- an annualised forecast for FY23 based on extrapolated actual railings to end of October 2022;
- the FY23 regulatory forecasts approved by the QCA which included customer input; and
- the coal volumes end-users supplied as part of the FY23 volume consultation.

To date, Aurizon Network has not received coal tonnage forecasts from all End-Users within the CQCN. Aurizon Network will therefore be using the information available to it, including historical coal tonnages and latest FY2023 railings data, to create an overall reasonable coal tonnage forecast for FY2024-2027. Aurizon Network expects to inform each end-user of the forecast in February 2023 and will submit the updated forecast to the QCA (and supporting information) in late February.

Debt Risk Premium

For the purpose of the Preliminary Reset Values, the Draft Decision proposes to adopt Aurizon Network's preliminary reset Debt Risk Premium (**DRP**) of 2.60%. Aurizon Network acknowledges the Draft Decision is a pragmatic response to material data and statistical robustness issues with the application of the PWC methodology for the relevant bonds prevailing over the averaging period.

Aurizon Network's approach to preparing the estimate of the DRP assumed that the UT5 Final Decision methodology was to adopt the estimate obtained from the PWC methodology on the domestic bond sample without options and to assess that value against the relevant cross-checks. Given the paucity of available bonds meeting the strict literal application of the selection criteria, Aurizon Network sought to expand the domestic bond sample, consistent with the economic purpose of that selection criteria, noting the QCA position in the Final Decision that:

> *The QCA considers that a certain level of flexibility in the application of the PwC methodology is required in order to provide for an appropriate debt risk premium for the relevant averaging period.*
>
> *That is why the QCA supports both a flexible and pragmatic approach to the application of the PwC methodology in which: the regression methods are considered in line with the results of the other regressions; shortcomings are considered; and the cross-checks are performed, to increase the confidence of those estimates.*[1].

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[1] QCA (2019) 2017DAU Final Decision: Appendix F, p.149

As shown in Table 1, the UT5 Final Decision cross-checks comprising the expanded sample and the third-party data sources were reasonably consistent with each other and the estimate obtained from the domestic sample. Consequently, it was reasonable in this circumstance to adopt the estimate obtained from the domestic sample. However, the data and conditions prevailing over the June 2022 averaging period does not support the domestic sample as a reasonable basis for establishing the value for the reset DRP.

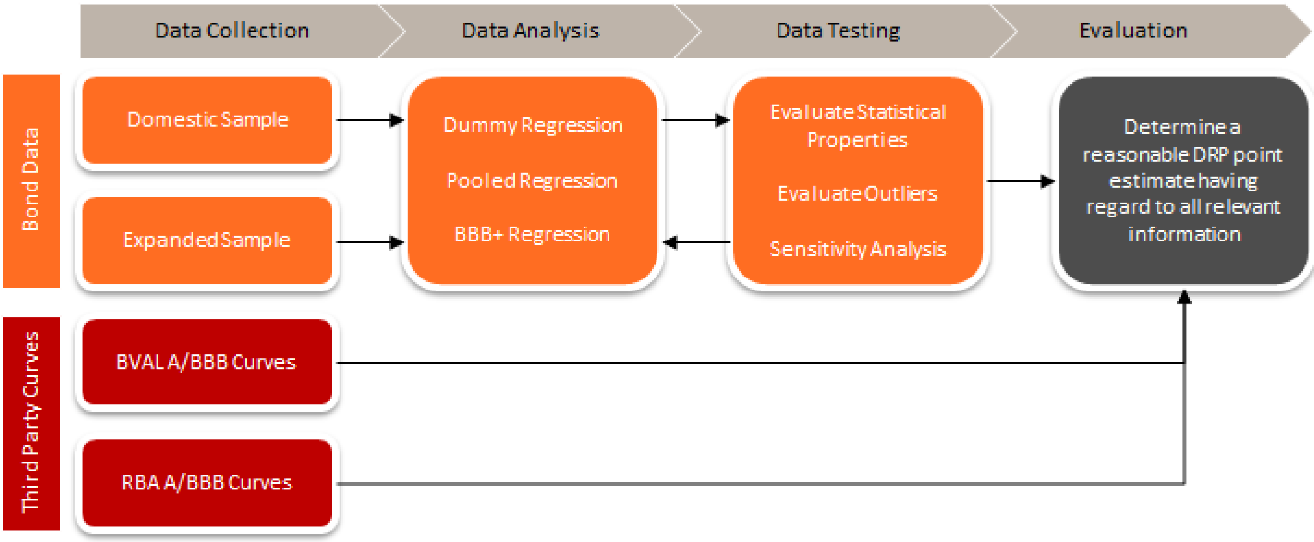
Table 1. DRP Estimates (%)

	Domestic Sample	Expanded Sample	BVAL	RBA
UT5 Final Decision	2.04	2.00	1.99	2.06
Prelim Reset Values Draft Decision	2.20	2.43	2.31	2.76

The Draft Decision acknowledges the sample size problem and the relativity of the domestic sample estimate against the other measures. On further review of the UT5 Final Decision and supporting documentation, exercising judgement to obtain a point estimate from all relevant information is consistent with the UT5 Final Decision methodology. Importantly, had the UT5 Final Decision been made using the relevant available information from the June 2022 averaging period, the methodology would have required a reasonable point estimate having regard to all relevant information without reliance on the domestic sample.

To assist stakeholders understand the process for determining the Reset DRP in accordance with Appendix F of the UT5 Final Decision, Aurizon Network has summarised the relevant procedures in Figure 1.

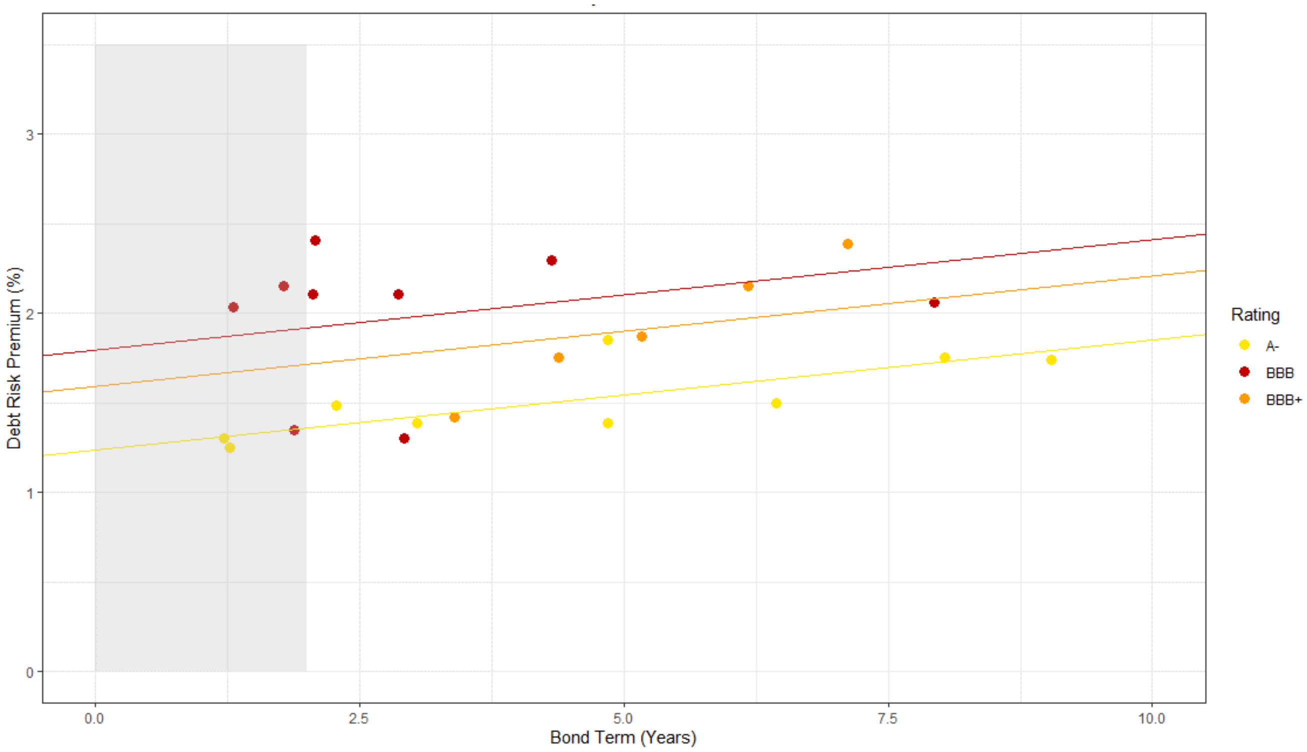
Figure 1. UT5 DRP Estimation Methodology



Aurizon Network anticipates that it will likely be necessary to apply judgement to obtain the reset DRP for the averaging period ending 30 June 2023 without the inclusion of near end of term callable bonds with make whole provisions in the domestic bond sample.

Figure 2 shows the results of the dummy linear regression on the 23 bonds in the domestic bond sample applied by the QCA[2]. Of the bonds comprising this sample, the 5 bonds with terms less than 2 years (shaded area) will be excluded from the bond sample in the June 2023 averaging period and as of 1 January 2023, no new non-financial, non-callable bonds have been issued between the averaging period and that date. Given the prevalence of bonds incorporating near end of term call options with make whole provisions, it is probable that no new issues will occur and the domestic bond sample size may be further reduced.

Figure 2. QCA Draft Decision: Domestic Bond Sample



Similarly, the regression method on the domestic sample does not satisfy the UT5 Final Decision conditions[3] of:

- no material asymmetry in the DRP's of credit rating bands;
- includes influential bonds materially out of line with the DRP / term relationship for that credit rating band, which becomes more important the smaller the sample size; and
- includes bonds which are influential relative to the number of bonds in the sample with that rating.

As there is a strong possibility that the information prevailing over the June 2023 averaging period will differ substantially from that prevailing over the June 2022 averaging period, it is prudent not to determine a point estimate for the purpose of the preliminary reset DRP.

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[2] The draft decision reference in footnote 94 to Incenta's previous consideration of a bond sample comprising 25 bonds was in respect of a regression on bonds with a single rating which can only apply to a sample of BBB+ bonds for Aurizon Network's reset DRP for which the domestic sample comprises only 5 bonds.

[3] QCA (2019) 2017DAU Final Decision: Appendix F, p.148

Noting the observations above regarding the expected information and statistical quality of the domestic sample for the June 2023 averaging period, Aurizon Network commits to engaging customers where appropriate on the reset DRP in July 2023 to demonstrate the analysis and judgements applied in establishing a reasonable point estimate should judgement need to be exercised in determining that estimate.

Domestic Bond Sample

The Draft Decision considered that Aurizon Network did not prepare a preliminary reset DRP consistent with the methodology applied in Appendix F of the 2018 Final Decision for reasons including:

- the exclusion of real estate bonds;
- the exclusion of a Telstra bond; and
- the exclusion of bonds where the ultimate parent is a State-Owned Enterprise (SOE).

In relation to these matters, Aurizon Network acknowledges:

- it should have included real estate bonds in the sample of bonds to align to the UT5 methodology;
- the exclusion of the Telstra bond was not intentional but was not returned at the time of the Bloomberg search using the requisite search criteria. Aurizon Network will engage the QCA prior to the commencement of the averaging period to confirm the initial bond sample composition; and
- the depression of the DRP for a SOE, where evident, will present as a material outlier. As such, it is not necessary to exclude all bonds where the ultimate parent is an SOE but considered with respect to a specific bond and SOE in conducting sensitivity analysis of the regression results as per the methodology in Appendix F of the 2018 Final Decision.

Aurizon Network also included callable bonds in the domestic bond sample where those bonds were callable within the last 3 months of the bond's term and that the bond had a make whole provision. The 3 month limit and make whole provisions were selected to ensure the yield to maturity of these bonds was not influenced by the call option and therefore are economically equivalent to an at-maturity bond. Aurizon Network considers this approach to be consistent with the applying the methodology in Appendix F of the 2018 Final Decision having regard to the decision's reason for excluding callable bonds. For example, Incenta notes:

> *'Call options were excluded since the **observed yield needs to be adjusted** to remove the effect of the option, which adds complexity and the potential for analyst induced error' (PWC 2013).*
>
> *We note that the Bloomberg OAS feature can now be applied quite readily due to improvements in Bloomberg's offerings. The tasks of deriving option adjusted yields and AUD equivalent yields for foreign denominated bonds are relatively low-cost and straightforward compared with the period of PwC's (2013) report[4].*

Aurizon Network acknowledges that the criteria applied to assume compatibility of a callable bond with an at-maturity bond is arbitrary in nature. The more mathematical approach would be to compare the yield for the

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[4] Incenta (2017) Aurizon Network's WACC for the 2017 DAU: A report prepared for the QCA, December, p. 90.

relevant bond with the yield obtained from the expanded sample. In other words, if the Bloomberg OAS feature makes no adjustment to the yield to maturity, then the call and make whole provision has no influence on the bonds price and it is economically equivalent to an at-maturity bond which the selection criteria seeks to do.

In any case, Aurizon Network notes that Incenta's report states[5]:

> *Our view is that, whilst there is currently a sufficient number of Australian denominated bonds without embedded options to undertake a rigorous empirical estimate of the BBB+ credit rating band (and, with preference, using the dummy variable approach), a useful cross-check could be provided by expanding the sample to include AUD-denominated bonds with options attached.*

As discussed above, had Incenta been confronted with the domestic sample obtained from the selection criteria over the June 2022 averaging period, the report would have included an expanded sample comprising AUD denominated bonds with options attached as a crosscheck. Accordingly, Aurizon Network considers that where the OAS adjustment is negligible or zero, then expanding the domestic bond sample as a further cross-check, in addition to the Expanded Bond Sample comprising foreign currency bonds, is consistent with the methodology in Appendix F of the 2018 Final Decision.

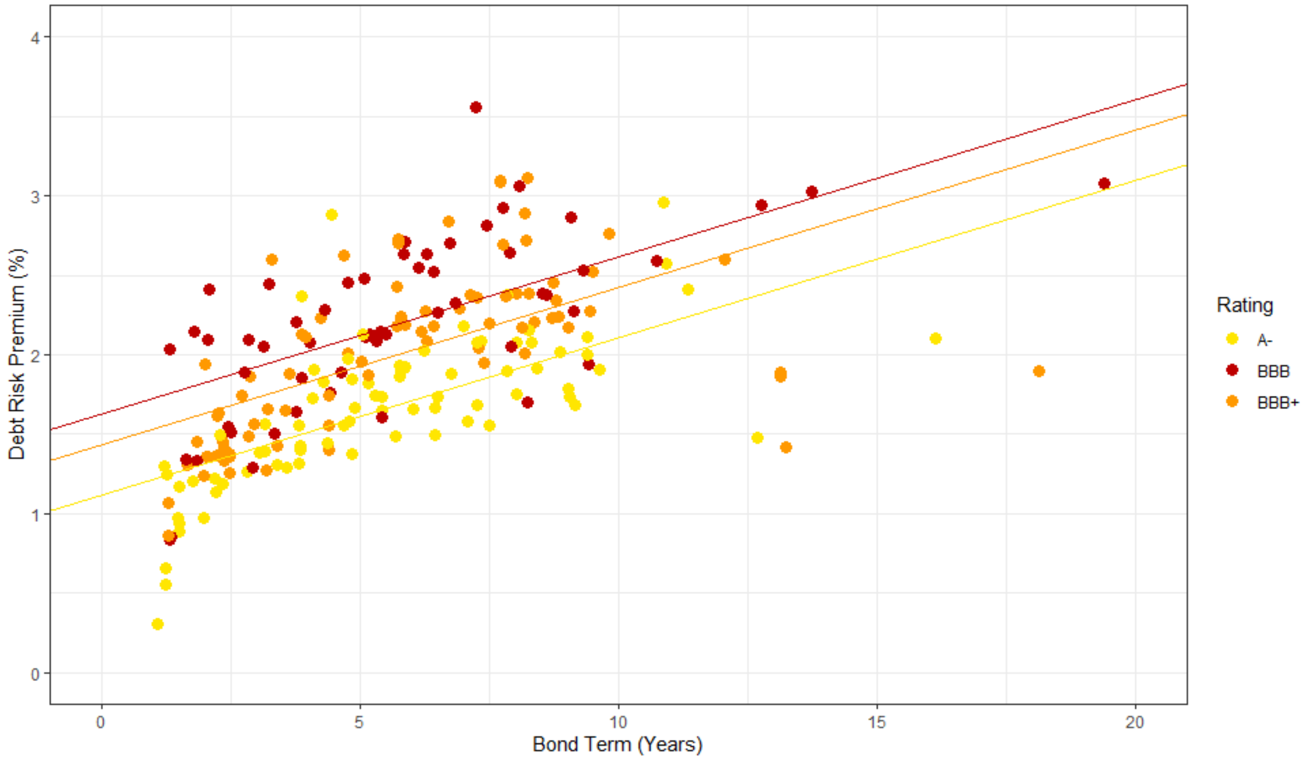
Expanded Bond Sample

In evaluating the Reset DRP for the June 2023 averaging period, Aurizon Network will incorporate the expanded bond sample using the updated ERAWA approach in the cross-checks.

For completeness, Aurizon Network has plotted and modelled the DRP curves from the expanded bond sample used by the QCA to obtain the DRP estimate (dummy variable approach) of 2.43% as shown in Figure 3.

[5] Ibid. p.90

Figure 3. QCA Draft Decision: Expanded Bond Sample



Consistent with the methodology in Appendix F of the 2018 Final Decision, it will be necessary to evaluate whether numerous bonds and the regression approach in this sample meets the conditions outlined on page 148 of Appendix F if comparable data presents in the June 2023 averaging period.

BVAL Estimate

The Draft Decision notes the QCA's investigation on the 2017 Draft Access Undertaking used an annualised value of the GACGB10 index as a proxy for the risk-free rate. Bloomberg advises this is a legacy index which has been superseded by GTAUD10Y which is also semi-annual.

Aurizon Network requests the QCA confirm the appropriate index that should be annualised and used to derive DRP values from the BVAL A/BBB curves as the proxy for the risk-free rate.

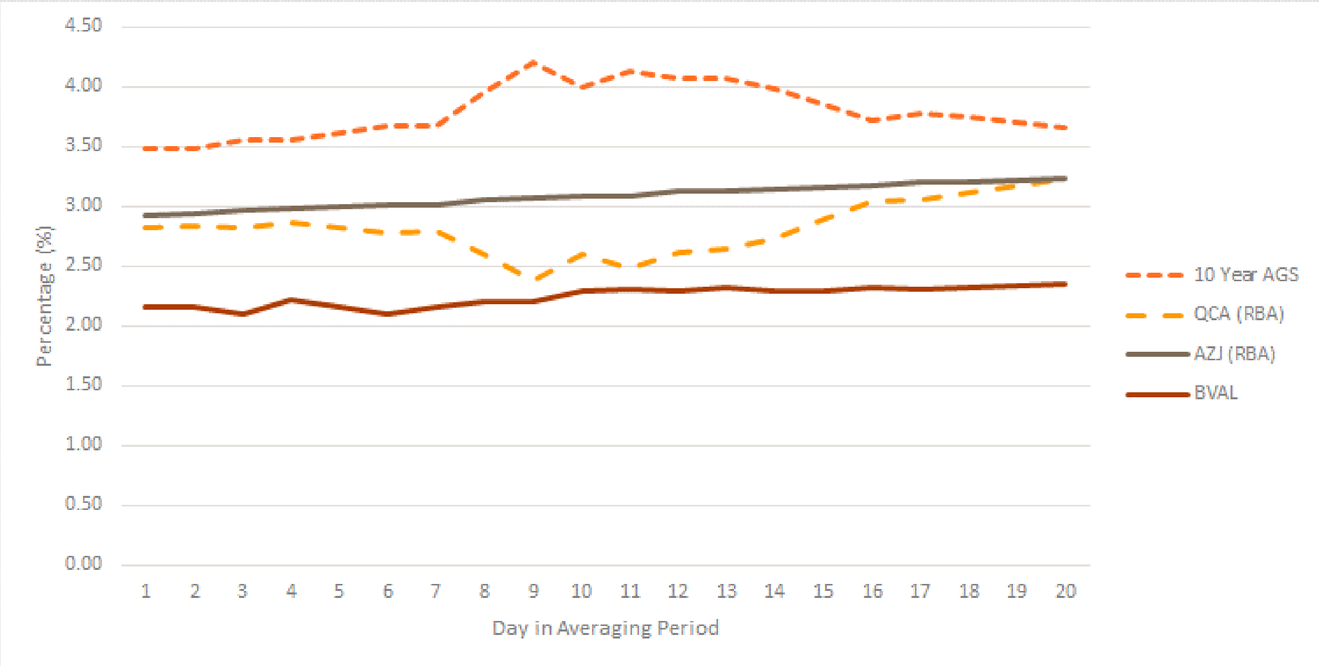
RBA Interpolation

The estimation of BBB+ DRP from the RBA's non-financial corporate bond series requires interpolation within the A and BBB ratings and within the end-of-month reported values. In respect of the latter, neither Incenta nor Appendix F of the 2018 Final Decision documents the methodology for this approach. As such, Aurizon Network has interpolated the DRP obtained from the end of month DRP values as being consistent with the required task and as applied by the Australian Energy Regulator.

The Draft Decision states this is inconsistent with computations performed by the QCA in the UT5 Final Decision which interpolates a linear series of yields over the averaging period and then deducts the risk-free rate to obtain a daily DRP over the averaging period. This approach necessarily requires an assumption that bond yields are relatively static and the DRP varies with changes in the risk-free rate which is contrary to the observed BVAL series.

The implications of this approach will be to obtain a DRP series which varies substantially from the BVAL DRP estimates and materially understates the BBB+ DRP obtained from the RBA's Aggregate Measures of Australian Corporate Bond Yields and Spreads – F3 over the June 23 averaging period as shown in Figure 4. Conversely, an inverse movement in risk free rate would have the overstated the DRP derived from the RBA series.

Figure 4. Comparison of DRP Estimates Obtained from the RBA Australian Corporate Bond Yields and Spreads



While Aurizon Network will calculate the DRP values from the RBA Aggregate Measures of Australian Corporate Bond Yields and Spreads, consistent with the procedures outlined by the Draft Decision, in the event judgement is necessary to establish a reasonable estimate for the DRP, these computational issues may be relevant to how that judgement is exercised.

Proposed approach for other Inputs

To provide transparency on the various inputs and any applicable next steps, Aurizon Network has listed out each input and relevant details on any relevant update in Table 2.

As outlined in the Preliminary Reset Value submission, Aurizon Network, with agreement from customers, outlined that an additional update in February 2023 would be provided to the QCA to allow for updates to those matters that have been progressed since July 2022.

Table 2. Aurizon Network's proposed approach for Allowance Revenue and Reference Tariff inputs

Input	Next Steps
No Further Update Required	
Non-Electric Operating Costs	• No further update required. Allowances as per Reset Schedule F Preliminary values.
Electric Operating Costs – Insurance costs for Electric Feeder Stations	• No further update required. Allowances as per Reset Schedule F Preliminary values.
Approved Adjustments to Allowable Revenues	• No further update required. Allowances as per Reset Schedule F Preliminary values.
Update to Reset Schedule F Preliminary Values in February 2023	
System Forecasts	• Update in February 2023 to reflect outcomes of stakeholder engagement (See above)
Direct Maintenance Cost Allowance	• Update in February 2023 to reflect FY24 MRSB.
Capital Expenditure	• Update in February 2023 to reflect FY24 MRSB.

RAB Values	• Update in February 2023 to reflect the FY24 MRSB outcomes, and if available, FY22 RAB Roll-forward, but this will be subject to a QCA Decision on FY22 Capex Claim.
	• Inflation for:
	  ◦ FY2022 will be increased from 5.5% to reflect the actual inflation rate of 7.3%.
	  ◦ FY2023 will be amended to reflect the latest inflation forecast as per the RBA Statement of Monetary Policy.
	• RAB forecasts will also be updated in July 2023 to reflect the final reset inflation rate.

Depreciation	• Will be updated to reflect any changes to the forecast RAB values related to the FY24 MRSB (Capital Indicator), or FY22 RAB Roll-forward (subject to timing of QCA decision). • No change to the underlying depreciation methodology.
Revenue adjustments	• Capital reconciliation FY22 based on FY22 Capex claim submission, Subject to change in relation to QCA's final approval on FY22 capex claim and FY22 RAB RF. • Revenue cap FY22 – subject to change on QCA's final decision
Working Capital	• Will be updated because of model computation.
Tax Allowance	• Will be updated because of model computation.
IE Pass through Costs	• Update in February 2023 subject to IE notification of IE Pass Through Costs.
EC Tariff	• Update in February 2023 to reflect EC DAAU. • Further update in c. May 2023 to reflect the latest estimate of EC charges.
Electric Operating Costs – Transmission Network Service Provider costs	• In prior years, Aurizon Network has typically received pricing advice from TNSP in approximately March of each year. Such variations constitute an Endorsed Variation Event under UT5. Aurizon Network will submit updated electric operating cost forecasts to the QCA once notifications are received from TNSP.

Input	Next Steps
Carmichael Private Incremental Cost (PIC)	• On 15 December 2022, the QCA approved $44 million as the prudent and efficient value of the private incremental costs associated with the Carmichael rail loop and connecting infrastructure. • Aurizon Network's update submission will seek to reflect the associated PIC discount within the proposed Allowable Revenues and Reference Tariffs for the Reset Period.
Update in July 2023 – Reset Schedule F Values submission	
Reset WACC	• No update in February 2023. • Update for market information required by **31 July 2023** • **Reset Rf** – 20 business day averaging period to 30 June 2023. • **Reset DRP** – Determination of DRP point estimate applying the UT5 methodology to relevant information prevailing over the 20 business day averaging period to 30 June 2023.
Reset Inflation Rate	• Reflects the forecast rate of inflation that will be applicable for FY2024 – FY2027. • Aurizon Network does not intend to update this value in February 2023. An update based on RBA forecasts will prior to 31 July 2023.
Indirect Maintenance Cost Allowance	• No update in February 2023 • Update 'Return on Plant' and 'Return on Inventory' calculation to reflect **Reset WACC**.
RAB Values	• Updated in July 2023 to reflect final Reset Inflation Rate
QCA Levy	• Update QCA Levy for FY2024 on receipt of QCA notification.

Next Steps

Aurizon Network intends on making a further submission to the QCA by the end of February 2023. This submission will have the effect of updating the Reset Schedule F Preliminary Values proposed for FY2024 to FY2027 to account for known outcomes and regulatory decisions.

It is expected that these values will form the basis of Allowable Revenues and Reference Tariffs for FY2024, subject to any further variations approved by the QCA in accordance with UT5.

Aurizon Network will then submit the 'final' Schedule F Reset Values for the UT5 Reset Period by 31 July 2023.

If you should have any further questions pertaining to Aurizon Network's response, please do not hesitate to contact Michael Bray via email Michael.Bray@aurizon.com.au

Yours sincerely

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