Ms Ann Jones
Queensland Competition Authority
Level 27, 145 Ann Street
Brisbane QLD 4001

Aurizon Network – GAPE and Newlands Pricing Draft Amending Access Undertaking

2 September 2022

Dear Ann,

Aurizon Network has been engaged in a consultative process with Customers in the Newlands and GAPE Systems since the finalisation of the FY22 Annual Review of Reference Tariffs with the objective of seeking to obtain a consensus on the allocation of costs between these two systems where those costs relate to use of the shared rail corridor between Newlands Junction and the Port of Abbot Point.

This consultation process has not been able to establish proposed amendments to Aurizon Network's 2017 Access Undertaking (**UT5**) that would be acceptable to all parties. Therefore, Aurizon Network has prepared and submits a GAPE and Newlands Pricing Draft Amending Access Undertaking (**GAPE/NL DAAU**) to the Queensland Competition Authority (**QCA**) pursuant to section 143 of the *Queensland Competition Authority Act 1997 (QLD)* (**QCA Act**).

The GAPE/NL DAAU includes proposed amendments to UT5 which represent the amendments which it considers to be most capable of acceptance. Due to the interaction between Reference Tariffs and the NAPE/GAPE commercially negotiated access arrangements (**Deeds**), it is necessary to disclose commercially sensitive information to the QCA in supporting materials accompanying the GAPE/NL DAAU.

To facilitate the QCA's consideration of GAPE/NL DAAU, Aurizon Network sought written consent from parties to the NAPE/GAPE Deeds to disclose the relevant terms of the Deeds to the QCA. While Aurizon Network received consents from some parties, it did not obtain the consent of all parties to the GAPE Deeds.

In the absence of universal consent, the supporting documentation submitted with this GAPE/NL DAAU:

- includes a public non-confidential version of the submission; and
- does not include relevant terms or extracts from the GAPE/NAPE Deeds.

Aurizon Network may disclose the terms of the Deeds to the QCA where it is lawfully required to do so. Where the QCA requests the relevant terms, Aurizon Network will submit to the QCA the confidential version of the submission with those relevant terms.

Should you have any queries in relation to this submission, please do not hesitate to contact Jon Windle on jon.windle@aurizon.com.au

Yours sincerely,

Dan Kearney
Head of Finance and Regulation
Aurizon Network Pty Ltd

GAPE and Newlands Pricing Draft Amending Access Undertaking

2 September 2022

Submission to the Queensland Competition Authority – Public Version

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Executive Summary

The Goonyella to Abbot Point Expansion (**GAPE**) Project was a significant transformational project which connected the Newlands Coal System to the Central Queensland Coal Network (**CQCN**), provided an improvement in the productivity of rail operations and increased the competitiveness of the rail haulage market through asset fungibility and interoperability.

The GAPE Project was also a commercially negotiated extension of the Newlands Coal System with specific access arrangements applying to both (**GAPE**) and Newlands expansion (**NAPE**) customers which operate in conjunction with the regulatory pricing and Access Agreements.

Asset replacement and renewal expenditure of rail infrastructure in the Regulatory Asset Base (**RAB**) for the Newlands and GAPE Coal Systems comprising the shared rail corridor from the Newlands Junction to the Port of Abbot Point has been allocated to the coal system in which the replaced or renewed asset financially resides. This allocation methodology does not consider how relative utilisation of the shared rail corridor between the two coal systems has changed over time. Newlands customers have expressed concerns with the relative growth in GAPE services and the increased costs to Newlands Access Holders from the combination of both a growth in renewals expenditure and the Queensland Competition Authority (**QCA**) determination to reclassify rerailing and ballast undercutting from a maintenance activity to capital expenditure.

On inclusion of the GAPE Project Costs in the RAB, the Newlands System Infrastructure Enhancements (**NSIE**) allocations to NAPE were deferred from inclusion in a Newlands Reference Tariff. Where the QCA has previously accepted the inclusion of deferred capital expenditure, such as Byerwen NAPE and WIRP, it has required evidence of an increase in system throughput. The progressive reduction in Newlands Coal System volumes below pre-GAPE project and contract levels has also provided no clear threshold as to the timing of the inclusion of the deferred NSIE within a Newlands Reference Tariff. The ongoing deferral of these GAPE Project costs from being included within a Reference Tariff, has implications for some GAPE Customers under the terms of the commercially negotiated GAPE access arrangements. Aurizon Network also considers it is not appropriate or economically prudent for past investment to remain excluded from Reference Tariffs while additional investment is necessary to increase the Deliverable Network Capacity as identified within the Initial Capacity Assessment Report[1] above the current utilisation levels.

The objectives of this Draft Amending Access Undertaking (**DAAU**) are to:

- develop and apply an alternate allocation methodology for asset replacement and renewal expenditure in the shared rail corridor; and
- include the relevant portion of the deferred NSIE in a relevant Reference Tariff(s).

Aurizon Network's response to the QCA Draft Decision on the Financial Year 2022 (FY22) Annual Review of Reference Tariffs (**FY22 ARRT**) included a commitment to constructively engage with GAPE and Newlands Access Holders on developing, where possible, a consensus view on how these abovementioned objectives should be best progressed through a DAAU.

Aurizon Network welcomes the good faith approach in which all stakeholders have both contributed to and participated in these constructive engagements, consistent with the customer centric regulatory model underpinning the customer agreed UT5 Draft Amending Access Undertaking. As addressing the

[1] Aurizon Network (2021) Preliminary Report in response to the Initial Capacity Assessment Report, Submission to the QCA and Chair of the Rail Industry Working Group, 12 November 2021. https://www.qca.org.au/wp-content/uploads/2021/11/aurizon-networks-preliminary-icar-response.pdf

objectives involves both an increase in the overall revenue requirement and a redistribution of that revenue without a substantive increase in volume on the shared rail corridor, the prospect of obtaining an agreed outcome was challenging.

A key element of the engagement process involved reducing the extent of information asymmetry and increasing the understanding and awareness of how various elements of the regulatory framework and the commercially negotiated access arrangements interacted. Aurizon Network considers that an improved understanding by customers of the interactions between the regulatory framework and the GAPE commercial access arrangements has made a significant contribution towards an expected majority of customer support being received for the proposed changes outlined in this DAAU. Nevertheless, some customers may not support one or more parts of the proposed changes which might contribute to a financial impact on the overall cost of access to that party.

In developing the proposed changes in this DAAU, Aurizon Network has had regard to the matters set out by the QCA in its '*Guidance Paper on the Pricing of Shared Infrastructure for the GAPE and Newlands System'* (**Guidance Paper**).

At a high level, the proposed changes in this DAAU include variation to the approved FY23 Reference Tariffs for the Newlands and GAPE Coal Systems to reflect:

- the determination and allocation of FY23 MRSB Asset Renewals and Replacement Expenditure on the shared rail corridor (which is variable with usage) based on a bottom-up engineering assessment having regard to relevant precedents and literature;
- the reclassification of rerailing and ballast undercutting allocations to GAPE as a maintenance activity;
- inclusion of approximately $46.9 million from the deferred NSIE amounts in the CQCN RAB roll-forward into the Newlands System Reference Tariff and setting the System Gtk Forecast on the basis of contracted volume levels less an allowance for Aurizon Network Cause;
- inclusion of an additional amount of approximately $13.8 million from the deferred NSIE amounts in the Newlands RAB roll-forward into a dedicated System Premium applicable to the NAPE Access Agreement with a corresponding reduction in the GAPE Pricing RAB; and
- reduction in the value of the GAPE Pricing RAB by approximately $13 million to exclude amounts attributable to the capitalisation of the Byerwen (GAPE) NSIE allocations.

The inclusion of deferred NSIE amounts into the Newlands System Reference Tariff and dedicated System Premium will have a consequential reduction in the revenue earned under the GAPE Access Arrangements.

This explanatory paper provides additional information on the principles underpinning how these proposed changes will apply to subsequent years, including the annual allocation of the allowable revenue associated with the variable Asset Replacement and Renewals Expenditure assigned to the shared rail corridor asset cost base and the adjustment to RAB roll-forward for costs that are not included in the Newlands Pricing RAB which have also been recovered under the GAPE access arrangements.

Aurizon Network's preference is to classify rerailing and ballast undercutting allocations to GAPE as capital expenditure to maintain a consistent approach across the CQCN. However, this is not consistent with the GAPE access arrangements without necessary and common amendments. Aurizon Network will continue to work with GAPE Access Holders following lodgement of the DAAU to facilitate these amendments.

This DAAU also includes amendments which will facilitate a one-off relinquishment of Newlands Access Rights without incurring a Relinquishment Fee where a notice of an intention to relinquish is issued to Aurizon Network on the condition of the QCA approval of this DAAU and the application of contract volume pricing in the Newlands Coal System.

All capitalised terms which are not otherwise defined in this document have the meaning given to them in the approved Access Undertaking (**UT5**).

Various elements of this submission and Appendices B and C relate to the commercially negotiated GAPE and NAPE access arrangements and Aurizon Network and the parties to these arrangements request the QCA not publish this confidential information as disclosure may harm the commercial interests of the parties.

This DAAU is only relevant to the FY23 Reference Tariffs on a forward-looking basis with no retrospectivity. Aurizon Network will not retrospectively apply approvals if this DAAU is not approved during FY23. If the DAAU is not approved during FY23, Aurizon Network will resubmit a DAAU with revised FY24 calculations and allocations.

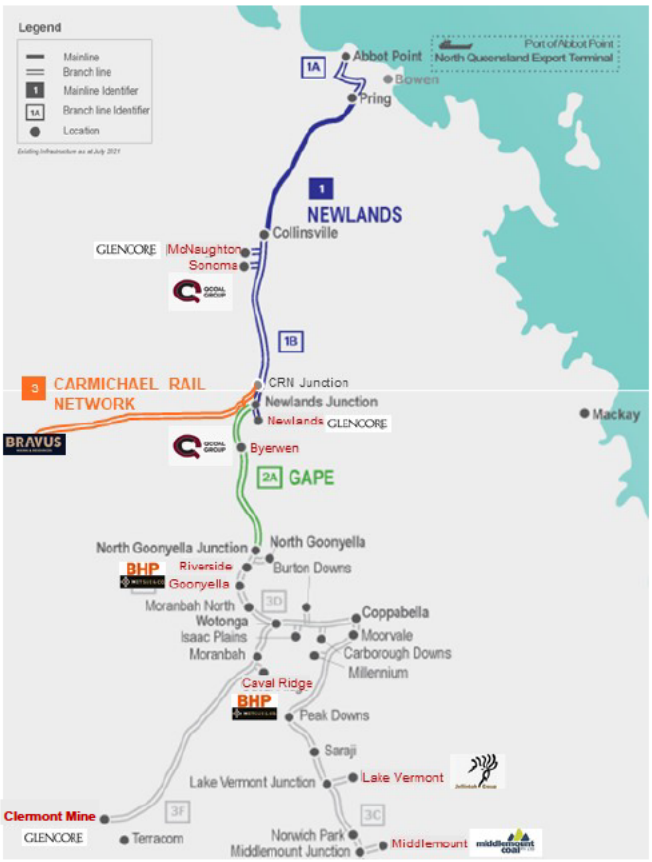
Overview of the Goonyella to Abbott Point Expansion (GAPE) Project

The Newlands Coal System, depicted in Figure 1 and comprising rail transport infrastructure from the Newlands coal mine to the Abbot Point coal handling terminal, is a multi-user rail corridor and has been subject to material changes in use since regulation commenced in 1998.

This shared rail corridor is utilised by:

- Legacy Newlands coal mines which were either operational or committed prior to negotiation of the GAPE Project;
- the GAPE Project which geographically extended the Newlands Coal System to connect mines in the Goonyella System to the port of Abbot Point; and
- the Carmichael Rail Network (CRN) Project which geographically extended the Newlands Coal System to connect new mines in Galilee Basin to the Central Queensland Coal Network (CQCN).

Figure 1. Newlands and GAPE Coal System Schematic



While the GAPE and CRN Projects are functionally similar in terms of representing a geographical extension of the Newlands Coal System, they differ in respect of the nature of the expansion costs incurred where the:

- GAPE Project involved significant brownfield investment in the existing shared rail corridor to increase capacity and improve infrastructure capability and a greenfield investment in the Goonyella to Newlands Connection (otherwise known as the **Northern Missing Link** or **NML**); and

- CRN Project primarily involved the private investment in a 180 km greenfield extension which leverages the prior GAPE Project investment that improved the infrastructure capability of the Newlands Coal System.

This section summarises the brief history of the Newlands shared rail corridor, the development of the GAPE Project, the implementation of the GAPE Coal System and associated Reference Tariffs and the subsequent regulatory processes/developments. This background is instructive in informing both the current cost allocation methodologies and what changes to these methodologies are considered reasonable to address the issues that have been raised by stakeholders.

History and Alignment of the Newlands System

Prior to the GAPE Project, the Newlands Coal System operated independently of the remainder of the CQCN and provided 'about 19 mtpa rail capacity (2008/09) (throughput was 14.2mtpa) with diesel trains of up to 1300m length and 20 TAL[2].

The key sections comprising the Newlands Coal System prior to the GAPE Project included[3]:

- the **Kaili** to **Durroburra** section which is part of the North Coast line between Bowen and Townsville and is thought to have been constructed sometime prior to 1924;

- the **Pring** to **Collinsville** section which is believed to have been completed in February 1924 as part of a branch line off the North Coast Line from Merinda to Bowen Coalfield (Collinsville). Timber bridges were replaced with concrete bridges and culverts in 1982. At that time, some of the track was upgraded to 53kg rail on timber sleepers whilst some short sections remained with 41kg rail on timber sleepers; and

- the **Abbot Point** to **Kaili** and the **Collinsville** to **Newlands** sections which were constructed between 1983 - 1984 as part of MIM's Newlands Abbot Point project. These sections were constructed with 53kg rail on concrete sleepers.

The Sonoma balloon loop was constructed in 2008/09 to support future 26.5 TAL services and connected the QCoal Sonoma mine to the Abbot Point coal terminal with an applied economic life of 15 years.

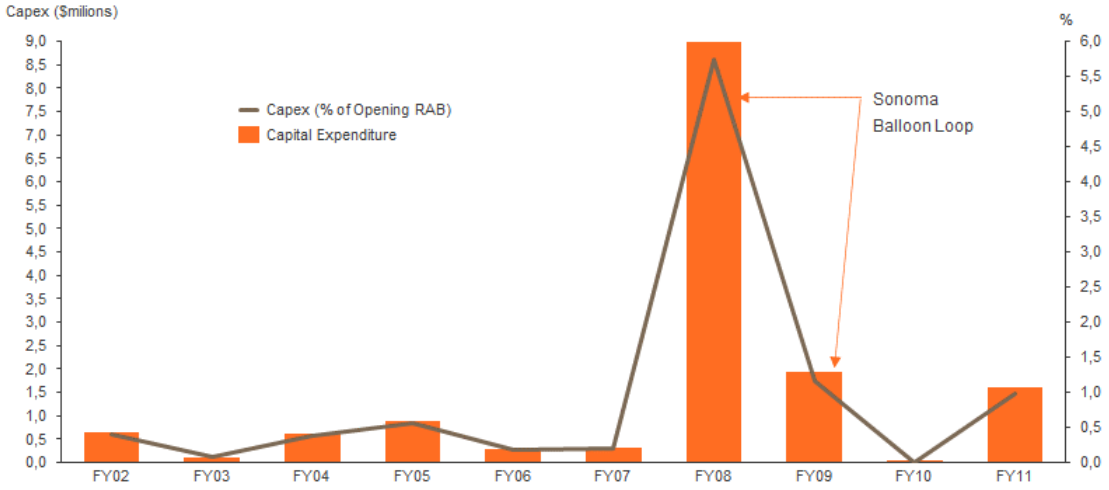
Due to the timing of the infrastructure upgrades, particularly from Collinsville to Newlands, the Newlands Coal System was subject to minimal capital investment from the period of the original asset valuation in 2001 to the completion of the GAPE Project in 2012 as shown in Figure 2. The most significant capital expenditure added to the Newlands RAB was associated with the construction of the Sonoma balloon loop (approximate value of $6.6m) with inclusion of amounts in the RAB in FY08 and FY09. Similarly, the

[2] QR Network (2009) Coal Rail Infrastructure Master Plan, p. 27.

[3] GHD (2000) Valuation of Queensland Rail's Below Rail Assets for the Coal Network, Working Paper 5, November, p. 4

value of the track infrastructure comprising the assets prior to the original asset valuation[3] will have reached the end of their economic life in the RAB by the end of FY23.

Figure 2. Historical Newlands System Capital Expenditure



As an independent coal system operating with a 20TAL limit compared to the higher 26.5TAL operations predominant in the rest of the CQCN[4], the Newlands Coal System was utilised primarily by a single rail operator with a dedicated fleet of 80 tonne wagons. These wagons were originally built in the early 1980s to service expanding Goonyella coal traffic utilising the Dalrymple Bay coal terminal that was commissioned on 7 September 1983. By mid-2010, the 80-tonne wagons were primarily operated out of Pring with just 315 wagons remaining at this point. Without the completion of the 26.5TAL upgrades in the Newlands corridor completed as part of the GAPE Project, these wagons would have remained in operation and would now be approximately 40 years old and reaching end of life. The 80 tonne wagons ceased operation in the CQCN in 2014 with the remaining 20TAL Minerva Train Services migrating to underloaded 106 tonne wagons (the standard wagon within the CQCN).

Scope of the GAPE Newlands System Infrastructure Enhancements

The GAPE Project involved significant investment in the Newlands Coal System to increase both the:

- capacity of the system by increasing the number of train paths (additional passing loops, additional holding roads at Pring and second balloon loop at the Port); and
- capability of train services by increasing axle loads to 26.5TAL and lengthening existing passing loops to accommodate 82 wagon consists.

Consistent with the relative age and history of the Newlands Coal System, the **NSIE** necessary to facilitate 26.5TAL operations were concentrated in the line section between Pring and Collinsville, including substantial portions of track being reconstructed and strengthened, with replacement of substandard ballast (ballast upgrade), sleepers and rail.

[4] The primary exception being the pre-existing 15.75TAL Burngrove to Nogoa rail corridor which was upgraded to accommodate 20TAL Train Services in the Blackwater Coal System to support the Minerva coal project in 2007.

The GAPE Project also involved 26.5TAL duplication of existing infrastructure with the following original alignments remaining at 20TAL and subject to operating restrictions for routing of unloaded coal train services:

- 5.5km section of track between Kaili and Durroburra was duplicated parallel to the North Coast Line including a new bridge over Euri Creek; and
- a 14.6km long duplication of Briaba provided improved grade.

Duplication of these assets was considered more economically feasible than upgrading existing infrastructure and reduced the impact of the project on continuing rail operations with the Queensland Coordinator General noting:[5]

> *Prior to the commencement of major capital works on the Newlands Rail Line associated with the Northern Missing Link Project, QR should provide all coal producers using that line with a commitment to maintain track availability and coal transport tonnage levels above specified limits during the period of track upgrade works*.

In addition, upgrades were undertaken in the McNaughton and Newlands balloon loops to support 26.5TAL operations from those mines. A significant assumption of the GAPE Project negotiated and agreed with the GAPE/Newlands Access Seekers and Access Holders was that the system would operate with substantially increased congestion and below rail delays through an increase in the Below Rail Transit Time (**BRTT**) threshold. However, this would require rail operators to invest in additional above rail assets to achieve the targeted increase in capacity.

Therefore, the project costs also included commercially negotiated arrangements with existing Access Holders who would incur increased operating costs associated with variation to the contractual arrangements to operate higher 26.5TAL services, relinquish surplus pathing and incur additional operating costs through the increased BRTT.

Commercially Negotiated Access Arrangements

The $1.2 billion GAPE Project represented a significant capital project and a material financial augmentation of the FY11 closing non-electric RAB value of $3.2 billion. The project comprised a combination of brownfield investment in the Goonyella (Goonyella System Infrastructure Enhancements) and Newlands Coal Systems, and the greenfield extension connecting those two systems (the Northern Missing Link).

As the capacity to be created by the GAPE project was committed to new or existing mines in both the Newlands and Goonyella coal systems, the project was subject to differential commercial arrangements identified as:

- Newlands to Abbot Point Expansion Deeds (NAPE Deeds); and
- Goonyella to Abbot Point Expansion Deeds (GAPE Deeds).

The NSIE components of the GAPE Project are common to both the above contractual arrangements. These commercially negotiated long term capacity contracts provided the commercial underwriting and commitments necessary to facilitate investment in the GAPE Project. In respect of the GAPE Deeds,

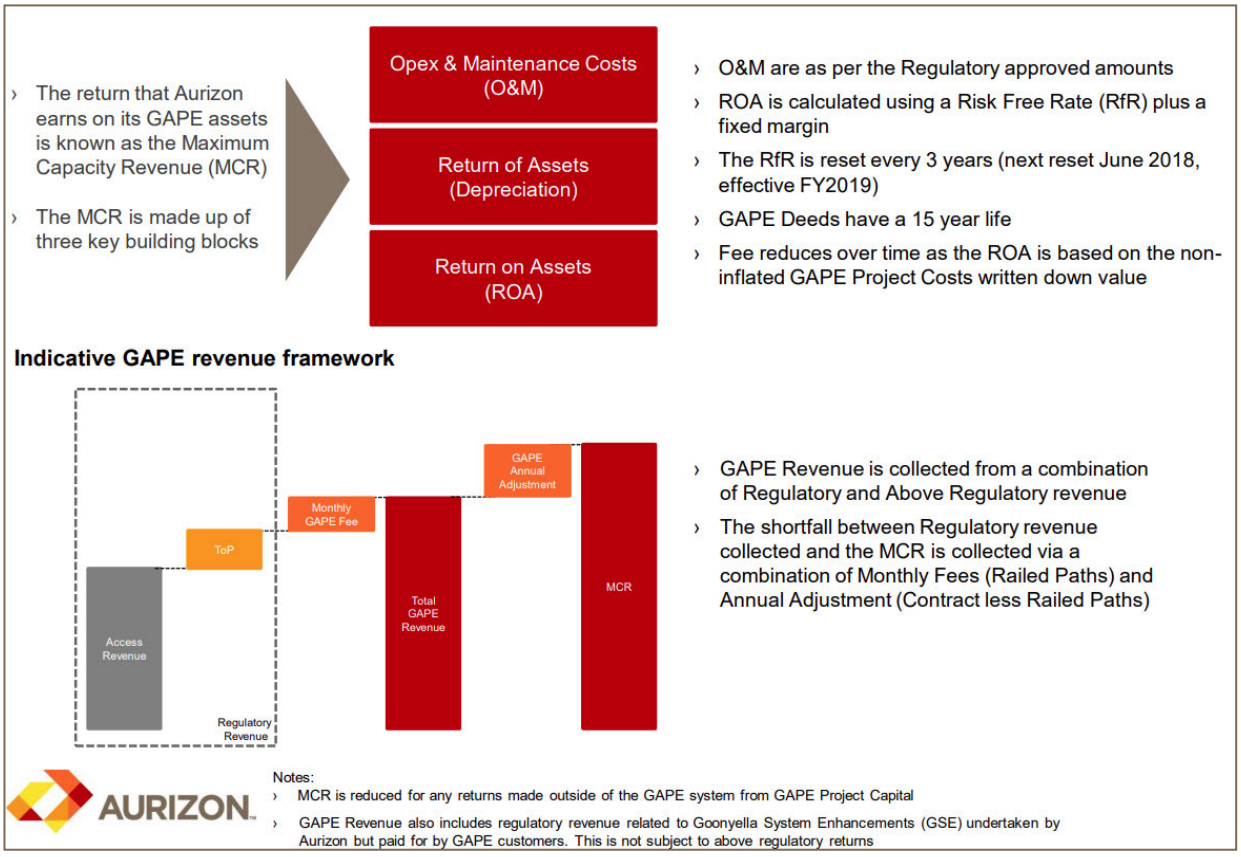
[5] Queensland Coordinator General (2006) QR Northern Missing Link Project EIS – Coordinator-General's Report, October, p. 21. Available at https://www.statedevelopment.qld.gov.au/__data/assets/pdf_file/0031/18886/mp-nth-missing-link-cg-report-oct-06.pdf

these arrangements effectively operate as a stand-alone access arrangement with specific commercial terms and obligations which fund the initial investment in the GAPE Project.

The interaction of the commercially negotiated access arrangements with the regulatory arrangements was summarised in a 2016 UT4 Final Decision Investor Briefing with the relevant extract reproduced in Figure 3. A key feature of the GAPE access arrangements is that the revenue Aurizon Network is entitled to recover from GAPE Customers is determined by the Maximum Capacity Revenue under the GAPE Deed and:

- where the regulatory revenue is not sufficient to recover the Maximum Capacity Revenue, then additional revenue is recovered under the GAPE Deeds to recover the shortfall; or
- where the regulatory revenue exceeds the Maximum Capacity Revenue, then the excess revenue is returned to GAPE Customers in accordance with the terms of the GAPE Deed.

Figure 3. Overview of the GAPE Revenue Arrangements

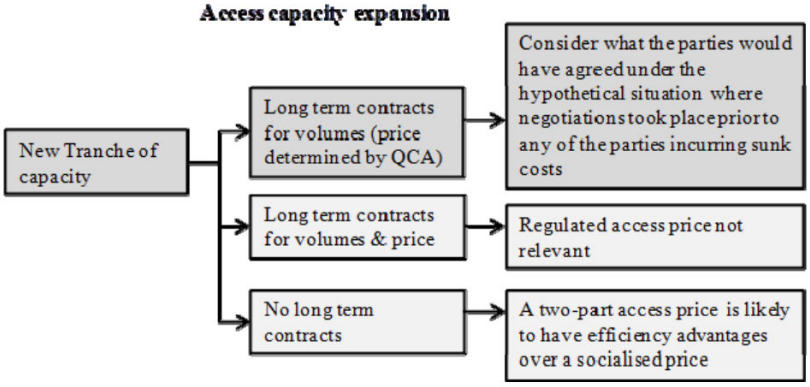


In contrast, the NAPE Deed commercial arrangements are a derivative of the Reference Tariff applicable to these services consistent with the inclusion of relevant NAPE contracted volume NSIE cost allocations to a Newlands Reference Tariff(s). Both the GAPE Deed and NAPE Deed arrangements are consistent with the access capacity expansion arrangements identified in the QCA's Discussion Paper on Capacity Expansion and Access Pricing for Rail and Ports[6] which, in summary, requires that access to new tranches of capacity under long-term contract for volumes may be subject to arrangements where:

[6] Queensland Competition Authority (2013) Capacity Expansion and Access Pricing for Rail and Ports: Discussion Paper, April, pp. 6-7

- the regulated access price is not relevant (GAPE); or
- the price is determined by the QCA based on the hypothetical situation of negotiations taking place prior to incurring sunk costs (NAPE).

Figure 4. Access Arrangement for Expansion Capacity



In practice, the terms of the GAPE Deeds contemplate the application of, and are complimentary to, a Reference Tariff.

Development of the GAPE Reference Tariff

Aurizon Network submitted an initial Draft Amending Access Undertaking (**DAAU**) to the QCA in September 2012 to implement the GAPE Reference Tariff. A key component of this proposal was to establish a new individual Coal System for pricing and revenue cap purposes. Due to the materiality of the cost differential between the Newlands and the GAPE Reference Tariffs, the GAPE Reference Tariff was comprised predominantly of the Expansion Costs associated with the GAPE Project costs and did not include a contribution to common costs of the Newlands Coal System. Similarly, as the GAPE Reference Tariff exceeded the highest Reference Tariff prevailing in the CQCN, there was also no requirement for the GAPE Reference Tariff to include a contribution to System Wide Costs.

The structure of the GAPE Reference Tariff is also influenced by the commercially negotiated access arrangements with the project costs recovered primarily through the AT2 train path charge. The AT3 $/ntk charge was also used as the recovery mechanism for the Goonyella System Infrastructure Enhancements which are funded independently of the GAPE Deeds.

Capital allocations between the GAPE and Newlands RAB's for the NSIE were also made based on the relative proportions of total contracted paths under the NAPE and GAPE Deeds. At the time, the proposed GAPE Reference Tariff was lodged with the QCA, the party to the Byerwen (NAPE) and the Byerwen (GAPE) deeds had not decided on the timing and location of the connection of the Byerwen mine to the CQCN and as such, the Byerwen (GAPE) proportion of the NML was provisionally allocated to the Newlands RAB.

The key objective of the GAPE Reference Tariff and GAPE System design was to promote greater transparency and alignment of prices with the attribution of the GAPE Project Costs. Incumbent Newlands users also sought confidence that Project Costs would not be included in their tariffs or that they would be subject to any volume risks on those costs as was evident in Xstrata's comments to the QLD Coordinator General:

QR may require Xstrata to contribute to the capital cost of the project under arrangements that may significantly disadvantage Xstrata, while substantially benefiting its coal producer competitors holding resources south of Newlands[7].

While the UT3 Access Undertaking did not include an expansion pricing framework, the principles applied in the development of the GAPE Reference Tariff were formative in the development of the expansion pricing principles included in the UT4 Access Undertaking.

Aurizon Network notes that where a project comparable to that of the GAPE Project had proceeded under the UT4 or UT5 Access Undertaking, the Reference Tariff would have been developed as an Expansion Tariff. For comparative purposes, Table 1 assesses the GAPE Reference Tariff against relevant requirements for an Expansion Tariff. The comparison shows the GAPE Reference Tariff effectively conforming to the requirements for an Expansion Tariff with the following exceptions:

- the GAPE Reference Tariff socialises the volume risks between GAPE Access Holders; and
- no allocation of Expansion Costs was made to non-Expansion Users for relevant direct and indirect productivity, interoperability and competition benefits as this was outside the scope of the commercially negotiated GAPE access arrangements.

Table 1. Comparison of the GAPE Reference Tariff with the Expansion Pricing Principles

Expansion Pricing Principle	UT5 Clause	GAPE RT
Project is an Endorsed Expansion	6.4.5	✓
Project requires and Expansion Tariff	6.4.3(c)(i)	✓
Non-Expansion Users Pay System Reference Tariff	6.4.3(c)(ii)	✓
Expansion Tariff and Expansion Volumes are subject to a Separate Allowable Revenue	6.4.6(a)(i)	✓
Expansion Tariff is calculated with reference to Contract Forecast Volumes	6.4.6(a)(ii)	×
Take or pay is payable on contracted volumes (no system test)	Sch F 3.3(n)	×
Expansion Tariff must have the AT1 – AT4 structure	6.9.1(b)	✓
Replacement Capex after commissioning must only be included in the System Reference Tariff	6.4.8(a)	✓
Replacement Capex in an Expansion is included in the Expansion Tariff	6.4.8(b)	✓
Allocation of Expansion Costs to Non-Expanding Users is permissible where there are clear benefits	6.4.1(d)	×

[7] https://www.statedevelopment.qld.gov.au/__data/assets/pdf_file/0031/18886/mp-nth-missing-link-cg-report-oct-06.pdf

Of relevance to renewals allocation from the Expansion Pricing Principles is the requirements set out in clause 6.4.8 which specifies how Asset Replacement and Renewal Expenditure should be allocated between an Expansion Tariff and the System Reference Tariff. The current approach to allocation of Asset Replacement and Renewal Expenditure on the shared rail corridor is to allocate that expenditure to the relevant coal system in which that asset financially resides. In practice this requires the:

- replacement of assets which are GAPE Project Infrastructure Enhancements physically located within the shared rail corridor within the Newlands System, to be included in the GAPE RAB; and
- replacement of assets in the Newlands Coal System that are not GAPE Project Infrastructure Enhancements to be included in the Newlands RAB.

This does not strictly conform with the requirements of clause 6.4.8(a) which states that:

> *all Asset Replacement and Renewal Expenditure in respect of capital expenditure projects relating to a Coal System must only be included in the capital costs relevant to the calculation of the System Reference Tariff.*

In the context of the GAPE Reference Tariff representing an Expansion Tariff of the Newlands System, then the inclusion of Asset Replacement and Renewals Expenditure on the shared rail corridor in the Newlands System Reference Tariff is consistent with the Expansion Pricing Principles while the GAPE Reference Tariff exceeds the Newlands System Reference Tariff on an equivalent $/ntk basis. The purpose of clause 6.4.8(a) was explained in the 2014 Draft Amending Access Undertaking (**2014DAU**) explanatory material which noted:

> *Asset Replacement Expenditure (other than replacement capital caused by expanding users) will be allocated to the lowest existing reference tariff group (e.g. existing system reference tariff). This may accelerate the merging of reference tariff groups.*

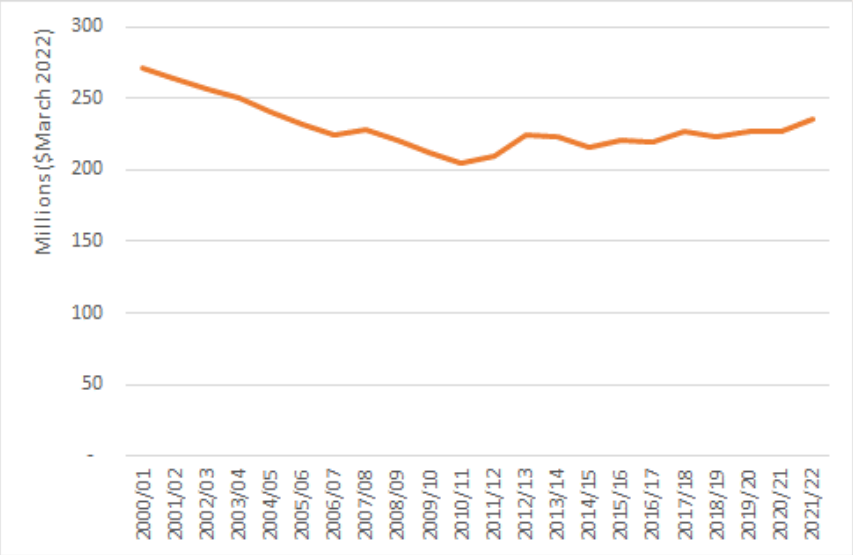
This objective of tariff convergence is consistent with the fairness principles previously identified by the QCA where the timing of this convergence involves smaller changes in price as suggested by Biggar[8]:

> *. . . empirical studies of fairness seem to show that the concept of fairness is not so much related to a particular tariff structure or cost allocation as it is to changes in that tariff structure or cost allocation. It seems that virtually any cost allocation could be considered to be fair if consumers have had a long enough period of adjustment.*

Figure 5 shows the Newlands Pricing RAB in March 2022 dollars. Following completion of the GAPE Project, the Newlands Pricing RAB has increased by approximately 1.2% per annum in real terms with no change in total contracted service levels. This would be consistent with achieving the objective of tariff convergence between GAPE and Newlands Users for the use of the shared rail corridor on a $/ntk basis over a lengthy and extended period. Pricing impacts are then largely influenced by other factors such as the progressive decline in Newlands Coal System demand over the same period, as shown in Figure 6.

[8] Queensland Competition Authority (2013) Statement of Regulatory Pricing Principles, August, p. 28, Available at https://www.qca.org.au/wp-content/uploads/2019/05/1918_X-QCA-Paper-PricingPaperFinalPosition-0813-1.pdf

Figure 5. Newlands Pricing RAB ($March 2022)



Source: CQCN RAB Rollforward, ABS Catalog 6401.0 Table 5, Aurizon Network Analysis

Aurizon Network recognises that this allocation approach to asset renewals on shared rail infrastructure may still be considered unfair by legacy mine developments in the Newlands Coal System. Notwithstanding, this concern should also be considered in the context of clause 6.4.8(b) which also required:

> *To the extent that Asset Replacement and Renewal Expenditure is necessary for an Expansion to which an Expansion Tariff applies or will apply, then that Asset Replacement and Renewal Expenditure will be treated as part of the cost of that Expansion subject to any applicable cost allocation proposal accepted by the QCA.*

In respect of the Newlands shared rail corridor, the requirements of clause 6.4.8 are assumed to have offsetting impacts where:

- Newlands Access Holders will have avoided asset replacement expenditure on substantial portions of the line section between Pring and Collinsville where GAPE Infrastructure Enhancements upgraded or replaced existing infrastructure; and
- GAPE Access Holders will have brought forward asset replacement expenditure where that replacement expenditure has a causal relationship with volumes.

Under the Expansion Pricing Principles, the quantification and distribution of these impacts would typically occur through a robust cost benefit analysis as contemplated in the allocation of Expansion Costs to Non-Expanding Users where those parties obtain net benefits as specified in clause 6.4.1(d). This analysis necessarily requires detailed engineering modelling of remaining asset lives for pre and post expansion periods which would be informed through the feasibility phase of the project studies. For example, where an Expansion is required, clause 6.4.4(a) requires Aurizon Network, as part of a Feasibility Study, to submit a pricing proposal to the QCA which includes among other matters:

- A proposed allocation of costs arising from the expansion; and
- Any proposed allocation of future renewals costs for the relevant system between Expansion stakeholders.

These provisions are consistent with the expectation that allocations which differ from the requirements of clause 6.4.8 should be determined at the time of the Expansion. As the GAPE Project was commercially

negotiated prior to the implementation of the Expansion Pricing Principles, the GAPE DAAUs did not specify arrangements in respect of how future renewals costs would be allocated. Apart from the prior regulatory treatment of expensing rail renewals and ballast cleaning/undercutting, the renewals costs on the shared rail corridor have consistently been allocated in accordance with the requirements of clause 6.4.8 since approval of the June 2013 GAPE DAAU in September 2013.

Subsequent Regulatory Events

There have been additional events since the initial approval of the GAPE Reference Tariff which are relevant to the consideration of the scope of this DAAU, including:

- Changes in GAPE/NAPE project cost allocations;
- Commencement of new coal carrying train services; and
- Reclassification of maintenance activities as Asset Renewals and Replacement Expenditure.

GAPE NAPE Project Cost Allocations

The NAPE allocations of the GAPE project costs accepted by the QCA have remained excluded from the asset values used to calculate the Newlands Reference Tariff. These excluded amounts are then not depreciated but are indexed in the RAB roll-forward at the approved Weighted Average Cost of Capital (**WACC**), consistent with the NPV >= 0 principle (**deferred NSIE**).

The 2014DAU did not propose to include amounts relating to the deferred NSIE in a Newlands Reference Tariff as the relevant services had not commenced. This proposed deferral position was not opposed in stakeholder submissions with the QCA's UT4 Final Decision stating:

> *We accepted stakeholders' submissions that the recovery of allowable revenue associated with NAPE train services be deferred until railing commences. This left open the question whether or not independent NAPE reference tariffs will apply in the future. We said that we will assess a NAPE reference tariff proposal if the NAPE train services commence in the UT4 period. We considered that any proposal that seeks to socialise NAPE within the Newlands system will need to go through stakeholder consultation, including consultation with existing Newlands customers.*

The original GAPE DAAU also included amounts in the Newlands capital indicator associated with NSIEs. The Final Decision on the 2014DAU also reallocated $30.3 million of capex (initially allocated to the Newlands system in 2011–12) to GAPE and NAPE Deed customers in the RAB roll-forward. The financial impacts from the inclusion of these amounts in the Newlands capital indicator was also returned to Newlands users through the capital carryover account adjustments.

During FY15, the counterparty to the NAPE Deed commenced negotiations with Aurizon Network [redacted] Consequently, the relevant allocation of the deferred NSIE attributable to the Byerwen NAPE capacity was transferred from the Newlands RAB Roll-forward to the GAPE RAB roll-forward. Due to the delays in the approval of the 2014DAU, the QCA approved an extension of the 2015-16 RAB roll-forward submission until one month after the QCA's approval of UT5. The QCA approved the 2015-16 RAB roll-forward on 30 May 2019. Therefore, the transfer of the deferred NSIE attributable to the Byerwen NAPE capacity from the Newlands to GAPE RAB roll-forward was not apparent to GAPE or Newlands customers at the time the transfer was triggered.

Aurizon Network's 2017 Draft Access Undertaking (**2017DAU**) submitted to the QCA in December 2016 proposed to continue the deferrals but '*foreshadowed that it would submit a DAAU once the situation regarding commencement of NAPE railings was clear*'.

Mining licences for the Byerwen mining lease ML7034 were finally granted in April 2017[9] and first railings occurred in February 2018. Due to the commencement of railings from the Byerwen mine, Aurizon Network's March 2019 response to the QCA's Draft Decision on the 2017DAU proposed to cease deferral of the NSIE's associated with the contracted Byerwen NAPE allocations and those amounts were included in the GAPE Pricing RAB from 1 July 2017 (and included in FY18 Reference Tariffs). The QCA's Final Decision accepted this proposal and noted:

> *The QCA considers it appropriate to approve Aurizon Network's 2017 DAU proposal subject to the inclusion of its March 2018 submission to include capital investments associated with WIRP Moura and NAPE projects to determine the opening asset value for the UT5 pricing period.*
>
> *The QCA considers that these investments can no longer be excluded from reference tariffs and allowable revenues on this basis. In particular:*
>
> - *the period of initial uncertainty with forecast volumes due to ramp-up issues has passed and it has become clearer the extent of railings forecast to materialise; and*
> - *Aurizon Network has been able to identify relevant beneficiaries from these investments (for example, in the Moura System where forecast volumes support a socialised reference tariff after inclusion of these investments).*

Aurion Network notes the volume certainty and beneficial conditions which prevailed for inclusion of the Byerwen NSIE in the GAPE Pricing RAB was not evident in respect of the balance of the deferred NAPE capex in the Newlands RAB roll-forward. This is particularly evident when considering the observed progressive decline in Newlands system throughput shown in Figure 6. It is not evident from the combination of declining volumes and the respective capital expenditure forecasts between the GAPE and Newlands Coal Systems in the UT5 Draft Decisions as shown in Table 2 how Newlands customers would have benefited from the inclusion of the non-Byerwen NAPE allocations in one or more Newlands Reference Tariffs at that time.

[9] Resource Authority Report for ML70436. Application Date: 30 June 2010. Grant Date: 27 April 2017. Available at https://georesglobe.information.qld.gov.au/

Figure 6. Newlands Coal System Utilisation Metrics

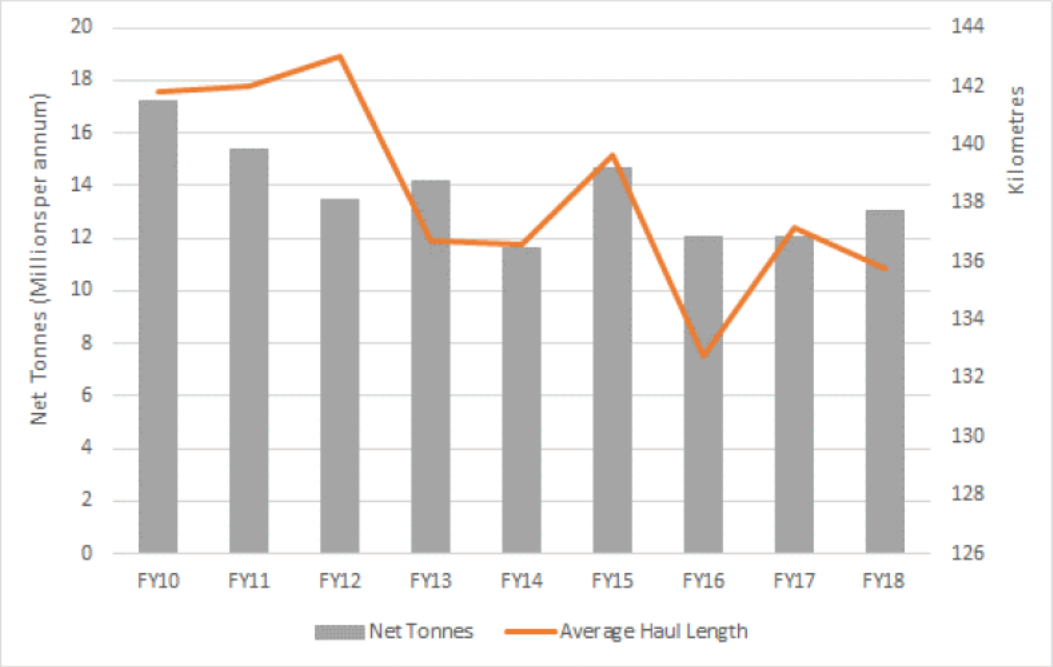
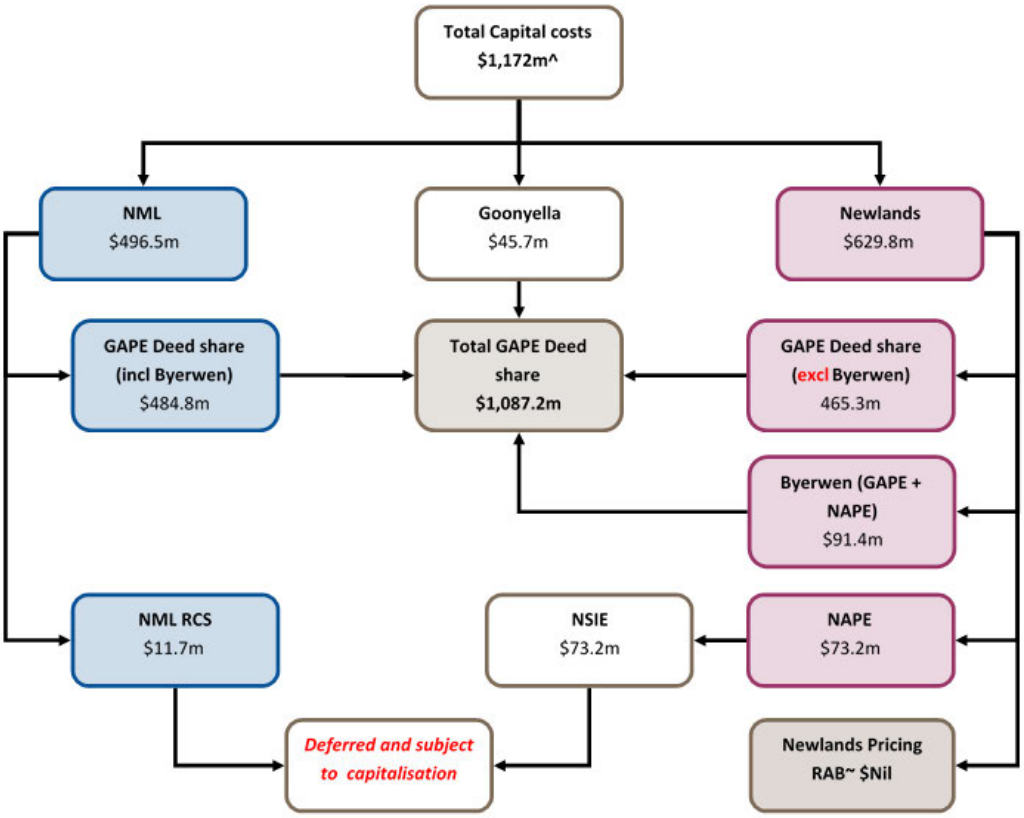


Table 2. UT5 Draft Decision Capital Expenditure Forecasts ($'000)

	FY18	FY19	FY20	FY21
Newlands Coal System	26,202	25,012	24,521	25,536
GAPE Coal System	- -	- -	- -	- -

Following the UT5 Final decision, the revised and current allocations of GAPE Project costs between the Newlands and GAPE Coal Systems is summarised in Figure 7. This figure shows that there are currently no GAPE Project Costs reflected in a Newlands Reference Tariff and the non-Byerwen NAPE allocations of the NSIE and NML RCS remain deferred from asset values for pricing purposes.

Figure 7. GAPE Project Regulatory Cost Allocations as at 30 June 2022



^ Represents sum of approved GAPE Early Works (FY09) + GAPE Project Costs (FY12-FY19). Excludes asset renewal expenditure.

Commencement of New Coal Carrying Train Service

In relation to how these deferred NSIE costs should be recovered via Reference Tariffs, Aurizon Network recognises the incremental cost and risk principles underpinning the draft decision on the 2014DAU, specifically that:

> *Since the existing access undertaking arrangements at the time of the GAPE project did not adequately address potential costs and risks to existing users of an expansion, our proposed approach is to allocate the NAPE assets to a new coal system (the Newlands to Abbot Point (NAP) system) for pricing purposes.*

However, since making this draft decision there has been a material change in circumstances due to the completion and connection of the unregulated multi-user open access CRN to the Newlands Coal System and new coal carrying train services have commenced transporting coal from the Carmichael coal mine to the North Queensland Export Terminal (Abbot Point). The provisions in clause 6.3.1(c) of the Access Undertaking require that Access Charges for new coal carrying train services are to be calculated with reference to the highest Reference Tariff relevant to those new coal carrying train services. In determining the relevant Reference Tariff, clause 6.3.1(e) states:

> *Where an Access Seeker has requested Access Rights (other than as a Renewal) that do not require an Expansion and two or more Reference Tariffs are expressed to apply in relation to the Access Rights in the relevant Coal System, then the Reference Tariff used to formulate the relevant Access Charges is that Reference Tariff which is the highest on a $/ntk basis.*

The overarching objective of this requirement is that a new market entrant should not be able to develop a new mine and commence coal carrying train services at a rate (in $/ntk) lower than an existing mine

development which funded an Expansion of that Coal System. Alternatively, it could be considered both equitable and efficient by ensuring a customer who funds an Expansion where capacity was not available at the time they entered the market is not disadvantaged relative to another customer who enters the market at a later date when capacity subsequent becomes available. Customer submissions to the QCA have typically referred to this as the 'free-rider' problem.

Aurizon Network also notes this is not a static assessment with clause 6.3.1(d) requiring that:

> *the requirements under clause 6.3.1(c) must be reapplied to review and reset the Access Charge whenever there is a change to the relevant Reference Tariff or the Approved PIC.*

This is also necessary to ensure pricing does not unfairly differentiate between Expansion funders and new mining projects over the life of the Expansion and for changes in circumstances. Therefore, while a new coal carrying train service might commence paying the System Reference Tariff it should assume that the relevant Reference Tariff may change over time.

For example, the WIRP project costs are currently socialised with the Blackwater System Reference Tariff. In a circumstance where the forecast volumes for WICET declined such that access revenue did not recover the incremental expansion costs, then a System Premium would be subsequently applied. However, where a new coal carrying train service has commenced after the Expansion and was not also subject to an Expansion Tariff, then those services should be required to also pay the higher Access Charge equivalent to the System Premium through the application of clause 6.3.1(d). That is the costs should be shared between the Expansion Customers and mines which commenced after the expansion.

For comparison purposes, Table 3 shows the Access Charges for the new coal carrying train services connecting to the Newlands Coal System and utilising the shared rail corridor (comprising the original system assets and the NSIE) with the highest and lowest Access Charges for GAPE customers who funded the NSIE. The figures have been calculated on published distances, notional consist data and the currently approved FY23 GAPE and Newlands Reference Tariffs.

Table 3. Shared Corridor Access Charge Comparisons

Train Service Type	Access Charge $/ntk
Newlands (new coal carrying train service)	$14.35
GAPE Minimum	$15.81
GAPE Maximum	$32.14

In addition to the requirement that any NAPE System Premium should be the relevant Reference Tariff for new coal carrying train services commencing after the Expansion, non-NAPE customers will have also *indirectly* benefited from volume-based tariff reductions from the NSIE as without those enhancements. This is due to:

- it being unlikely to have been economically or commercially feasible to extend a 20TAL Newlands Coal System to the Galilee basin (noting the original project specification involved a greenfield standard gauge railway to Abbot Point); and
- it being necessary for a higher contribution to common costs per Train Service without the volumes from the new coal carrying train service and the observed decline in output from the Newlands legacy mines.

Aurizon Network considers the above matters to be relevant in assessing the extent to which the NAPE Expansion customer should be required to solely contribute towards NSIE amounts included in a Newlands Reference Tariff and the extent of any contribution to common costs that a party should be required to make towards the existing cost base. For avoidance of doubt, while such an outcome would not be inconsistent with the intent of clause 6.3.1(e), Aurizon Network is not proposing that the new coal carrying trains services operating solely on the Newlands Coal System and using Capacity which was previously contracted by a legacy Newlands mine be required to pay the GAPE Reference Tariff.

Figure 8 summarises the chronology of key regulatory and commercial events associated with the GAPE Project Costs.

Reclassification of maintenance activities as Asset Renewals and Replacement Expenditure

In addition to these key events described above, two additional changes in the regulatory arrangements have altered how ongoing costs are allocated between Newlands and GAPE customers. These include:

- the UT4 Final Decision to reclassify rerailing as an asset renewal activity from 2015-16 with the following justification:

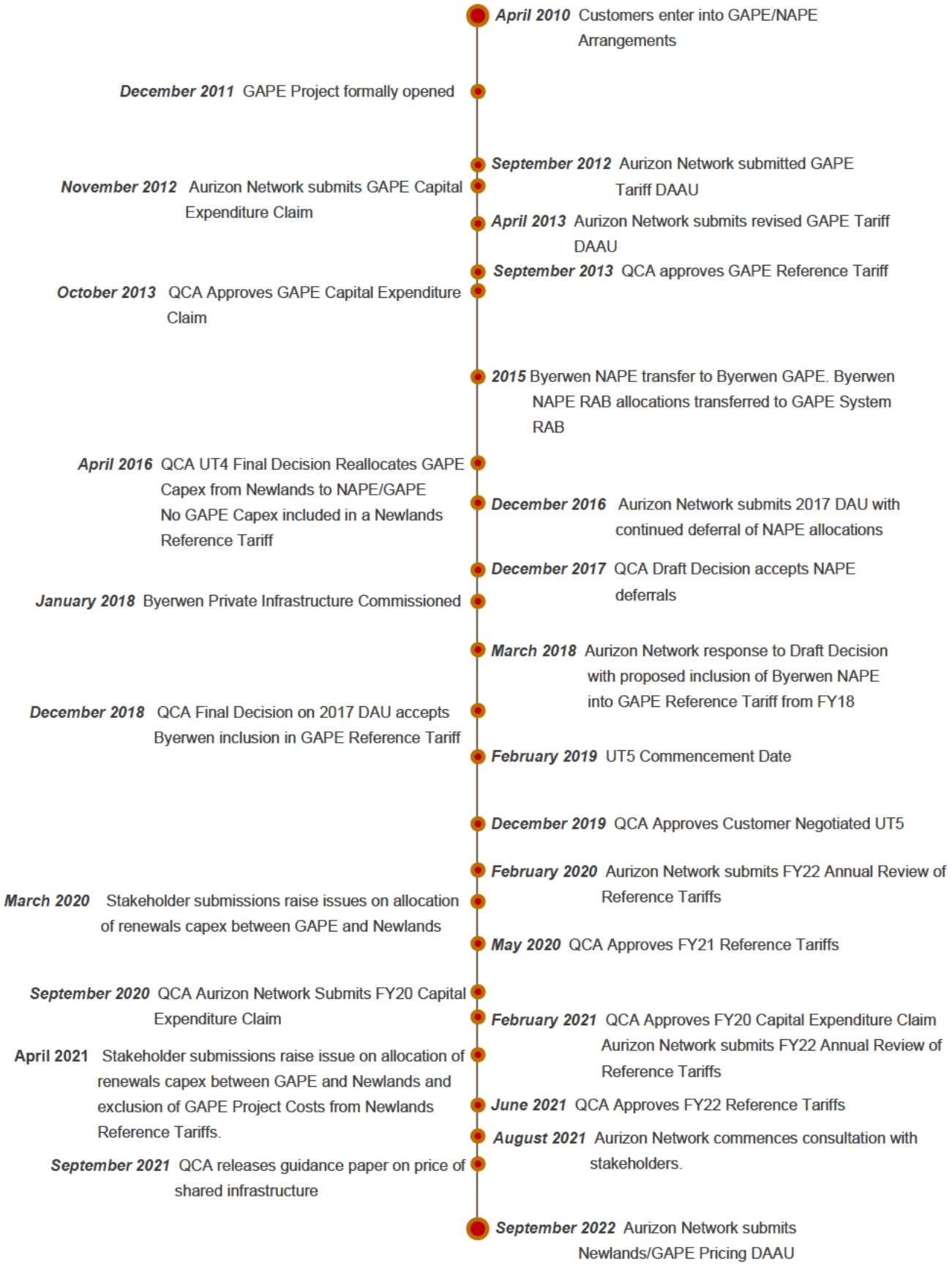
  Re-railing extends the useful life of the asset. If such activity was classified as maintenance, today's users would effectively subsidise future users by bearing the full costs of an asset that would also be used by the latter.

- The UT5 Final Decision to reclassify ballast undercutting as an asset renewals activity from 2019-20 based on the reasons outlined in section 8.5.3 of that Decision which included, but not limited to:

  This reclassification is supported by the characteristics of ballast undercutting renewals and aligns with Aurizon's group capitalisation policy and corresponding statutory accounting treatment.

The practical effect of reclassifying maintenance expenses as asset renewal activities was to transfer part of those costs from the GAPE operating and maintenance cost allocations to the Newlands Pricing RAB for recovery from Newlands system users (other than where those activities replace NSIE).

Figure 8. Chronology of Commercial and Regulatory Events for GAPE Project Costs



Key Issues with the Current Allocations

The Guidance Paper[10] notes stakeholder submissions to the FY22 ARRT focussed on two themes:

- the allocation of asset replacement and renewal expenditure between Newlands and GAPE system users; and
- the recovery of deferred NAPE capital expenditure.

Allocation of asset renewals expenditure

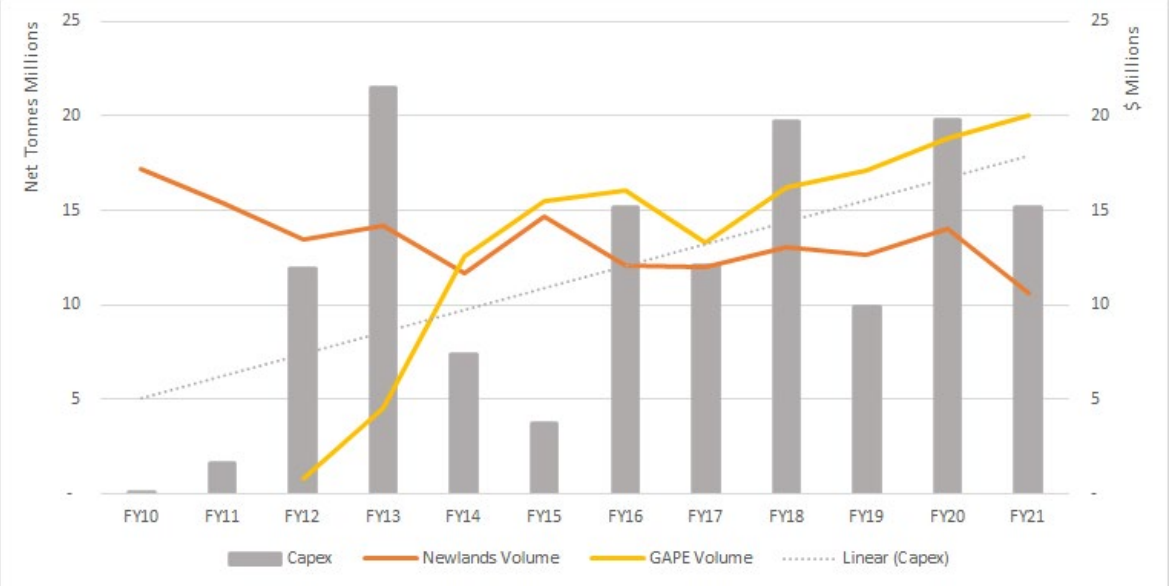
The Guidance Paper summarised the respective positions of Newlands customer responses to the FY22 ARRT with the current allocation methodology as:

- it is not cost reflective, as it involves Newlands customers paying for costs caused by GAPE services, and
- the degradation of Newlands assets (and associated renewals) is accelerated by GAPE users.

While the issue of the net impact of GAPE bringing forward asset replacement expenditure versus avoided asset renewals was discussed earlier in this submission, the underlying drivers for these concerns can be seen from the relative growth in volumes and capex on the shared rail corridor in Figure 9 which shows:

- a trend decline in Newlands Coal System Volumes;
- a trend increase in GAPE Coal System Volumes; and
- a trend increase in the asset replacement expenditure added to the Newlands RAB for which the reclassification of re-railing and ballast undercutting has contributed.

Figure 9. Newlands Coal System Capex and Volumes



[10] Queensland Competition Authority (2021) Pricing of shared infrastructure for the GAPE and Newlands systems: A Guidance Paper, September. Available at https://www.qca.org.au/project/aurizon-network/2017-access-undertaking-ut5/guidance-paper-on-pricing-of-shared-infrastructure/

Deferral of Newland System Infrastructure Enhancements

It was shown in Figure 7 that there is currently no NSIE amounts included in the Newlands Pricing RAB or any relevant Newlands Reference Tariff. The NSIE assigned to the contracted non-Byerwen NAPE volumes of approximately $73.3 million has been subject to ongoing deferral and capitalisation.

The Guidance Paper observes these deferred costs have been capitalised since GAPE commenced in 2012 as a result of the demand not eventuating. The QCA also summarised stakeholder concerns on NAPE as:

- Stakeholders said we should make a decision about the recovery of the capitalised NAPE costs, given the imminent commencement of new users on the Newlands system.
- Rio Tinto said the capitalised NAPE costs should be recovered from new Newlands users through a system premium.

Aurizon Network notes the deferral of the NSIE does not directly impact the Reference Tariffs paid by GAPE Customers. The GAPE and Newlands Reference Tariffs have been approved by the QCA independently of the commercially negotiated GAPE access arrangements to ensure a consistent approach is applied across the CQCN, including the treatment of capital deferrals. [redacted]

Some GAPE Customers in the FY22 ARRT expressed concerns regarding 'the extent to which GAPE Users have already been required to cover the cost of the NAPE infrastructure'. In resolving these issues with stakeholders, the QCA's Guidance Paper also noted:

> *Similarly, for the future treatment of deferred NAPE costs, parties may wish to consider the basis and timing for recovery of the deferred amounts, taking into account any relevant matters (e.g. the benefits parties have received, or will receive, from the related upgrades and the extent to which the deferred amounts have been recovered under relevant access agreements or access arrangements).*

On 27 October 2021, the Independent Expert finalised the Initial Capacity Assessment Report which declared the combined Deliverable Network Capacity of the shared rail corridor as being 32.8 mtpa. While a key consideration on the ongoing deferral of the NSIE has been the extent to which volumes have increased, the practical consequence of the Deliverable Network Capacity for the Newlands and GAPE Systems is that the full scope of the GAPE Project Infrastructure Enhancements is both used and useful for achieving the current system volumes. Accordingly, Reference Tariffs will not be consistent with the requirement that revenue is at least enough to meet the efficient costs of providing access to the service if the deferred NSIE remains excluded from a relevant Reference Tariff.

Customer Engagement Summary

Aurizon Network's June 2021 response to the QCA Draft Decision on the FY22 ARRT committed to constructively engage with Newlands and GAPE customers on matters relating to the allocation of common costs on the shared rail corridor. The response also included an appendix which summarised the issues likely to be relevant to that engagement.

The QCA Final Decision to approve the FY22 ARRT accepted the proposed capital indicators for the relevant coal systems and affirmed the QCA's view that the matters raised by customers through the review process are more appropriately addressed through customer engagement as envisaged through the UT5 arrangements. The Final Decision on the FY22 ARRT[11] noting:

> *We maintain that ideally, this would be developed collaboratively between Aurizon Network and affected users. Accordingly, we welcome Aurizon Network's commitment to engage with affected users to reach an agreement. We intend to prepare a guidance paper to facilitate these discussions and will have consideration for any consolidated list of relevant matters that Aurizon Network will provide in consultation with stakeholders.*

In September 2021, the QCA published its Guidance Paper which noted there was little or no scope within existing reference tariff and capital expenditure review processes in UT5 for the QCA to determine the cost allocations. Similarly, the QCA concluded the current renewals allocation methodology was not a matter requiring the QCA to issue an initial amendment notice requiring Aurizon Network to submit a DAAU under s139 of the QCA Act. Therefore, any modification to the renewal allocation methodology would need to occur through a voluntary DAAU. The Guidance Paper[12] noted 3 options available to Aurizon Network:

- Where Aurizon Network and affected stakeholders are able to reach an agreed outcome through negotiation—Aurizon Network can submit a DAAU to amend UT5 to reflect the agreed position or propose an agreed approach;
- Where Aurizon Network seeks to propose an alternative pricing approach for the QCA to consider, without prior agreement with stakeholders—Aurizon Network can submit a DAAU to amend UT5 to reflect its new proposed position; or
- If no DAAU is submitted, the matter could be considered as part of Aurizon Network's next Draft Access Undertaking at the conclusion of the UT5 Term.

Where Aurizon Network does intend to prepare and submit a DAAU, the Guidance Paper[13] '*encourage[s] Aurizon Network and affected parties to negotiate on relevant matters prior to any DAAU submission*'.

Aurizon Network's strong preference is to not defer consideration of the renewal allocation methodology to the next DAU as Aurizon Network and Stakeholders deem it necessary to address a number of matters concurrently, including the renewal allocation methodology, all in a timely manner. The impetus for progressing a DAAU at this time is largely associated with:

[11] Queensland Competition Authority (2021) Annual review of reference tariffs—2021-22: Final Decision, June. Available at https://www.qca.org.au/wp-content/uploads/2020/03/an-annual-review-of-reference-tariffs-2021-22-final-decision-qca-letter-and-notice-final.pdf

[12] Queensland Competition Authority (2021) Pricing of shared infrastructure for the GAPE and Newlands systems: A Guidance Paper, September, pp. 3-4

[13] Ibid, p. 3.

- the substantial concerns raised by Newlands customers regarding the fairness of the current renewals allocation methodology and the absence of supporting submissions from GAPE customers for its continuation;
- the reallocation of ballast undercutting costs from GAPE to Newlands customers with the UT5 change from maintenance to capitalisation of these activities;
- the continued deferral of prior capital expenditure and it's exclusion from Access Charges where further capital expenditure is necessary to achieve committed capacity levels; and
- [redacted].

Customer Engagement approach

Consistent with the UT5 expectations of customer-centric regulation, Aurizon Network commenced an engagement process with Newlands and GAPE Customers (**Customer Group**) to identify options for addressing the matters discussed in the Guidance Paper. The Customer Group included the following entities – Glencore, Bravus, QCoal, Stanmore/BMC, Jellinbah, Middlemount and Rio Tinto.

A key difficulty in reaching any consensus is the inclusion of the deferred NSIE in a relevant Reference Tariff without a corresponding increase in demand. The practical effect of its inclusion is there is no solution which would improve the outcomes for all participants relative to the status quo. Therefore, any DAAU will involve a redistribution between those participants with consequential implications for incentives to accept part, or all, of the proposed amendments.

Noting the incentives of participants to not accept a proposed outcome which would increase their total costs of access, an essential component of Aurizon Network's engagement approach was to address information asymmetries, within the contractual limitations, through information disclosure.

In addition, to support consideration of the reasonableness of any proposed changes from the current shared rail corridor renewals allocation methodology and the inclusion of the deferred NSIE within a relevant Reference Tariff, Aurizon Network developed the following guiding principles:

Efficiency. Any proposal must remain compliant with the Access Undertaking floor and ceiling price limits[14]. To the extent possible, the proposal should seek alignment with the prospective expansion pricing outcomes under the UT5 expansion pricing principles.

Cost Reflectivity. The proposal should seek to ensure prices are reflective of the type and quality of the service being provided but consistent with the attribution and treatment of expansion costs to the respective System Reference Tariffs. Where a party has obtained clear net benefits from improvements in service quality, these should be reflected in the price for those services.

Equitable and proportionate. The proposal does not materially and adversely impact one or more customers relative to other customers in similar circumstances. The draft proposal should be balanced to avoid windfall gains or losses and have regard to the interests of legacy Newlands coal mines.

Commercially aligned. To the extent practical, the proposal should be consistent with the commercially negotiated access arrangements and seek to promote the long-term use and sustainability of the shared corridor beyond the term of those arrangements.

[14] For avoidance of doubt, Aurizon Network maintains the current allocations are compliant with the floor and ceiling limits for the reasons outlined in the Aurizon Network's submissions to the FY22ARRT and that consideration of the limits is applicable to alternate allocation methodologies.

Principles Based. The proposal reflects all relevant available information at the time but can be recalibrated to reflect a material change in circumstances in how the shared corridor is utilised over time, including where GAPE capacity is utilised by Newlands access holders at expiry of the GAPE Deed.

The engagement approach primarily involved the following engagement activities:

- a total of 6 group meetings and an additional Newlands customer only group meeting;
- individual customer briefings and discussions; and
- provision of information and response to individual customer requests.

Where requests for additional information from individual customers was relevant to all customers, that information was shared with all applicable customers. Aurizon Network found this process constructive in improving the awareness and understanding of all stakeholders. It was particularly evident through the engagement process that customers were uncertain about how asset values have changed over time and the basis for asset movements/transfers between coal systems (such as the inclusion of the Byerwen (NAPE) GAPE Project Cost allocations in the GAPE RAB roll-forward and ultimately the GAPE Pricing RAB).

It was apparent to Aurizon Network that a customer's ability to develop and model particular scenarios over an evaluation period longer than one year was constrained by a lack of detail on asset depreciation profiles. Aurizon Network acknowledges this information limitation and will work with the broader industry to improve access to information.

Customer Engagement Outcomes

Figure 10 summarises the key customer engagements and activities undertaken by Aurizon Network since approval of the FY22 ARRT. Following the initial meetings where the provision of relevant information was required, it became evident to both Aurizon Network and customers that due to the complexity arising from the interdependencies of the various issues, it would be beneficial to the engagement process for Aurizon Network to prepare an initial draft proposal to consult with individual customers.

On 21 December 2021, Aurizon Network provided a draft proposal (**Draft Proposal**) including the projected incremental financial impacts of that Draft Proposal for each customer over the evaluation period (FY23 – FY27). Key elements of this Draft Proposal included:

- inclusion of $46.9 million of the deferred NSIE from the Newlands RAB roll-forward account in a socialised Newlands Reference Tariff (subject to a modified NAPE system test - Newlands System Reference Tariff < Baseline Newlands Reference Tariff (ex CRN volumes);
- allocation of asset renewals on the shared rail corridor to a shared asset base using a bottom-up engineering-based determination of incremental costs and allocation of shared asset base revenue annually between coal systems based on relative coal system gtk forecasts; and
- allocations of ballast cleaning and rail renewals (under the incremental cost allocation methodology) are added to the GAPE System through the Maintenance Indicator and expensed.

While the financial modelling showed the price outcomes for Newlands legacy mines would not exceed a Newlands Reference Tariff exclusive of CRN volumes, the Draft Proposal was not broadly supported by stakeholders with:

- Newlands Customers noting that while benefiting from the change in asset allocation methodology, they would still pay a higher Access Charge relative to the status quo; and

- GAPE Customers paying a higher Reference Tariff from the increased renewals allocation. The distributional impacts to GAPE Customers also varied [redacted]

The fourth meeting with the Customer Group consolidated the information provided to stakeholders and the issues identified during the consultation process. The objective of the meeting was to obtain customer perspectives on how the Draft Proposal could be modified to increase the level of acceptance. Customers were also offered the opportunity to collaborate and present a counterproposal to Aurizon Network. From this group meeting, it was generally accepted that it would be necessary to resolve the status of the NAPE Access Agreement and how the deferred NSIE was to be reflected in a Newlands Reference Tariff, to determine the overall acceptability of the other elements.

Aurizon Network provided an options paper to Newlands customers on various approaches for including the deferred NSIE within a Newlands Reference Tariff. A Newlands customer specific meeting was held on 5 April 2022. The feedback and customer input from this meeting was then used to inform a revised proposal.

Aurizon Network tabled a revised proposal with customers on 27 April 2022 (**Revised Proposal**) and met with the Customer Group on 6 May 2022 to discuss elements of the Revised Proposal. The Revised Proposal sought to address the shortcomings identified with the Draft Proposal and included the following material variations:

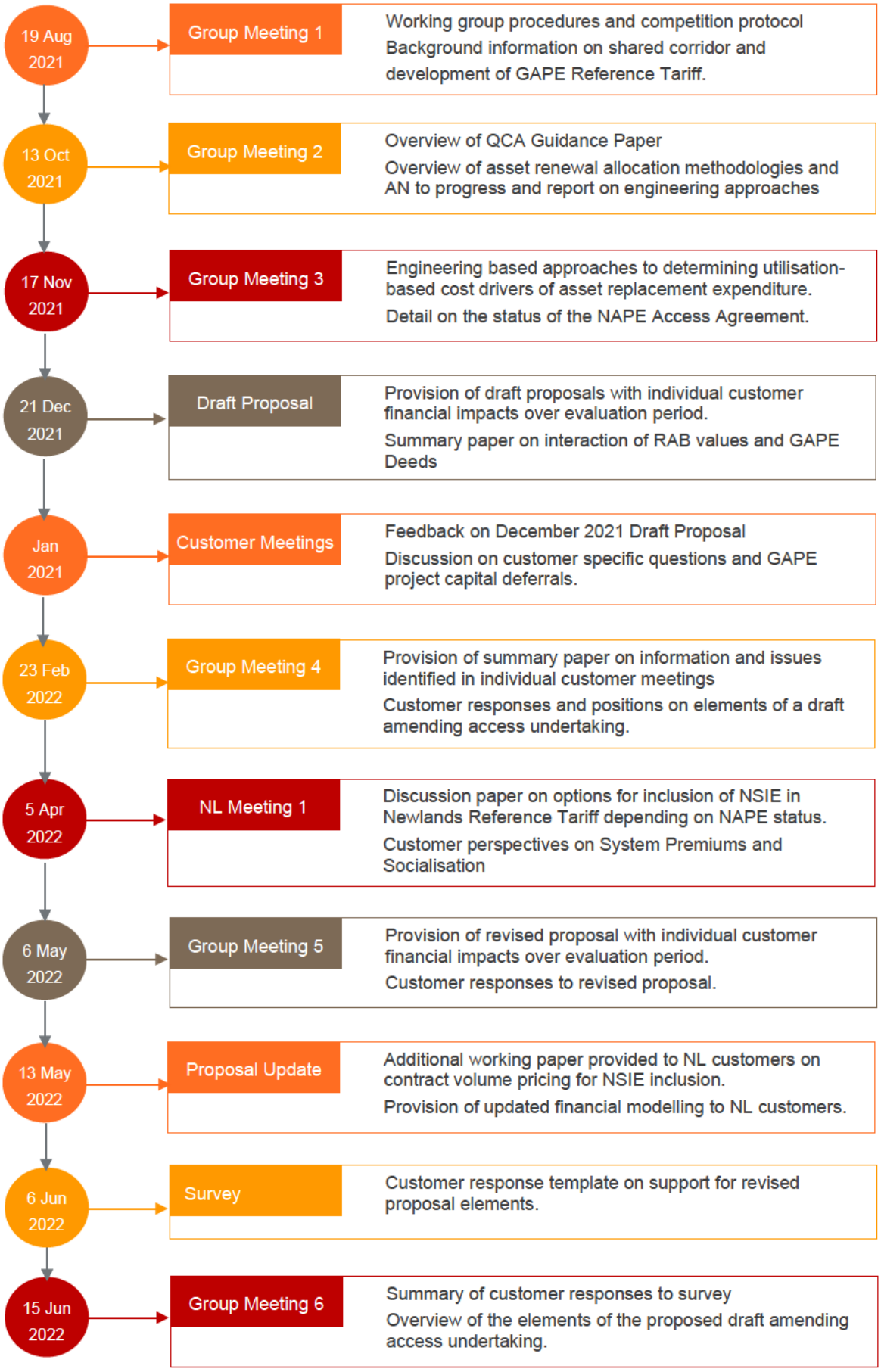
- The amount of deferred NSIE was increased to ~$60 million and was to be recovered from a NAPE Specific Reference Tariff with an additional true-up mechanism in the revenue cap for NAPE under and overs with the NAPE Specific Reference Tariff not including a contribution to common costs (effectively a default NAPE System); and

- Allocation of 100% of the rail renewals and ballast between coal systems based on forecast volumes for each system, subject to GAPE Customers collectively agreeing to relevant amendments to the GAPE Deeds.

[redacted]. These customers requested that Aurizon Network consider the additional option of socialising the amount of $46.9 million but set the System Reference Tariff based on the contracted Train Service Entitlements. Aurizon Network subsequently provided updated modelling to Newlands customers showing the impact of this revision.

On 6 June 2022, Aurizon Network issued a customer response template which sought to determine the strength of support, for the relevant elements of what Aurizon Network expected to include within a DAAU. The response template also noted that the DAAU would not include the revised proposal treatment of rerailing and ballast undercutting if agreement was not obtained to amend the GAPE Deeds as necessary and the DAAU would revert to the Draft Proposal treatment of these costs.

Figure 10. Newlands and GAPE Customer Engagement Activities



Aurizon Network held the final group meeting on 15 June 2022. At the meeting, Aurizon Network summarised the feedback received from customers and determined whether there was sufficient support to progress the relevant matters outlined in the DAAU. On balance, except for expensing re-railing and ballast undercutting to GAPE Customers, there was majority support indicated for the proposed positions. Where a matter was not strongly supported, it was generally because it had a negative financial impact specific to that customer. Aurizon Network also committed to include a worked example of the allocation methodology in this submission and to provide a copy of this submission to customers prior to lodgement with the QCA to assist in the early preparation of their submissions and to allow customers to request matters which should be claimed as commercial in confidence.

Proposed Amendments to Cost Allocation on the Newlands/GAPE Shared Rail Corridor

The proposed changes to the cost allocation methodologies for the shared rail corridor have been informed by customer engagement and are summarised below. The remainder of this section summarises the options that were considered as well as some of the considerations in determining the proposed changes.

Asset Renewals Allocations

- identify usage related asset renewals costs on the shared rail corridor using engineering based causative allocators of asset degradation (usage related costs);
- fixed costs (total asset renewal costs – usage related costs) are allocated to the relevant coal system RAB in which the replaced asset currently resides;
- separate rerailing and ballast undercutting costs from other usage related renewals costs and allocate based on the relative contribution of forecast gtk of each system for the relevant Year and:
    - include the allocation to the Newlands Coal System in the Capital Indicator; and
    - include the allocation to the GAPE Coal System in the Maintenance Indicator.

  For the avoidance of doubt, the percentage allocations are calculated on *forecast gtk* and are not subject to reconciliation against actual volumes. Where the total spend in the relevant Year varies from the sum of the forecast Capital Indicator and the forecast Maintenance Indicator, the applicable adjustments will apply through the revenue cap adjustment process (see Worked Example).
- allocate the other usage related renewals costs to the relevant coal system Capital Indicator based on the relative contribution of forecast gtk of each system for the relevant Year; and
- include prior year other usage related renewals costs in a shared asset corridor asset pool and allocated the associated allowable revenue to the relevant coal System Allowable Revenue based on the relative contribution of forecast gtk of each system for the relevant Year (see Worked Example).

  For the avoidance of doubt, the percentage allocations are calculated on forecast gtk and are not subject to reconciliation against actual volumes.

Deferred Newlands System Infrastructure Enhancements

- include $46.9 million from the deferred NSIE in the Newlands Pricing RAB and socialise in the Newlands System Reference Tariff;

- calculate the Newlands System Reference Tariff by setting the Forecast Gtk at contracted Train Service Entitlements less an allowance for Network Cause;
- include an additional $13.8 million from the deferred NSIE in the Newlands Pricing RAB as a System Premium recoverable solely from Train Services operating under the NAPE Access Agreement (with an offsetting reduction in the GAPE Pricing RAB);
- reduce the GAPE Pricing RAB by a further $13 million to remove the capitalised interest included in the NSIE associated with the Byerwen NAPE transfer to Byerwen GAPE;
- make appropriate adjustments to the GAPE and Newlands Coal System RAB roll-forward at the next RAB roll-forward submission following the DAAU approval date to account for costs previously recovered under the GAPE Deeds and not included in a Pricing RAB; and
- provide a one-off option for Newlands customers to relinquish Access Rights without the payment of a Relinquishment Fee where notification of intent to relinquish, subject to the QCA acceptance of setting the Forecast Gtk at contracted Train Service Entitlements less an allowance for Network Cause, is provided no later 28 October 2022.

Asset Renewals Allocations

The DAAU proposes to identify and allocate asset renewals based on usage related costs determined through a bottom-up engineering assessment of the drivers of asset renewals. Aurizon Network notes there is reasonably broad support from the Newlands and GAPE Customers for this approach. A range of allocation approaches were considered with the DAAU applying the combined approach of:

- identifying usage related asset renewals costs using a bottom-up engineering assessment of the drivers of asset renewals; and
- allocation of fixed (non-usage related asset renewals costs) renewals costs to their specific RAB.

A summary of the various allocation methods considered is summarised in Table 4.

Table 4. Approaches to Asset Renewal Allocation

Approach	Description	Applicability
Asset Specific Allocations	Asset renewals for shared infrastructure are allocated based on the respective incremental capacity. Asset renewals costs are allocated based on assigned assets for capacity tranches	Current approach to asset allocation on the shared rail corridor. Long-run efficient allocation where capacity tranches have comparable gross replacement cost per ntk.
Fully Distributed Cost Allocations	Simple allocator approach, typically applied to costs which are not identifiable or traceable to any particular user, or users (such as system wide and regional costs). Normally associated with promoting or achieving revenue adequacy.	Typically used for common revenue base with multi-part tariffs. Not applicable to split RAB/MAR on shared rail corridors. Not suitable for renewals allocations where costs are not fully attributable to utilisation. No clear efficiency objective and the allocators do not reflect the drivers of cost.
Econometric Methods	Top-down approach where econometric models are developed from timeseries data on network utilisation and asset replacement expenditure to quantify the	Requires large datasets with stable cost allocation assumptions and comparable

Approach	Description	Applicability
	costs of physical asset degradation with usage.	asset configurations, operations and standards[15]. Not considered suitable for Newlands shared corridor given lumpiness of historical capex, infrastructure enhancements and material change in use.
Causation Based Methods	A bottom-up approach which applies engineering considerations to determine the relative contribution of utilisation to the physical consumption of asset capability relative to other degradation factors (i.e. environmental, hydrology, chemical, etc).	As distance from wheel rail interface decreases then so too does cost variability with usage. Allows for engineering judgement Typically requires assessment against CQCN train dynamics and infrastructure standard.

In developing the engineering-based approach to determining usage related replacement costs, Aurizon Network has had regard to methods and allocations applied in other jurisdictions. For example, the Office of Rail Regulation has generally applied engineering-based assessments of variable rates for asset renewals in assessing variable usage charges. These have been supplemented with simulated wear rates obtained from Network Rail's Vehicle Track Interaction Strategic Model (**VTISM**). However, the VTISM is largely used for modelling track damage due to limitations on research on impacts of loads on substructures. Usage related impacts on substructures is also dependent on the distance from the ballast to the structure and load transfer will dissipate as that distance increases.

As a general principle, the proportion of costs of renewing an asset associated with usage will decline as the distance from the wheel rail interface increases. This is because the loading is dispersed and transferred from the contact point. This relationship is evident in the renewals % variable percentages by asset discipline reported by Booz All Hamilton[16] in Table 5.

Table 5. Renewals Extract from BAH Report on % Cost Variability

Asset	Component	% Variable
Track	Rail	95
	Sleepers	25
	Ballast	30
Signalling		0
Structures		10
Electrification	AC	35

[15] Worley Parsons (2008) Marginal Cost Variabilities: Contemporary and accepted theorems, Report Prepared for Aurizon Network. Available at https://www.qca.org.au/wp-content/uploads/2019/05/5792_R-AurizonR-Submissions-DAU13-0813-1.pdf .

[16] BAH (2005) Review of Variable Usage and Electrification Asset Usage Charges: Final Report, prepared for the Office of Rail Regulation, London, June, p. 20

Aurizon Network recognises the limitations of using renewals cost % variability estimates obtained from other jurisdictions with higher levels of passenger traffic and their applicability to heavy haul railways. The analysis undertaken by WIK Consulting[17] on the identification of incremental costs in the Hunter Valley Coal Network (**HVCN**) provides a relevant benchmark for the identification of usage related renewals costs on the Newlands shared rail corridor.

As part of the Australian Competition and Consumer Commission's (**ACCC**) assessment of the Australian Rail Track Corporations (**ARTC**) 2013 annual compliance review for the HVCN Access Undertaking, the ACCC commissioned WIK Consulting to undertake a review of the Zone 3 user's incremental costs of using Zone 1, and therefore the minimum revenue contribution Zone 3 users would be expected to make for the use of Zone 1. This report considered a range of costs including maintenance, minor capital expenditure (renewals) and major capital expenditure (expansions). For the purpose of this DAAU, Aurizon Network has considered only those elements of the WIK Consulting Final Report which are applicable to asset renewals expenditure. Aurizon Network notes that Zone 3 customer use of Zone 1 is comparable to GAPE Customers use of Newlands Coal System. However, there are also differences between the HVCN and the Newlands Shared Rail Corridor relevant to application of the assumptions used by WIK Consulting. These differences are summarised in Table 6.

Table 6. Differences between HVCN Zone 1 and the Newlands Shared Rail Corridor.

	HVCN Zone 1	Newlands
Expansion Costs	No prior allocation of expansion costs	Allocation of expansion costs to expansion customers
Pricing of Shared Assets	Fully socialised price	Separate system reference tariffs
Infrastructure Enhancements	Minor capex replacement of existing assets	Significant improvement in infrastructure standards.
Cost drivers	Zone 3 use of Zone 1 utilises lower axle load	All services operating to maximum axle loading.
Timing	Review only considered prior five years	~ 10 years since GAPE project completion.

Aurizon Network's review of the WIK analysis observes that it is a subjective exercise without citation of peer reviewed studies and nor is it an outcome of any detailed engineering assessment. Notwithstanding, Aurizon Network generally agrees with the practical approach applied by WIK Consulting to identification or assignment of an activity to percentage allocator including the modifications to the 25% steps applied by ARTC:

> *We agree with ARTC that the approach to apportion the variable resp. fixed costs in 25%-steps (i.e. assuming a cost variability of 0%, 25%, 50%, 75%, or 100%) to the different cost drivers and origins is practicable in general. But when reaching the limits it seems to be a too rough approach*

[17] WIK-Consult (2015) Assessment of the Incremental Costs of Pricing Zone 3 Access Holders' Use of Pricing Zone 1 and 2 of the Australian Rail Track Corporation's Hunter Valley Rail Network, Study for the Australian Competition and Consumer Commission, September, Available at https://www.accc.gov.au/system/files/WIK-Consult%20T%C3%9CV%20-%20Consultant%20report%20for%202013%20Annual%20Compliance%20%28PUBLIC%29.pdf

so that smaller steps were favoured. Hence in the limits, i.e. for very small fixed (variable) share: 90% and 10% were chosen.

Applying this approach results in the following percentage allocators and the nature of renewal activities associated with its application:

90% Direct wheel rail interface/high load bearing

75% Track componentry

50% Moderate level of usage related degradation

25% Low load bearing assets and time-based replacement

10% Civil sub-structures

0% No usage related degradation

Aurizon Network has evaluated the scope of asset renewal activities likely to be performed on the Newlands shared rail corridor and applied an appropriate variable cost % allocator to that activity. This exercise was informed by the allocations made by WIK Consulting to minor capital expenditure and the expert engineering judgement of Aurizon Network's asset managers. These variable cost % allocators are summarised in Appendix A. The proposed variable cost % allocators broadly align with the % allocators determined by WIK Consulting with the following exceptions:

- as Zone 3 operates at a lower TAL to Zone 1 and Zone 2 it is assumed that Zone 3 users do not contribute to formation and substructure degradation for their use of Zone 1. Consequently, WIK Consulting accepted ARTC's position that variable cost % for formation and substructures should be 0%. Aurizon Network has considered the nature of the operations on the shared rail corridor and its original design and construction and applied the following variable cost percentages:
- 75% variable cost % to formation (effectively the capping layer) renewals;
- 25% variable cost % to short span bridges and culverts constructed after 1982 where the distance between the ballast and the structure is less than 600 mm; and
- 10% variable cost % to short span bridges and culverts constructed before 1982 and short span bridges and culverts constructed after 1982 where the distance between the ballast and the structure is greater than 600 mm.

WIK Consulting applies a higher variable cost percentage of 50% for signal interlocking due to the assumption that the assets are either scalable or would be avoidable with a given change in volume. This is consistent with the scope of WIK Consulting's review to consider what costs might have been avoided without the growth in Zone 3 volumes. Aurizon Network considers changes in contracted volume which varies asset configurations is not a direct usage related cost and the primary driver of replacement of control system assets is technical obsolesce. Therefore, Aurizon Network proposes to apply a variable cost percentage of 25% to signal interlocking.

Aurizon Network has also made the distinction of pre and post 1982 construction periods for short span bridges and culverts as assets constructed prior to 1982 are assumed to be at or near the end of their operational and original design lives and therefore not an avoidable cost for Newlands customers. This primarily involves assets installed in the original Kali to Collinsville alignment prior to the Newlands mine extension and upgrades. While replacement of these assets may be necessary for continued operation of 26.5TAL, the root cause of the replacement is the asset condition associated largely with original design and environmental conditions.

These variable cost % allocators have been applied to the FY23 MRSB for the Newlands shared rail corridor (exclusive of the Goonyella to Newlands Connection) as shown in Table 7. This shows the total variable costs of $11.7m represents 52% of the total renewals budget of $22.5 million. As a reasonableness check, this percentage is compared with results reported in the literature on econometrics estimates. Smith et al (2017) report[18] that:

> *These studies have covered a range of European countries, and suggest that the marginal cost of rail infrastructure maintenance is in the region of 20-35% of maintenance costs (or up to 45% for heavily used sections). Wheat et. al. found that the available evidence was much less strong for renewals, though suggested an indicative overall cost variability proportion of around 35% of renewal costs. More recent evidence has put this at a higher level; at approximately 55%.*

The 52% variable cost proportion on the Newlands shared rail corridor is at the higher end of the reported range of 35-55% and greater than the estimate of 41% obtained by Anderson et al (2012)[19]

Table 7. Variable and Fixed Cost Proportions of Newlands Shared Corridor FY23 MRSB

Newlands / GAPE - FY23 Renewals Shared Rail Corridor (ex NML) ($m)	TOTAL ($m)	Variable Cost (%)	Variable Cost	Fixed Cost^
Total Civil Assets	18.8		11.4	7.4
Permanent Way Assets	5.1		4.5	0.6
Rail	1.2	90%	1.1	0.1
Track Upgrade	3.3	90%	3	0.3
Turnouts	0.6	75%	0.4	0.1
Ballast Cleaning	4.3		3.2	1
Ballast Undercutting	3.1	75%	2.3	0.8
Turnout Excavator Undercutting	0.4	75%	0.3	0.1
Bridge Ballast	0.9	75%	0.6	0.2
Structures	5.2		1.3	3.9
Other Structures (Short Span Bridges, RCBC) post 1982	5.1	25%	1.3	3.8
Civil Renewals	4.2		2.3	1.9
Formation	2.8	75%	2.1	0.7
Level Crossings	0.9	25%	0.2	0.7
Access Roads	0.2	0%	0	0.2
Corridor Security and Fencing	0.2	0%	0	0.2
Total Control Systems	3.7		0.3	3.4
Control Systems	2.4	0%	0	2.4

[18] Smith, ASJ, Iwnicki, S, Kaushal, A et al. (2 more authors) (2017) Estimating the relative cost of track damage mechanisms: combining economic and engineering approaches. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 231 (5). pp. 620-636

[19] Andersson, M., Smith, A.S.J., Wikberg, A., and Wheat, P.E. (2012), 'Estimating the marginal cost of railway track renewals using corner solution models', *Transportation Research Part A*, 46 (6), 954–964

Newlands / GAPE - FY23 Renewals Shared Rail Corridor (ex NML) ($m)	TOTAL ($m)	Variable Cost (%)	Variable Cost	Fixed Cost^
Interlocking Signalling	1.3	25%	0.3	1
TOTAL	**22.5**		**11.7**	**10.8**

Totals and subtotals may not add due to rounding
^ Fixed costs are total costs less variable costs

GAPE Treatment of Rerailing and Ballast Undercutting

This DAAU proposes to separately identify the re-railing and ballast undercutting costs on the shared rail corridor and apply a differential approach to GAPE and Newlands. As previously noted, these asset activities were classified as maintenance activities and expensed in the year incurred at the time the GAPE Coal System was established and Reference Tariffs commenced. [redacted]

Aurizon Network notes the economic principle that the service provider should only be able to recover the same costs only once in respect of the capitalisation of the deferred NSIE is equally applicable for the ability of Aurizon Network to recover other costs, such as re-railing and ballast undercutting. Aurizon Network's preference is to retain a consistent approach to the treatment of re-railing and ballast undercutting across all systems within the CQCN. However, to achieve this objective it would be necessary for those costs to be recoverable under the GAPE access arrangements via an amendment to the GAPE Deeds to allow for pass-through of the allowable revenue attributable to the capitalisation of those costs.

Where it is not possible to recover those costs under the terms of the GAPE Deeds without the required amendments, it would be necessary to either:

- retain the current capital allocation methodology which would allocate these costs to the relevant coal system RAB in which the replaced asset financially resides; or
- to change the regulatory approach to these costs and reclassify them back to a maintenance activity for the remaining duration of the GAPE Deeds.

As these costs were previously allocated to and recoverable from GAPE Deed Access Holders prior to the change in the regulatory framework, it is desirable that these costs are reflected within the GAPE Reference Tariffs and passed through the GAPE access arrangements. In addition, these activities have a high correlation with asset utilisation and therefore it is reasonable for Newlands System customers to expect costs that were previously being allocated to GAPE customers should not be included within the Newlands System Reference Tariff.

Aurizon Network shares the concerns of Newlands System customers regarding the unintended consequences associated with the reclassification of rerailing and ballast undercutting activities on the shared rail corridor from maintenance to capital. Therefore, this DAAU proposes to allocate the usage related component of rerailing and ballast undercutting activities on the shared rail corridor between the GAPE and the Newlands coal systems based on the relative forecast gross tonne kilometres for the relevant year where:

- allocations to the Newlands System will be capitalised into the Newlands RAB and included in the capital indicator; and
- allocations to GAPE System will be expensed as a maintenance activity and included in maintenance indicator.

This reclassification of rerailing and ballast undercutting as maintenance activities is applicable only to the allocations from the shared rail corridor. Rerailing and ballast undercutting activities on the dedicated Newlands to Goonyella Connection will continue to be capitalised.

The implication of this differential approach is that because costs are expensed to one system, a static allocation approach must be applied. That is, the variable cost component of these activities, once allocated, will not be included in the shared corridor asset replacement pool and subject to the annual review and allocation of associated allowable revenue as discussed later in this section.

Aurizon Network notes this approach is consistent with its legitimate business interests to be able to earn incremental revenue associated with the additional incremental costs of providing GAPE Train Services. This approach extends only to those costs and activities that Aurizon Network previously recovered under the commercially negotiated GAPE access arrangements. [redacted]

Tables 8 and 9 shows an example of how the rerailing and ballast undercutting costs will be allocated under this approach for the FY23 MRSB renewals activities where GAPE represents 62% of the shared rail corridor forecast gross tonne kilometres. This shows that approximately $2.7 million of the forecast cost of $4.7 million for rerailing and ballast undercutting activities will be allocated to GAPE and included in the maintenance indicator for that system.

Table 8. GAPE Rerailing and Ballast Undercutting Maintenance Indicator Allocations for FY23 MRSB

Activity	Forecast Cost ($m)	% Variable	$ Variable GAPE	GAPE Fixed %^	$ Fixed GAPE	GAPE MI ($m)
Rerailing	1.2	90%	0.7	97%	0.1	0.8
Ballast Undercutting	3.1	75%	1.4	23%	0.2	1.6
Turnout Undercutting	0.4	75%	0.2	67%	0.1	0.3
Total	**4.7**		**2.3**		**0.4**	**2.7**

^ Fixed % represents the percentage of the forecast scope which relates to assets in the GAPE RAB.

Table 9. Newlands Rerailing and Ballast Undercutting Maintenance Indicator Allocations for FY23 MRSB

Activity	Forecast Cost ($m)	% Variable	$ Variable Newlands	Newlands Fixed %^	Fixed Newlands ($m)	Newlands CI ($m)
Rerailing	1.2	90%	0.4	3%	0.0	0.4
Ballast Undercutting	3.1	75%	0.9	77%	0.6	1.5
Turnout Undercutting	0.4	75%	0.1	23%	0.0	0.1
Total	**4.7**		**1.4**		**0.6**	**2.0**

Procedures for Renewals Allocation

The allocation of asset renewals costs within the shared rail corridor involves additional procedures and complexity to account for:

- the differential treatment of the rerailing and ballast undercutting between the two system and its static allocation; and
- the dynamic allocation of the variable renewal costs included in the shared corridor replacement asset pool to account for expected variation in relative utilisation over time.

This section summarises the relevant allocation processes.

Step 1. Identify the RAB within which the replacement asset financially resides

This step establishes the percentages that will be applied in allocating the fixed costs to the relevant coal system in step 4.

Step 2. Determine the variable costs for each activity

This step applies the variable cost percentages in Appendix A to determine the variable cost for each asset activity as shown in Table 7.

Step 3. Allocate rerailing and ballast undercutting

This step separates the rerailing and ballast undercutting activities from the balance of the renewals scope and allocates as per the procedures described above and summarised in Tables 8 and 9.

Step 4. Allocate the fixed costs to the respective RAB

The fixed costs represent those costs that are not identifiable as being variable with usage and represent the residual of the total costs less variable costs for each activity. The fixed costs for each activity are then allocated to the relevant coal system based on the fixed cost allocators determined in Step 5 as shown in Table 10.

Table 10. Fixed Renewals Cost Allocation for FY23 MRSB

Newlands / GAPE - FY23 Renewals Shared Rail Corridor (ex NML) ($m)	TOTAL ($m)	Variable Cost (%)	Fixed Cost ($m)	GAPE Fixed %	GAPE Fixed ($m)	Newlands Fixed ($m)
Track Upgrade	3.3	90%	0.3	0	0	0.3
Turnouts	0.6	75%	0.1	0	0	0.1
Bridge Ballast	0.9	75%	0.2	0	0	0.2
Other Structures (Short Span Bridges, RCBC)	5.1	25%	3.8	0	0	3.8
Formation	2.8	75%	0.7	0	0	0.7
Level Crossings	0.9	25%	0.7	0	0	0.7
Access Roads	0.2	0%	0.2	0	0	0.2
Corridor Security and Fencing	0.2	0%	0.2	0	0	0.2
Control Systems	2.4	0%	2.4	0	0	2.4
Interlocking Signalling	1.3	25%	1	0	0	1
TOTAL	**17.7**		**9.7**		**0**	**9.7**

For the FY23 MRSB, the asset replacement expenditure associated with assets in the GAPE RAB is limited to rail renewal and ballast replacement expenditure. As such, the fixed costs, excluding these activities, are allocated to the Newlands RAB as shown in Table 10.

Step 5. Allocate the Forecast Variable Renewal Costs for Each Activity to the Relevant Coal System

The forecast variable costs for the forthcoming year, excluding the rerailing and ballast undercutting costs, are allocated to the relevant coal system capital indicator using that coal system's percentage of forecast gtk over the shared rail corridor.

Step 6. Allocate the Prior Year Variable Renewal Costs to the Relevant Coal System

The variable renewal costs associated with asset replacement expenditure in prior years is added to the shared corridor asset cost base. The allowable revenue for the forthcoming year attributable to the shared corridor asset cost base is then allocated to the System Allowable Revenue for the relevant coal system using that coal system's percentage of forecast gtk over the shared rail corridor.

For the purposes of this DAAU, there is no prior year variable renewal costs applicable to the FY23 reference tariffs.

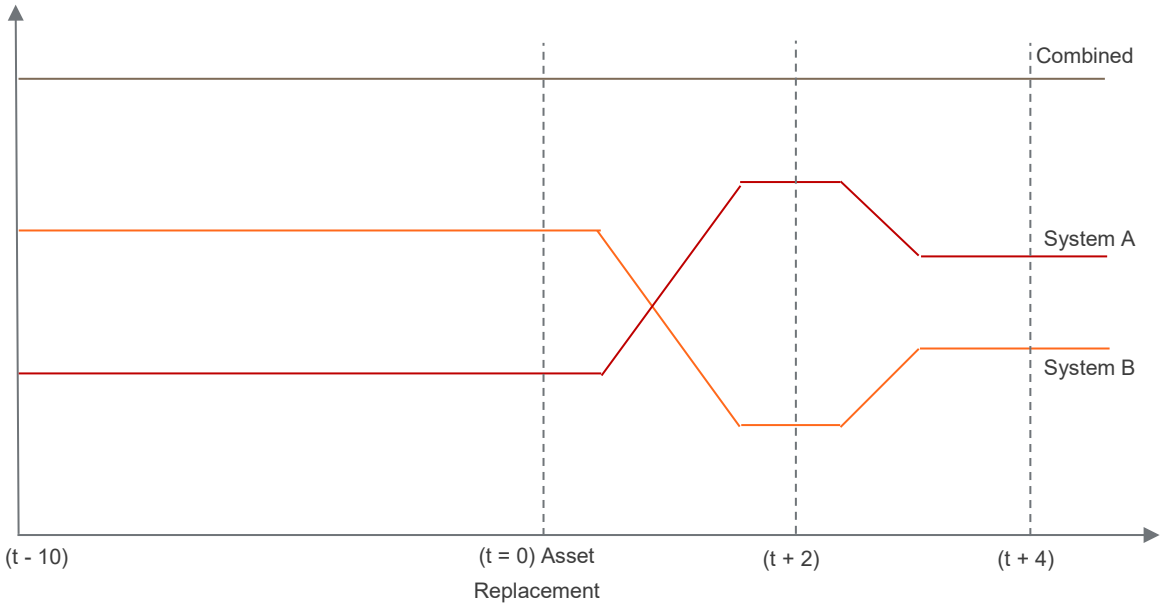
The procedure for the allocation of asset renewals expenditure described above establishes a shared corridor asset cost base which will comprise the variable cost percentage of asset renewals (excluding rerailing and ballast undercutting). The allowable revenue attributable to this shared corridor asset cost base will be allocated to the Newlands and GAPE Coal Systems each year as part of the Annual Review of Reference Tariff process with the amounts allocated to each system being proportional to the respective forecast gtk on the shared rail corridor for the relevant year. For the avoidance of doubt, forecast gtk is the expected railing and not the Forecast Gtk used to determine the Newlands Reference Tariff.

The objective of this allocation methodology recognises the substantial amounts of Newlands Coal System that is shared between GAPE and Newlands Access Holders. It also recognises that investment in asset replacement expenditure is funded directly through the capital component of access charges representing the return on and of capital. In particular, part of the depreciation expense is associated with the reduction in the economic value of the replacement asset associated with the physical degradation from usage. Therefore, the relative contribution to the degradation of the renewed assets may change as the relative forecast gtk between the two systems change. This was recognised by the QCA in its UT5 final decision to capitalise ballast undercutting renewals:

> *Intertemporal concerns are not isolated to ballast undercutting renewals. For example, the cost of wear and tear on rail by current users, is passed onto future users through the rail renewals program which is classified as capital expenditure. Regardless of this, rail renewal extends the useful life of the asset and if it were to be classified as maintenance, today's users would effectively subsidise future users by bearing the full costs of an asset that will also be used by the latter.*

This principle can be shown in the simple example in Figure 11 where an asset is replaced at time t = 0. If the costs are statically allocated on the basis of relative utilisation at the time of the investment, then users in System B would receive a larger allocation. However, if after two periods there is a material change in relative utilisation, then users in System B would be contributing a larger proportion to the funding of the replaced asset. By dynamically allocating costs based on relative utilisation over time, this improves the alignment between how the asset replacement expenditure is funded and the relativity of how users are contributing to the physical degradation of the asset through usage. Under a common system price for all users of the shared rail corridor, these allocations would occur through the access price and tariff structure.

Figure 11. Indicative Representation of Intertemporal Changes in Utilisation of Shared Assets



Worked Example of Allocation Process

This worked example applies the allocation procedures described above to the FY23 formation renewals amounts of $2.8 million.

The relevant inputs are:

Total Cost:	$2.8 million
Variable Cost %:	75%
Variable Costs:	$2.1 million
Fixed Costs:	$0.7 million
Newlands Fixed %:	100%
Newlands Fixed Cost:	$0.7million
Newlands Forecast Gtk %:	38%

As summarised in Table 11, this results in an allocation of formation renewals of $1.5 million and $1.3 million to FY23 Newlands and GAPE capital indicators respectively.

Table 11. FY23 MRSB Formations Renewals Capital Indicator for GAPE and Newlands Coal System

$millions	Newlands ($m)	GAPE ($m)	Total ($m)
Variable Costs	0.8	1.3	2.1
Fixed Costs	0.7	0.0	0.7
Capital Indicator	**1.5**	**1.3**	**2.8**

The current capital expenditure approval process involves a gap of one year in-between:

- the year expenditure is to be incurred and reflected in the capital indicator for that year (and in the allowable revenue for subsequent years); and
- the year when the reconciliation of the difference between the capital indicator and the approved capital expenditure is recovered/returned in allowable revenues.

As the approval of capital expenditure incurred in FY23 is assumed to occur within the FY24 period, the Annual Review of Reference Tariffs for the FY24 year will adjust the allocations of the shared corridor asset cost base between the two systems based on the forecast gtk for that year. For example, if the Newlands forecast gtk increased to 45% of the total gtk forecast in FY24, then the amount of allowable revenue associated with the variable costs of $2.1m would be increased to reflect the expected higher relative shared corridor utilisation of Newlands Train Services in that year.

Where the amounts approved by the QCA differ from the capital indicator, including cost and scope, this will be reconciled through the capital expenditure reconciliation process outlined in section 5 of Schedule E and reflected in the Allowable Revenues in FY25 as a Capital Expenditure Allowable Revenue Adjustment.

For example, assuming the actual approved formation renewal expenditure is higher than the capital indicator and included replacement of some GAPE RAB asset, then the revised inputs become:

Total Cost:	$3.0 million
Variable Cost %:	75%
Variable Costs:	$2.25 million
Fixed Costs:	$0.75 million
Newlands Fixed %:	91%
Newlands Fixed Cost:	$0.68 million
GAPE Fixed Cost:	$0.07

The actual allocations for FY23 are then adjusted (as summarised in Table 12) and the capital allocations for FY23 and the corresponding adjusted volume variable cost adjusted allocations for FY24 are reconciled in FY25 allowable revenues.

Table 12. FY23 Indicative Approved Capital Expenditure and adjusted allocations

	Newlands ($m)	GAPE ($m)	Total ($m)
Variable Costs	0.85	1.40	2.25
Fixed Costs	0.68	0.07	0.75
Capital Allocation	**1.53**	**1.47**	**3.00**
Variance to CI	+ 0.03	+ 0.17	+ 0.20

For the years FY26 and FY27, the assets included in the shared corridor asset cost base associated with the FY23 variable cost allocations is allocated to the respective coal system on the basis of forecast relative utilisation of the shared rail corridor for those years.

This procedure is replicated each year with the variable cost allocations for the shared rail corridor included in shared corridor asset cost base accruing in the RAB roll-forward and allocated between the Newlands and GAPE Coal Systems based on forecast relative utilisation. Reconciliations for the capital indicators for FY26 and FY27 will be dependent on the terms of the Access Undertaking applicable beyond the term of UT5.

Deferred Newlands System Infrastructure Enhancements

The NSIE associated with the non-Byerwen NAPE have not been included in the Newlands Pricing RAB since the QCA approval of both the capital expenditure claim for the GAPE Project and the project cost allocations between GAPE and NAPE. These amounts have been included in the Newlands RAB Roll-forward and indexed annually by the approved WACC.

This DAAU therefore addresses the following matters related to these capital deferrals:

- The relevant amount that should be included in a Reference Tariff;
- How those amounts should be reflected in one or more Reference Tariffs; and

- Other relevant matters arising from capital deferrals.

Amounts included in a Newlands Reference Tariff

In determining the amount of the deferred NSIE that should be included in a Reference Tariff, Aurizon Network has had regard to the guiding principle that it should not obtain a windfall gain or loss associated with the interaction of the regulatory pricing framework and commercially negotiated access arrangements. A windfall gain or loss may arise where there is change in the regulatory framework that wasn't anticipated by either party when negotiating the access arrangement and there is no complimentary change made to those access arrangements, or vice versa. A detailed summary of the interaction of the GAPE access arrangements and the regulatory framework is provided in the confidential Appendix B.

Aurizon Network notes that, setting aside the commercially negotiated GAPE access arrangements, under the current regulatory framework it would be in Aurizon Network's legitimate business interests and necessary to satisfy the NPV >= 0 principle for the full value of the deferred NSIE in the Newlands RAB Roll-Forward to be included in a Reference Tariff (as has occurred with WIRP and Byerwen (NAPE) deferrals). However, the deferred NAPE NSIE amounts also need to be adjusted to account for contributions to the NSIE that Aurizon Network may have recovered under the commercially negotiated GAPE access arrangements. This is consistent with economic principles in the matters the QCA must consider in making an access determination in section 120(1) of the QCA Act, including have regard to:

> *the economic value to the access provider of any extensions to, or other additional investment in, the facility that the access provider or access seeker has undertaken or agreed to undertake.*

In addition to this clause, among the matters the QCA might have regard in determining whether to approve this DAAU is clause 6(4)(j) of the Competition Principles Agreement which requires a state based access regime should be consistent with the requirement that:

> *(j) The owner may be required to extend, or to permit extension of, the facility that is used to provide a service if necessary but this would be subject to:*
>
> *(i) such extension being technically and economically feasible and consistent with the safe and reliable operation of the facility;*
>
> *(ii) the owner's legitimate business interests in the facility being protected; and*
>
> *(iii) the terms of access for the third party taking into account the costs borne by the parties for the extension and the economic benefits to the parties resulting from the extension.*

[redacted] The relevant counterfactual in determining what amounts of deferred NSIE should be included in a Reference Tariff is what the RAB roll-forward value would be in the relevant year if the assets had been included in a Reference Tariff and depreciated on the same basis as the assets included in the GAPE Pricing RAB. This amount is effectively the depreciated value of the undepreciated GAPE Project Costs allocated to the NAPE Deed and included in the Newlands RAB Roll-forward. As of 1 July 2022, the equivalent regulatory depreciated value of the deferred NSIE which Aurizon Network proposes to include in a Reference Tariff is $46.9 million.

The use of the equivalent regulatory depreciated value also ensures that Newlands Access Holders are not directly impacted by the timing of the inclusion of the deferred NSIE as the amounts exclude capitalised interest and accumulated depreciation (i.e. the amount in Newlands Pricing RAB as at 1 July 2023 would be $46.9 million regardless of whether the amounts are included from 1 July 2022 or if the

relevant depreciated value had been included from the commencement of UT5). As the residual amounts in the Newlands RAB Roll-forward would then not be related to GAPE project costs previously recovered through either the regulated price or the commercially negotiated GAPE access arrangement or as reflected in the relevant GAPE and Newlands Pricing RABs as of 1 July 2022, it will be necessary to make adjustments to the Newlands RAB roll-forward to exclude these amounts from the RAB Roll-forward. Aurizon Network proposes to make the necessary adjustments to the first RAB roll-forward report submitted to the QCA under clause 1.3(b) Schedule E following approval of the DAAU.

Options to include in a Reference Tariff

Aurizon Network has considered and consulted with Newlands and GAPE Customers on alternate options for the inclusion of the deferred NSIE in a Reference Tariff. These options are summarised in Table 13.

Table 13. Options for inclusion of the deferred NSIE

Option	Description	Issues
GAPE Reference Tariff	Some stakeholders recommended these amounts could be included in the GAPE Reference Tariff	This position is not supported as it would: • [redacted] • have the effect of further increasing access costs to some GAPE customers from an increased Reference Tariff.
NAPE System	Establish a dedicated NAPE coal system with independent volume forecasts, price, take or pay and revenue cap.	This position is not supported as it would: • be inconsistent with the expectations of the relevant parties and the pricing arrangements prevailing at the time of the commercial negotiation; • not consider the benefits accruing to new coal carrying train services from the infrastructure enhancements and the consequential indirect benefits to legacy Newlands mines from those additional volumes.
Modified System Premium	Establish an Expansion Tariff for the Train Service Entitlements operating under the NAPE Access Agreement with no contribution to common costs. Revenue amounts attributable to the included NSIE recovered from forecast volumes with overs and unders adjustments in the annual review of Reference Tariff.	This position is not supported as it may: • [redacted] • not consider the benefits accruing to new coal carrying train services from the infrastructure enhancements and indirect benefits to legacy Newlands mines.
Full Socialisation	Include the full amount in the common system reference tariff	This position is partially supported as it:

Option	Description	Issues
	and continue to price on forecast volumes.	• Socialises volume risk to all system users who will benefit from the additional contracted Access Rights and efficiency benefits from the infrastructure enhancements; • Primarily negatively impacts the Newlands mines with the longest haulage distances without a corresponding increase system throughput (additional revenue requirement is not matched by additional tonnage).
Partial Socialisation	Include the full amount in the common system Reference Tariff and set the system volume forecast to the contract volumes less allowance for Network Cause.	This is the preferred position as it: • Allows for socialisation of the NSIE to recognise benefits that accrue to all users in the Newlands Coal System; • Provides a proportional increase in contracted Access Rights to compliment the increase in the Pricing RAB and System Allowable Revenue.

Currently, System Forecasts for Reference Tariff determinations in the CQCN are set with reference to forecast demand with the objective of Access Charges payable for that forecast demand being sufficient to achieve the annual allowable revenue requirement. This model provides for socialisation of contract utilisation risk between Customers within an individual Coal System. However, it also assumes that Customers do not systemically underperform against those contract entitlements and that any benefit in one year from lower utilisation would be offset by an increase in a subsequent year.

Aurizon Network has evaluated the circumstances which would support the implementation of contract volume-based pricing in the Newlands Coal System while other coal systems retain, at least at this time, pricing based on forecast volumes. Aurizon Network considers that implementation of contract volume pricing concurrently with the inclusion of the NSIE amounts in a Newlands Reference Tariff can be supported on the following principles.

Access Holders have affirmed their access requirements through the ICAR process

Access Holders were given the opportunity through the Independent Capacity Assessment Review process to relinquish Access Rights (without being required to pay a relinquishment fee) to address an Existing Capacity Deficit (**ECD**). Where an Access Holder has elected to pass on that opportunity it is assumed the Access Holder has a sustained requirement to utilise those Access Rights and implicitly accepts the financial liability associated with that capacity commitment. This is particularly relevant where the costs of partially rectifying an ECD may be funded solely by another Coal System.

Inclusion of the Deferred Newland System Infrastructure Enhancements

Shifting from forecast volumes to contract volumes for the System Forecast concurrently with the inclusion of the deferred NSIE ensures there are incremental contract tonnes attributable to the incremental revenue associated with its inclusion. This assists in ameliorating the impact of the inclusion on the socialised System Reference Tariff.

Multiple access agreements and tariffs for the same Train Services

One or more Access Holders may, or could, hold Access Rights for the same load or entry point under multiple Access Agreements with differential prices. Setting the System Reference Tariff based on contract volumes avoids incentives to shift or rail tonnes between Access Agreements with the intention of obtaining more favourable commercial outcomes.

Access Holders can manage any financial exposure through short term transfers

Where there is demand for additional Access Rights above the current committed capacity levels, then an Access Holder who expects they will materially underutilise contracted Access Rights can mitigate that financial exposure to take or pay through short term transfers.

Concentration of Access Rights

In larger coal systems with multiple Access Holders and multiple mines, there are greater volume risk diversification benefits associated with setting Reference Tariffs on forecast volumes. In contrast, for smaller coal systems such as Newlands, the concentration of Access Rights with a smaller number of Access Holders means the diversification benefits are less prominent and systemic underperformance can alter the relative contribution Access Holders make to the costs of providing the declared service within that coal system.

For the avoidance of doubt, the above conditions, in aggregate, are specific to the Newlands Coal System while it remains a separate system to the GAPE Coal System and is not an endorsement of the application of setting Reference Tariffs on contracted volumes in other Coal Systems.

The use of contract volumes is for the purpose of determining the inputs for the System Reference Tariff and the System Forecast Gtk only. For all other purposes, including cost allocations by coal system, this will continue to use forecast demand. This is particularly important while other coal systems retain the current approach of determining Reference Tariffs based on forecast demand.

In setting the System Reference Tariff on contracted services levels, this involves additional financial risks to Aurizon Network including:

- a larger revenue shortfall at the end of the financial year due to the loss of take or pay income from Aurizon Network Cause (including Force Majeure (**FM**) events); and
- lower cash flow over the course of the relevant year where actual volumes are less than contract volumes.

In infrastructure frameworks where prices are set on contract volumes, such as DBCT's Standard Access Agreement and ARTC's HVCN Access Agreement, these risks are normally managed through the payment of fixed take or pay amounts on a monthly basis. However, this would require modification to the take or pay arrangements in the CQCN Standard Access Agreement which applies to all coal systems. Therefore, Aurizon Network proposes to assume the impact to the timing of cash flows from the implementation of contract volume pricing within the Newlands system.

To account for the expected revenue impact of Aurizon Network Cause, Aurizon Network proposes to adjust the contract volumes to include an allowance for Aurizon Network Cause. Table 14 shows the Aurizon Network Cause percentages (below rail cancellations and FM events for the Newlands Coal System and the relevant average values).

Table 14. Newlands Network Cause Percentages

Financial Year	Network Cause (% of Contracted Services)
FY17	7.0%
FY18	1.6%
FY19	7.6%
FY20	2.8%
FY21	2.3%
FY22 Forecast (May 22)	5.9%

The average percentage of contracted services lost to Aurizon Network Cause in the Newlands Coal System, as recorded in annual take or pay calculations, is ~4.5%. The average over the last three years, inclusive of year to date is 3.7%. In periods without FM events, Aurizon Network Cause would be expected to be in the range of 1.5% to 2.5%. As the objective of the volume forecast is for the actual revenue to match the target revenue, an allowance should be made for Aurizon Network Cause inclusive of FM events. Therefore, Aurizon Network proposes to apply a 3.5% allowance for Aurizon Network Cause in FY23. This effectively reduces the System Forecast Gtk used to determine the FY23 Newlands System Reference Tariff to 96.5% of contracted Train Service Entitlements.

Option to Relinquish Contractual Entitlements

Aurizon Network recognises that while Newlands customers were provided the opportunity to relinquish Access Rights without the payment of Relinquishment Fees where this would contribute to a reduction in the ECD, a decision to not relinquish will have assumed no financial risk to the Access Holder from a change in the system forecasts from forecast demand to contracted demand. Under the former, the costs of holding Access Rights above real demand are effectively transferred to other system users through increased Reference Tariffs. Therefore, the incentives to relinquish Access Rights under the ICAR process were not as strong as those which might prevail with a change in the volume forecast methodology to contracted volumes.

Aurizon Network proposes additional amendments to UT5 to allow a Newlands Access Holder to relinquish Access Rights without incurring a Relinquishment Fee associated with the inclusion of the deferred NSIE in a Newlands Reference Tariff that is determined with reference to aggregate contracted Train Service Entitlements. This option must be exercised by:

- the Access Holder issuing Aurizon Network a notice to relinquish Train Service Entitlements under the terms of their access agreement subject to the QCA's acceptance of this DAAU; and
- issuing that notice no later 28 October 2022.

The latter condition is necessary to ensure the relinquishments are related specifically to the change to contract volume pricing and that any relinquished volumes are reflected in the contract volumes used to determine the revised FY23 Reference Tariff. This also avoids any additional revenue risk to Aurizon Network associated with a revenue shortfall arising from relinquishment of surplus Access Rights after the FY23 Reference Tariff has been determined. The alternate option to addressing this concern would be to allow for the notice of relinquishment to be issued after approval of the DAAU and limit relinquishment to years following the year of introduction of contract volume pricing.

The one-off basis for relinquishment arises solely from the implementation of the contract volume pricing and is not intended to form part of the transitional arrangements associated with the addressing the ECD. Notwithstanding, where an Access Holder relinquishes capacity through this repricing scheme, the

previously Committed Capacity associated with the relinquished Access Rights will not be Available Capacity for contracting new or additional Access Rights. Aurizon Network considers this does not affect the rights or interests of Access Seekers seeking new or additional Access Rights on the Newlands shared rail corridor as:

- without the introduction of contract volume pricing Access Holders had weak financial incentives to relinquish and therefore the Committed Capacity would be unlikely to have been relinquished (as evidenced by the ICAR responses);
- if it was in the commercial interests of the Access Holder to do so then it would transfer the Access Rights to an Access Seeker relative to the alternative of relinquishment;
- a comparable outcome would prevail should Aurizon Network issue a notice of resumption and the Access Holder cannot demonstrate sustained demand for the unused portion of Access Rights;
- the timing of the notice of intention to relinquish is expected to occur prior to the determination by the QCA of the relevant Transitional Arrangements required to most efficiently and effectively resolve the ECD; and
- depending on the location of the origin for the relinquished Access Rights and the expected origin for the Access Seeker's new or additional Access Rights an additional Expansion in excess of those identified in Aurizon Networks' detailed response to the ICAR may be necessary to grant conditional Access Rights.

Application of a NAPE Specific System Premium

As noted in the discussion above, setting aside the commercially negotiated GAPE access arrangements, Aurizon Network would be expected to earn revenue commensurate with the recovery of the full value of the deferred NSIE in the Newlands RAB Roll-forward inclusive of capitalised interest. [redacted] urizon Network proposes to include an additional amount of $13.8 million of the deferred Newlands System Infrastructure Enhancement in the Newlands Pricing RAB which will be recovered through a system premium applied to the Newlands System Reference Tariff to establish a dedicated Newlands Reference Tariff for Access Rights under the NAPE Access Agreement (**NAPE System Premium**).

[redacted]

Aurizon Network considers the inclusion of this amount and its recovery as a dedicated NAPE System Premium is supported by most GAPE Customers and is consistent with:

- an efficient price as the costs are directly attributable to the allocations made to the NAPE Deed and non-NAPE volumes in the Newlands Coal System should not be required to contribute to more than the depreciated value of the project cost allocations; and
- the principle of equity and fairness in that the costs associated with the delayed inclusion in a Newlands Reference Tariff have been primarily incurred by GAPE Customers under the GAPE access arrangements.

As the additional amount is attributable to the contracted volumes under the NAPE Access Agreement, this does not impose any barriers to transferring Access Rights under that access agreement, where the Access Holder is permitted to do so. The transferred Access Rights would be subject to the relevant Newlands System Reference Tariff and under the contract volume pricing arrangements, the NAPE System Premium would adjust to reflect the lower contracted volumes under the NAPE Access Agreement.

To ensure the inclusion of this amount in a NAPE System Premium does not conflict with the principle that Aurizon Network should not recover the regulatory depreciated project costs more than once, Aurizon Network proposes to make a corresponding reduction in the GAPE Pricing RAB of $13.8 million. [redacted]

Removal of Byerwen (NAPE) Capitalised Interest

During the consultation process with GAPE stakeholders and following discussions on the deferred NSIE, concerns were expressed as to whether the amounts that were transferred from the Newlands RAB Roll-forward to the GAPE RAB roll-forward with the transfer of Byerwen NAPE to Byerwen GAPE might also include capitalised interest amounts that were previously recovered under the GAPE access arrangements. [redacted] Notwithstanding, Aurizon Network has proposed, as part of this overall package of adjustments in this DAAU, to remove the impact of prior indexation of the Byerwen NAPE project cost allocations at the approved WACC now, rather than to defer consideration to the end of the GAPE Deed and evaluate the extent to which this amounts offsets other economic costs to Aurizon Network under those access arrangements.

Aurizon Network also notes that making the adjustment now reduces the negative financial impact to the GAPE customers from the increase in GAPE Reference Tariffs associated with the proposed changes in the asset renewals allocation methodology. Further, the adjustment does not impact the amounts Aurizon Network is entitled to collect under the GAPE access arrangements over the remaining term of those agreements.

Private Incremental Costs

This DAAU does not address the impact of any prospective discount to a relevant Reference Tariff that might be applied where the QCA approves a value for Private Incremental Costs for the CRN railway under clause 6.3.2 of UT5. As at the time of preparation of this DAAU, the QCA has not approved any Private Incremental Costs for those services and therefore the value of Private Incremental Costs applied in the calculation of Newlands Reference Tariffs in this DAAU is 0.

Revised Schedule F Values for FY23 and other amendments

The following tables summarise the variances between the approved FY23 AART values and the proposed FY23 values in this DAAU for:

- Newlands and GAPE System Allowable Revenues;
- Newlands volume forecasts (GAPE volume forecasts are unchanged); and
- Newlands and GAPE Reference Tariffs.

Table 15 FY23 System Allowable Revenues ($millions)

Coal System	FY23 ARRT	FY23 DAAU	Variance
Newlands ^	29.6	37.4	7.87
GAPE	107.8	106.1	(1.7)

^ Allowable revenue associated with the NAPE System Premium

Table 16 FY23 Newlands Volume Forecasts

Volume Metric	FY23 ARRT	FY23 DAAU	Variance
Net Tonnes	17.1	20.4	3.3
System Gtk Forecast (000s)^	3,914,712	4,403,753	489,040

^ The FY23 ARRT System Gtk Forecast is used for renewals allocations

Table 17 FY23 GAPE System Reference Tariffs

	AT1	AT2	AT3	AT4
FY23 ARRT	1.57	15,464.32	0.17	1.05
FY23 DAAU	1.57	15,464.32	0.31	0.93
Variance	--	--	0.14	(0.12)

Table 18 FY23 Newlands System Reference Tariffs

	AT1	AT2	AT3	AT4
FY23 ARRT	1.95	333.12	5.90	0.79
FY23 DAAU	1.95	333.12	6.28	0.79
Variance	--	--	0.39	000

Table 19 FY23 NAPE System Premium and Reference Tariff

	AT1	AT2	AT3	AT4
NAPE System Premium	--	--	2.39	0.27
NAPE Reference Tariff	1.95	333.12	8.67	1.06

Amendments to facilitate Relinquishment of Access Rights

The following amendments are proposed to allow Newlands Access Holders to relinquish surplus Access Rights in response to the change in the volume forecasting methodology for the System Forecast Gtk from forecast demand to contracted Train Service Entitlements less a 3.5% allowance for Aurizon Network Cause.

Amend clause 7.4.8(d)

(d) Subject to **clause 7.4.8(m)** and **clause 7A.5**, Aurizon Network must:

(i) calculate the fee payable to Aurizon Network in respect of the relinquishment of the Nominated Access Rights (**Relinquishment Fee**); and

(ii) notify the Access Holder of the amount of the Relinquishment Fee and how the Relinquishment Fee was calculated, including details of any assumptions made when calculating the Relinquishment Fee and reasons for those assumptions,

at the following times:

(iii) if the Access Holder is considering relinquishing some or all of the Access Rights but has not given Aurizon Network a Notice of Intention to Relinquish in respect of those Access Rights, promptly following a request by the Access Holder; and

(iv) if the Access Holder has given Aurizon Network a Notice of Intention to Relinquish, not less than five (5) Business Days before the Relinquishment Date.

Insert new clause 7.4.8(m)

(m) If:

(i) an Access Holder holds Access Rights that are subject to the System Reference Tariff for the Newlands System;

(ii) the Access Agreement under which those Access Rights are held entitles the Access Holder to relinquish any of its Access Rights; and

(iii) on or before 28 October 2022, the Access Holder issued a Notice of Intention to Relinquish that was conditional on the following provisions in the GAPE Newlands Pricing 2022 DAAU being approved by the QCA:

(A) the one-off relinquishment provisions; and

(B) the application of contract volume pricing in the Newlands System,

then the Access Holder will not be required to pay a Relinquishment Fee that would otherwise be payable as a result of such relinquishment under its Access Agreement.

Amend Schedule F clause 4.3(h) – Calculation of Revenue Adjustment Amounts

Where an Access Holder is not required to pay a Relinquishment Fee under **clause 7.4.8(m)** or **clause 7A.5(a)(iii)** of the Undertaking, the Relinquishment Fee that would otherwise have been payable but for **clause 7.4.8(m)** or **clause 7A.5(a)(iii)** of the Undertaking, will not be included in the calculation under **clause 4.3(d)(ii)**.

Insert new subclause in Schedule F clause 10.3 – Gtk Forecast and Allowable Revenues

The Gtk Forecast for the Newlands System from 2022/23 will be determined as 96.5% of the aggregate gtk of all relevant Train Service Entitlements that are subject to the Reference Tariffs in clause 10.2(a).

Amendments to Allocate Newlands Shared Corridor Asset Renewals

Insert new clause Schedule F clause 4.1(b)(vii)(G) – Annual review of Reference Tariffs

(G) for the Year commencing 1 July 2024 and each subsequent Year, the relevant revised Gtk Forecasts and the Gtk Forecasts for:

(1) the Newlands System; and

(2) the proportion of the Goonyella to Abbot Point System associated with the use of the Newlands System,

used for the purpose of determining the allocation to the Reference Tariffs for the Newlands System and the Goonyella to Abbot Point System of the Allowable Revenue attributable to Newlands Shared Rail Corridor Replacement Assets.

Insert new definitions in Part 12 Definitions and Interpretation:

GAPE Newlands Pricing 2022 DAAU means:

Aurizon Network's Draft Amending Access Undertaking submitted to the QCA on # August 2022 in relation to the inclusion in the System Reference Tariff for the Newlands System of additional amounts that are in the Regulatory Asset Base.

Newlands Shared Rail Corridor Replacement Assets means:

That part of the Regulatory Asset Base associated with Asset Replacement and Renewal Expenditure in the Newlands System which has been determined by Aurizon Network as being consistent with the renewals allocation methodology in the GAPE Newlands Pricing 2022 DAAU.

Amendments to RAB Roll-Forward Provisions in Schedule E

Insert new clause 1.3(ba)

Unless otherwise agreed between Aurizon Network and the QCA, when separately reporting the roll-forward of the Regulatory Asset Base in accordance with clause 1.3(b), capital expenditure on the Rail Infrastructure in the Newlands System will be included in the Newlands System and the Goonyella to Abbot Point System consistent with the methodology in the GAPE Newlands Pricing 2022 DAAU.

Insert new clause 1.3(bb)

On the first roll-forward date of the Regulatory Asset Base following the QCA approval of the GAPE Newlands Pricing 2022 DAAU, Aurizon Network will adjust the reported opening value of the Regulatory Asset Base for the Newlands System and the Goonyella to Abbot Point System to exclude those amounts which has been determined by Aurizon Network consistent with the methodology in the GAPE Newlands Pricing 2022 DAAU, other than any amounts relating to remote control signalling on the Goonyella Newlands Connection, which are not used in the calculation of Reference Tariffs for that Year.

Appendix A - Asset Renewals Proposed Cost Variability %

Discipline	Asset Type	Asset Type/Description	% Variability	WIK
Ballast	Ballast	Mainline Undercutting	75%	75%
Ballast	Ballast	Turnout Undercutting	75%	75%
Ballast	Ballast	Bridge Ballast	75%	75%
Civil	Formation	Formation	75%	0%
Civil	Formation	Design	75%	N/A
Civil	Turnout	Turnout	75%	75%
Civil	Turnout	Turnout Component Replacement - Civil	75%	75%
Civil	Turnout	Turnout Component Replacement - Points and Motors	75%	75%
Civil	Turnout	Design	75%	N/A
Track	GIJ	Glued Insulated Joint	90%	N/A
Track	Rail Curve	Rail Curve	90%	90%
Track	Rail Straight	Rail Straight	90%	90%
Track	Sleepers	Sleepers and jewelery	75%	75%
Civil	Level Crossing	Level Crossing Civil Works	25%	25%
Civil	Level Crossing	Design	25%	N/A
Control Systems	Signalling Interlocking	Signalling Interlocking, Relays to Processor Based Interlocking, Diagnostic Computers	25%[1]	50%
Structures	Bridge	Bridge Bearing	25%	25%
Structures	Bridge	Bridge Strengthening - Design	25%	25%
Structures	Bridge	Bridge Strengthening - Renewal	25%	25%
Structures	Bridge	Bridge Short Span - Design	25%	25%
Structures	Bridge	Bridge Short Span - Renewal [post 1982 install date]	25%	N/A
Structures	Culvert	Culvert Renewal [post 1982 install date] and < 600 mm formation depth	25%	0%

Discipline	Asset Type	Asset Type/Description	% Variability	WIK
Structures	Culvert	Culvert Renewal [post 1982 install date] and > 600 m formation depth	10%	0%
Track	Rail Lubricator	Rail Lubricator	50%	50%
Ballast	Ballast	Ground Penetrating Radar (GPR)	0%	N/A
Civil	Access Points	Access Points	0%	0%
Civil	Access Roads	Access Roads	0%	0%
Civil	Corridor Security & Fencing	Corridor Security & Fencing	0%	0%
Civil	Formation	Earthworks (Cutting / Embankments)	0%[2]	N/A
Control Systems	Asset Protection Equipment	Integrated Asset Monitoring and Protection System (IAMPS), Rail Bearing Acoustic Measurement, Virtual Server Host, Wheel Impact Load Detector	0%	0%
Control Systems	Control System Infrastructure	Telecoms Equipment, e.g. Tower, Generator, Batteries, Dehydrator, Radome	0%	0%
Control Systems	Data Network	Below Rail Data Network Equipment, Routers, Switches, Firewalls	0%	N/A
Control Systems	Field Equipment and Cable	Signal Post Renewal	0%	0%
Control Systems	Hot Box Detector	Hot Bearing/ Wheel Detector	0%	0%
Control Systems	Level Crossing	Level Crossing Signalling Equipment	0%	0%
Control Systems	Link/Network Equipment	Below Rail Data Coms Equipment, Digital Radio System	0%	0%
Control Systems	Monitoring Equipment	Asset Protection Equipment	0%	0%
Control Systems	Network Control System	Control Centre System Support	0%	N/A
Control Systems	Network Control System	UTC System	0%	N/A
Control Systems	Power Resilence	DIEF Controller, Signalling Equipment Room Inverter	0%	N/A

Discipline	Asset Type	Asset Type/Description	% Variability	WIK
Control Systems	Rail Temp Monitor	Rail Temp Monitors	0%	0%
Control Systems	Signalling Batteries	Signalling Battery Renewals	0%	N/A
Control Systems	Train Detection	AZS350U Replacement (Axle Counter)	0%	0%
Control Systems	Transmission	Transmission Power Supply, Transmission Systems, Tetra	0%	0%
Control Systems	Transmission	Transmission System DMR, ACOM, NMS, SDH, Batteries	0%	0%
Control Systems	UTC	UTC	0%	N/A
Control Systems	Weigher	Weighing Instrument System	0%	0%
Structures	Bridge	Bridge Renewal	10%	N/A
Structures	Bridge	Design	10%	N/A
Structures	Bridge	Bridge Short Span - Renewal [pre-1982 asset]	10%	N/A
Structures	Culvert	Culvert Renewal [pre-1982 asset]	10%	0%

Additional notes:

Range: 25% - 50%. Replacement is typically driven by obsolescence. Failure of these assets can reduce capacity, so Aurizon Network has conservatively assumed a level of usage-based degradation even with like for like replacement. WIK assumes the need for signalling system investments/upgrades is caused by both, time and volume likewise.

WIK did not distinguish between track, formation and other earthworks. For example, formation renewals between 2016 and 2020 were primarily embankment renewals works with limited relationship with network volumes.

Appendix B - Interaction of the Regulatory Framework with the GAPE Access Arrangements [CONFIDENTIAL]

Appendix C - GAPE Deed [CONFIDENTIAL]

Appendix D - NAPE Deed [CONFIDENTIAL]