

Hunter Valley Coal Network Access Undertaking  
2021 Annual Compliance Assessment

ATTACHMENT 2: Capital Consultation

Submission To

Australian Competition & Consumer Commission

11 April 2023



ARTC

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## 1. INTRODUCTION

As part of its obligations under the Hunter Valley Coal Network Access Undertaking as varied on 2 June 2021 (**HVAU Version 8**), Australian Rail Track Corporation (**ARTC**) is required to engage in consultation with relevant stakeholders with regard to the capital expenditure program for the Hunter Valley rail network. This document forms Attachment 2 to ARTC's 2021 Compliance Submission and is provided to the ACCC for the purpose of demonstrating the consultation undertaken during the 2021 compliance periods in support of the capital expenditure program including:

- a detailed description of the capital consultation process undertaken in 2021 and an explanation of how it met the requirements of the HVAU; and
- evidence of Access Holders' endorsement of proposed capital expenditure.

The name, address, contact details (including email address) of relevant stakeholders has been included as Appendix F to ARTC's 2021 Compliance Submission.

## 2. CAPITAL CONSULTATION PROCESS

### 2.1 Compliance Scope

Under HVAU section 9.2, ARTC is obliged to convene and conduct regular monthly meetings of the Rail Capacity Group (**RCG**). The RCG is a regular industry forum to ensure Access Holders, prospective Access Holders and other industry stakeholders are provided relevant input to identify, prioritise and evaluate future network investments and refine the capital works programme.

To achieve this objective, ARTC has a consultation process that incorporates the following:

- ARTC's planning approach, including the trade-off between routine maintenance and major periodic maintenance and capital expenditure;
- identification of the proposed capital investment needs for the forthcoming year and forecast capital expenditure for the following 10 years;
- explanation of the inputs to and outcomes of the evaluation undertaken for the proposed capital expenditure for the forthcoming year;
- assessment of the impact of the proposed capital expenditure on the Regulatory Asset Base (RAB);
- identification of the projects that will be funded or partly funded by capital contributions; and
- establishment of a process for Access Holders' input.

## 2.2 Industry Approach to Capital Consultation

### 2.2.1 Overview

Since taking responsibility for the NSW Hunter Valley Network in September 2004, ARTC has maintained its approach to consult all industry stakeholders with an interest in the movement of coal on the Hunter Valley rail network.

ARTC displayed continual agility throughout the year, addressing numerous challenges whilst delivering the schedule of capital works and enacting several changes to the live network possession plan to ensure asset reliability and maximum network throughput. Continual extreme rainfall prior to the April 2021 closedown resulted in the late delivery of the scheduled possession. Delays and restrictions resulting from the ongoing impact of COVID-19 shifted the timing of works on large capital projects including the Muswellbrook Bridges and Waratah to Sandgate Signalling projects from August until later in the year. The scope of works scheduled for the November possession was affected by [REDACTED] another prolonged period of extreme rainfall. ARTC used a consultative approach with stakeholders, engaging on the ongoing impacts to the network whilst considering the unprecedented market demand and coal prices seen in the back end of 2021. To maximise coal volumes delivered to port in 2021, a collaborative decision was made, acknowledging the reduced scope of the November closedown, to further reduce the scope of December's Planned Maintenance Possessions (PMPs) resulting in the deferral of numerous capital jobs into the 2022 calendar year.

The annual Hunter Valley Corridor Capacity Strategy remains the primary information source for forecasted Network demand and ARTC's corresponding capital program thus required to provide corresponding Network capacity. The 2021 Hunter Valley Corridor Capacity Strategy document was released for consultation in July 2021 and published in its final form in August 2021 (refer to Attachment CAP1.1)<sup>1</sup>. This consultative process, which includes discussion at the RCG and feedback from stakeholders, continues to provide ARTC with significant insight and understanding of stakeholders' expectations of the rail infrastructure.

With the focus from industry now firmly on optimising existing network infrastructure, the consultative process for capital expenditure on the Network facilitated through the RCG is principally focused on sustaining rather than expansion capital expenditure. The RCG is attended by rail operators, coal producers, the Hunter Valley Coal Chain Coordinator (HVCCC) and the terminal operators which allows for discussion on Coal Chain alignment aspects of ARTC's operational and capital activities.

Industry endorsement is necessary before ARTC will proceed with project implementation. Formal endorsement for the value of the project to be added to the asset base occurs through the RCG.

This consultation process remains designed to provide maximum opportunity to work with Access Holders to identify and prioritise network investment and to refine capital work programs.

### 2.2.2 Rail Capacity Group (RCG)

The most recent HVAU (version 8) required a formal update to the Rail Capacity Charter which governs the RCG. The update altered eligibility requirements so that any Member that holds Coal Access Rights is now considered a Full Voting Member provided they agree to adhere to the Charter and the required confidentiality requirements. This resulted in producers with lower contracted volumes no longer being

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<sup>1</sup> Also available as a download from the ARTC website <https://www.artc.com.au/uploads/2021-HVCCS-Final.pdf>

jointly represented by one representative. As a result the RCG is now formally comprised of a senior representative from all coal producers (i.e. Glencore, Yancoal, Whitehaven, Hunter Valley Energy, Bengalla, Bloomfield, Centennial, Maxwell, Peabody, Mach and Idemitsu). In addition to these members with voting rights, there are representatives from HVCCC and respective above rail operators who haul coal on the Network (Aurizon, One Rail, Pacific National and SSR). Terminal operators attend as guests, whilst ARTC's Group Executive Hunter Valley chairs the forum. In addition to the Chair, ARTC is represented by personnel from Assets, Customer Service, Finance and Operations.

The RCG meets each month and has a standing agenda that covers:

- asset replacement and sustaining capital works on the Network;
- expansion capital investment on the Network; and
- operational and strategic items relating to network operations, asset management and possession planning.

The RCG also considers industry volume forecasts over a 10 year horizon and beyond to inform the Hunter Valley Corridor Capacity Strategy.

The RCG deals with the detail of investment proposals. ARTC provides detailed project submissions to the RCG for their review and input. Expenditure of a sustaining capital nature is presented for review and approved annually by the RCG in advance of the work being undertaken. Endorsement for sustaining capital is generally on the basis of the total package of works, recognising that the nature of the programme is subject to a greater degree of variation at the individual project level compared to expansion capital projects where the scope is more predictable across a smaller number of projects. Some sustaining capital projects may also be presented to the RCG on an individual basis due to emerging circumstances, timing considerations or the complexity of a particular project.

ARTC utilises its internal governance processes and delegations to manage variability for sustaining capital at an individual project level. This includes allowing underspends from approved budgets at a project by project level to be utilised to fund overspends on approved budgets at a project by project level, with variances reported to the RCG. This internal variation process has been communicated to the RCG.

ARTC provided quarterly updates to the RCG on the progress and cost of the sustaining capital package including details of significant variations to scope and cost.

- The consultation documents provided to the RCG in this regard during 2021 form confidential Attachments CAP2.1, CAP2.2, CAP2.3 and CAP2.4 to this document.

ARTC uses a professional and standardised approach for classification of maintenance and capital expenditures. ARTC uses internal definitions and classifications of routine corrective and reactive maintenance (**RCRM**), major periodic maintenance (**MPM**) and capital expenditure, which are made clear to the RCG. However, when there is not a clear treatment, the issue is brought to the RCG for consultation and guidance.

There has been no change to ARTC's capitalisation policy.

### 2.2.3 HVCCC

The HVCCC is an independent legal entity whose membership includes all current Hunter Valley coal chain producers as well as service providers. ARTC is a member of the HVCCC. The HVCCC's mission is to plan and co-ordinate the co-operative daily operation and long term capacity alignment of the Hunter Valley Coal Chain.

Where a project will change the infrastructure on the Network, ARTC undertakes a process review of effects on network capacity and consults with the HVCCC on options to understand, mitigate or reduce the impact on the Coal Chain wherever relevant.

The HVCCC plays a consultation role in this process through modelling the capacity impacts resulting from infrastructure changes and other network capacity development initiatives on the Hunter Valley Coal Chain.

## 2.3 Hunter Valley Corridor Capacity Strategy Development

### 2.3.1 ARTC Approach

The development of the annual Hunter Valley Coal Corridor Capacity Strategy involves:

- assessment of the capacity of the existing Hunter Valley rail network for transporting export coal to the Newcastle ports and domestic coal to Hunter Valley and Lake Macquarie power stations;
- updating demand forecasts by obtaining revised industry forecasts and views;
- comparing the available capacity with anticipated demand, to identify existing and future likely constraints;
- reviewing the options previously proposed to address these constraints;
- where necessary, the development of additional or refined options; and
- the selection of preferred actions to address each of the identified constraints.

### 2.3.2 Strategy Development

ARTC has continued to review and develop changes where necessary to the Hunter Valley Corridor Capacity Strategy.

ARTC continually refreshes its understanding of customer expectations for the organisation and the network through regular and ongoing discussions throughout the year.

In 2021, as in prior years, ARTC sourced forecast information from all coal producers, domestic customers and prospective customers and presented the aggregate profile for review to the RCG. ARTC followed a similar process formally briefing stakeholders prior to publication of the draft Strategy document, and engaging in a comprehensive discussion process and incorporation of stakeholder feedback prior to the publication of the final version.

The ongoing development and publication of the Hunter Valley Corridor Capacity Strategy document provides the Coal Chain with increased certainty on capacity pathways, timeline for delivery of projects and updated projected costs and as such offers options to resolve constraints and understand how coal producers can better manage their proposed course of action to increase coal throughput.

ARTC will continue to monitor and review the strategy to ensure proposals for infrastructure change are developed ahead of demand.

## 2.4 Project Consultation

### 2.4.1 Project Consultation Process

ARTC undertakes a comprehensive capital consultation process for all capital projects through the RCG. There are generally three categories of capital projects:

- expansion capital capacity projects;
- sustaining capital in relation to major asset renewal projects; and
- sustaining capital (also referred to as minor capital) projects.

The expansion capital capacity projects are those designed to enhance capacity, that introduce significant technological change, add operational flexibility or otherwise form part of the Hunter Valley Corridor Capacity Strategy described in section 2.3 above, while the other projects are classified as sustaining capital relating to major asset renewal projects or minor capital projects.

For expansion capital projects, consultation and endorsement is generally performed in stages to ensure that stakeholders are progressively informed before final endorsement for implementation is sought. The RCG is provided with detailed analysis of key elements of each project stage and all major projects' sign-off endorsements include details of:

- project aim;
- timing – start / finish;
- benefits and deliverables (e.g. capacity improvement, operational performance improvement, safety, cost savings);
- diagrams / document references;
- cost and contingency to RAB and loss on disposal where applicable; and
- endorsement signatory.

For expansion asset renewal or replacement projects, a submission detailing the projects objectives, options, financial and risk management aspects is provided for review and endorsement by the RCG. This endorsement process is often iterative, and ARTC works closely with the industry in providing all necessary information for evaluation.

For sustaining capital projects, the programme of smaller projects is typically submitted collectively for consultation and endorsement to the RCG. Customers are also directly engaged in the proposed corridor capital programme in advance of it being submitted to the RCG for endorsement.

### 2.4.2 Project Endorsement

Confidential Attachment CAP3 to this document shows the details for all projects (expansion and sustaining capital) which are being included in the RAB for the 2021 calendar year.

Expensed projects are capital projects previously endorsed by the RCG which, due to changes in the demand profile or other circumstances, will not proceed in the foreseeable future. Typically, this relates to projects on which initial planning work has been carried out, but the project has not proceeded to actual construction, though it may be the case that preliminary works have been carried out. The amount expensed represents the value of work in progress up to the point at which the project was suspended. For the 2021 compliance periods, there were 3 expensed projects totalling \$4.4m. These included:

**Table 1: Expensed Projects**

Location	Expensed Projects
Widden Creek Loop	\$2,175,103
Kooragang Departure Roads 7 & 8	\$1,356,868
Whittingham Down Relief Hub	\$904,958
<b>Total Expensed Projects</b>	<b>\$4,436,929</b>

For each of these projects it was deemed the additional network capacity that would have been enabled by the completion of the works was no longer required to achieve the forecast throughput needs of customers and the network.

Detailed information on each expensed project is included in the 2021 Compliance Assessment Submission Attachment 1: Hunter Valley Network Operating Costs.

Many capital projects result in the disposal of existing assets. ARTC is not able to provide the exact disposal values for capital projects prior to completion of the disposal process for consideration by the RCG at the time of endorsement, as the prospective values of any offset to the disposal value for equipment to be replaced is not often accurately known beforehand. Where possible, stakeholders are provided indicative estimates of disposal values.

In some instances, new projects or variations to previously endorsed values have not been expressly endorsed or reviewed by the RCG. This can occur for a variety of reasons, including:

- the necessity to quickly address a previously unknown issue, e.g. a critical defect is identified during testing/inspection that cannot be delayed allowing for the normal work planning process and endorsement to occur;
- an opportunity to carry out work arises out of sequence from the forward program that would result in a more efficient and lower cost than if the work is carried out as programmed. For example, where it is necessary to carry out unplanned remedial work due to an incident, it may be expedient to perform work on an adjacent site that was programmed for some future period;



- the scope of a planned task was found to be insufficient and it would be inefficient to pause the project to wait for formal endorsement from the RCG; and
- the cost of the variation is not sufficiently material to seek endorsement.

In each case, such variations are only approved by ARTC management in accordance with internal delegations where it can be demonstrated that the additional cost will not cause ARTC to exceed the overall RCG endorsed sustaining capital works value for the period.

ARTC has provided to the ACCC, on a confidential basis, copies of the endorsements relating to 2021 capital expenditure provided by RCG members as a separate Attachment to this Compliance Submission.

### 2.4.3 Capital Expenditure in 2021

During 2021, \$0.4m of post-commissioning costs were incurred on projects previously commissioned and added to the asset base (see Appendix A for more detail).

Interest during construction for the newly commissioned projects amounted to \$0.8m.

Sustaining capital of \$69.6m was commissioned during 2021.

Disposals (i.e. reductions to the asset base) were \$11.4m.

A summary of the net additions to the asset base is set out in Table 2. Details for the amounts are set out in the 2021 Compliance Submission.

**Table 2: Net Capital Expenditure Added to Network Asset Base In 2021**

	\$
Expansion Projects Commissioned	-
Post Commissioning Costs	378,199
<b>Total Expansion Project Capital</b>	<b>378,199</b>
Interest During Construction	789,627
Sustaining Capital	69,632,844
<b>Total Capital Added to Asset Base</b>	<b>70,800,670</b>
Disposals Removed from Asset Base	(11,362,467)
<b>Net Capital Added to Asset Base</b>	<b>59,438,203</b>

The scope of capital works completed in 2021 compared to 2020 was significantly reduced being 31% lower across all pricing zones. The 2020 capital program commissioned an additional \$12.2m related to the ANCO project and had substantially more expenditure and scope in the activity of track reconditioning for both zones 1 and 3 with the completion of stabilisation works in the lower Hunter and the Emerald Hill track slew project respectively.

COVID-19 again had a detrimental impact on capital scope in 2021 with strict lockdown measures in place for New South Wales in July and August affecting the scheduled possession. As ARTC engages a significant portion of their capital contract organisations who employ workers based out of locked down Local Government Areas (LGA's), labour became increasingly scarce during this time as restricted residents were not allowed to freely travel into regional NSW. Two severe weather events and flooding in 2021 created unsafe working conditions which directly affected the scope completed in the March and November closedsowns. In addition to this and in consultation with the customers, a decision was made to only complete essential maintenance work during November and December to increase track availability for customers seeking to capitalise on the record coal price. This ultimately resulted in capital scope being deferred into 2022.

The Waratah to Sandgate Signalling Project was successfully commissioned in 2021, adding \$8.2m to the RAB. The project was an essential project aimed at addressing the safety, asset life expiry and reliability issues associated with the existing Waratah to Sandgate signalling system. This section of track includes four high traffic tracks where the existing signalling system was considered obsolete being in excess of 40 years old. It was determined the signalling assets at this critical area of the network required full replacement to ensure compliance with current electrical standards. Failures in this section of the network had increased on average 30% per year from 2014 to 2018. The escalating number of temporary repairs and associated costs to keep the network running was not sustainable and did not satisfactorily address the underlying reliability and safety issues associated with the ageing and life expired infrastructure. The train volume forecasted to traverse this section of track was in line with the highest GTK's of any section in the network further reinforcing the criticality of this project to minimise any potential impact to customers. Most importantly, the successful commissioning of this project resulted in immediate improvements in safe working practices of the network. One of the main risks of life expired cable is the potential risk of a train collision which has now dramatically reduced on the network since the replacement and upgrade of the Waratah to Sandgate Signalling Project. In addition, this project has significantly reduced the number of emergency failures within this section of track, resulting in maintenance staff not required to complete signalling repairs while trains are operating reducing the exposure risk of working in a live environment. The safety risk associated with the existing exposed terminals, illustrated below, has now also been eliminated:



**Figure 1: Track worker performing duties in redundant signalling hut with significant safety risk being exposed to live cables within centimetres of his body.**

The chart below shows a comparison of signalling failures by location in 2021 compared to 2020 noting the largest improvement at Port Waratah.



**Figure 2: Failure Trend for Top Signalling Locations Per Zone**

\$15.7M was added to the RAB in 2021 after the successful commissioning of the Bridge Street Bridge as part of the Muswellbrook Bridge Replacement Project. The RCG endorsement was originally received in September 2019 for the replacement of three major bridge structures at Bridge Street, Muscle Creek and Hunter River. This project was deemed essential to ensure the reliability and safety of the network as the existing bridges were nearing the end of their structural design life and were at risk of major failure. The importance of the reliability of these assets is imperative for the efficiency of the network as approximately 30% of all rail traffic (both passenger and freight) in the Hunter Valley Rail Network rely on their safe operation. Following the commissioning of the Bridge Street Bridge in 2021, the Muscle Creek and Hunter River Bridges were successfully commissioned in May 2022. Given the complexity and cost of this project, the RCG have received regular updates on the status of these projects throughout the construction.



**Figure 3: Construction work on the commissioned Bridge Street Bridge, Muswellbrook.**

Another significant capital project commissioned in 2021 included 5 bridge end capital upgrades in Zone 3 which were part of the 100km/h Down Direction Train Running capital enhancement project. The successful completion of these asset upgrades resulted in the removal of the associated existing Temporary Speed Restrictions and enabled down direction (i.e. empty) coal trains with 140T locomotives to run sustainably across these bridges at 100km/h between Muswellbrook and Narrabri. The endorsed paper also includes scope for the upgrade of six level crossings with similar speed restrictions imposed which required upgrades to safely allow for the same increase in train speed. During 2021, two of these level crossings upgrades were completed allowing for the scoped increased speed of 100km/h to be achieved with the remainder of the level crossing upgrades to be completed in 2022 and 2023.

Historical track formation issues coupled with sustained wet weather resulted in the Mangoola Track Upgrade, approved for \$2.4million as part of the FY22 Corridor Capital program being brought forward to April 2021. The accelerated deterioration of this site resulted in this site becoming a top priority in order to minimise the associated increased maintenance requirement, the potential impact of operational delays to customers and to avoid the potential for an embankment and formation failure.

Further detail of expansion capital expenditure is provided in Appendix A. Confidential Attachment CAP3 to this document provides detail by project for both expansion and sustaining capital projects commissioned in 2021. Detail relating to disposals is set out in Appendix D and interest during construction in Appendix E of ARTC's Compliance Submission.

## 2.5 Compliance with the HVAU

ARTC considers that the consultation undertaken as described in sections 2.2 to 2.4 provides comprehensive evidence that ARTC has complied with the relevant requirements of the HVAU.

ARTC has worked closely with Access Holders, train and terminal operators and the HVCCC in identifying and prioritising network investments and refining capital works programs. Through this extensive consultation process, stakeholders have provided input into the major capital enhancement projects that form part of the Hunter Valley Corridor Capacity Strategy. This strategy document identifies the proposed capital investment needs for the forthcoming year and includes forecasts of capital expenditure for the following 10 years.

ARTC also provides clarity in relation to projects which are intended to be partly or fully funded by capital contributions. There were no such projects in 2021.

## 3. CONCLUSION

The consultation activities that ARTC has engaged in have been designed to obtain a comprehensive understanding of coal mine development proposals, both new mines and expansion projects, and their timing of development where increased capacity is required on the Hunter Valley network. This information is reviewed against other industry information and ARTC seeks confirmation, where applicable, that its priority of project delivery matches other Coal Chain capacity deliverables.

During 2021, ARTC has found the level of co-operation and advice provided by coal producers, rail operators, and other service providers to be both informative and constructive in all aspects of managing and progressing with investment options. ARTC believes it has well developed working relationships with the Coal Chain as a whole and looks forward to these continuing.

ARTC is committed to the ongoing consultation described in this document and looks forward to continuing to deliver of optimal rail network solutions in the Hunter Valley Coal Network.

## Appendix A Expansion Project Capital Added to Asset Base 2021

Table A1: Newly Commissioned Projects \$

Project	Description	RCG Endorsed Value \$	Cost \$	IDC \$	Total Cost Added to RAB 2021 \$
Nil					
<b>Total Newly Commissioned Projects</b>			-	-	-

Table A2: Post Commissioning Costs \$

Project Code	Description	RCG Endorsed Value \$	Cost Previously Added to RAB \$	Total Cost Added to RAB 2021 \$	Cumulative Cost Added to RAB \$
<b>Pricing Zone 1</b>					
5255	Maitland to Minimbah Third Road (Farley to Branxton)	362,800,000	356,144,967	168,885	356,387,166
5255	Maitland to Minimbah Third Road (Branxton to Whittingham)			73,314	
8808	ANCO Zone 1	35,943,475	23,302,842	84,845	23,387,687
<b>Sub-Total</b>			<b>379,447,809</b>	<b>327,044</b>	<b>379,774,853</b>
<b>Pricing Zone 2</b>					
8808	ANCO Zone 2	35,943,475	6,503,573	19,826	6,523,399
<b>Sub-Total</b>			<b>6,503,573</b>	<b>19,826</b>	<b>6,523,399</b>
<b>Pricing Zone 3</b>					
8808	ANCO Zone 3	35,943,475	8,301,746	31,329	8,333,075
<b>Sub-Total</b>			<b>8,301,746</b>	<b>31,329</b>	<b>8,333,075</b>
<b>Total Post Commissioning Cost</b>		<b>398,743,475</b>	<b>394,253,128</b>	<b>378,199</b>	<b>394,631,327</b>