



Australian
Competition &
Consumer
Commission

Draft Decision

Australian Rail Track Corporation's 2017 Hunter Valley Access Undertaking

20 April 2017

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Abbreviations and acronyms

Act	Competition and Consumer Act
ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
ARTC	Australian Rail Track Corporation
AHA	Access Holder Agreement
Capex	Capital expenditure
CGS	Commonwealth Government Securities
CPI	Consumer Price Index
CQCN	Central Queensland Coal Network
DIC	Debt Issuance Cost
DORC	Depreciated Optimised Replacement Cost
DRP	Debt Risk Premium
FCC	Fixed component of costs
FTE	Full Time Equivalent
GFC	Global Financial Crisis
GTK	Gross Tonne Kilometres
HRATF	Hunter Rail Access Task Force
HVAU	Hunter Valley Access Undertaking
HVCCC	Hunter Valley Coal Chain Coordinator
HVEC	Hunter Valley Energy Coal
IAU	Interstate Access Undertaking
IPART	Independent Pricing and Regulatory Tribunal
JORC	Joint Ore Resources Committee
Km	Kilometres
KPI	Key Performance Indicator
LLSM	Longest-lived substantial mine
MPM	Major Periodic Maintenance
MRP	Market Risk Premium
NCC	New capital component of costs
NCIG	Newcastle Coal Infrastructure Group
NKRA	Network Key Result Area

NPC	Network Path Capability
NSW	New South Wales
NSW RAU	New South Wales Rail Access Undertaking
OECD	Organisation for Economic Cooperation and Development
Opex	Operating expenditure
OSA	Operator Sub-Agreement
PWCS	Port Waratah Coal Services
PZ1	Pricing Zone 1
PZ2	Pricing Zone 2
PZ3	Pricing Zone 3
QCA	Queensland Competition Authority
RAB	Regulatory Asset Base
RAB Floor Limit	Regulatory Asset Base Floor Limit
RBA	Reserve Bank of Australia
RCG	Rail Capacity Group
RML	Remaining Mine Life
RCRM	Routine Corrective and Reactive Maintenance
ROR	Rate of Return (otherwise as known as WACC)
TOP	Take-or-Pay
TPR	Total Path Usages Required
Train Km	Train Kilometres
Tribunal	Australian Competition Tribunal
TUT	True-Up Test
UOP	Unit of Production
VCC	Variable component of costs
WACC	Weighted Average Cost of Capital (otherwise as known as ROR)
WAML	Weighted Average Mine Life
WIK	WIK-Consult

Executive Summary

For the reasons set out in this Draft Decision, the ACCC does not consider that the 2017 Hunter Valley Access Undertaking (**2017 HVAU**) as currently drafted is appropriate to accept, having regard to the matters in section 44ZZA(3) of the *Competition and Consumer Act 2010* (Cth) (**the Act**).

Background

On 9 December 2016, the Australian Rail Track Corporation Limited (**ARTC**) submitted the 2017 HVAU for assessment under Part IIIA of the Act. The 2017 HVAU is intended to replace the 2011 HVAU which has a current expiry date of 30 June 2017.

The 2017 HVAU covers the provision of access to the Hunter Valley rail network operated by ARTC in New South Wales. The network is predominantly used for the transport of coal from the region's coal mines to the Port of Newcastle for export. The network is also used to transport coal to a number of domestic customers, as well as providing passenger and non-coal freight services across the Hunter Valley.

ARTC intends to submit the 2017 HVAU to the ACCC for assessment in two stages. The first submission, the subject of this Draft Decision, includes all matters except the operating expenditure (**opex**) efficiency mechanism (and related changes). ARTC is developing the opex efficiency mechanism in parallel with the current assessment process. ARTC intends to lodge a revised and final 2017 HVAU in April–May 2017 inclusive of a final opex efficiency mechanism.

The 2017 HVAU represents an evolutionary step from the 2011 HVAU and in many instances ARTC has not proposed wholesale structural changes to the current regulatory approach. Given this, the ACCC considers a significant proportion of the proposed approach and drafting in the 2017 HVAU to be appropriate. However, there are also a number of instances where ARTC has proposed either an entirely new approach or a significant change to the methodology set out in the 2011 HVAU. As would be expected, these proposals have elicited substantial comment from stakeholders.

The ACCC recognises that since acceptance of the 2011 HVAU, there has been a change in market conditions that has influenced ARTC's proposed drafting, and the nature of stakeholders concerns, in relation to the 2017 HVAU. In particular, the focus of the 2017 HVAU has shifted from capacity expansion, to an undertaking aiming for consolidation, productivity improvements, and a reduction in operating expenditure. The ACCC notes that this has been taken into account in its consideration of the matters in section 44ZZA(3) of the Act as part of the current assessment process.

ACCC views

The key issues for the assessment of the 2017 HVAU are rate of return (**ROR**), weighted average mine life (**WAML**), and Economic Cost.

The ACCC considers that ARTC's proposal for a real pre-tax ROR of 6.51 per cent and nominal pre-tax ROR of 7.86 per cent is not appropriate. Rather, the ACCC considers a real pre-tax ROR of 4.60 per cent and nominal pre-tax ROR of 7.11 per cent is appropriate. The ACCC considers its rate of return will promote the economically efficient operation of, use of, and investment in ARTC's infrastructure. As a result, this would allow ARTC to obtain a return on its investment that is commensurate with the regulatory and commercial risks it faces as well as recognising the interests of access seekers, including export coal and domestic coal users of the network. The ACCC has not previously decided on an appropriate

ROR for the HVAU, as the ROR in the 2011 HVAU was a negotiated outcome between Access Holders and ARTC.

While the ACCC considers that ARTC's proposal for adopting straight line depreciation based on a WAML calculated for the Hunter Valley network is appropriate, the ACCC does not consider that ARTC's proposal for a WAML of 16.5 years (as at 1 July 2016) and the proposed WAML methodology to be appropriate. ARTC's WAML proposal applies a number of methodological adjustments to reserve estimates when compared to the 2011 HVAU. The ACCC considers ARTC's adjustments lack transparency and are inappropriately conservative. Based on available information, the ACCC considers an appropriate range for WAML is between 20 and 32 years. Narrowing this range will require ARTC to provide the ACCC with further information and evidence in support of its preferred assumptions or will otherwise require agreement between ARTC and Access Holders. Based on several assumptions, the ACCC calculates a possible WAML point estimate of 23 years using ARTC's data.

ARTC proposes to allocate Incremental Capital Costs, which forms the basis for the floor revenue limit, on the basis of contracted commitments. ARTC submits that it has taken this approach to address concerns arising from the ACCC's 2013 Annual Compliance Final Determination, which allocated Incremental Costs (including Incremental Capital Costs) on the basis of actual usage. The ACCC understands that concerns from ARTC and most members of the Hunter Rail Access Task Force appear to relate largely to how allocating Incremental Capital Costs on the basis of actual usage will affect Take-or-Pay (**TOP**) Charges as a proportion of total Access Charges, and the incentive it provides for Access Holders to over-contract for capacity. In light of these concerns and the different understandings among industry on the effects of this issue, the ACCC has not formed a view on the appropriate basis for allocating Incremental Capital Costs. Instead, the ACCC has set out its understanding of the effect of this aspect of its 2013 Annual Compliance Final Determination on both TOP Charges as a proportion of total access charges and the incentive for users to over-contract capacity and requires further information from ARTC and stakeholders in light of this explanation in order to arrive at a final decision on this issue.

A summary of the ACCC's views on all matters in the 2017 HVAU is set out in Table 1 below.

Next steps

In this Draft Decision the ACCC has outlined its views on the 2017 HVAU and has provided recommendations as to how certain issues may be resolved by ARTC. The ACCC's views follow two general, but not mutually exclusive, approaches. The first is where further information is required by the ACCC in order to determine that the 2017 HVAU effectively implements ARTC's proposal. In particular, in relation to Economic Cost and the structure of access charges (both coal and non-coal). The second is to recommend revisions that are necessary for the 2017 HVAU to be appropriate to accept having regard to the matters set out in section 44ZZA(3) of the Act. In providing these recommendations the ACCC aims to assist ARTC in the development of a revised undertaking so that the assessment of the HVAU can be finalised in a timely manner.

While the ACCC's statutory deadline for finalising the assessment of the 2017 HVAU is 21 August 2017, the expiry date of the 2011 HVAU is 30 June 2017. The ACCC understands that it is ARTC's intention for the 2017 HVAU to commence upon expiry of the 2011 HVAU. The ACCC considers that the ability to meet this timeframe depends largely on ARTC. The ACCC considers that ARTC should continue to engage with the ACCC and stakeholders on its proposed next steps in order to finalise the 2017 HVAU.

The ACCC is seeking submissions in relation to this Draft Decision before making its final decision.

ACCC views on the 2017 HVAU

The structure of the Draft Decision and the ACCC's views on the 2017 HVAU are set out in Table 1.

Table 1: ACCC views on the 2017 HVAU

Chapter	Title	ACCC view
4	Scope and administration	<p>This chapter sets out administrative matters for the 2017 HVAU, including the objectives, request for information provision, and term of the undertaking.</p> <p>The ACCC considers that the matters discussed in the scope and administration chapter are appropriate, subject to minor amendments to the mandatory review process and request for information provision.</p>
5	Negotiating for access and dispute resolution	<p>This chapter discusses those provisions in section 3 of the 2017 HVAU covering the negotiation for access process and the dispute resolution mechanism.</p> <p>The ACCC considers that the negotiating for access and dispute resolution provisions in the 2017 HVAU are appropriate.</p>
6	Floor and ceiling limits	<p>This chapter sets out the floor and ceiling limits to the amount of revenue that ARTC is entitled to recover from Access Holders.</p> <p>The ACCC considers that ARTC's proposed floor and ceiling revenue limits are not appropriate. The ACCC requires further clarification from ARTC:</p> <ul style="list-style-type: none">• on the rationale for a dual Ceiling Limit, in the context of the 2013 Annual Compliance Final Determination• regarding the practical operation of the dual Ceiling Limit, and associated redrafting of the 2017 HVAU for clarity.
7	Regulatory Asset Base, Regulatory Asset Base Floor Limit and Loss Capitalisation	<p>This chapter sets out ARTC's proposal in the 2017 HVAU for the starting value of assets and annual roll-forward to take account of capital expenditure, depreciation and disposals. This chapter also considers ARTC's proposal in the 2017 HVAU to retain loss capitalisation for Pricing Zone 3.</p> <p>The ACCC considers that ARTC's proposal for the regulatory value of assets is appropriate, as is its proposal for retaining loss capitalisation</p>

Chapter	Title	ACCC view
8	Economic cost	<p>This chapter sets out ARTC's proposed methodology for calculating, assessing and allocating the Economic Cost of a Segment of the Hunter Valley rail network. ARTC proposes to allocate Incremental Capital Costs, which forms part of the floor revenue limit, on the basis of Access Holders' contracted commitments.</p> <p>The ACCC has set out its understanding of the effects of allocating Incremental Capital Costs on the basis of actual usage, and seeks submissions from ARTC and stakeholders on:</p> <ul style="list-style-type: none"> • the ACCC's understanding of the relationship between setting TOP Charges and the reconciliation with ceiling revenue tests, which will assist the ACCC to assess whether ARTC's proposal is appropriate. • the ACCC's understanding of the likelihood of Access Holders over-contracting capacity as a result of allocating Incremental Capital Costs on the basis of actual usage, in the context of the operation of the 2017 HVAU and AHA. <p>The ACCC also requires ARTC to provide worked examples of the relationship between setting TOP Charges and reconciliation with the ceiling revenue tests through the annual compliance process.</p>
9	Cost allocation	<p>This chapter outlines how Non-Segment Specific Costs, depreciation and return on assets will be allocated to Segments. In particular, ARTC proposes allocating track maintenance related costs on the basis of GTK and all other costs on the basis of Train Km.</p> <p>The ACCC considers that ARTC's cost allocation method is not appropriate. Instead, the ACCC considers that a transparent costing manual, which clearly sets out the evidence for ARTC's decisions regarding cost allocation, is required to provide clarity and certainty for both ARTC and stakeholders in relation to the processes set out in the 2017 HVAU</p>
10	Unders and overs accounting	<p>This chapter sets out the unders and overs accounting process, under section 4.9, undertaken as part of the annual compliance assessment.</p> <p>The ACCC considers that the unders and overs accounting provisions are not appropriate due to their interaction with the proposed dual Ceiling limit.</p>
11	Annual compliance	<p>This chapter sets out ARTC's proposal for annual compliance assessments for the 2017 HVAU.</p> <p>The ACCC considers that ARTC's proposal is appropriate subject to changes to Schedule H of the 2017 HVAU requiring ARTC to provide additional information to the ACCC for its annual compliance assessment.</p>

Chapter	Title	ACCC view
12	Depreciation on Segment Specific Assets – Weighted average mine life	<p>This chapter discusses ARTC’s proposal to use WAML as a proxy for the useful economic life of ARTC’s Hunter Valley rail assets which is used to calculate the annual depreciation ARTC can recoup as part of its Economic Cost.</p> <p>The ACCC considers that ARTC’s proposal for adopting straight line depreciation based on a WAML calculated for the Hunter Valley rail network is appropriate.</p> <p>In principle, the ACCC considers that ARTC’s proposal for including WAML as part of the mandatory review is appropriate. However, the ACCC considers it is not appropriate to exclude mines in care and maintenance or mines pending licence renewal from a recalculated WAML conducted as part of the mandatory review.</p> <p>Further, the ACCC considers that ARTC’s proposal for a WAML of 16.5 years (as at 1 July 2016) and its WAML methodology is not appropriate. In particular, the ACCC considers that ARTC’s proposed methodology for:</p> <ul style="list-style-type: none"> • discounting proven and probable reserves is not appropriate • discounting reserves for end-of-life mine risk is not appropriate • setting a mine’s production rate to the greater of historical production and contracted commitments is not appropriate • limiting a mine’s life to the remaining mine licence term is not appropriate. <p>Based on available information, the ACCC considers an appropriate range for WAML is between 20 and 32 years. This range is based on the sensitivity of a number of assumptions and as such, narrowing this will require ARTC to provide the ACCC with further information and evidence in support of its preferred assumptions or will otherwise require agreement between ARTC and Access Holders.</p> <p>A single estimate of WAML relies on a number of assumptions. For example, using a saleable to run-of mine conversion factor of 76 per cent, a 3 per cent end-of-mine life adjustment and no proved and probable reserve adjustment results in a possible WAML point estimate of 23 years using ARTC’s data.</p> <p>Finally, the ACCC suggests that ARTC consider possible alternatives for determining the depreciation of Hunter Valley network assets. One possible alternative is the approach used by Aurizon Network, which is a 20 year rolling asset life. The ACCC considers a 20 year rolling asset life would provide both investment certainty for ARTC and methodological certainty for Access Holders.</p>

Chapter	Title	ACCC view
13	Depreciation on Segment Specific Assets – Prospective Mines	<p>This chapter sets the proposed incorporation of Prospective Mines into WAML, affecting the depreciation on Segment Specific Assets ARTC can recoup as part of its Economic Cost.</p> <p>The ACCC considers that ARTC’s definition of Prospective Mines and the method for incorporating Prospective Mines into an annual WAML recalculation is appropriate. However, the ACCC considers the:</p> <ul style="list-style-type: none"> • setting of a Prospective Mine’s production rate to the greater of contracted capacity and approved annual production limits is not appropriate • discounting of proven and probable reserves is not appropriate • discounting of reserves for end-of-life mine risk is not appropriate. <p>The ACCC considers that ARTC’s proposal to exclude Prospective Mines, previously included in an annual WAML recalculation, from the mandatory review WAML recalculation is appropriate.</p>
14	Rate of return	<p>This chapter discusses ARTC’s proposed rate of return, used to determine the return on assets ARTC can recoup as part of its Economic Cost.</p> <p>The ACCC considers ARTC’s proposal for a real pre-tax ROR of 6.51 per cent and nominal pre-tax ROR of 7.86 per cent is not appropriate. Rather, the ACCC considers a real pre-tax ROR of 4.60 per cent and nominal pre-tax ROR of 7.11 per cent is appropriate.</p>

Chapter	Title	ACCC view
15	Structure of access charges – coal	<p>This chapter sets out the methodology by which ARTC will determine access charges for coal customers. ARTC proposes a path based approach to pricing where access charges are made up of two components—a TOP component charged on a Train Kilometres (Train Km) basis, and a non-TOP component charged on a Gross Tonne Kilometres (GTK) basis. ARTC proposes that TOP and non-TOP Charges will apply to all train configurations that are consistent with the characteristics outlined in the Services Envelope.</p> <p>The ACCC has not formed a view on ARTC’s proposal to use Train Km as the basis for the TOP component of access charges. The ACCC does not have sufficient information to determine whether this proposal encourages the economically efficient use of the Network because ARTC has not provided enough evidence of the cost drivers for Incremental Capital Costs and Fixed Costs in the Network. The ACCC requires further information from ARTC in order to form a view.</p> <p>The ACCC considers ARTC’s proposal to use GTK as the basis for the non-TOP component of access charges is appropriate, subject to ARTC providing further information on the cost drivers of activities recovered by non-TOP Charges, and subject to minor amendments.</p> <p>The ACCC considers ARTC’s proposal to use a Services Envelope is appropriate, subject to ARTC providing guidelines for consultation between ARTC and stakeholders on changes to section run times.</p>
16	Structure of access charges – non-coal	<p>This chapter sets out the methodology by which ARTC will determine access charges for non-coal customers. ARTC proposes non-coal traffic be charged on the basis of:</p> <ul style="list-style-type: none"> • a variable component—a function of distance and gross mass (\$ per GTK); • a flagfall component—specific to each train service type and Segment (\$ per Train Km) • an excess network occupancy component—a function of time (\$ per hour or part thereof) <p>The ACCC requires ARTC to provide further information on the definition of Incremental Maintenance Costs to be able to form a view on the appropriateness of ARTC’s proposal.</p> <p>The ACCC also seeks further information from ARTC on:</p> <ul style="list-style-type: none"> • charges for non-coal traffic traversing the Unconstrained Network • the cost components covered by the flagfall component.
17	Finalising access charges and forecasts	<p>This chapter sets out the process for finalising Standard Access Charges (under section 4.18 of the 2017 HVAU), and sets out the forecasting information that ARTC will provide to Access Holders as part of this process (under section 4.19).</p> <p>The ACCC considers that the process for finalising Standard Access Charges, and the forecasting information that ARTC will provide to Access Holders as part of this process, is appropriate, subject to minor amendments.</p>

Chapter	Title	ACCC view
18	Capacity management	<p>This chapter considers the capacity management provisions in section 5 and Schedule G of the 2017 HVAU.</p> <p>The ACCC considers that the capacity management provisions in the 2017 HVAU and indicative Access Holder Agreement (AHA) are appropriate, subject to amendments to Schedule G to require ARTC to undertake consultation with the HVCCC within particular timeframes.</p>
19	Capacity investment framework	<p>This chapter considers sections 7 to 11 of the 2017 HVAU in relation to the proposed investment framework for providing additional capacity on the Hunter Valley rail network.</p> <p>The ACCC considers that the proposed capacity framework provisions are appropriate, subject to amendments to the industry consultation provisions.</p>
20	Performance measures	<p>This chapter discusses both the reporting requirements proposed in the 2017 HVAU that require ARTC to account for its performance, and the measures designed to incentivise ARTC to improve the efficiency of its below-rail network and encourage the development of innovations that benefit Access Holders. These include:</p> <ul style="list-style-type: none"> • Network Key Result Areas (section 13(1)) • Opex efficiency mechanism proposal (section 9.3(a)) • Innovation Incentive mechanism (section 14). <p>The ACCC considers that ARTC's proposed Network Key Result Areas are appropriate.</p> <p>The ACCC cannot include an assessment of the appropriateness of the opex efficiency mechanism until the ACCC receives the full details in the revised and final 2017 HVAU. However, the ACCC provides some preliminary comments in this Draft Decision based on what ARTC has submitted.</p> <p>The ACCC considers that the Innovation Incentive Mechanism is not appropriate in its current form and would be unlikely to be appropriate unless it can be clearly shown that the operation of the mechanism is entirely separate from the opex efficiency mechanism.</p>
21	True-up Test and Liability Regime	<p>This chapter considers elements of the proposed 2017 HVAU and AHA that relate to ARTC's liability for performance under the True-up Test (TUT).</p> <p>The ACCC considers that the TUT test and liability regime in the 2017 HVAU is appropriate subject to clarification on how ARTC treats train paths that are Functional Coal Paths but are technically unavailable for use by coal trains on an ad hoc basis.</p>

Chapter	Title	ACCC view
22	Agreements – indicative AHA and OSA	<p>This chapter discusses matters in relation to the indicative AHA and Operator Sub-Agreement (OSA) attached to the proposed 2017 HVAU.</p> <p>The ACCC considers that the indicative AHA and OSA are appropriate, subject to minor amendments, but notes that it has not formed a view on those provisions in the indicative AHA impacted by the proposed change to path based pricing.</p>
23	Conclusion and next steps	<p>This chapter sets out the ACCC's Draft Decision in relation to the 2017 HVAU, and the various steps that ARTC, stakeholders and the ACCC will need to undertake in order to finalise assessment of the 2017 HVAU.</p>
	Appendices	<p>Four appendixes are attached to this Draft Decision:</p> <ul style="list-style-type: none"> • Appendix A—Debt risk premium method • Appendix B—Table of drafting errors • Appendix C—List of submissions received • Appendix D—Geoscience Australia advice

1. Introduction

On 9 December 2016, the Australian Rail Track Corporation Limited (**ARTC**) submitted the 2017 Hunter Valley Access Undertaking (**2017 HVAU**) to the Australian Competition and Consumer Commission (**ACCC**) for assessment under Part IIIA of the *Competition and Consumer Act 2010* (Cth) (the **Act**). The 2017 HVAU is in relation to the provision of access to the Hunter Valley rail network operated by ARTC in New South Wales (**NSW**).

The ACCC previously accepted an access undertaking in accordance with Part IIIA of the Act on 29 June 2011 in relation to the Hunter Valley rail network (**2011 HVAU**). Given the 2011 HVAU was due to expire on 1 July 2016, the 2011 HVAU was extended in two separate 6 month requests for extension, for a total of 12 months, with a current expiry date of 30 June 2017.

On 23 December 2015, ARTC initially submitted the 2016 Hunter Valley Access Undertaking to the ACCC for assessment to replace the 2011 HVAU (**2016 HVAU**). On 14 June 2016, ARTC withdrew the 2016 HVAU from the ACCC's consideration.

ARTC intends to submit the 2017 HVAU to the ACCC for assessment in two stages. The first submission, received on 9 December 2016, includes all matters except the operating expenditure (**opex**) efficiency mechanism (and related changes). ARTC is developing the opex efficiency mechanism in parallel with the current assessment process and in consultation with stakeholders. ARTC intends to lodge a revised and final 2017 HVAU in April–May 2017 inclusive of the final opex efficiency mechanism. The ACCC notes that ARTC has cautioned that the new opex efficiency mechanism will affect a number of provisions of the 2017 HVAU and 2017 indicative Access Holder Agreement (**AHA**) including the HVAU objectives, annual compliance process, process for setting charges, the Rail Capacity Group's (**RCG**) role and the provision of information pursuant to the undertaking.

1.1. Request for submissions

The ACCC, by publication of this Draft Decision, is inviting submissions from interested parties. In particular, the ACCC seeks submissions on:

- the ACCC's views on the various aspects of the 2017 HVAU
- whether, if the ACCC's recommendations were adopted by ARTC in a revised undertaking, such revised undertaking would be appropriate
- the next steps in order to finalise the assessment of the 2017 HVAU.

In making a submission, please include detailed reasons to support the views offered. If there are aspects of the 2017 HVAU that are considered to be not appropriate, please provide suggested changes that could be made to address the relevant concerns, including to the level of drafting amendments where possible.

1.1.1. Invitation to make a submission

Submissions should be addressed to:

Mr Matthew Schroder
General Manager
Infrastructure & Transport – Access & Pricing Branch
Australian Competition and Consumer Commission
GPO Box 520
Melbourne VIC 3001

Email: transport@acc.gov.au

1.1.2. Due date for submissions

Submissions on this Draft Decision are due by **12 May 2017**. It is in stakeholders' interests that submissions are lodged by this date, as section 44ZZBD(3) of the Act allows the ACCC to disregard any submission made after this date.

1.1.3. Confidentiality

The ACCC strongly encourages public submissions. Unless a submission, or part of a submission, is marked confidential, it will be published on the ACCC's website and may be made available to any person or organisation upon request. If stakeholders wish to provide a confidential submission, the ACCC asks that stakeholders provide a full copy of the document and a public version with the confidential information omitted, that will be published on the ACCC website.

Sections of submissions that are claimed to be confidential should be clearly identified. The ACCC will consider each claim of confidentiality on a case by case basis. If the ACCC refuses a request for confidentiality, the submitting party will be given the opportunity to withdraw the submission in whole or in part.

For further information about the collection, use and disclosure of information provided to the ACCC, please refer to the ACCC publication *'Australian Competition and Consumer Commission / Australian Energy Regulator Information Policy – the collection, use and disclosure of information'* available on the ACCC website.

1.2. ACCC assessment

The test the ACCC applies in deciding whether to accept an access undertaking is set out in section 44ZZA(3) of the Act. Essentially, the ACCC may accept the undertaking if it thinks it appropriate to do so, having regard to various matters. The full test is set out in chapter 3 of this Draft Decision.

Under section 44ZZBC(1) of the Act, the ACCC must make a decision in relation to the application within the period of 180 days starting at the start of the day the application was received (referred to as 'the expected period').

Section 44ZZBC(2) of the Act also provides for 'clock-stoppers', meaning that some days will not count towards the 180 days of the expected period in certain circumstances. In particular, the clock stops where the ACCC publishes a notice inviting public submissions in relation to an undertaking application, or where the ACCC gives a notice requesting information in relation to an application.

The ACCC's statutory timeframe for assessing the 2017 HVAU ends on 21 August 2017 (taking into account clock-stoppers). The ACCC notes that the expiry date of the 2011 HVAU is currently 30 June 2017.

Table 2 below outlines the indicative timeline for the remainder of the ACCC's assessment of the 2017 HVAU.

Table 2: Indicative timeline for 2017 HVAU

Date	Event
20 April 2017	Release of ACCC Draft Decision.
April/May 2017	Consultation on ACCC Draft Decision.
April/May 2017	Lodgement by ARTC of revised 2017 HVAU including opex efficiency mechanism.
May/June 2017	Consultation on revised 2017 HVAU.
June 2017	Release of ACCC final decision.
30 June 2017	Expiry of 2011 HVAU.

1.3. Further information

The 2017 HVAU and other relevant material, including supporting submissions from ARTC, and stakeholder submissions are available on the ACCC's website at the following link:

- <http://www.accc.gov.au/regulated-infrastructure/rail/hunter-valley-access-undertaking-2017>

Public submissions made during the current process will also be posted at this location. A list of all submissions received in response to the 2017 HVAU and 2016 HVAU is set out at Appendix C.

The current 2011 HVAU is available on the ACCC's website at:

- <http://registers.accc.gov.au/content/index.phtml/itemId/1179990>

The 2016 HVAU application is available on the ACCC's website at:

- <http://www.accc.gov.au/regulated-infrastructure/rail/hunter-valley-access-undertaking-2016>

For queries about any matters raised in this document, please contact:

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2. Background

2.1. ARTC

ARTC began operations in July 1998, the result of an Inter-Governmental Agreement between the Australian, New South Wales (**NSW**), Victorian, Queensland, South Australian and Western Australian Governments. ARTC was established as a consolidated rail track owner to create a single avenue for all operators seeking access to the national interstate rail network, consistent with the National Rail Summit Heads of Agreement and the Competition Principles Agreement.¹

ARTC is responsible for controlling, operating, and maintaining 8 500 kilometres of standard gauge rail infrastructure in NSW, Victoria, Queensland, South Australia and Western Australia. In September 2004, ARTC entered a 60-year lease over the interstate and Hunter Valley rail networks in NSW.

2.2. Hunter Valley rail network

The Hunter Valley rail network is predominantly used to transport coal from mines in the Hunter Valley region to the Port of Newcastle for export. For 2016, approximately 191 million tonnes of coal were contracted for export.² However, in 2016, over 161 million tonnes of coal were exported out of the Port of Newcastle, with exports to Japan accounting for 45 per cent of the volume of coal exports.³

The rail network is also used to transport coal from the region's mines to domestic customers, and is used by non-coal traffic including general and bulk freight, as well as passenger services. A map of the network is shown in Figure 1.

There are currently a number of coal producers operating mines served by the Hunter Valley rail network, including:

- Anglo American
- Bengalla Mining Company
- Bloomfield
- Coal & Allied
- Glencore
- Hunter Valley Energy Coal (**HVEC**)
- Idemitsu
- MACH Energy
- Peabody Energy
- Whitehaven Coal
- Yancoal.

¹ National Competition Council, *National Competition Policy: Major areas for reform*, viewed 6 March 2017, ncp.ncc.gov.au/pages/reform.

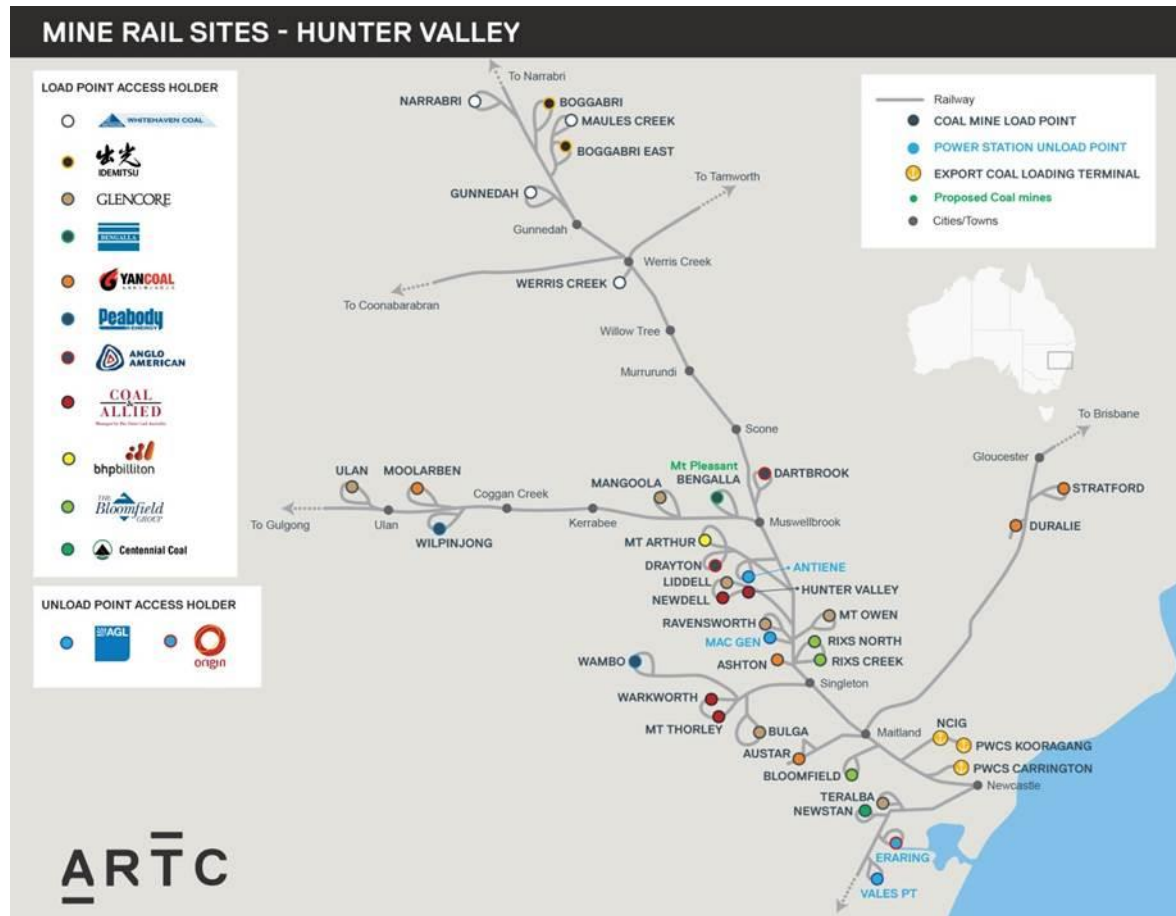
² ARTC, *2016-2025 Hunter Valley Corridor Capacity Strategy*, September 2016, p. 4.

³ Calculated using data sources from NSW Coal Services.

The four major above-rail operators hauling coal in the Hunter Valley include:

- Pacific National⁴
- Aurizon
- Genesee and Wyoming
- Southern Shorthaul Railroad.

Figure 1: Hunter Valley rail network



Source: ARTC

Non-coal customers include Pacific National, Genesee and Wyoming, QUBE, NSW Trains, and NSW TrainLink.

Port operations are carried out at coal export terminals operated by Port Waratah Coal Services (**PWCS**) (Carrington and Kooragang) and Newcastle Coal Infrastructure Group (**NCIG**). PWCS and NCIG provide coal handling services to Hunter Valley coal producers, including the receiving and unloading of coal, stockpiling coal and loading coal onto vessels for export.

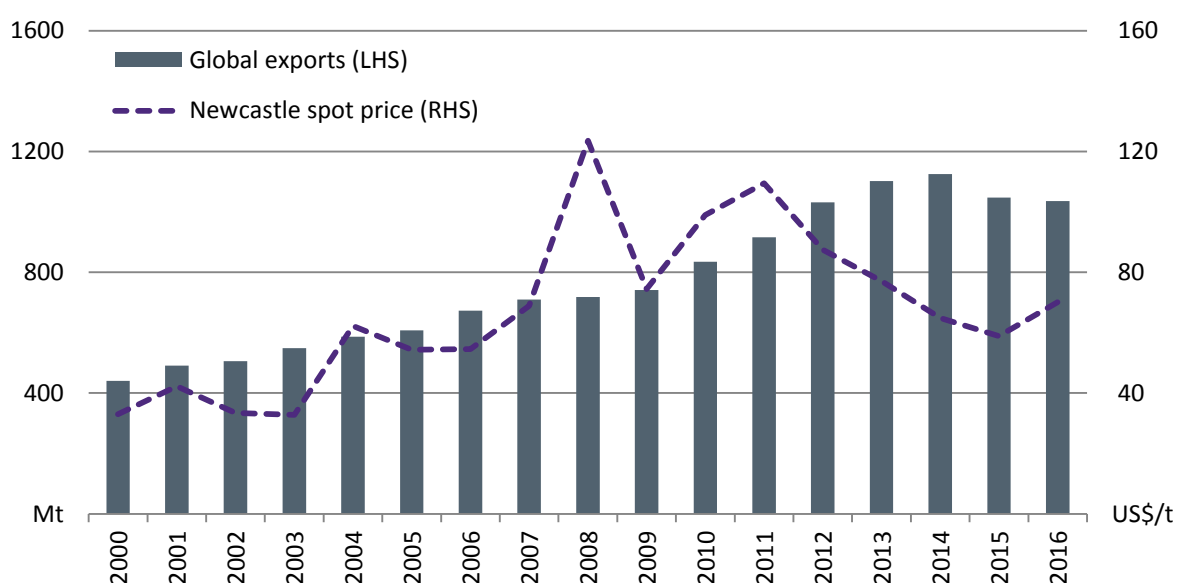
⁴ Pacific National was previously part of the broader Asciano Group. Following the sale of Asciano in August 2016, Pacific National became a stand-alone company. On 21 July 2016, the ACCC announced it would not oppose the acquisition of Asciano (including Pacific National) by a consortium (see <http://registers.accc.gov.au/content/index.phtml/itemId/1197152/fromItemId/751043>).

2.3. Coal Market

Coal mines serviced by the Hunter Valley rail network produce thermal coal and metallurgical coal. Thermal coal, sometimes referred to as steaming coal, is used in power plants for electricity generation. Metallurgical coal, sometimes referred to as coking coal, is used for the production of steel. However, most coal hauled on the Hunter Valley rail network is thermal coal, accounting for 89 per cent of the volume of coal exports from the Port of Newcastle between 2011–12 and 2015–16.⁵

Between 2000 and 2014, global thermal coal exports increased from 440 million tonnes to 1125 million tonnes, an average annual rate increase of 5.5 per cent (Figure 2). Since 2014, global thermal coal exports decreased to 1036 million tonnes in 2016, an average annual rate decrease of 4 per cent.

Figure 2: Global thermal coal exports and Newcastle thermal coal price (constant 2010 \$US)



Source: Australian Government Department of Industry, Innovation and Science: Office of the Chief Economist, *March 2017 – Historical data*, March 2017, industry.gov.au/Office-of-the-Chief-Economist/Publications/Documents/reg/March-2017-Historical-data.xlsx; World Bank, *Annual prices*, April 2017, pubdocs.worldbank.org/en/226371486076391711/CMO-Historical-Data-Annual.xlsx.

Between 2000 and 2007, the Newcastle spot coal price increased from US\$33 per tonne to US\$68.9 per tonne (in constant 2010 US dollars), an average annual increase of 11 per cent. In 2008, the Newcastle spot coal price increased to US\$123.6 per tonne (an increase of 79 per cent) before decreasing to US\$74.5 per tonne (a decrease of 40 per cent). Between 2009 and 2011, during the development of the 2011 HVAU, the Newcastle spot coal price increased to US\$109.4 per tonne, an average annual increase of 21 per cent. Since 2011, during the operation of the 2011 HVAU, the Newcastle spot coal price has decreased to a low of US\$58.8 per tonne in 2015, an average annual decrease of 14 per cent. In 2016, the Newcastle spot coal price increased to US\$70.1 per tonne (an increase of 19 per cent). During January and February 2017, the Newcastle spot coal price averaged US\$78.9 per tonne.⁶

⁵ Calculated from data provided from NSW Coal Services.

⁶ IndexMundi, *Coal, Australian thermal coal Monthly Price*, March 2017, www.indexmundi.com/commodities/?commodity=coal-australian&months=360; OECD, *OECD.Stat*, March 2017, stats.oecd.org/

2.4. 2011 Hunter Valley Access Undertaking

On 29 June 2011, the ACCC accepted the 2011 HVAU under Part IIIA of the Act. ARTC was required to submit an access undertaking to the ACCC as a condition of ARTC's 60-year lease of the Hunter Valley network from the NSW Government.⁷

The 2011 HVAU comprises the following key features:

- preliminary sections on the operation and interpretation of the HVAU
- a process for parties to apply for access with ARTC, and a negotiate/arbitrate framework, with ACCC arbitration as a back-stop, to facilitate agreement of mutually acceptable terms and conditions of access
- a revenue cap and pricing methodologies to promote access pricing that is efficient and that reflects the cost of providing access to the network
- a real pre-tax rate of return (**ROR**) of 9.1 per cent. This was a negotiated outcome between ARTC and coal producers⁸
- numerous provisions regarding network capacity management, including provisions designed to facilitate alignment of capacity management on the Hunter Valley rail network with other components of the supply chain
- a framework for governing investment in the network and creation of additional network capacity. The framework allows for endorsement of investment proposals by the RCG, and a user funding option where Access Holders can fund a project if ARTC ceases or refuses to contribute to its development
- liability and performance accountability/incentive measures with implications for both ARTC and access seekers
- operational provisions regarding the management of trains on the network.⁹

The ACCC's acceptance of the 2011 HVAU followed consideration of earlier versions of the undertaking submitted and subsequently withdrawn by ARTC in 2009 and 2010. The 2011 HVAU was initially due to expire on 30 June 2016. The ACCC approved two variations to the term of the 2011 HVAU sought by ARTC to extend its operation to 30 June 2017.

The Hunter Valley rail network was previously subject to the 2004 NSW Rail Access Undertaking (**NSW RAU**), which was administered by the Independent Pricing and Regulatory Tribunal (**IPART**).

2.5. ACCC assessment of 2017 HVAU to date

ARTC submitted the 2017 HVAU to the ACCC on 9 December 2016.

Prior to that, on 23 December 2015, ARTC submitted the 2016 HVAU to the ACCC for assessment. ARTC subsequently withdrew the 2016 HVAU prior to the ACCC finalising its assessment.

The ACCC received twelve submissions in response to its consultation process on the 2016 HVAU. As part of this Draft Decision, and as requested by a number of stakeholders in

⁷ Memorandum between The Commonwealth of Australia and The State of New South Wales and Australian Rail Track Corporation Ltd, *In relation to the Lease of the NSW Interstate and Hunter Valley rail assets to Australian Rail Track Corporation and associated arrangements*, 4 June 2004, www.artc.com.au/library/Final_Tripartite_Agreement.pdf, p. 8.

⁸ ACCC, *Decision – in relation to Australian Rail Track Corporation's Hunter Valley Rail Network Undertaking*, 29 June 2011, pp. 46-49.

⁹ *Ibid.*, p. 7.

their submissions on the 2017 HVAU, relevant submissions on the 2016 HVAU have been considered as part of the ACCC's assessment of the 2017 HVAU.¹⁰

Further detail on the events leading up to the ACCC's Draft Decision on the 2017 HVAU is set out below. Table 3 provides a timeline of the key stages of the ACCC's assessment to date.

Table 3: Timeline of ACCC assessment to date

Date	Event
29 June 2011	The ACCC accepts the 2011 HVAU under Part IIIA of the Act. The original expiry date of the 2011 HVAU was 30 June 2016.
23 December 2015	ARTC submits the 2016 HVAU for ACCC assessment as a replacement to the 2011 HVAU.
8 January 2016	ACCC publishes a consultation paper on the 2016 HVAU.
22 February 2016	Consultation period for the ACCC's consultation on the 2016 HVAU closes.
20 May 2016	ARTC submits first variation application to extend the term of the 2011 HVAU to 31 December 2016.
23 May 2016	ACCC sends a letter to stakeholders seeking comments on ARTC's application to extend the 2011 HVAU.
14 June 2016	ARTC withdraws the 2016 HVAU from ACCC assessment.
16 June 2016	ARTC submits a revised application to vary the term of the 2011 HVAU to 31 December 2016.
22 June 2016	ACCC accepts the variation application to extend the term of the 2011 HVAU to 31 December 2016.
7 July 2016	ACCC publishes a letter to stakeholders outlining its preliminary views on the 2016 HVAU. ¹¹ This letter aimed to facilitate negotiations between ARTC and stakeholders in the development of a replacement to the 2011 HVAU and provide clarity on the ACCC's preliminary views on issues in the 2016 HVAU.
18 October 2016	ARTC submits a second variation application to extend the term of the 2011 HVAU to 30 June 2017.
19 October 2016	ACCC sends a letter to stakeholders seeking comments on ARTC's further application to extend the 2011 HVAU.
23 November 2016	ACCC accepts the variation to extend the term of the 2011 HVAU to 30 June 2017.
9 December 2016	ARTC submits the 2017 HVAU for ACCC assessment as the first stage of replacing the 2011 HVAU.
15 December 2016	ACCC publishes consultation paper on the 2017 HVAU.
3 February 2017	Consultation period for the ACCC's consultation paper on the 2017 HVAU closes.

¹⁰ Submissions on the 2016 HVAU are available at: <https://www.accc.gov.au/regulated-infrastructure/rail/hunter-valley-access-undertaking-2016/consultation-paper>.

¹¹ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, available at: www.accc.gov.au/system/files/2016%20HVAU%20-%20Letter%20to%20stakeholders%20providing%20preliminary%20views%20-%20FINAL%20-%202017%20July%202016.pdf

Date	Event
20 April 2017	ACCC publishes Draft Decision on the 2017 HVAU. The consultation period closes on 12 May 2017.

2.5.1. First extension of the 2011 HVAU and withdrawal of 2016 HVAU

On 20 May 2016, ARTC submitted its first application to vary the 2011 HVAU to extend the term of the 2011 HVAU by 6 months to 31 December 2016. The variation application also sought to reduce the ROR for the extension period, consistent with the 2016 HVAU.¹²

During this period, the ACCC also released its 2013 Annual Compliance Final Determination (on 6 June 2016).¹³

In response to feedback from stakeholders and the ACCC in relation to concerns with its variation application, ARTC submitted a revised variation application on 16 June 2016, with the ACCC consenting to ARTC's application on 22 June 2016.

Included as part of ARTC's rationale for seeking the extension was that it would:

- allow more time for a new HVAU to be agreed with stakeholders¹⁴
- the 6 month extension would have had the effect of aligning the term of the HVAU with its contractual and compliance obligations that are on a calendar year basis.¹⁵

Stakeholders generally supported the extension to ensure ongoing certainty of regulated rail access on the Hunter Valley coal network.¹⁶

On 14 June 2016, ARTC withdrew the 2016 HVAU, advising the ACCC that it intended to resubmit a revised access undertaking providing for the ACCC's 2013 Annual Compliance Final Determination following implementation of the extension period and re-engaging with stakeholders on important aspects reflected in their submissions to the ACCC on the 2016 HVAU.

2.5.2. ACCC preliminary views letter

On 7 July 2016, the ACCC published a letter setting out the ACCC's preliminary views on the 2016 HVAU. The letter aimed to facilitate the ongoing negotiations between ARTC and industry in the development of a revised undertaking for submission to the ACCC, by providing clarity as to the ACCC's position on a number of key issues in ARTC's withdrawn 2016 HVAU.

The ACCC also encouraged ARTC and industry to continue negotiations and reach agreement on issues where possible, as any narrowing of the matters in dispute would result in all parties' resources being better directed during the formal assessment process.¹⁷

¹² The extension to 31 December 2016 included a real pre-tax rate of return of 6.74 per cent and a nominal pre-tax rate of return of 8.50 per cent.

¹³ ACCC, *Final determination: Australian Rail Track Corporation's compliance with the Hunter Valley coal network access undertaking financial model for the 2013 calendar year*, 6 June 2016, available at: www.accc.gov.au/system/files/ACCC%20final%20determination%20-%20HVAU%20Annual%20Compliance%202013.pdf.

¹⁴ ARTC, *Application by ARTC to vary the Hunter Valley Access Undertaking to extend term*, 16 June 2016, p. 2.

¹⁵ Ibid.

¹⁶ Asciano, *Response to the ARTC Proposed Extension and Variation to the 2011 HVAU*, 6 June 2016, p. 1; HRATF, *ARTC proposed extension and variation of 2011 Hunter Valley Coal Network Access Undertaking (2011 HVAU)*, 8 June 2016, pp. 1-2.

¹⁷ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 1.

Where relevant to the assessment of the 2017 HVAU, the ACCC's preliminary views have been set out in the respective chapters of this Draft Decision. The ACCC has also briefly noted below ARTC's response to these preliminary views – in particular where changes have been made from the proposed approach in the 2016 HVAU when compared to the 2017 HVAU – that are not otherwise covered in this Draft Decision.

2.5.3. Second extension of the 2011 HVAU and submission of 2017 HVAU

During the second half of 2016, it became apparent in discussions with ARTC and stakeholders that talks between the parties had stalled in trying to arrive at a negotiated position on the key commercial parameters in a revised HVAU.

In light of this, on 18 October 2016 ARTC submitted an application to vary the 2011 HVAU to further extend the term to 30 June 2017 while a revised HVAU was being developed for submission to the ACCC.¹⁸

Included as part of ARTC's rationale for seeking the second extension was that it would:

- provide regulatory and pricing certainty to ARTC and Access Holders while the new undertaking application is being considered by the ACCC
- continue to provide Access Holders with a reduced ROR during the further extension period.¹⁹

Again, stakeholders were generally supportive of the proposal for the purposes of consistency and commercial certainty; however this was subject to ARTC addressing concerns (amongst others) relating to reimbursing individual users given the lower ROR that would apply during the extended period as part of the reconciliation process.²⁰

In its submission, the Hunter Rail Access Task Force²¹ (HRATF) stressed 'that it is critical that the process around development and approval of the new undertaking is ... completed over the coming months without the need for any further extension'.²²

2.6. ARTC response to the ACCC's preliminary views letter

After the release of the ACCC's preliminary views letter, ARTC removed a number of proposals from the 2017 HVAU that had been included as part of the 2016 HVAU. The following section briefly sets out these changes – which are not otherwise discussed in detail as part of this Draft Decision.

2.6.1. Privatisation

ARTC included section 2.2(c) in the 2016 HVAU at the request of its shareholders.²³ The section required that in the event that ARTC is privatised, ARTC will use its 'best

¹⁸ ARTC, *ARTC 2011 Hunter Valley Coal Network Access Undertaking Extension Application to the ACCC*, 14 October 2016, p. 1.

¹⁹ Ibid.

²⁰ Pacific National, *Pacific National Response to the ARTC Proposed Extension and Variation to the 2011 HVAU*, 2 November 2016, p 1; HRATF, *ARTC proposed further extension and variation to ARTC 2011 Hunter Valley Access Undertaking (2011HVAU)*, 28 October 2016, p. 1.

²¹ The Hunter Rail Access Task Force is a group of nine coal producers who access the Hunter Valley rail network – Anglo American, Bloomfield, Coal & Allied, Glencore, Idemitsu, HVEC, Peabody, Whitehaven, and Yancoal.

²² HRATF, *ARTC proposed further extension and variation to ARTC 2011 Hunter Valley Access Undertaking (2011HVAU)*, 28 October 2016, p. 1.

²³ ARTC's shares are owned by the Commonwealth of Australia which is represented by the Minister for Infrastructure & Transport, and the Minister for Finance.

endeavours' to ensure that the new owners develop an undertaking on the same terms as the 2016 HVAU.

On 3 May 2016 however, as part of the 2016-17 Federal Budget, the Government announced that it intended to 'retain the ARTC in Australian Government ownership to enable the [Inland Rail] project to access funds at the lowest cost to the taxpayer'.²⁴ Given the proposed 10 year construction timeframe for the Inland Rail project, and in light of the Government's announcement, it appears unlikely that ARTC will be privatised in the short to medium term.

The ACCC's view in relation to providing regulatory certainty around the potential privatisation of ARTC is that some form of external compulsion by a relevant government is required – mandating the appropriate regulatory arrangements to be implemented up-front prior to its privatisation. The ACCC's position is that there is no form of drafting that can be included in the HVAU alone that will provide sufficient regulatory certainty for users of the Hunter Valley rail network.

In the absence of such an obligation, there will be no certainty as to the pricing and access mechanisms that will apply and there is a strong likelihood that under future non-government ownership, users of a privatised ARTC will face higher prices and restricted access.

ARTC has removed section 2.2(c) from the proposed 2017 HVAU and does not seek to include an alternative provision relating to its potential privatisation.

HRATF supports the removal of section 2.2(c) but continue to have concerns about the potential privatisation of ARTC without an appropriate and long term framework in place. HRATF acknowledge however that privatisation is less likely now than at the time the 2016 HVAU was submitted.²⁵ Pacific National submits that it would prefer to retain section 2.2(c) as it considers the provision would increase the level of regulatory certainty.²⁶

2.6.2. Minor variation process

As part of the 2016 HVAU, ARTC proposed a 'minor variation' process that would allow amendments to selected 'administrative provisions' without triggering the formal variation process outlined in the Act.²⁷ These provisions included insurance, contact details, the Services Envelope, Network Key Result Areas (**NKRAs**), the Network, Performance Measurements, and Segments.²⁸

The ACCC's preliminary view was that the scope of the specific categories of 'minor variation' go beyond what would be considered 'minor'. The specified administrative provisions could affect the ACCC's view of the section 44ZZA(3) matters to which it must have regard to in deciding whether to accept a variation of the undertaking.²⁹

ARTC does not seek to include a minor variation mechanism in the 2017 HVAU. Stakeholders supported the removal of this provision.³⁰

²⁴ See media release from Minister for Urban Infrastructure, 3 May 2016, available at: http://minister.infrastructure.gov.au/pi/releases/2016/May/budget-infra_02-2016.aspx.

²⁵ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 33.

²⁶ Pacific National, *Pacific National Submission to the ACCC on the ARTC Proposed 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 6.

²⁷ Section 44ZZA(7) of the Act.

²⁸ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 4.

²⁹ *Ibid.*

³⁰ Pacific National, *Pacific National Submission to the ACCC on the ARTC Proposed 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 7; HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 33.

2.6.3. Costing manual

A Costing Manual was proposed in the 2016 HVAU which set out the mechanism by which assets and costs shared across Segments³¹ are attributed or allocated by ARTC. This allocation of assets and costs would ultimately determine allowable revenue and access prices for each Pricing Zone. This approach was included partly due to the allocation mechanism (Gross Tonne Kilometres (**GTK**) and Train Kilometres (**Train Km**)) for indirect costs in the 2011 HVAU being broadly defined and poorly recognising costs associated with the network.³²

The ACCC's preliminary view was that ARTC's proposal was not likely to be appropriate given the limited information provided for its justification and that in response ARTC would need to:

- provide more justification (both quantitatively and qualitatively) of allocators used to address potential incentives to inappropriately allocate costs to the Hunter Valley rail network
- potentially change the choice of allocators for some costs.³³

The purpose of these recommendations was not for the ACCC or coal producers to supplant ARTC's business operations and decision making processes but rather to provide sufficient transparency and oversight of its cost allocation method to help address potential incentives to inappropriately allocate costs to the Hunter Valley network.

ARTC submits that as a result of the proposed new opex regime, any changes made in the 2016 HVAU relating to the Efficiency Incentive regime, as well as the cost allocation and costing manual regimes have been deleted.³⁴

In its submission to the 2017 HVAU, HRATF are of the view that a costing manual is required, and that it should be consulted on and endorsed by the RCG or approved by the ACCC. HRATF also submit that the 2017 HVAU does not address how non-maintenance, variable costs are intended to be allocated.³⁵

The ACCC notes the removal of the Costing Manual proposal from the 2017 HVAU. However, the ACCC has set out its views on the broader issues relating to this matter in chapter 9 of this Draft Decision.

³¹ Segment means a component of the Hunter valley rail network as defined in Schedule E of the 2017 HVAU, and is the smallest component for which the Ceiling Limit and Floor Limit applies.

³² ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, December 2015, p. 13.

³³ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 5.

³⁴ ARTC, *2017 Hunter Valley Coal Network Access Undertaking – Summary of key changes to draft 2016 HVAU*, 9 December 2016, p. 6.

³⁵ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 33.

3. Legislative framework

3.1. Part IIIA of Competition and Consumer Act

The legislative framework for the ACCC's consideration of the 2017 HVAU is set out in Part IIIA of the Act. Division 6 of Part IIIA states that a provider of a service (or a person who expects to be the provider of a service) may give an undertaking to the ACCC in connection with the provision of access to that service. An undertaking may specify a number of matters in connection with the relevant service, including the terms and conditions on which access will be made available to third parties.³⁶ The ACCC may accept the undertaking if it thinks it appropriate to do so having regard to the matters set out in section 44ZZA(3). This chapter of the Draft Decision discusses in a general sense how the ACCC proposes to have regard to these matters under section 44ZZA(3) of the Act in making its draft decision in relation to the HVAU. Subsequent chapters consider the specific provisions in the 2017 HVAU against the statutory criteria by reference to this discussion.

If the ACCC accepts an undertaking, the access provider is required to offer third party access in accordance with the undertaking. An access undertaking is binding on the access provider and can be enforced in the Federal Court upon application by the ACCC.³⁷

3.2. Threshold for accepting an access undertaking

Section 44ZZA(3) of the Act provides that the ACCC may accept an access undertaking, if it thinks it appropriate to do so, having regard to the following matters:

- the objects of Part IIIA in section 44AA of the Act, which are to:
 - promote the economically efficient operation of, use of and investment in the infrastructure by which services are provided, thereby promoting effective competition in upstream and downstream markets
 - provide a framework and guiding principles to encourage a consistent approach to access regulation in each industry
- the pricing principles specified in section 44ZZCA of the Act, which provide that:
 - regulated access prices should:
 - be set so as to generate expected revenue for a regulated service that is at least sufficient to meet the efficient costs of providing access to the regulated service or services
 - include a return on investment commensurate with the regulatory and commercial risks involved
 - access price structures should:
 - allow multi-part pricing and price discrimination when it aids efficiency
 - not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher
 - access pricing regimes should provide incentives to reduce costs or otherwise improve productivity.
- the legitimate business interests of the provider of the service

³⁶ See the note to section 44ZZA(1) of the Act.

³⁷ Section 44ZZJ of the Act.

- the public interest, including the public interest in having competition in markets (whether or not in Australia)
- the interests of persons who might want access to the service
- whether the undertaking is in accordance with an access code that applies to the service
- any other matters that the ACCC thinks are relevant.

Section 44ZZA(3AA) of the Act provides that the ACCC must not accept an undertaking if a decision of the Commonwealth Minister is in force under section 44N that a regime for access to the service is an effective access regime. The ACCC notes that there is currently no effective access regime in place that applies to the Hunter Valley rail network that is the subject of the 2017 HVAU.

Lastly, section 44ZZA(3A) provides that the ACCC must not accept an undertaking unless:

- the provider or proposed provider of the service is a corporation (or partnership, or joint venture consisting solely of corporations); or
- the undertaking provides for access only to third parties that are corporations; or
- the undertaking provides for access that is (or would be) in the course of, or for the purposes of constitutional trade or commerce.

The ACCC is satisfied that the section 44ZZA(3A) requirements have been met.

3.3. Objects of Part IIIA

The ACCC is required to have regard to the objects of Part IIIA set out in section 44AA of the Act, which are to:

- promote the economically efficient operation of, use of and investment in the infrastructure by which services are provided, thereby promoting effective competition in upstream and downstream markets
- provide a framework and guiding principles to encourage a consistent approach to access regulation in each industry.

3.3.1. Promotion of efficiency and competition

Efficient operation of, use of and investment in the Hunter Valley rail network may promote effective competition in a range of upstream and downstream markets. While the ACCC has not conducted a market definition analysis (such as would occur under Part IV of the Act), and therefore not reached a conclusive view on what constitutes a particular upstream or downstream 'market', the ACCC notes that access to the Hunter Valley rail network may have significance to competition between above-rail operators for services to coal and non-coal users of the network, and to competition between coal producers for upstream inputs to mining (e.g. mining tenements, labour) and sales to export and domestic customers.

ARTC recognises that the operation, maintenance, and investment in the development of the Hunter Valley rail network is primarily to improve utilisation and performance of rail services and to optimise coal export throughput in the Hunter Valley.³⁸ Further, that it is a Hunter Valley coal industry objective to ensure that coal chain capacity is maintained, developed and utilised efficiently.³⁹

³⁸ See section 1.1(d) of the 2017 HVAU.

³⁹ See section 1.1(h) of the 2017 HVAU.

ARTC submits that in the development of the 2017 HVAU, it has sought to reflect changing market conditions and ARTC's role as a service provider forming part of the Hunter Valley coal supply chain. In particular, ARTC submits that there has been a change in focus from capacity investment in the Hunter Valley coal network, which was a key driver for the 2011 HVAU, to consolidation, productivity improvement, and a reduction in opex.⁴⁰ An example of this change in approach can be seen in ARTC's commitment to develop an opex efficiency incentive mechanism for inclusion in the 2017 HVAU.

3.3.2. A consistent approach to access regulation

The second object of Part IIIA is to provide a framework and guiding principles to encourage a consistent approach to access regulation in each industry.

ARTC's rail network in NSW is currently regulated by three access undertakings:

- 2011 HVAU
- 2008 Interstate Access Undertaking (**2008 IAU**), accepted by the ACCC on 15 July 2008
- NSW Access Undertaking (**NSW RAU**).

If the 2017 HVAU is accepted it will replace the 2011 HVAU.

In the current context, ARTC notes that the 2017 HVAU 'is an evolution from the 2011 HVAU' rather than a complete redesign. As such, other than where specifically referred to, the undertaking does not seek to make wholesale changes to the approach to access regulation as accepted by the ACCC under the 2011 HVAU.⁴¹

The ACCC acknowledges ARTC's rationale for a focused revision of the 2011 HVAU in lodging the 2017 HVAU for ACCC assessment, and the desirability of achieving consistency between the 2011 HVAU, the 2017 HVAU, the 2008 IAU and the NSW RAU to the extent possible and appropriate, as this is likely to be in the interests of access seekers as well as ARTC.

The ACCC also recognises that its consideration of the 2017 HVAU must have regard to the particular features and circumstances of the Hunter Valley rail network - taking into account the significance of the network to the Hunter Valley coal chain overall, existing commercial arrangements across the Hunter Valley coal export supply chain, and the change in relevant market conditions from those during the development of the 2011 HVAU.

While the ACCC considers that consistency between the 2011 HVAU and the various regulatory instruments that are applicable to ARTC's rail network is desirable, it may not of itself be determinative of a particular issue, as consideration must be given to whether proposed changes to the 2017 HVAU are appropriate in the current circumstances taking into account all relevant matters.

ARTC submits that evolving the 2011 HVAU to create the 2017 HVAU reflects several factors, including:

- that it provides reasonable certainty and consistency to parties with existing commercial arrangements given a number of AHAs were entered into prior to the 2017 HVAU and will continue into the period covered by the 2017 HVAU
- the successful operation of the 2011 HVAU, which ARTC submits has worked well as a framework to provide certainty for Access Holders, Applicants and ARTC. As the

⁴⁰ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 7.

⁴¹ *Ibid.*, pp. 6-7.

underlying task and operation of the network remains the same, ARTC's view is that there is no compelling need to drastically alter the regulatory framework

- a recognition of changing market conditions from when the 2011 HVAU was accepted, from a primary focus on capacity expansion to one of productivity improvements.⁴²

3.4. Pricing principles in section 44ZZCA

The ACCC is required to have regard to the pricing principles specified in section 44ZZCA of the Act. In the 2017 HVAU, ARTC has proposed provisions setting out pricing principles and methodologies relevant to the calculation of charges for access to the Hunter Valley network. The 2017 HVAU also includes a commitment by ARTC to work with the ACCC and Access Holders to develop and implement an opex efficiency mechanism by the commencement of the undertaking—1 July 2017.⁴³ The ACCC considers that the pricing principles are particularly relevant to these aspects of the 2017 HVAU.

3.5. Legitimate business interests of the provider

Section 44ZZA(3)(a) of the Act requires the ACCC to have regard to the legitimate business interests of the provider, in this case ARTC. ARTC has made a number of submissions in support of the 2017 HVAU, to which the ACCC has had regard as part of its assessment. The ACCC references these submissions as they relate to particular issues arising in subsequent chapters.

The ACCC notes the relationship between the legitimate business interests of ARTC and the pricing principles specified in section 44ZZCA(a), which provides that regulated access prices should:

- be set so as to generate expected revenue for a regulated service that is at least sufficient to meet the efficient costs of providing access to the regulated service; and
- include a return on investment commensurate with the regulatory and commercial risks involved.

The ACCC notes that the 2017 HVAU put forward by ARTC includes a proposal for regulating revenue, and the ACCC is having regard to the above principles in assessing that proposal.

The ACCC also notes that the legitimate business interests of ARTC often differ from the interests of access seekers, though this does not necessarily imply the interests are always in direct conflict. As a general consideration, the ACCC is of the view that the 2017 HVAU should provide an appropriate balance between the interests of ARTC and the interests of access seekers.

3.6. The public interest

Section 44ZZA(3)(b) requires the ACCC to have regard to the public interest, including the public interest in having competition in markets (whether or not in Australia).

The Hunter Valley coal supply chain is predominantly used for the export of coal from Australia, allowing Australian-based coal producers to sell coal to overseas customers. The ACCC therefore considers that the provision of effective access to the Hunter Valley rail network via the 2017 HVAU has the potential to enhance the efficiency of Australian coal producers seeking to compete with international rivals for the sale of coal to global

⁴² Ibid., p. 7.

⁴³ Section 9.3(a) of the 2017 HVAU.

customers. Domestic purchasers of Hunter Valley coal may similarly benefit from the enhanced efficiency and competitiveness of coal producers.

3.7. Interests of access seekers

Section 44ZZA(3)(c) requires the ACCC to have regard to the interests of persons who might want access to the service.

To assess the interests of access seekers the ACCC has conducted a public consultation process on the 2017 HVAU, during which the ACCC sought and received submissions from a range of interested parties. The ACCC has also met with interested parties to further discuss submissions, and keep parties updated on the 2017 HVAU assessment process (and 2016 HVAU process prior). Submissions by actual and potential access seekers made during consultation are particularly relevant in having regard to section 44ZZA(3)(c).

The ACCC considers that access seekers include those persons seeking access to the Hunter Valley rail network for the purpose of hauling coal, either to the Port of Newcastle for export or to domestic customers. The preamble to the 2017 HVAU recognises that the predominant usage of the Hunter Valley rail network is for rail haulage of export coal to the Port of Newcastle. Further, the HVAU contemplates coal producers entering agreements directly with ARTC for access rights, provided those rights are exercised via an above-rail operator.

While the predominant usage of the Hunter Valley network is for the transport of coal, the ACCC also considers that access seekers include those parties seeking access to the network for purposes other than hauling coal.

The ACCC also considers it important to recognise above-rail operators as access seekers or potential access seekers, noting that above-rail operators may share common interests with both coal and non-coal access seekers. In particular, the ACCC notes that, in addition to the HVAU contemplating coal producers contracting directly with ARTC for access rights, above-rail operators may also directly contract with ARTC for those rights, as well as for non-coal access rights.

The ACCC has had regard to submissions from access seekers, and potential access seekers, and references these submissions in the subsequent chapters as they relate to particular issues.

3.8. In accordance with an access code

Section 44ZZAA of the Act provides that a prescribed industry body may give a written code (known as an access code) to the ACCC setting out rules for access to a service. The ACCC may accept the code, if it thinks it appropriate to do so having regard to matters set out in section 44ZZAA(3).

In having regard to this matter in the current context, the ACCC notes that there is currently no access code in place that applies to the Hunter Valley rail network.

3.9. Any other matters the ACCC thinks are relevant

Section 44ZZA(3)(e) of the Act provides that, in deciding whether to accept an undertaking, the ACCC may have regard to any other matters it thinks are relevant.

For the reasons set out below, the ACCC considers it appropriate to have regard to the Hunter Valley rail network as part of the overall Hunter Valley coal supply chain, and considers it relevant to have regard to the extent to which the HVAU is sufficiently clear and certain in its terms, effect and operation.

3.9.1. Coal supply chain alignment

The ACCC acknowledges that the Hunter Valley rail network is an important part of the overall Hunter Valley coal supply chain, in that it links the coal mines in the Hunter Valley with the coal export terminals at the Port of Newcastle. Consequently, as per its views in the 2011 HVAU Final Decision, the ACCC continues to view the promotion of alignment between the Hunter Valley rail network and other elements of the Hunter Valley coal chain as a relevant matter in the assessment of the 2017 HVAU.⁴⁴

The HVAU was designed with a view to promoting the efficiency of the overall Hunter Valley coal supply chain. It is accepted by parties at all levels of the coal supply chain (mines, below-rail, above-rail, and port terminals) that standalone capacities of the different elements of the supply chain do not translate into whole system capacity. The HVAU therefore includes several mechanisms designed to facilitate coordination and cooperation between various parties of the Hunter Valley coal chain.

The ACCC is proposing to have regard to alignment as an ‘other matter’ it thinks is relevant under section 44ZZA(3)(e) of the Act. However, the ACCC also considers that coal supply chain alignment is in the interests of access seekers, in the public interest, and consistent with the object of Part IIIA of promoting the economically efficient operation of, use of and investment in infrastructure.

3.9.2. Clarity and certainty of the HVAU

The ACCC considers it relevant that the HVAU provides for sufficient certainty and clarity in its terms, effect and operations, so as to enable:

- ARTC and access seekers to be sufficiently aware of their respective rights and obligations, and thereby avoid unnecessary costs, monetary or otherwise, when utilising the processes set out by the HVAU. In this regard, the ACCC notes that a sufficiently clear and certain HVAU is in the interests of ARTC and access seekers
- the mediator and/or arbitrator appointed pursuant to the HVAU to quickly and effectively resolve any dispute that may arise between an access seeker and access provider
- the ACCC to quickly and effectively resolve any potential enforcement concerns that may arise regarding potential non-compliance with the HVAU by ARTC.

In the following chapters, the ACCC has identified a range of provisions of the 2017 HVAU that it considers to be either unclear or uncertain, and which could be revised by ARTC in order for the 2017 HVAU to be considered appropriate.

⁴⁴ ACCC, *Decision – in relation to Australian Rail Track Corporation’s Hunter Valley Rail Network Undertaking*, 29 June 2011, pp. 10-13.

4. Scope and Administration

This chapter sets out administrative matters for the 2017 HVAU. The ACCC considers that the scope and administration of the 2017 HVAU (specifically, the preamble, term, and request for information power) are appropriate, subject to minor amendments. In particular:

- the ACCC considers that the scope of the mandatory review should be expanded to include the proposed opex efficiency mechanism, innovation incentive mechanism, and NKRAAs
- while in principle, ARTC's proposal for including WAML as part of the mandatory review is appropriate, it is not appropriate to exclude mines in care and maintenance or mines pending licence renewal from a recalculated WAML
- the ACCC considers that ARTC should include a provision in the 2017 HVAU which requires ARTC to provide the ACCC with a copy of the issues paper prepared for the purposes of the mandatory review and all submissions received in response to it
- in relation to the request for information provisions, section 1.5(c)(i) should be amended so that, if ARTC does form the view that the request for information is 'onerous or oppressive', ARTC is required to engage with the ACCC in relation to revision of the notice
- section 1.5(c)(iv) should be amended so that it is clear that if ARTC does form the view that certain information or documents are not necessary for the ACCC to exercise its power or functions under the 2017 HVAU, that ARTC be required to engage with the ACCC in relation to revision of the notice.

Preamble

Section 1 of the proposed 2017 HVAU is a preamble that provides background information, context and objectives. Sections 1.1 and 1.2 of the 2017 HVAU are important to understanding the overall intent, purpose and context of the undertaking, as well as providing guidance to the interpretation of the provisions.

ARTC proposes minor changes to the provisions in the introduction and objectives provisions compared to the 2011 HVAU. ARTC submits that these changes have been made to reflect that the Hunter Valley rail network has now entered a phase that is more directed towards overall efficiency and maintenance of the existing network capabilities rather than the emphasis under the 2011 HVAU towards investment and expansion of the network. The ACCC considers that these amendments promote the economically efficient operation of, use of, and investment in the Hunter Valley rail network.

The ACCC also notes the inclusion of section 1.1(h) in the 2017 HVAU, which sets out that ARTC will undertake to work cooperatively with coal producers, the Hunter Valley Coal Chain Coordinator (**HVCCC**), and other parties to ensure Coal Chain Capacity is maintained, developed, and utilised efficiently. The ACCC considers that this amendment is appropriate as it also supports the promotion of coal supply chain alignment.

Term

4.1. ARTC proposal

Term

ARTC proposes a 9.5 year term for the 2017 HVAU with an initial termination date of 31 December 2026, as set out in section 2.2 of the 2017 HVAU. ARTC also propose a rolling five year extension process, exercisable at ARTC's discretion and subject to the consent of the ACCC. The proposed term is longer than the 2011 HVAU, which had an initial term of

5 years. ARTC submits that it is proposing a longer term in response to requests from stakeholders.⁴⁵

ARTC submits that the purpose of the half year is to bring the 2017 HVAU into alignment with the calendar year. ARTC notes that this is consistent with AHAs. ARTC also submits that the half year will simplify transitional arrangements, as well as the implementation of amendments arising from periodic reviews for future undertakings.⁴⁶

Mandatory review

Given the longer term proposed for the 2017 HVAU, ARTC proposes to include a process for the mandatory review of certain terms of the undertaking.⁴⁷ ARTC submits that it has included a periodic mandatory review process as it recognises that there is some uncertainty over market conditions, commercial arrangements, and industry structure across a longer term.⁴⁸ The mandatory review is required to commence either on or at least 6 years before the expiry of the then current end date of the 2017 HVAU. Therefore the first review would need to commence by 31 December 2020. ARTC submits that the objective is that any amendments to the 2017 HVAU will be approved by the ACCC and take effect 12 months after the review date, at the beginning of the calendar year.

The proposed mandatory review process set out in section 2.3 of the 2017 HVAU requires ARTC to review the following sections of the HVAU:

- the WAML calculation - to remove any coal mines that have been placed into care and maintenance or are subject to the renewal of any licence, approval, or other regulatory requirement, as well as any prospective mines that no longer satisfy the requirements of a prospective mine
- the ROR
- the ongoing requirement for a separate Regulatory Asset Base (**RAB**) methodology for Pricing Zone 3 (**PZ3**)
- whether to extend the 2017 HVAU for a further 5 year term (i.e. to extend the existing termination date by five years).

In addition, ARTC submits it has the discretion to undertake a review of other matters relevant at the time of review.⁴⁹

Under the proposed mandatory review process ARTC will be required to publish an issues paper, and seek stakeholder views. Stakeholders may submit not only on the sections for review but on any other matters that stakeholders consider relevant. Under section 2.3(c), ARTC is also required to consider in good faith any submissions on the issues paper.

Following completion of the review (no later than 6 months after its commencement) section 2.3(d)(i) requires ARTC to seek ACCC approval for any variation to the WAML and ROR. Under section 2.3(d)(ii), ARTC may also seek to extend the HVAU for a further 5 years. ARTC submits that regardless of the timing of an ACCC decision, it is intended that the implementation of any changes apply from 1 January, 5 years prior to the expiry of the undertaking.⁵⁰ The provision also notes that ARTC may apply to the Australian Competition

⁴⁵ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 11.

⁴⁶ Ibid.

⁴⁷ Section 2.3 of the 2017 HVAU.

⁴⁸ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 37.

⁴⁹ Ibid., p. 11.

⁵⁰ Ibid.

Tribunal (**Tribunal**) for a review of the ACCC's decision if the ACCC rejects a proposed variation application following a mandatory review.⁵¹

As noted above, as part of the mandatory review ARTC is required to consider an extension of the 2017 HVAU on a rolling five year basis. The effect of this will be to create the potential for a perpetual undertaking. ARTC submits that the purpose of the option to extend the term is to provide certainty of the existence of an undertaking for an additional 5 years should the circumstances be appropriate. ARTC also submits that the proposed rolling nature of the term of the 2017 HVAU is consistent with the rolling nature of train paths under AHAs.⁵² Should ARTC decide not to extend the undertaking for an additional 5 years at the time of the mandatory review, section 2.3(g)(ii) of the 2017 HVAU requires ARTC to publish a report setting out its reasons within 3 months of completion of its review.

ARTC submits that the option for extension provides stakeholders with the appropriate level of regulatory certainty, because if ARTC decides not to extend the term, stakeholders will have 5 years notice and this will give sufficient time to ensure that appropriate arrangements are put in place, noting that the NSW RAU under section 6AA of the *Transport Administration Act 1988* (NSW) would reapply to the network once the 2017 HVAU expired.

4.1.1. Comparison to 2011 HVAU

ARTC propose a longer term for the 2017 HVAU compared to the 2011 HVAU which had an initial term of 5 years.

4.1.2. Comparison to 2016 HVAU

ARTC has reduced the original term in the 2016 HVAU from 10.5 years to 9.5 years, to take into account the 12 month extension period from the initial expiry date of the 2011 HVAU.

ARTC has also amended the mandatory review process under section 2.3 for the WAML to align with the changes made to section 4.7 of the 2017 HVAU. This means that as part of the mandatory review, ARTC must also review the weighted average mine life to remove any mines that prior to the review date have been placed into care and maintenance or are subject to the renewal of a licence, approval or regulatory requirement that has not been granted, as well as prospective mines that no longer meet the definition of a prospective mine.

The 2017 HVAU also removes the obligation for ARTC to refer any decision by the ACCC to reject a variation application submitted by ARTC following the mandatory review to the Tribunal. However, the ACCC notes this remains an option for any person whose interests are affected by an ACCC access undertaking decision under section 44ZZBF of the Act.

4.2. Stakeholder submissions

4.2.1. 2017 HVAU

Term

HRATF are generally supportive of a longer term in order to provide greater reliability to the sector. However, HRATF submits that this also requires that the HVAU is updated using transparent and predictable set methodologies. HRATF considers that the term should be 10.5 years as proposed in the 2016 HVAU application. HRATF submits that it is not clear what the basis is for shortening the term. HRATF observe that the 12 month delay in

⁵¹ Section 2.3(e)(ii) of the 2017 HVAU.

⁵² ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 12.

commencement of the 2017 HVAU is substantially associated with delays by ARTC in developing a revised HVAU.⁵³

AGL submits it is concerned about the 9.5 year term. AGL suggests that given several significant changes are proposed to the HVAU, it may be more appropriate to have a shorter term of around 5 years. AGL submits this would ensure key parameters and terms would be considered through the ACCC's regulatory process once again.⁵⁴

Pacific National notes that section 2.2(c) in the 2016 HVAU relating to the treatment of the HVAU if the lease for the Hunter Valley Network is transferred has been removed for the 2017 HVAU. Pacific National submits that given the nine year term proposed for the 2017 HVAU, retaining this wording is useful as it provides regulatory certainty.⁵⁵

Mandatory review

HRATF submits that the mandatory review mechanism is 'unacceptable'. HRATF submits that the mandatory review process does not acknowledge or address any of the concerns raised by HRATF in their submission to the 2016 HVAU, in particular:

- the process is controlled by ARTC
- does not require the issues paper published by ARTC to include matters raised by industry or the ACCC
- the 2017 HVAU only refers to ARTC bringing an application for review to the Tribunal under section 44ZZBF, when this is a right open to all industry participants and any other affected stakeholders.⁵⁶

In addition, HRATF consider that other elements of the HVAU (such as the True-Up Test (**TUT**) and the operation of the NKRA require further development, and should therefore be included as part of any mandatory review process.⁵⁷ Overall, HRATF submits that to be appropriate, any mandatory review process must be balanced and provide an adequate means for industry (and other stakeholders) to raise concerns and have these adequately considered and addressed.⁵⁸

AGL submits that a shorter term allowing for the HVAU to be considered through the ACCC's regulatory process would be preferable to the ARTC controlled mandatory review process proposed in section 2.3 of the 2017 HVAU.⁵⁹

Pacific National supports the mid-term review but considers that further items should be added to the scope. The further items relate to areas where changes are proposed to be made between the 2011 HVAU and the 2017 HVAU, including:

- services envelope characteristics and pricing structure
- the opex efficiency mechanism
- the innovation incentive mechanism

⁵³ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 32.

⁵⁴ AGL, *ARTC 2017 HVAU – ACCC Consultation Paper*, 2 February 2017, p. 1.

⁵⁵ Pacific National, *Pacific National Submission to the ACCC on the ARTC Proposed 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 6.

⁵⁶ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 33.

⁵⁷ *Ibid.*, p. 110.

⁵⁸ *Ibid.*, p. 33.

⁵⁹ AGL, *ARTC 2017 HVAU – ACCC Consultation Paper*, 2 February 2017, p. 1.

- NKRAAs.

In addition, Pacific National submits that major quantitative inputs into the regulatory and access pricing processes should also be included in the proposed review process at section 2.3 of the 2017 HVAU.⁶⁰

Whitehaven notes that section 2.3(a)(iii) of the 2017 HVAU relating to the mandatory review process requires ARTC to review the requirement for a separate RAB methodology for PZ3. Whitehaven submits that section 2.3(a)(iii) should be deleted, as there is no explanation as to the requirement for review of this section, and regardless, ARTC have the ability under the 2017 HVAU to review any sections of the HVAU.⁶¹

The HVCCC supports the proposed reduction of the term of the 2017 HVAU from 10.5 years to 9.5 years.

4.2.2. 2016 HVAU

Term

All stakeholder submissions regarding term for the 2016 HVAU (with the exception of IPART) were supportive of a longer term.

HRATF supported the 10.5 year term with a partial review after 5 years. However, its preference was to have the term aligned at each review date to the then remaining average mine life used for depreciation purposes.⁶² HRATF notes that long period terms apply to NBN Co (30 years) and Sydney water (50 years).⁶³

PWCS supported aligning the 2016 HVAU to the calendar year operation and commercial cycle in the Hunter Valley. PWCS considered it is beneficial to give producers the opportunity to align the term of their track arrangements with their existing ten year long term terminal contracts.⁶⁴

HVCCC supported an extended term for the HVAU but notes that the benefit of that length of term loses relevance in the event ARTC is privatised.⁶⁵

IPART noted that a term of 10.5 years is too long given the uncertainty inherent in the mining industry. IPART submits the cost and price of monopoly infrastructure should be reviewed with more frequency to mitigate the risks of prices and costs that deviate from forecasts. IPART considers the mandatory reviews provide insufficient flexibility and a better solution is to have a five year term.⁶⁶

Mandatory review

HRATF supported the rolling review process by which they are provided with at least 5 years notice of any intention of ARTC not to renew the entire HVAU. However, HRATF considers

⁶⁰ Pacific National, *Pacific National Submission to the ACCC on the ARTC Proposed 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 7.

⁶¹ Whitehaven, *Whitehaven Coal response to ACCC Consultation paper on ARTC's draft [2017] Hunter Valley Access Undertaking*, 3 February 2017, p. 2.

⁶² HRATF initially proposed the remaining average mine to be 22 years in its submission to the 2016 HVAU.

⁶³ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, pp. 12-13.

⁶⁴ Port Waratah Coal Services, *Australian Rail Track Corporation's 2016 HVAU – Consultation Paper*, 19 February 2016, p. 1.

⁶⁵ HVCCC, *Submission – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 7 March 2016, p. 2.

⁶⁶ IPART, *IPART submission to ACCC on its 8 January 2016 Consultation Paper*, 18 February 2016, p. 2.

the HVAU should provide greater certainty around the basis for any refusal to renew the HVAU. Specifically, HRATF submits that the right to refuse to extend should only exist where ARTC can reasonably demonstrate that:

- the operation of the HVAU no longer meets the objectives of the HVAU in section 1.2 of the 2016 HVAU
- the expiration of the HVAU at the next periodic review date has been endorsed by the RCG (on the basis of the standard 70 per cent endorsement threshold used for other endorsement matters under the 2016 HVAU)
- appropriate steps, acceptable to the ACCC, have been taken to provide for a transition in relation to any current AHAs at the time of expiry of the HVAU.⁶⁷

HRATF noted that the process should be changed to allow stakeholders to make submissions to the ACCC, and allow the ACCC to direct how a rejected proposal can be varied.⁶⁸

Asciano (now Pacific National) agreed with the 10.5 year term, on the condition that:

- a review occurs in the event of a change of ARTC ownership
- the scope of the mandatory review is broadened to include a review of further items in the 2016 HVAU, in particular new concepts such as; variation of the costing manual, pricing structure, efficiency incentives, innovation incentives and NKRA's.⁶⁹

HVEC noted that the periodic review should require ARTC to consider all matters stakeholders raise. Further, to the extent that stakeholder views are not reflected in any application to the ACCC to amend the undertaking following the periodic review, ARTC should be obliged to provide reasons for the omissions to the ACCC and stakeholders.⁷⁰

4.3. ACCC view

Term

The ACCC considers that a 9.5 year term for the 2017 HVAU is appropriate, subject to amendments to the mandatory review process under section 2.3 of the HVAU. While some stakeholders have raised concerns about the proposed longer term given the changes to the 2017 HVAU from the 2011 HVAU, and uncertainty of the mining industry, in general most stakeholders are supportive of the longer term. The ACCC considers that the longer term undertaking will provide greater certainty for investment decisions for ARTC and access seekers. The ACCC is of the view that the 9.5 year term with the rolling option for extension proposed by ARTC provides an appropriate balance between the legitimate business interests of ARTC and the interests of access seekers (sections 44ZZA(3)(a) and (c)).

Mandatory review

ARTC has proposed that a mandatory review of the HVAU be completed every 5 years. ARTC submits that the objective is that any amendments to the 2017 HVAU will be approved by the ACCC and take effect 12 months after the review date, at the beginning of the calendar year. The ACCC encourages ARTC to commence the mandatory review process in a timely manner to allow for a comprehensive review, and an efficient approval process.

⁶⁷ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 15.

⁶⁸ *Ibid.*, pp. 14-15.

⁶⁹ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, pp. 7-8.

⁷⁰ HVEC, *HVEC submission on ARTC Draft 2016 HVAU*, 10 March 2016, p. 3.

ARTC submits that a review process will work with the proposed longer term to provide an appropriate level of regulatory certainty while still retaining flexibility to amend the 2017 HVAU to deal with changes in market conditions in consultation with industry. The ACCC notes that it can be difficult to predict whether an access undertaking with a long term will continue to be appropriate for the entirety of its duration, particularly towards the end of its term, or whether circumstances will change such that different arrangements may be more appropriate. Consequently, a risk in accepting a long term undertaking may be to 'lock in' arrangements that over time cease to be suitable. For example, IPART considers that a term of 10.5 years (as proposed in the 2016 HVAU) is too long given the uncertainty inherent in the mining industry and that the proposed periodic review provides insufficient flexibility. However, the ACCC considers that the inclusion of a suitable periodic mandatory review mechanism will be able to provide sufficient flexibility to deal with changes in circumstances over time.

However, the ACCC also considers that the review mechanism needs to have sufficient scope to provide this flexibility. Asciano (now Pacific National) submits that the periodic review should be broadened to include a review of further items in the 2017 HVAU. In addition, HRATF submits that to be appropriate, any mandatory review process must be balanced and provide an adequate means for industry (and other stakeholders) to raise concerns and have these adequately considered and addressed. ARTC has raised concerns that expanding the review terms to mean that the entirety of the HVAU is up for review would affect the certainty provided by the proposed longer term. The ACCC agrees that the periodic review should not necessarily provide for the review of the HVAU in its entirety (section 44ZZA(3)(a)). The ACCC notes that under section 2.3(a), ARTC is required to review the HVAU and consider its appropriateness for the remaining term of the undertaking having regard to the objectives of the HVAU (in section 1.2 of the 2017 HVAU). The ACCC is of the view that this is likely to contribute to ensuring the effective operation of the HVAU over time.

The ACCC considers the mandatory review process covers the key commercial terms of the HVAU – specifically WAML, ROR, RAB methodology, and extension. ARTC submits that review of a separate RAB methodology for PZ3 under section 2.3(a)(iii) of the HVAU is a review of loss capitalisation for PZ3.

However, although the proposed review process covers key terms, the ACCC has had regard to the concerns of stakeholders regarding the changes from the 2011 HVAU to the 2017 HVAU and the concern that some of these changes are not covered by the mandatory review process. The ACCC considers that the scope of the mandatory review should be expanded to include the proposed opex incentive mechanism, innovation incentive mechanism, and NKRA's. The ACCC considers it is important that any performance incentives are included as they are new to the HVAU and they will also be refined during the operation of the 2017 HVAU prior to the first review period. As a measurement of ARTC's performance, the NKRA's should be also included as part of the periodic review as they have been substantially amended from the 2011 HVAU. The ACCC also notes that while in principle, ARTC's proposal for including WAML as part of the mandatory review is appropriate, the ACCC considers it is not appropriate to exclude mines in care and maintenance or mines pending licence renewal from a recalculated WAML. Further detail on the ACCC's views on WAML is set out in chapter 12 of this Draft Decision.

The mandatory review process allows for stakeholders to provide submissions not only on those issues raised in ARTC's issues paper, but on any other issue as well,⁷¹ with ARTC being required to consider all submissions in good faith.⁷² This means that stakeholders can

⁷¹ Section 2.3(b)(ii) of the 2017 HVAU.

⁷² Section 2.3(c) of the 2017 HVAU.

raise any concerns they may have with the operation of the HVAU at the time of the mandatory review. The ACCC considers an appropriate check on ARTC's requirement of good faith would be to include a provision in the 2017 HVAU which requires ARTC to provide the ACCC with a copy of its issues paper and all submissions received in response to it. This would provide the ACCC with sufficient information to follow up on any issues of concern with ARTC without broadening the mechanism to the point it becomes a de novo assessment.

In addition, as part of any variation to the HVAU submitted under section 44ZZA(7) of the Act following a mandatory review, the ACCC would consult with stakeholders as per its usual regulatory process. Accordingly, stakeholders will be afforded the opportunity to inform the ACCC of their views on any aspect of the HVAU's operation. The ACCC also notes that in considering whether or not a variation to an undertaking is appropriate to accept, it must have regard to all of the relevant legislative criteria under section 44ZZA(3) of the Act.

Finally, the option for extension of the HVAU is required to be exercised by ARTC every 5 years from the then end date of the HVAU. This provides 5 years notice of any potential termination of the HVAU. As noted above in its 2016 HVAU submission, HRATF submits that ARTC needs to be subject to limitations on its ability to refuse to extend the term. The ACCC consider that some of the proposed limitations submitted by HRATF may unduly limit the ability for ARTC to legitimately run its business. For example, RCG endorsement of an ARTC decision in relation to the expiration of the HVAU would be providing a secondary decision maker on top of ARTC's board. However, the ACCC considers that making sure that access seekers are aware of the transitional steps for any current AHAs following the expiry of the HVAU may assist in alleviating some uncertainty (section 44ZZA(3)(c)). The ACCC notes that in the event ARTC decides not to extend the HVAU, ARTC is required to publish a report within 3 months of the review setting out its reasons for not electing to extend the HVAU. The ACCC considers that it would be appropriate to require ARTC to outline the relevant transitional steps for any current AHAs at the time of expiry of the HVAU in this report.

Request for information

4.4. ARTC proposal

ARTC proposes a provision that allows the ACCC to require ARTC to provide information or documents that are required to enable the ACCC to exercise its powers or functions in relation to a material obligation, right or process under the 2017 HVAU.⁷³ Section 1.5(b) of the 2017 HVAU sets out that the ACCC's request must: be in writing; include the reasons for the request; and state how the information or documents are to be provided. ARTC also propose to require a minimum 14 days from the date of the information request in order to comply with the notice.

ARTC also proposes to include a set of exceptions to the request for information provision.⁷⁴ Specifically, that ARTC is not required to provide information or documents:

- that ARTC considers, acting reasonably, would be onerous or oppressive to provide
- not within ARTC's possession or control
- that are subject to a legitimate claim of privilege
- that are not necessary for the ACCC to exercise its powers or functions in relation to a material obligation, right or process under the 2017 HVAU.

⁷³ Section 1.5 of the 2017 HVAU.

⁷⁴ Section 1.5(c) of the 2017 HVAU.

ARTC submits that it will determine whether or not a request is 'onerous or oppressive' in line with case law.⁷⁵

A request for information provision was not included in either the 2011 HVAU or 2016 HVAU.

4.5. Stakeholder submissions

HRATF supports the inclusion of a request for information provision in the 2017 HVAU. However, HRATF states that the drafting proposed by ARTC is unsatisfactory and inconsistent with standard regulatory practice. In particular, HRATF submits:

- the drafting proposed by ARTC opens up the prospect for ARTC to avoid disclosure through arguments over the content of the notice, for example the requirement for reasons or reasonable detail
- ARTC can avoid the provision of documents or information where it forms the view that doing so would be onerous or oppressive. ARTC should engage with the ACCC about the request if it has concerns about the scope and not be free to avoid it entirely.
- the drafting leaves scope for ARTC to argue that any obligation, right or process to which an information request relates to is not 'material'.⁷⁶

HRATF submits that any request for information provision should take the same form as required by the ACCC in relation to section 87B undertakings. HRATF suggests this approach should be non-contentious and cannot be contrary to the legitimate interests of ARTC, as it allows ACCC to provide appropriate oversight.⁷⁷

HVCCC also supports the request for information provision included at section 1.5 of the 2017 HVAU.

4.6. ACCC view

The ACCC considers that the request for information provision is appropriate. The ACCC considers the provision is necessary to increase the ACCC's ability to obtain relevant information in a timely manner and to enable it to properly discharge the functions and powers provided to the ACCC under the 2017 HVAU.

Under the Act, if an access undertaking provides for the ACCC to perform functions or exercise powers in relation to the undertaking, the ACCC may perform those functions and exercise those powers. If the ACCC decides to do so, it must do so in accordance with the undertaking.⁷⁸

In its preliminary views letter on the 2016 HVAU, the ACCC set out its initial view that any future HVAU needs to include provisions that provide the ACCC with the power to request information from ARTC in a timely manner. The ACCC also referred to similar powers in relation to annual compliance under the 2011 HVAU, observing that such a provision would provide a consistent approach under the HVAU.⁷⁹

HRATF raises a number of concerns with ARTC's proposed request for information power under the 2017 HVAU. HRATF's first concern is that the requirements in section 1.5(b)(i) are

⁷⁵ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 10. Note: ARTC's Explanatory Guide does not detail what it understands to be the current case law.

⁷⁶ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 32.

⁷⁷ Ibid.

⁷⁸ Section 44ZZA(6A) of the Act.

⁷⁹ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 10.

unnecessarily formalistic and could lead to arguments over the content of the notice. While it is recognised that this is a possibility, the ACCC is of the view that the requirements provide some clarity regarding the operation of the power that are likely to be useful for both the ACCC and ARTC (section 44ZZA(3)(e)). Further there has been little history of disputes over formal requests for information since the commencement of the 2011 HVAU.

HRATF's second concern is that under the proposed exclusion in section 1.5(c)(i), ARTC would be able to completely avoid the provision of information where it forms the view that doing so would be 'onerous or oppressive'. The ACCC agrees that as currently drafted, the information request process could stop with ARTC forming this opinion and that such an outcome would not be appropriate. The ACCC considers that section 1.5(c)(i) should be amended so that, if ARTC does form the view that the request for information is 'onerous or oppressive' to provide, ARTC be required to engage with the ACCC in relation to revision of the notice (for example, by revising the scope or the timeline).

HRATF's third concern is that section 1.5(c)(iv) leaves scope for ARTC to argue that any obligation, right or process to which an information request relates is not 'material'. The ACCC considers that only the ACCC is in a position to determine whether certain information or documents are necessary for it to exercise its powers or functions; also that it is up to the ACCC to determine whether an obligation right or process under the 2017 HVAU is 'material.' However, for the avoidance of doubt, section 1.5(c)(iv) should also be amended so that it is clear that if ARTC does form the view that certain information or documents are not necessary for the ACCC to exercise its power or functions under the 2017 HVAU, that ARTC be required to engage with the ACCC in relation to revision of the notice (for example, explaining why certain information is unnecessary for the ACCC to exercise a particular power or whether it relates to a material obligation, right or process under the 2017 HVAU).

The ACCC has also considered HRATF's view that the request for information provision should take the same form as the 'standard precedent' requirements set out in section 87B undertakings. The ACCC acknowledges that section 87B of the Act gives the ACCC the ability to accept written undertakings to resolve competition concerns and provide a remedy for likely contravention of the Act not only in mergers and acquisitions, but is also an important compliance tool for situations where there is evidence of a breach, or a potential breach of the Act that might otherwise justify litigation.

However, the ACCC considers that the request for information power extracted by HRATF would not be appropriate given: (i) the voluntary regime set out in Part IIIA of the Act; and (ii) ARTC's specific circumstances. In particular, the ACCC is of the view that as there is little history of disputes between the ACCC and ARTC over formal requests for information, even in the absence of such a power, ARTC's proposed approach (subject to the proposed amendments) will appropriately assist ARTC in managing its responses to the ACCC in a timely and efficient manner, and is also in the interests of access seekers as it will enable the ACCC to effectively assess ARTC's compliance with its obligations under the 2017 HVAU (sections 44ZZA(3)(a) and (c)). The ACCC notes that in 2011, the ACCC accepted a similar request for information provision under the Co-operative Bulk Handling Limited Port Terminal Services Access Undertaking.⁸⁰

The ACCC therefore considers that proposed section 1.5 (subject to the inclusion of the amendments discussed above) is appropriate. For completeness, the ACCC also notes that should ownership of ARTC change, as a result of privatisation, this provision would likely require revision.

⁸⁰ ACCC, *Co-operative Bulk Handling Limited – Port Terminal Services Access Undertaking – Decision to accept*, 29 September 2011, p. 35.

5. Negotiating for access and dispute resolution

This chapter discusses those provisions in section 3 of the 2017 HVAU covering the negotiation for access process and the dispute resolution mechanism.

The ACCC considers that the changes to the prudential requirements for access seekers and the requirements on applicants seeking access rights in relation to a prospective mine are appropriate.

5.1. ARTC proposal

Section 3 of the 2017 HVAU outlines the process to be followed to enable an applicant to gain access rights to the Hunter Valley rail network. In particular the process provides for:

- the exchanging of information, including consultation with the HVCCC and other Hunter Valley coal chain service providers
- conditions precedent (including network exit capability, and prudential requirements)
- submission of an Access Application by the applicant
- preparation of an Indicative Access Proposal by ARTC
- negotiations to develop an Access Agreement for execution
- dispute resolution procedures (including possibility of arbitration by the ACCC), and
- both ARTC and the applicant to negotiate in good faith.

Indicative terms and conditions of access, as set out in the indicative agreements attached to the 2017 HVAU, the AHA and Operator Sub-Agreement (**OSA**) are discussed at chapter 22 of this Draft Decision.

5.1.1. Comparison to 2011 HVAU

ARTC has made minor changes to the negotiation for access provisions compared to the 2011 HVAU.

ARTC has made minor amendments to the prudential requirements under section 3.4(e). In particular, the 2017 HVAU extends the prudential requirements to apply to a party being proposed as a parent guarantor, and the material default provision under section 3.4(e)(ii) is expanded to cover a former related access holder.

ARTC submits that its changes to section 3.4(e)(ii) are to protect ARTC from having to negotiate with and provide access to a 'phoenix corporation'. In response to concerns raised by HRATF, ARTC has also included section 3.4(f) which excludes the 'phoenix corporation' provisions where a defaulting party has been purchased by an unrelated entity.

ARTC has also introduced section 3.7(a)(x) compared to the 2011 HVAU to include a requirement that an applicant seeking access rights in respect of a new mine or project can provide ARTC with the information required to enable ARTC to determine whether the mine or project constitutes a prospective mine.

5.1.2. Comparison to 2016 HVAU

As detailed above, section 3.7(a)(x) has been included compared to the 2016 HVAU.

5.2. Stakeholder submissions

5.2.1. 2017 HVAU

HRATF submits that the drafting of section 3.7(a)(x) allowing an applicant to provide evidence necessary to demonstrate satisfaction of prospective mine criteria is not contentious – although the assessment criteria for prospective mines are strongly disputed.⁸¹

5.2.2. 2016 HVAU

Stakeholders did not comment on the negotiation provisions in their submissions on the 2016 HVAU.

5.3. ACCC view

Overall, the ACCC considers that the negotiating for access and dispute resolution provisions in the 2017 HVAU are appropriate.

The ACCC notes the changes to the prudential requirements in the 2017 HVAU and considers that they continue to reflect the legitimate business interests of ARTC by appropriately limiting ARTC's exposure to commercial risk (section 44ZZA(3)(a)).

HRATF submits that the drafting changes at section 3.7(a)(x) relating to the provision of evidence to enable ARTC to determine whether a mine satisfies the prospective mine criteria are not contentious. The ACCC considers the inclusion of this provision to be appropriate. The ACCC also considers that ARTC's proposed definition of a prospective mine is appropriate. See chapter 13 of this Draft Decision for the ACCC's detailed views on the assessment criteria for prospective mines.

In addition, the ACCC considers that ARTC's proposed access negotiation framework in the 2017 HVAU appropriately reflects the interests of access seekers, and the legitimate business interests of ARTC (sections 44ZZA(3)(c) and (a)), as it clearly sets out the rights and obligations of both parties in the negotiation process, reducing costs and uncertainty.

In addition, the dispute resolution provisions set out in section 3.15 of the 2017 HVAU provide access seekers with recourse to arbitration in the event of disputes. The dispute resolution provisions support genuine commercial negotiation, providing both access seekers and ARTC with negotiating leverage.

The proposed approach also supports coal supply chain alignment in that it recognises the importance of the role of the HVCCC, as well as the role of other Hunter Valley service providers in determining the impact on coal chain capacity of the access rights sought by access seekers (section 44ZZA(3)(e)).

⁸¹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 50.

6. Floor limit and ceiling limits

This chapter sets out the floor and ceiling limits to the amount of revenue that ARTC is entitled to recover from Access Holders.

The ACCC considers that ARTC's proposed floor and ceiling revenue limits are not appropriate. The ACCC requires further clarification from ARTC:

- on the rationale for a dual Ceiling Limit, in the context of the 2013 Annual Compliance Final Determination
- regarding the practical operation of the dual Ceiling Limit, and associated redrafting of the 2017 HVAU for clarity.

6.1. ARTC proposal

Section 4 of the 2017 HVAU regulates the amount of revenue that ARTC is entitled to recover from Access Holders for use of the Hunter Valley rail network, by implementing revenue floor and ceiling limits. Specifically, the 2017 HVAU caps the maximum amount of revenue that ARTC is entitled to receive from Access Holders at the Economic Cost of providing services. The Economic Cost, discussed in further detail in chapter 8 of this Draft Decision, is calculated using a building block model and incorporates allowances for return on assets, return of assets (depreciation) and efficient opex. The calculation of Economic Cost, therefore, also requires a regulatory valuation of assets. ARTC's proposed treatment of the RAB is discussed in chapter 7 of this Draft Decision.

Floor revenue limit

Section 4.2 of the 2017 HVAU states, in relation to the floor revenue limit, that access revenue:

- in the case of each Access Holder must at least meet the Incremental Maintenance imposed by that Access Holder
- in the case of a PZ3 Access Holder and a Constrained Coal Customer (that is, PZ1 and PZ2), must also at least meet the Incremental Capital Cost imposed by that PZ3 Access Holder or Constrained Coal Customer.

That is, all non-coal traffic and coal traffic originating outside the Hunter Valley network (not in PZ1, PZ2 or PZ3) must pay at least its Incremental Maintenance Cost. Coal traffic originating within the main network (that is, PZ1, PZ2 and PZ3 coal producers) must pay at least their Incremental Maintenance Costs and Incremental Capital Costs.⁸²

In calculating the floor revenue limit, the 2017 HVAU defines the following costs:

- **Incremental Maintenance Cost** as maintenance expenditure, including major periodic maintenance that varies with usage.
- **Incremental Capital Cost** as capital costs that are reasonably identifiable as avoidable in the long term but excludes: all capital costs incurred before 1 July 2008; and any capital costs specifically endorsed by the RCG as being Fixed Costs.
- **Fixed Costs** as those costs associated with a Segment or group of Segments other than Incremental Costs.⁸³

⁸² ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 41.

⁸³ Section 15.1 of the 2017 HVAU.

Ceiling revenue limits

The 2017 HVAU defines the Ceiling Limit as the Economic Cost of those Segments which are required on a Stand-Alone Basis for a relevant access holder.⁸⁴ The 2017 HVAU defines the Stand-Alone Basis as being the Economic Cost of that segment less:

- Incremental Maintenance Costs imposed by non-coal traffic; and
- Incremental Capital Costs and Incremental Maintenance Costs imposed by unconstrained traffic (that is, PZ3 traffic traversing PZ1).

Section 4.3 of the 2017 HVAU outlines the operation of the ceiling revenue limit as follows:

- In relation to Segments in PZ1 and PZ2, access revenue from any Access Holder, or group of Access Holders must not exceed the Ceiling Limit for those Segments.
- In relation to Segments in PZ3, the access revenue from any Access Holder, or group of Access Holders must not exceed the Ceiling Limit for those Segments where the RAB for those Segments is equal to, or falls below, the RAB Floor Limit for those Segments at the end of the calendar year (t-1).
- Access revenue from an Access Holder for a Train Path in excess of its Floor Limit for that Train Path can only be reconciled against one Ceiling Limit.
- Access revenue for the purposes of this section 4.3 does not include:
 - Access revenue from Access Holders required to meet their Floor Limit, or
 - Access revenue returned to a Contributor as a result of the operation of a user funding agreement between the Contributor and ARTC.
- In allocating revenue from PZ3 Access Holders to Segments, ARTC will first allocate to each Segment traversed the Incremental Cost attributed to that PZ3 Access Holder. ARTC will allocate the remaining revenue to Segments in PZ3. ARTC will not allocate revenue from PZ3 Access Holders to Segments in PZ1 in excess of Incremental Costs caused by those PZ3 Access Holders in PZ1 Segments.⁸⁵

The effect of section 4.3 is to define two separate constrained networks, one representing PZ1 and PZ2, the other representing PZ3. In doing so, the 2017 HVAU creates separate revenue ceiling limits applicable to each constrained network. As noted above, section 4.3(c) of the 2017 HVAU also states that access revenue from an Access Holder for a train path in excess of the Floor Limit for that Train Path can only be reconciled against one Ceiling Limit. ARTC submits that this ensures the access revenue for an Access Holder cannot be applied towards both ceilings.⁸⁶

ARTC states that the intention of its approach to floor and ceiling revenue limits in the 2017 HVAU is to:

- enshrine the incremental cost principles outlined in the decision of the ACCC for the 2013 annual compliance assessment
- provide certainty to PZ1 producers that a defined amount of revenue from PZ3 producers is allocated towards meeting incremental costs (not only variable or Direct Costs) when PZ3 producers traverse PZ1

⁸⁴ Section 15.1 of the 2017 HVAU.

⁸⁵ Sections 4.3(a)-(e) of the 2017 HVAU.

⁸⁶ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 42.

- provide certainty to PZ3 producers that their contribution to PZ1 cannot exceed incremental costs (with the remainders of revenue from PZ3 producers allocated to meeting costs of PZ3)
- provide certainty to ARTC that PZ3 producers' incremental costs in PZ1 (no longer recovered from PZ1 producers) are recoverable as Take-or-Pay (**TOP**) Charges from PZ3.⁸⁷

6.1.1. Comparison to 2011 HVAU

Floor revenue limit

The main differences between ARTC's floor revenue limit proposal in the 2011 HVAU and 2017 HVAU relate to specifying the recovery of Incremental Capital Costs imposed by PZ3 or Constrained Coal Customers.

There are also minor drafting changes, and edits reflecting the revised definition of costs (discussed further in chapter 8).

Ceiling revenue limit

Broadly, the main differences for the ceiling revenue limit between the 2011 HVAU and 2017 HVAU relate to:

- defining two constrained networks and ceiling limits
- redefining incremental cost as the sum of Incremental Maintenance Cost and Incremental Capital Cost
- access revenue only being reconciled against one ceiling limit⁸⁸
- traffic operating in PZ3 only paying the Incremental Cost of their usage of PZ1.⁸⁹

As noted previously, ARTC notes that its proposed approach to the floor and ceiling revenue limits in the 2017 HVAU is intended to enshrine the Incremental Cost principles outlined in the 2013 Annual Compliance Final Determination.⁹⁰ In the ACCC's 2013 Annual Compliance Final Determination, it determined that PZ3 producers should contribute their Incremental Cost (including maintenance and capital) for traversing PZ1. Previously, PZ3 producers only contributed Direct Costs (a subset of Incremental Cost) when traversing PZ1.⁹¹

6.1.2. Comparison to 2016 HVAU

The main differences between the 2016 HVAU and 2017 HVAU are the same as those between the 2011 HVAU and 2017 HVAU. This is due to ARTC submitting the 2016 HVAU to the ACCC for assessment in December 2015, prior to the ACCC releasing its 2013 Annual Compliance Final Determination (in June 2016).

However, section 4.3(c) of the 2016 HVAU notes that neither Innovation Payments nor any Efficiency Incentive Amounts should be included in access revenue for the purposes of the Ceiling Revenue Limit. These provisions are not included in the equivalent section of the 2017 HVAU (section 4.3(d)).

⁸⁷ Ibid., p. 13

⁸⁸ Section 4.3(c) of the 2017 HVAU.

⁸⁹ Section 4.3(e) of the 2017 HVAU.

⁹⁰ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 13.

⁹¹ ACCC, *Final determination: Australian Rail Track Corporation's compliance with the Hunter Valley coal network access undertaking financial model for the 2013 calendar year*, 6 June 2016, pp. 5-6.

6.2. Stakeholder submissions

6.2.1. 2017 HVAU

HRATF states that it does not object to the principle of dual ceiling revenue limits, however it has a number of comments and concerns with the current approach to implement that decision.⁹² These comments and concerns include:

- clarifying that all capital costs incurred after 1 July 2008 must be assessed as to whether they were “Incremental Capital Costs” at the time they were incurred
- clarifying the definitions of Incremental Maintenance Cost and Incremental Capital Cost, as one links incremental costs to those that are avoidable over the long run, and the other refers to costs that vary with usage. HRATF submits that incremental costs should be defined as those that could be avoided over the long run, consistent with the methodology used by WIK-Consult (**WIK**) in the 2013 Annual Compliance Final Determination. HRATF submits that the definition of incremental costs should be clarified to provide more certainty about how they will be calculated.
- the drafting of section 4.3(d) does not work, and all revenue from constrained PZ1 customers must be applied to meeting the Ceiling Revenue Limit in that Pricing Zone
- the drafting of section 4.3(e) is confusing and inconsistent with the 2013 Annual Compliance Final Determination.

Overall, HRATF:

...acknowledges that ‘overs and unders’ accounting in the context of combinatorial price/ceiling model is complex. However, the current approach [in the 2017 HVAU] does not work and is inconsistent with the 2013 [Annual Compliance Final Determination].⁹³

IPART does not support the proposed approach of creating two constrained networks and ceiling limits. As the constrained group is not a fixed set of mines or track Segments, IPART argues that the ceiling test should not be fixed by placing arbitrary constraints on the groups of customers that are tested – such as separate ceiling tests for PZ1 and PZ2, and PZ3.

IPART further states:

If dual ceiling tests were to be calculated it would be necessary to allocate costs across the networks to particular mines. If a single universal ceiling test were applied to every possible combination of mines across all three pricing zones, then there would be no need for arbitrary cost allocations. That is the current situation. There is no good reason to depart from it in our view.⁹⁴

6.2.2. 2016 HVAU

Stakeholders did not comment on the floor and ceiling revenue limits in their submissions on the 2016 HVAU. Noting that the material changes to the floor and ceiling limits are only in the 2017 HVAU.

⁹² HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 28.

⁹³ *Ibid.*, p. 30.

⁹⁴ IPART, IPART submission to ACCC on *ARTC 2017 HVAU*, 25 January 2017, p. 2.

6.3. ACCC view

The ACCC notes that submissions on the 2017 HVAU raise two broad concerns about ARTC's proposed floor and ceiling limits; the necessity of a dual ceiling revenue limit and the practical application of the dual ceiling limit.

In its submission, IPART expressed concern about whether a dual ceiling revenue limit was required. The ACCC notes that, in contrast, HRATF does not object to a dual ceiling revenue limit in principle.

The ACCC understands that ARTC is seeking to incorporate the incremental cost methodology from the 2013 Annual Compliance Final Determination in the 2017 HVAU. In particular, the ACCC understands that ARTC's proposed approach intends to:

- provide certainty to PZ1 producers that a defined amount of revenue from PZ3 producers is allocated towards meeting incremental costs (not only variable or Direct Costs) for PZ3 producers traversing PZ1
- provide certainty to PZ3 producers that their contribution to PZ1 cannot exceed Incremental Costs (with the remainders of revenue from PZ3 producers allocated to meeting costs of PZ3).

The ACCC notes that in reconciling revenues received from PZ3 users, 'loss capitalisation' applies. During the development of the 2011 HVAU, there was relatively lower demand for rail services in PZ3 due to the start-up nature of coal mines in the region. ARTC was therefore not expecting to be able to recover its efficient costs in each calendar year. ARTC proposed the loss capitalisation model in the 2011 HVAU as a way to encourage investment in new assets where there was limited initial demand. The ACCC understands that once ARTC is able to recover the Economic Cost of PZ3 (including the losses capitalised from previous years), then PZ3 would become part of the Constrained Network for the purposes of revenue reconciliation. ARTC's proposal for loss capitalisation in the 2017 HVAU is discussed in chapter 7 of this Draft Decision.

The ACCC is not opposed to the implementation of the incremental cost methodology into the 2017 HVAU. However, the ACCC is concerned about the use of ARTC's proposed dual ceiling revenue limits in the long term, including once loss capitalisation has been recovered. The ACCC considers that ARTC's proposal does not adequately explain the rationale for the dual ceiling revenue limit, or how the 2013 Annual Compliance Final Determination necessitates this approach. The ACCC also considers that it is also unclear how maintaining the dual ceiling limit after loss capitalisation has been recovered aids the efficient operation of the Hunter Valley rail network.

HRATF raises a number of concerns about the drafting of ARTC's proposed approach in the 2017 HVAU. The ACCC notes HRATF's concerns about the ambiguity raised in the drafting, and shares these concerns. In particular, the ACCC considers that it is unclear how, based on the current drafting, the floor and ceiling revenue limits would operate in practice. The ACCC therefore considers that this does not reflect the intent of the 2017 HVAU, which is to use transparent and detailed methodologies, principles and processes for determining Access revenue limits.

The ACCC also notes HRATF's concerns about the definition of Incremental Maintenance Costs and Incremental Capital Costs. These concerns are considered in more detail in chapter 8 of this Draft Decision.

Sections in the 2016 HVAU relating to the exclusion of Innovation Payments from Access revenue for the purposes of the Ceiling Revenue Limit have been removed from the 2017 HVAU. As the Innovation Incentive Mechanism still forms part of the 2017 HVAU (in section 14 of the 2017 HVAU), it is unclear whether ARTC intended to remove this section

from the 2017 HVAU. ARTC's proposed Innovation Incentive Mechanism is considered in more detail in chapter 20 of this Draft Decision.

For the reasons given above, the ACCC considers that ARTC's proposed floor and ceiling revenue limits are not appropriate. The ACCC requires further clarification from ARTC on the rationale for a dual ceiling revenue limit, in the context of the 2013 Annual Compliance Final Determination. In addition, the ACCC requires further clarification from ARTC regarding the practical operation of the dual ceiling revenue limit, and associated redrafting of the 2017 HVAU for clarity.

7. Regulatory Asset Base, Regulatory Asset Base Floor Limit and Loss Capitalisation

This chapter sets out ARTC's proposal in the 2017 HVAU for the starting value of assets and annual roll-forward to take account of capital expenditure (**capex**), depreciation and disposals. This chapter also considers ARTC's proposal in the 2017 HVAU to retain loss capitalisation for PZ3, with the loss capitalisation mechanism forming part of the mandatory review (set out in section 2.3 of the 2017 HVAU).

The ACCC considers that ARTC's proposal for the regulatory value of assets is appropriate, as is its proposal for retaining loss capitalisation.

7.1. ARTC proposal

Section 4.4 of the 2017 HVAU details the initial values of the RAB and Regulatory Asset Base Floor Limit (**RAB Floor Limit**) and how they are to be rolled forward each period. It should be noted that all Segments in the Hunter Valley rail network have a RAB Floor Limit, while the RAB only relates to PZ3 as part of the loss capitalisation framework (discussed further below).

Sections 4.4(b) and (c) sets out what the initial RAB and RAB Floor Limit values will be. For Segments that form part of the Hunter Valley rail network covered by the 2011 HVAU as at 30 June 2017, the initial values under the 2017 HVAU are taken to be those applying as at 30 June 2017 under the 2011 HVAU.

For segments that do not form part of the Hunter Valley network covered by the 2011 HVAU as at 30 June 2017, the initial RAB and RAB Floor Limit values are to be determined using a depreciated optimised replacement cost (**DORC**) method of valuing assets, and must be approved by the ACCC. Sections 4.4(b)(ii) and (c)(ii) define the optimised replacement cost as the cost of replacement by commercially efficient application of best known currently available technology based on existing capacity and performance characteristics of the asset.

Section 4.4(d) sets out how the RAB for Segments in PZ3 are rolled forward annually:

$$\begin{aligned} RAB_{t,start} &= RAB_{t-1,end} \\ &= (1 + ROR) \times RAB_{t-1,start} - OutTurnRevenue_{t-1} + OutTurnOpex_{t-1} \\ &\quad + NetCapex_{t-1} \times (1 + 0.5 \times ROR) \end{aligned}$$

Where *ROR* is the nominal pre-tax ROR, *OutTurnRevenue* is the total access revenue earned by ARTC in the preceding calendar year, *OutTurnOpex* is the total opex incurred by ARTC in the preceding calendar year and *NetCapex* is the addition to the RAB in the preceding calendar year (that is capex plus interest during construction and less disposals).

Section 4.4(e) sets out how the RAB Floor Limit for all Segments in the Hunter Valley rail network are rolled forward annually:

$$\begin{aligned} RABFloorLimit_{t,start} &= RABFloorLimit_{t-1,end} \\ &= (1 + CPI_{t-1}) \times RABFloorLimit_{t-1,start} + NetCapex_{t-1} - Depreciation_t \end{aligned}$$

Where the Consumer Price Index (**CPI**) is the inflation rate determined by reference to the September quarter of the preceding year, *NetCapex* is the addition to the RAB in the preceding calendar year (that is capex plus interest during construction and less disposals) and *Depreciation* is the depreciation applicable to the RAB Floor Limit.

Loss capitalisation

During the development of the 2011 HVAU, ARTC proposed the loss capitalisation mechanism as a way to encourage investment in PZ3 where there was limited initial demand due to the start-up phase of the mines in that part of the network. Specifically, ARTC proposed loss capitalisation for PZ3 'because the volumes in Pricing Zone 3 are (at the current pricing levels) insufficient to recover the full economic cost in a year'.⁹⁵ ARTC submitted:

*Under this approach ARTC would be able to “capitalise” any economic losses incurred over time, provided its regulatory asset base (RAB) is above a specified lower limit, so it is able to earn a regulated return on these losses in the future.*⁹⁶

*...[Such an approach allows] an access provider a greater degree of flexibility than is normally possible under the building block approach.*⁹⁷

The ACCC notes that the value of the loss capitalisation account at a particular point in time is the difference between the RAB Floor Limit and the RAB, which is represented by the following formula:

$$LC_{t,end} = \max(RAB_{t,end} - RABFloorLimit_{t,end}, 0)$$

Where $LC_{t,end}$ is the balance of the loss capitalisation account at the end of year t .

Comparison to 2011 HVAU

Broadly, the main differences between the 2011 HVAU and 2017 HVAU involve:

- updating the provisions in section 4.4 to allow the RAB and RAB Floor Limit to be rolled forward according to the provisions in the 2011 HVAU instead of the NSW RAU
- clarification of the definition of Net Capex (encompassing capex, interest during construction and asset disposals).

For the 2017 HVAU, ARTC initially considered removing the loss capitalisation mechanism and recouping the outstanding losses as at 30 June 2017 via a transitional arrangement with PZ3 Access Holders. However, ARTC has ultimately proposed to retain loss capitalisation due to 'continuing capitalised losses and a strong preference by PZ3 Access Holders for the retention of the mechanism'.⁹⁸

However, ARTC anticipates that 'losses currently capitalised into the RAB for PZ3 would have been recouped by the end of the 2016 calendar year'.⁹⁹ In addition ARTC has proposed to review the loss capitalisation mechanism as part of the proposed mandatory review process set out in section 2.3 of the 2017 HVAU.

7.1.1. Comparison to 2016 HVAU

The main difference between the 2016 HVAU and 2017 HVAU relates to the removal of section 15.1 of the 2016 HVAU, being the transitional provisions for the final annual compliance process to be conducted under the current 2011 HVAU. This annual compliance assessment would have covered the period from 1 January 2016 to 30 June 2016 (2016H1),

⁹⁵ ARTC, *Hunter Valley Access Undertaking 2010 Explanatory Guide*, 7 September 2010, p. 12.

⁹⁶ ARTC, *Hunter Valley Access Undertaking 2009 Explanatory Guide*, 13 May 2009, p. 96.

⁹⁷ *Ibid.*, p. 97.

⁹⁸ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 15.

⁹⁹ *Ibid.*

being the final 6 months that ARTC anticipated the 2011 HVAU would apply at the time the 2016 HVAU was submitted.

ARTC states that these transitional provisions are no longer needed as the annual compliance process covering the full 2016 calendar year and the first half of the 2017 calendar year (2017H1) are being dealt with under surviving obligations of the 2011 HVAU.¹⁰⁰

7.2. Stakeholder submissions

7.2.1. 2017 HVAU

HRATF submits that:

- it is not clear whether section 4.4(a) should be retained by ARTC for the 2017 HVAU¹⁰¹
- the adjustments ARTC made to Net Capex in section 4.4(d) and section 4.4(e) may be interpreted as altering the point in time at which prudence of capex is assessed¹⁰²
- that prudence of capex should only be assessed at the time of commissioning, not at the time that capex is incurred.¹⁰³

7.2.2. 2016 HVAU

HRATF supported the rollover of the opening RAB values from June 2016. However, HRATF stated that the RAB and RAB Floor Limits should be reviewed for consistency between zones to ensure there are no material changes.¹⁰⁴

Glencore stated it does not believe that the retention of loss capitalisation in PZ3 is appropriate.¹⁰⁵ This is because Glencore submitted it previously understood that loss capitalisation was likely to come to an end during 2016.¹⁰⁶ Glencore is of the view this may indicate that PZ3 customers would currently have difficulty in paying the full Economic Cost of their infrastructure.¹⁰⁷

As an alternative to loss capitalisation, Glencore proposed a different ROR for each Pricing Zone rather than the current single ROR for the Hunter Valley rail network. Glencore stated that a single rate of return reflects a blend of the different risks inherent in the different Pricing Zones.¹⁰⁸ Therefore, Glencore is of the view that with separate rates of return for each Pricing Zone; that is, the PZ1 and PZ2 Weighted Average Cost of Capital (**WACC**) rate (rate of return) should be set lower than the PZ3 rate, to reflect that there is no risk relating to deferral of revenue recovery in those Pricing Zones.¹⁰⁹

¹⁰⁰ ARTC, *2017 Hunter Valley Coal Network Access Undertaking – Summary of key changes to draft 2016 HVAU*, 9 December 2016, p. 6.

¹⁰¹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 53.

¹⁰² *Ibid.*, pp. 55-56.

¹⁰³ *Ibid.*, p. 56.

¹⁰⁴ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 20.

¹⁰⁵ Glencore, *Submissions to the Australian Competition and Consumer Commission Hunter Valley Coal Network Access Undertaking submitted by Australian Rail Track Corporation (“ARTC”)*, 15 March 2016, p. 1.

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*

HVEC stated that:

*...the loss capitalisation provisions in clause 4 [should] be removed from the Draft 2016 Undertaking and for any losses which remain outstanding at the conclusion of the 2011 HVAU to be dealt with via a transitional arrangement.*¹¹⁰

HVEC disagreed with ARTC's claims that capitalised losses may not be able to be recovered by the end of the 2011 HVAU. HVEC argues that:

- there is very limited uncertainty around capacity expansions in PZ3 as the major expansions are largely already in place for contracted volumes and no further significant Network investments are currently planned
- any such uncertainty could in any case be overcome by the implementation of an appropriate transitional framework.¹¹¹

HVEC noted that the loss capitalisation account will give ARTC appropriate flexibility in relation to pricing and the rate of recovery of capitalised losses.¹¹² However HVEC believes that when balanced against the need to promote economically efficient investment in the Network as a whole it does not consider the level of ongoing flexibility is necessary.¹¹³

Idemitsu is supportive of ARTC continuing loss capitalisation from the 2011 HVAU into the 2016 HVAU on the same terms as noted in ARTC's application.¹¹⁴ However Idemitsu raised the concern that the loss capitalisation balance at the commencement date of the 2016 HVAU will be significantly influenced by the ACCC's Final Determination on 2013 annual compliance.¹¹⁵

Idemitsu suggested that a timeframe for recovering loss capitalisation should be aligned with the life applied to ARTC's PZ3 fixed assets (which should be aligned to the PZ3 mine lives) is appropriate.¹¹⁶ This is to prevent an immediate and substantial impact on the viability of the existing mines in PZ3.¹¹⁷

In addition, Idemitsu noted in reference to section 2.3(a)(iii) of the 2016 HVAU:

*the Mandatory Review will consider the ongoing requirement for a separate RAB methodology for PZ3. This should not influence the recovery period of the capitalised losses but only consider whether the Loss Capitalisation mechanism is required in future.*¹¹⁸

Whitehaven submitted that loss capitalisation is required for the new HVAU.¹¹⁹ However, Whitehaven states there should be two improvements to the mechanism for loss capitalisation. First, providing additional transparency as 'the payback period for [I]oss [c]apitalisation is not defined and is at the discretion of ARTC'.¹²⁰ Second, the payback period for loss capitalisation should be aligned to the WAML.

¹¹⁰ HVEC, *HVEC submission on ARTC Draft 2016 HVAU*, 10 March 2016, p. 4.

¹¹¹ *Ibid.*

¹¹² *Ibid.*

¹¹³ *Ibid.*

¹¹⁴ Idemitsu, *Consultation Paper – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 9 March 2016, p. 3.

¹¹⁵ *Ibid.* Note: the ACCC's 2013 annual compliance Final Determination was released in June 2016.

¹¹⁶ *Ibid.*

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.*

¹¹⁹ Whitehaven, *Whitehaven Coal Response to ACCC Consultation Paper on ARTC's draft 2016 Hunter Valley Access Undertaking*, 8 March 2016, p. 3.

¹²⁰ *Ibid.*

Whitehaven states a:

payback period of less than the Unconstrained Network's [WAML] artificially inflates access pricing and results in mines that commence production during the HVAU period contribute less of the significant capital costs to set up the Unconstrained Network.¹²¹

7.3. ACCC view

The ACCC's views are set out below on each of the following:

- the RAB and RAB Floor Limit
- loss capitalisation

RAB and RAB Floor Limit

The ACCC considers it to be in the interests of all stakeholders to clearly understand how the RAB and RAB Floor Limit are determined and rolled forward from year to year. The ACCC has therefore considered the provisions in section 4.4 of the 2017 HVAU, which are directly relevant to this point, and which sets out:

- the initial RAB and RAB Floor Limit values for Segments that formed part of the Hunter Valley network covered by the 2011 HVAU prior to 1 July 2017
- the initial RAB and RAB Floor Limit values to be determined using a DORC valuation methodology for Segments that were not part of the Hunter Valley network covered by the 2011 HVAU prior to 1 July 2017
- the methodology to roll forward the RAB and RAB Floor Limit values each year.

The ACCC considers that the 2017 HVAU, through the provisions in section 4.4, clearly sets out how the RAB and RAB Floor Limit for Segments are to be valued and how the roll forward process would operate. In particular, the ACCC considers that it remains appropriate for additional segments to be incorporated into the Hunter Valley rail network covered by the HVAU to be initially valued using a DORC methodology that is approved by the ACCC.

For these reasons, the ACCC considers that ARTC's proposal for the RAB and RAB Floor Limit in section 4.4 of the 2017 HVAU is appropriate. In particular, the ACCC considers that ARTC's approach as set out in section 4.4 of the 2017 HVAU provides clarity on the calculation of the RAB and RAB Floor Limit, which is in the legitimate business interests of ARTC and the interests of access seekers (sections 44ZZA(3)(a) and (c)).

Loss capitalisation

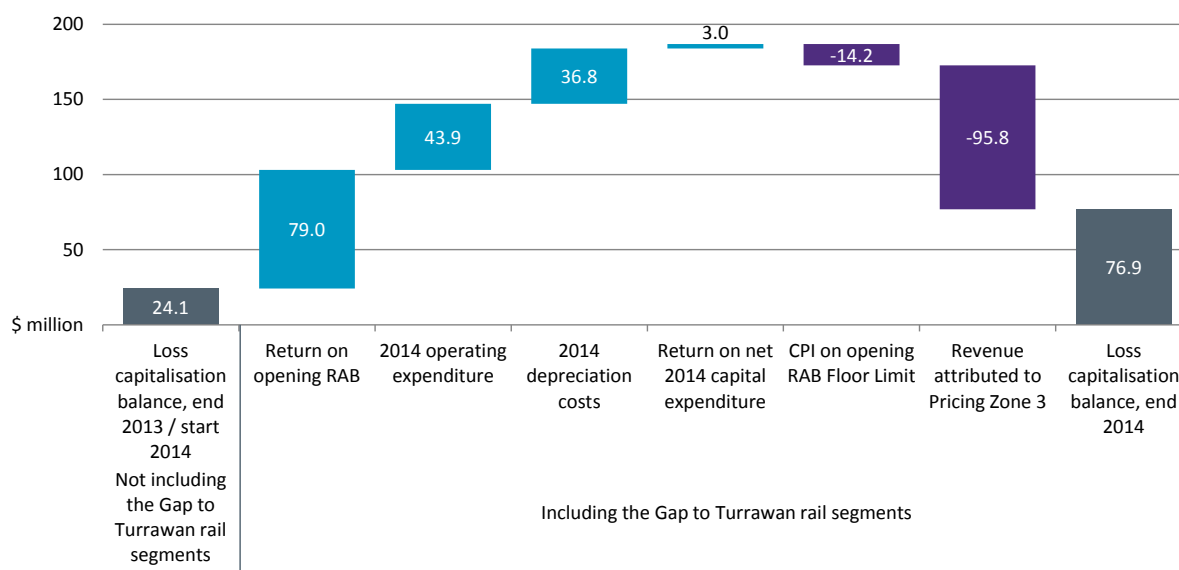
In the interests of clarity and certainty for all stakeholders, the ACCC considers it important to set out how the loss capitalisation account transitions from year to year (section 44ZZA(3)(e)). As previously noted, the balance of the loss capitalisation account at a point in time is the difference between the RAB and RAB Floor Limits for PZ3. This can be expressed through the following formula:

$$LC_{t,end} = LC_{t-1,end} + ROR_t \times RAB_{t,open} - Revenue_t + Opex_t + 0.5 \times ROR_t \times NetCapex_t - CPI_t \times RABFloorLimit_{t,open} + Dep_t$$

¹²¹ Ibid.

Figure 3 sets out this transition formula for the loss capitalisation account as presented in the ACCC's 2014 Annual Compliance Final Determination.

Figure 3: Change in the loss capitalisation balance from end 2013 to end 2014



Source: ACCC, *Final Determination: Australian Rail Track Corporation's compliance with the Hunter Valley Coal Network Access Undertaking financial model for the 2014 calendar year*, 31 March 2017, p. 7.

The ACCC acknowledges HVEC's and Glencore's submissions on the 2016 HVAU noting that they do not support the continuance of loss capitalisation in a revised HVAU.¹²² However, the ACCC considers that the continuation of loss capitalisation remains a decision for ARTC and the PZ3 Access Holders to which loss capitalisation applies.

In particular, following the 2013 and 2014 Annual Compliance Final Determinations, the ACCC understands that PZ3 producers are paying their incremental costs for traversing PZ1. As such, the ACCC considers there will be no impact on the economically efficient operation of, use of and investment in ARTC's infrastructure as a result of the continuance of the loss capitalisation mechanism (section 44ZZA(3)(aa)).

In relation to the recoupment of capitalised losses, the ACCC notes ARTC's view that although 'there are continuing capitalised losses'¹²³ it expects the current balance to be 'recouped by the end of calendar 2016'.¹²⁴ The ACCC also notes that ARTC has proposed to review the loss capitalisation mechanism as part of the mandatory 5 year review process.¹²⁵

In light of ARTC's anticipated timeframe for recoupment of capitalised losses and, therefore, the ongoing need for the loss capitalisation mechanism for PZ3, the ACCC considers its inclusion in the mandatory review process is particularly appropriate. The mandatory review process is discussed in further detail in chapter 4 of this Draft Decision.

For these reasons, the ACCC considers that ARTC's proposal for the loss capitalisation mechanism for the 2017 HVAU is appropriate having regard to the matters set out in section 44ZZA(3) of the Act.

¹²² HVEC, *HVEC submission on ARTC Draft 2016 HVAU*, 10 March 2016; Glencore, *Submissions to the Australian Competition and Consumer Commission Hunter Valley Coal Network Access Undertaking submitted by Australian Rail Track Corporation ("ARTC")*, 15 March 2016.

¹²³ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 8.

¹²⁴ *Ibid.*, p. 15.

¹²⁵ *Ibid.*

8. Economic cost

This chapter sets out ARTC's proposed methodology for calculating, assessing and allocating the Economic Cost of a Segment of the Hunter Valley rail network. ARTC proposes to allocate Incremental Capital Costs, which forms part of the floor revenue limit (discussed in chapter 6 of this Draft Decision), on the basis of Access Holders' contracted commitments. This is in contrast to the methodology used by WIK in the 2013 Annual Compliance Final Determination, which allocated the Incremental Costs of PZ3 Access Holders' use of PZ1 (including Incremental Capital Costs) on the basis of actual usage.

The ACCC has set out its understanding of the effects of allocating Incremental Capital Costs on the basis of actual usage, and seeks submissions from ARTC and stakeholders on:

- the ACCC's understanding of the relationship between setting TOP Charges and the reconciliation with ceiling revenue tests, which will assist the ACCC to assess whether ARTC's proposal is appropriate
- the ACCC's understanding of the likelihood of Access Holders over-contracting capacity as a result of allocating Incremental Capital Costs on the basis of actual usage, in the context of the operation of the 2017 HVAU and AHA.

The ACCC also requires ARTC to provide worked examples of the relationship between setting TOP Charges and reconciliation with the ceiling revenue tests through the annual compliance process.

8.1. ARTC proposal

Section 4.5(a) of the 2017 HVAU states that the Economic Cost of a Segment encompasses:

- Segment Specific Costs, which are the operating costs that ARTC can directly identify with a Segment (including losses or gains incurred on an asset's disposal);
- Depreciation of Segment Specific Assets, the value of which is determined in accordance with section 4.4.(e);
- a return on Segment Specific Assets, being determined by applying the real pre-tax ROR to $(\text{RAB Floor Limit}_{t-1 \text{ start}} + \text{RAB Floor Limit}_{t-1 \text{ end}}) * 0.5$, where the value of the RAB Floor Limit is determined in accordance with section 4.4(e);
- an allocation of Non-Segment Specific Costs;
- an allocation of depreciation of Non-Segment Specific Assets, determined on a straight line basis, by reference to a reasonable estimate of the economic useful life of Non-Segment Specific Assets, and determined from the time the assets become serviceable; and
- an allocation of return on Non-Segment Specific Assets, being determined by applying a real pre-tax ROR to the value of Non-Segment Specific Assets, from the time the assets become serviceable, capitalised at that time and determined by reference to the relevant ROR.

All costs and opex in section 4.5(a)(i),(iv),(v) and (vi) are to be assessed on an Efficient basis, and all costs are to be assessed on a Stand-Alone Basis.

The 2017 HVAU defines:

- **Efficient** as, in respect to costs and opex, costs incurred by a prudent service provider managing the network, acting efficiently, having regard to any matters particular to the environment in which management of the Network occurs including:
 - The Hunter Valley Coal Chain where a key objective in maintenance planning is to maximise coal chain throughput and reliability;

- ARTC's obligations to maintain the Network having regard to the terms of applicable Access Agreement and Access Holder Agreements existing at the time; and
- ARTC's obligations under the law, applicable legislation (including regulations) or the NSW Lease.
- **Non-Segment Specific Assets** as assets that are not Segment Specific Assets.
- **Non-Segment Specific Costs** as operating costs that ARTC cannot directly identify with a Segment.
- **Segment Specific Assets** as assets that form part of the RAB and RAB Floor Limit (as applicable), and are subject to section 4.4 of the 2017 HVAU; and ARTC:
 - can directly identify with a Segment because those assets are physically or functionally part of a Segment, or
 - has directly identified with a Segment having regard to recovery of relevant costs associated with those assets consistent with the beneficial use of those assets.
- **Segment Specific Costs** as the operating costs that ARTC can directly identify with a Segment. This includes any loss or gain incurred on the disposal of an asset;
- **Stand-Alone Basis** as the Economic Cost of the Segments excluding:
 - Incremental Maintenance Costs imposed by all Access Holders not holding Coal Access Rights; and
 - the Incremental Costs imposed by all Access Holder holding Coal Access Rights who would not be Constrained Coal Customers if that Segment formed part of the relevant Constrained Network.

Section 4.5(d) of the 2017 HVAU outlines how the following costs will be allocated:

- Incremental Maintenance Costs will be allocated on the basis of actual GTK usage; and
- Incremental Capital Costs will be allocated on the basis of contracted Train Km for Access Holders in PZ1, PZ2 and PZ3.

Also as noted in chapter 6 of this Draft Decision, the 2017 HVAU defines the following costs:

- **Incremental Maintenance Costs** as maintenance expenditure, including major periodic maintenance that varies with usage of the Segment;
- **Incremental Capital Costs** as capital costs that are reasonably identifiable as avoidable in the long term, excluding:
 - all capital costs incurred before 1 July 2008
 - any capital costs specifically endorsed by the RCG as being Fixed Costs.
- **Fixed Costs** as those costs associated with a Segment or group of Segments other than Incremental Costs.

Section 4.5(e) of the 2017 HVAU notes that nothing in section 4 prevents ARTC from charging Contributors and other Access Holders TOP Charges and non-TOP Charges as a result of the operation of a user funding agreement. The user funding option provisions are discussed further in chapter 19 of this Draft Decision.

ARTC has proposed changes to the allocator for Incremental Capital Costs as result of the 2013 Annual Compliance Final Determination (the findings of which are given in Box 1). In particular, ARTC considers the consequences of the 2013 Annual Compliance Final Determination, as they relate to Economic Cost, to be:

- the fundamental departure from the established commercial framework for the Hunter Valley Coal Chain
- increased uncertainty for Access Holders and ARTC.¹²⁶

Specifically, ARTC is of the view that the effect of the 2013 Annual Compliance Final Determination:

...was to require an incremental cost methodology in Pricing Zone 1, with incremental costs (including incremental capital costs) being allocated on the basis of actual volumes within the year (and therefore variable in nature). As a consequence, the relativity between the TOP and Non-TOP components of the access charges has changed in Pricing Zone 1. The TOP charge has historically been in the order of 85-90% of the access charges, however pricing reflecting the outcome of the 2013 compliance decisions has resulted in the TOP charge reducing to approximately 50% of the Pricing Zone 1 access charges. Access Holders are now exposed to volume reductions of other Access Holders which leads to a high degree of price uncertainty through the unders and overs process.¹²⁷

ARTC contends that a decrease in the proportion of TOP Charges, resulting from allocating Incremental Capital Costs on the basis of actual usage exposes Access Holders to volume risk, as:

Access Holders are now exposed to volume reductions of other Access Holders which leads to a high degree of price uncertainty through the unders and over process. Access Holders who are utilising train paths in accordance with their contractual commitments will fund the incremental capital costs of Access Holders who are not utilising their contracted train paths, notwithstanding that they may have triggered the need for the capital investment.¹²⁸

ARTC considers that such a scenario could lead to an Access Holder using its full contracted commitment cross-subsidising those who do not. ARTC also notes this would also affect its cash flow until the unders and over process has concluded.¹²⁹

In addition, ARTC considers that a decrease in the proportion of TOP Charges could potentially affect efficient investment:

...as there may be a reluctance for RCG members to endorse capital expenditure which is triggered by certain contractual commitments where there is a risk that those Access Holders can reduce their contribution to the capital cost (and increase the contributions of others) if their contracted capacity is not fully utilised.¹³⁰

¹²⁶ Ibid., p. 14

¹²⁷ Ibid.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Ibid.

Box 1: 2013 Annual Compliance Final Determination

The 2011 HVAU provides for the ACCC to conduct an annual assessment to determine whether ARTC has correctly calculated the revenue floor and ceiling limits and reconciled these with revenues received from Access Holders to determine any 'unders and overs' amount (that is, whether ARTC is entitled to receive additional revenues or is required to refund monies to Access Holders). The annual compliance process for the 2017 HVAU is discussed further in chapter 11 of this Draft Decision.

In the course of assessing ARTC's compliance with the 2011 HVAU for the 2013 calendar year, the ACCC identified some concerns with ARTC's methodology for allocating costs used in the calculation of the revenue ceiling limits for reconciliation of revenue received from Access Holders. In particular, ARTC proposed that the proportion of the prudent and efficient costs incurred within the Constrained Network to be reconciled with revenues received from Constrained Coal Customers should be calculated by subtracting the Direct Costs (a subset of incremental costs) associated with coal producers originating in PZ3 from the costs of the Constrained Network.¹³¹ The ACCC considered that Incremental Costs, rather than Direct Costs, should be subtracted.

The ACCC was concerned that ARTC's approach led to it overstating the proportion of costs and resulting shortfall in revenue to be recovered from Constrained Coal Customers and that they were being asked to pay more than their stand-alone costs.

As part of the 2013 annual compliance assessment, the ACCC engaged an independent consultant, WIK, to review the costs of ARTC's Hunter Valley Coal Network and estimate the Incremental Costs of PZ3 Access Holders' use of PZ1. Under the WIK methodology, Incremental Costs attributed to each Access Holder or group of Access Holders were allocated using actual volumes.

On 6 June 2016, the ACCC released its Final Determination for the 2013 annual compliance assessment. The ACCC determined that PZ3 Access Holders should at least contribute their Incremental Costs (including maintenance and capital costs) for traversing PZ1. Further, the ACCC found that Incremental Costs should be determined using the WIK methodology that applies actual volumes, which represents Access Holders' actual usage of the network and cost causation.

8.1.1. Comparison to 2011 HVAU

The main difference between the approach to Economic Cost in the 2011 and 2017 HVAU relates to the definition and allocation of costs.

As noted previously, ARTC defines costs in the 2017 HVAU as being Incremental Maintenance Costs, Incremental Capital Costs or Fixed Costs. In section 4.14(a) of the 2011 HVAU, costs were defined as:

- **Variable component of costs (VCC)**, which included Direct Costs. Direct Costs were defined as:
...maintenance expenditure, including major periodic maintenance that varies with the usage of the Network, and may include other costs that vary with the usage of the Network but excluding Depreciation, assessed on an Efficient basis.
- **New capital component of costs (NCC)**, which included Depreciation of, and return on, assets commissioned during the Term; and
- **Fixed component of costs (FCC)**, which includes fixed operating costs and Depreciation of, and return on, assets existing as at the Commencement Date and the New Segments Commencement Date (as applicable).

ARTC notes in its explanatory guide to the 2017 HVAU that 'Direct Costs have been redefined as Incremental Maintenance Costs to better align with terminology elsewhere'.¹³²

¹³¹ 'Direct Cost' is defined in chapter 6 of this Draft Decision.

¹³² ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 57.

ARTC also notes that VCC, NCC and FCC have been replaced with 'Incremental Capital Costs' and 'Fixed Costs' with the 'intention of combining the elements and objectives relating to [TOP] and [non-TOP] Charges... to remove the duplication and repetition between [sections 4.13 (a) and (b) of the 2011 HVAU]'.¹³³

The 2017 HVAU specifies that Incremental Capital Costs will be allocated on the basis of contracted usage, and Incremental Maintenance Costs will be allocated on the basis of actual usage. Under the 2011 HVAU, the definition for Direct Costs (forming VCC) included costs that varied with usage. However, the definitions for NCC and FCC did not explicitly indicate the basis on which those costs were allocated.

8.1.2. Comparison to 2016 HVAU

The main differences between ARTC's proposals for Economic Cost in the 2016 HVAU and 2017 HVAU are largely the same as those between the 2011 HVAU and 2017 HVAU. This is due to ARTC submitting the 2016 HVAU to the ACCC for assessment in December 2015, prior to the ACCC releasing its 2013 Annual Compliance Final Determination in June 2016.

The 2016 HVAU defined costs as VCC and FCC, but proposed the removal of NCC. ARTC noted that this was because the 2011 HVAU did not make a distinction between FCC and NCC in practice.¹³⁴

8.2. Stakeholder submissions

8.2.1. 2017 HVAU

The ACCC received a number of submissions on the 2017 HVAU regarding Economic Cost. The majority of submissions focused on ARTC's proposed determination and allocation of Incremental Costs under the 2017 HVAU.

HRATF

HRATF made two separate submissions on ARTC's proposed approach to Economic Cost in the 2017 HVAU. In both submissions, HRATF's views related to the:

- determination of Incremental Costs; and
- allocation of Incremental Costs.

As the views presented by HRATF on these issues are consistent across both submissions, a combined summary is presented below.

Determination of Incremental Costs

HRATF submits that it is important to draw a distinction between calculating Incremental Costs for the purpose of calculating the floor and ceiling revenue limits, and setting TOP Charges.¹³⁵ HRATF considers that the definition of 'incremental' in the context of Incremental Capital Costs and Incremental Maintenance Costs were quite different. In particular, HRATF notes that 'incremental' related to costs that were avoidable over the long run, and costs that vary with usage. HRATF considers that incremental costs should be those avoidable over

¹³³ Ibid.

¹³⁴ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 15.

¹³⁵ HRATF, *Hunter Rail Access Taskforce – submission with response to further ACCC questions*, 20 February 2017, p. 1.

the long run, consistent with WIK's definition. In addition, HRATF submits that the definitions should be clarified to provide more certainty about how such costs will be calculated.¹³⁶

HRATF also submits that there is little transparency of the effect of allocating Incremental Capital Costs on the basis of actual usage, rather than contracted commitments. In particular, HRATF considers that 'the annual compliance process has largely operated as a "black box" under the 2011 HVAU'.¹³⁷

Allocation of Incremental Costs

The majority of HRATF members do not object to ARTC's proposed approach to allocate Incremental Capital Costs on the basis of contracted commitments. HRATF states that it understands ARTC's proposal intends to realign the HVAU with the commercial TOP principles and reduce pricing uncertainty associated with the unders/overs annual reconciliation as well as volume risk for Access Holders.¹³⁸

HRATF also considers that ARTC's proposed approach will enable investment to proceed on the basis of long-term contractual commitments triggering expansion rather than the alternative which is pricing uncertainty due to potential volume volatility.¹³⁹

HRATF notes that it understands that costs that are allocated on the basis of actual usage are classified as variable and therefore not included in [TOP] Charges.¹⁴⁰ This implies that allocating Incremental Capital Costs on the basis of actual usage reduces the proportion of total costs recovered through the TOP component of access charges. HRATF considers that allocating all capital costs on the basis of contracted usage would provide a 'higher degree of certainty and predictability for users'.¹⁴¹ HRATF also notes that:

*There is also a risk that relying upon actual usage-based tariffs to pay for capital investment may impact upon the 'bankability' of some larger projects for ARTC. In the past, a long term revenue stream associated with future take or pay commitments has been a source of comfort for ARTC funding the capital cost of major expansions.*¹⁴²

HRATF considers that allocating Incremental Capital Costs on the basis of contracted commitments will provide producers with the incentive to contract for the capacity they were likely to use.¹⁴³ In contrast, HRATF raises concerns that allocating Incremental Capital Costs on the basis of actual use will lead to over-contracting by users and inefficient investment in the Hunter Valley rail network. In particular, HRATF submits that:

If variable charges were to include some capital costs (that is, if the take-or-pay charges did not fully recover the cost of capital already sunk to create the available capacity), users would have an incentive to contract for more capacity than they need, thus prompting ARTC to invest inefficiently in excess capacity in response to user demand. This would happen because under such a pricing regime, users would

¹³⁶ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 28.

¹³⁷ HRATF, *Hunter Rail Access Taskforce – submission with response to further ACCC questions*, 20 February 2017, p. 2.

¹³⁸ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 27.

¹³⁹ *Ibid.*, p. 28.

¹⁴⁰ HRATF, *Hunter Rail Access Taskforce – submission with response to further ACCC questions*, 20 February 2017, p. 3.

¹⁴¹ *Ibid.*, p. 4.

¹⁴² *Ibid.*, p. 2.

¹⁴³ *Ibid.*, p. 4.

*benefit from the additional [certainty] offered by the contracted capacity, but would be able to avoid the full costs of carrying excess capacity.*¹⁴⁴

HRATF considers that this highlights the risk of confusing the principles of efficient cost allocation and of efficient pricing.¹⁴⁵ HRATF also submits that this concern could affect the RCG process for endorsing capital projects.¹⁴⁶

HRATF also considers that investment in incremental capacity is based on long-term contracts, rather than usage. Specifically:

*[The] desire to drive efficient behaviours underpins users' preference for basing the allocation of incremental cost on contracted rather than actual utilisation (GTKs). Cost allocation among users affects efficiency to the extent that it influences ARTC's investment behaviour. Since ARTC only invests in incremental capacity on the basis of long-term contracts with users, it is the decisions about how much capacity to contract for rather than decisions about how much to use at any one time that drive investment.*¹⁴⁷

Anglo American

Anglo American made two separate submissions on ARTC's proposed approach to Economic Cost in the 2017 HVAU. As the views presented by Anglo American on these issues are consistent across both submissions, a combined summary is presented below.

Anglo American considers that the allocation of Incremental Capital Costs should occur on the basis of actual usage of the Network.

Anglo American submits that the approach to Economic Costs in the 2017 HVAU should remain consistent with the 2013 Annual Compliance Final Determination. In particular, Anglo American notes:

*There has been no change in circumstances since the time of [the 2013 Annual Compliance Final Determination] other than ARTC resubmitting the latest [HVAU] with the relevant changes to Section 4 seeking to effectively 'reverse' the outcome of the ACCC's final determination in that regard. ARTC has not provided, with the latest [HVAU], any material new arguments which were not presented to the ACCC during that recent comprehensive review which would justify changing the ACCC's previously expressed view.*¹⁴⁸

Anglo American considers that following the outcomes of the 2013 Annual Compliance Final Determination is in the interests of all stakeholders, as it provides regulatory certainty.¹⁴⁹

Anglo American submits that there is no agreement between coal chain participants that below-rail charges should be all TOP. The foundation of the capacity framework relates to ensuring alignment of contractual agreements across the supply chain, rather than pricing methodology.¹⁵⁰

¹⁴⁴ Ibid., p. 1.

¹⁴⁵ Ibid., p. 2.

¹⁴⁶ Ibid., p. 3.

¹⁴⁷ Ibid., p. 2.

¹⁴⁸ Anglo American, *Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 8 February 2017, p. 4.

¹⁴⁹ Ibid.

¹⁵⁰ Anglo American, *Supplementary Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 27 February 2017, p. 4.

Anglo American notes that ARTC's concerns about exposure to other Access Holders' volumes is unlikely to be great, given the tonnage produced by the number of mines serviced by the Hunter Valley rail network.¹⁵¹ In addition, Anglo American considers that for the most part, the effect of changes in individual Access Holder's actual usage will balance out over the year.¹⁵² Anglo American also considers that the variability associated with allocating Incremental Capital Costs on the basis of actual usage is unlikely to be significant. This is because Anglo American assumes that ARTC's forecasts of usage are based on HVCCC forecasts, who 'have a track record of providing accurate forecasts'.¹⁵³

Anglo American submits that allocating Incremental Capital Costs on the basis of contracted commitments will result in 'cross subsidisation',¹⁵⁴:

*A mine with contracted capacity that it is unable to use (such as a mine which has subsequently closed or been placed in care and maintenance) and is not responsible for triggering capital investments would effectively be required to continue to pay for capital investment triggered by others...*¹⁵⁵

Anglo American also submits that such cross subsidisation would lower the cost of incremental capital lower than the efficient cost.¹⁵⁶ This will increase the risk of inefficient capital investment in the Network. Anglo American notes that the growth strategy in ARTC's 2016-2025 Hunter Valley Corridor Capacity Strategy publication takes into account future uncontracted volumes and the anticipated reduction in contracted volumes that are unlikely to be renewed.¹⁵⁷

Anglo American considers that ARTC and HRATF's concerns about over-contracting are unlikely to occur. Anglo American submits that Access Holders would also need to contract aligned volumes of capacity in other elements of the supply chain, such as port and above-rail. This would expose such Access Holders to additional costs beyond those relating to below-rail access.¹⁵⁸

Anglo American also submits that inefficient over-investment in the Network is unlikely to occur because ARTC makes investment decisions based on prospective volumes. In addition, the RCG determines the prospective volumes that are used for making investment decisions.¹⁵⁹

Anglo American considers that the methodology for allocating Incremental Capital Costs does not put ARTC's revenue at greater risk. This is because of 'the form of regulation (a revenue cap) with a floor and ceiling test that is applied by the ACCC to ARTC with related unders and overs mechanisms'.¹⁶⁰ Anglo American also submits that it is unclear why ARTC requires the recovery of capital costs through TOP Charges, as the allocation of Incremental

¹⁵¹ Anglo American, *Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 8 February 2017, p. 4.

¹⁵² *Ibid.*, p. 5.

¹⁵³ Anglo American, *Supplementary Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 27 February 2017, p. 5.

¹⁵⁴ Anglo American, *Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 8 February 2017, p. 5.

¹⁵⁵ *Ibid.*

¹⁵⁶ *Ibid.*

¹⁵⁷ *Ibid.*

¹⁵⁸ Anglo American, *Supplementary Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 27 February 2017, p. 4.

¹⁵⁹ *Ibid.*, p. 5.

¹⁶⁰ Anglo American, *Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 8 February 2017, p. 6.

Capital Costs does not appear to affect ARTC's overall recovery of revenue. The allocation method affects how revenue is recovered from individual users.¹⁶¹

Idemitsu

Idemitsu supports ARTC's Incremental Cost methodology, subject to drafting changes proposed by HRATF in its submission to the 2017 HVAU.¹⁶²

Idemitsu also notes the concern raised by HRATF about the inconsistency in the use of the term 'incremental' in defining costs in the 2017 HVAU.

IPART

IPART submits that charging a fixed price through TOP Charges for a variable cost could result in a relatively less efficient price structure, as it would be less responsive to changes in usage.¹⁶³ IPART considers that Direct Costs should be based on actual usage, and capital costs should be recovered on contracted commitments.¹⁶⁴

Whitehaven

Whitehaven raises concerns about the volume of work to calculate Incremental Capital Costs. In particular, Whitehaven is concerned that this may affect the completion of the opex efficiency incentive mechanism.¹⁶⁵ The opex efficiency incentive mechanism is discussed in further detail in chapter 20 of this Draft Decision.

Shenhua Watermark Coal

Shenhua Watermark Coal supports Whitehaven's concern on the calculation of Incremental Capital Costs.¹⁶⁶

8.2.2. 2016 HVAU

The ACCC received two submissions on the 2016 HVAU in relation to Economic Cost. The submissions were received prior to the release of the 2013 Annual Compliance Final Determination.

Idemitsu considered that it was reasonable to expect the 2013 Annual Compliance Final Determination would form a precedent for the treatment of revenue allocation in the 2016 HVAU.¹⁶⁷ However, Idemitsu considered that a revenue allocation methodology that was similar to that in the 2011 HVAU should be included in the 2016 HVAU.¹⁶⁸

¹⁶¹ Anglo American, *Supplementary Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 27 February 2017, p. 4.

¹⁶² Idemitsu, *Consultation Paper – ARTC's 2017 Hunter Valley Access Undertaking*, p. 2.

¹⁶³ IPART, *IPART submission to ACCC on ARTC HVAU 2017*, 25 January 2017, p. 3.

¹⁶⁴ Ibid.

¹⁶⁵ Whitehaven, *Whitehaven Coal response to ACCC Consultation paper on ARTC's draft [2017] Hunter Valley Access Undertaking*, p. 3.

¹⁶⁶ Shenhua Watermark Coal, *Response to ACCC Consultation Paper on ARTC's draft 2017 Hunter Valley Access Undertaking*, 13 February 2017, p. 2.

¹⁶⁷ Idemitsu, *Consultation Paper – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 9 March 2016, p. 2.

¹⁶⁸ Ibid.

Whitehaven considered that the 2016 HVAU should include a mechanism for revenue allocation. Further, Whitehaven stated that the:

*...mechanism should include a list of cost components and the percentage weightings to be used for the incremental cost calculations of users of an Unconstrained Network operating in a section of the Constrained Network.*¹⁶⁹

8.3. ACCC view

The ACCC notes that stakeholders have raised concerns regarding two broad issues that affect Economic Cost with ARTC's proposed:

- definitions to determine Incremental Costs
- approach to allocating Incremental Capital Costs among Access Holders.

The ACCC's understanding, views, and information sought, on each of these issues is set out below.

Determination of Incremental Costs

The 2017 HVAU provides broad definitions for categories of Incremental Capital Cost and Incremental Maintenance Cost, but has not set out any further detail on how Incremental Costs would be determined. In addition, the 2017 HVAU does not appear to detail the distinction between Incremental Capital Costs and Incremental Maintenance Costs on a practical level. That is, there is no indication of which activities and projects would fall within each of those categories of costs.

As noted previously, ARTC proposes to define Incremental Capital Costs in the 2017 HVAU as capital costs that are reasonably identifiable as avoidable in the long term, excluding:

- all capital costs incurred before 1 July 2008
- any capital costs specifically endorsed by the RCG as being Fixed Costs.

The ACCC recognises that ARTC has applied its understanding of the outcome of the ACCC's 2013 Annual Compliance Final Determination in its proposed definitions of Incremental Costs under the 2017 HVAU.

In particular the ACCC notes that ARTC has sought to define Incremental Capital Costs as costs avoidable in the long term. In its report, WIK noted that incremental costs are 'costs that a firm incurs in providing a service relative to not providing that service at all'.¹⁷⁰ WIK noted that the considered time horizon is crucial in determining whether costs are incremental or not. Specifically, WIK observed that incremental costs are often assessed over the long term in economic literature and regulatory practice. For example, WIK cites the definition of incremental costs in Gerald Faulhaber's 2002 paper:

*The incremental cost of a service or combination of services is the additional cost of providing that service or combination of services over and above the monopoly's cost of providing all the remaining services.*¹⁷¹

¹⁶⁹ Whitehaven, *Whitehaven Coal Response to ACCC Consultation Paper on ARTC's draft 2016 Hunter Valley Access Undertaking*, 8 March 2016, p. 4.

¹⁷⁰ WIK-Consult, *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*, 30 September 2015, p. 18.

¹⁷¹ Faulhaber G, *Cross-subsidy analysis with more than two services*, August 2002, p. 1, cited in WIK-Consult, *Assessment of the Incremental Costs of Pricing Zone 3 Access Holder' User of Pricing Zone 1 and 2 of the Australian Rail Track Corporation's Hunter Valley Rail Network*, 30 September 2015, p. 18.

WIK's approach estimated 'incremental costs understood as costs that are avoidable in the long term'.¹⁷²

The ACCC also notes that stakeholders have sought further clarity in the definition of terms, and an understanding of the components and allocations used for the calculation of Incremental Cost. Specifically, while HRATF submits that all definitions relating to Incremental costs should refer to long run avoidable costs, it has also sought clarification about how the costs will be calculated. The ACCC notes that in its submission to the 2016 HVAU, Whitehaven considered that the HVAU should include a list of cost components used for calculating Incremental Costs, along with the percentage weightings.

The ACCC notes that WIK also identified and set out clear cost drivers and proportions of incremental costs against various capex projects, and types of capex projects that it assessed. For example, Table 4 below sets out the WIK approach to the incremental cost treatment of several minor capex projects. In its report, WIK also set out the basis of its approach to assessing various types of capex. The ACCC notes that WIK suggested its approach provided a conservative estimation of the incremental costs of PZ3 Access Holder's use of PZ1 and PZ2.¹⁷³ This was because some cost elements that could be seen as incremental in the long term were not considered.¹⁷⁴

Table 4: WIK Assessment of incremental cost share – Minor capex projects

Cost Types	% incremental (as assessed by WIK/TÜV)	Cost driver (incremental)	Cost driver (fixed)
Rerailing	90	GTK	Time
Point machine replacement / Point motor renewal	50	Train Km	Time
Signalling System investments/upgrades	50	Train Km	Time
Track strengthening / upgrading	75	GTK	Time
Turnout renewal with 60kg rail	75	GTK	Time
Radio Upgrade, additional channels	25	Train Km	Safety
Track Pads replacement	75	GTK	Time
Flash Butt Welding	75	GTK	Time
Repair of signalling equipment (relay boards)	25	Train Km	Time
Installation of rail lubricators	50	GTK	Time
Upgrading of structural deficiencies	75	GTK	Time

Source: WIK-Consult, *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*, 30 September 2015, p. 30.

ARTC proposes to define Incremental Maintenance Costs in the 2017 HVAU as maintenance expenditure, including major periodic maintenance that varies with usage of the Segment.

¹⁷² WIK-Consult, *Assessment of the Incremental Costs of Pricing Zone 3 Access Holder' User of Pricing Zone 1 and 2 of the Australian Rail Track Corporation's Hunter Valley Rail Network*, 30 September 2015, p. 18.

¹⁷³ Ibid., pp. 20-22.

¹⁷⁴ Ibid., pp. 20-24.

The ACCC notes that WIK provided relatively more detail around its approach to defining and calculating incremental maintenance costs. In its estimation of incremental costs, WIK considered that incremental maintenance costs included ‘short-run variable costs and the increment of maintenance overhead costs which could be avoided in a long term perspective if [PZ3] were removed from the [Hunter Valley] rail network’.¹⁷⁵ Further, Table 5 sets out the WIK approach to the incremental treatment of several Routine Corrective and Reactive Maintenance (**RCRM**) and Major Periodic Maintenance (**MPM**) costs.¹⁷⁶

Table 5: WIK Assessment of incremental cost share – maintenance costs

Category	Cost Types	% incremental (as assessed by WIK/TÜV)	Cost driver (incremental)	Cost driver (fixed)
RCRM	163 - Rail Defect Removal	90	GTK	Time
MPM	168 - Rerailing - Minor	90	GTK	Time
	171 - Rail Grinding	90	GTK	Time
	172 - Turnout Grinding	90	GTK	Time
	187 - Turnout Steel Component Replacement	90	GTK	Time
	203 - Maintenance Resurfacing	90	GTK	Time
	205 - Turnout Resurfacing	90	GTK	Time
	226 - Pad Replacement	75	GTK	Time

Source: WIK-Consult, *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*, 30 September 2015, p. 27.

WIK also considered that incremental costs should include a share of maintenance and network control overheads. However, WIK was unable to undertake the necessary analysis to assign fixed and incremental proportions with the data it had been provided.¹⁷⁷

The ACCC considers that as a key component of Economic Cost, it is necessary for both Incremental Capital and Incremental Maintenance Costs to be clearly and sufficiently defined, including how the incremental proportion is calculated. In addition, as a concept related to Incremental Capital Costs, the ACCC considers that it is necessary for Fixed Costs to be clearly and sufficiently defined.

The ACCC notes ARTC’s proposed definition of Fixed Costs to be ‘those costs associated with a Segment or group of Segments other than Incremental Costs’. The ACCC requires further clarification from ARTC regarding its proposed definition of Fixed Costs. In particular, the ACCC requires clarification on the relationship between Fixed Costs, as defined in the 2017 HVAU, and common costs, which are ordinarily understood to be any costs that are not considered avoidable in the long term.

The ACCC also notes that ARTC’s proposed definition of Incremental Capital Costs excludes any capital costs specifically endorsed by the RCG as being Fixed Costs. Given that RCG endorsement would occur over time, the ACCC considers that a clear and transparent approach to the assessment is necessary to ensure consistent outcomes. The

¹⁷⁵ Ibid., p. 20.

¹⁷⁶ Ibid., pp. 26-27.

¹⁷⁷ Ibid., pp. 28-29.

ACCC therefore considers that clarity and transparency around the definitions of Incremental Capital Cost and Fixed Costs will also ensure that members of the RCG are applying consistent definitions to, and in turn assessments of, proposed capital projects over time.

The ACCC considers that providing this clarity is in the interests of users who may want to access the Hunter Valley rail network (section 44ZZA(3)(c)). In addition, providing Access Holders with a clear understanding of how incremental and fixed costs are defined and determined also promotes the efficient use of, operation of and investment in the Network (section 44ZZA(3)(aa)). Therefore, the ACCC accepts the views from various stakeholders and considers that ARTC should set out further measures to increase transparency around and the subsequent understanding of how Incremental Capital Costs, Incremental Maintenance Costs and Fixed Costs will be determined and applied.

Allocation of Incremental Capital Costs

The ACCC seeks further information from ARTC and stakeholders, outlined below, in order to form a final decision on ARTC's proposed approach to Economic Cost.

The ACCC notes that ARTC proposes to allocate Incremental Capital Costs on the basis of contracted commitments rather than on an actual usage basis, and that stakeholders have expressed divergent views on this issue.

The ACCC understands that concerns from ARTC and most members of HRATF appear to relate largely to how allocating on the basis of actual usage (as was determined appropriate in the ACCC's 2013 Annual Compliance Final Determination) will affect TOP Charges as a proportion of total Access Charges, and the incentive it provides for Access Holders to over-contract for capacity.

In light of these concerns and the different understandings among industry on the effects of this issue, the ACCC considers it appropriate to set out its understanding of the effect of this aspect of its 2013 Annual Compliance Final Determination on both TOP Charges as a proportion of total access charges and the incentive for users to over-contract capacity. In order to inform its final decision, the ACCC seeks submissions from ARTC and stakeholders on the ACCC's understanding of:

- the relationship between setting TOP Charges and the reconciliation with ceiling revenue tests
- the likelihood of Access Holders over-contracting capacity as a result of allocating Incremental Capital Costs on the basis of actual usage, in the context of the operation of the 2017 HVAU and AHA.

The proportion of TOP Charges

Both ARTC and the majority of HRATF members have submitted that allocating Incremental Capital Costs on the basis of actual usage will have the effect of reducing TOP Charges as a proportion of total access charges. The ACCC understands that these concerns relate to certainty of access charges for industry and certainty of cash flows for ARTC.

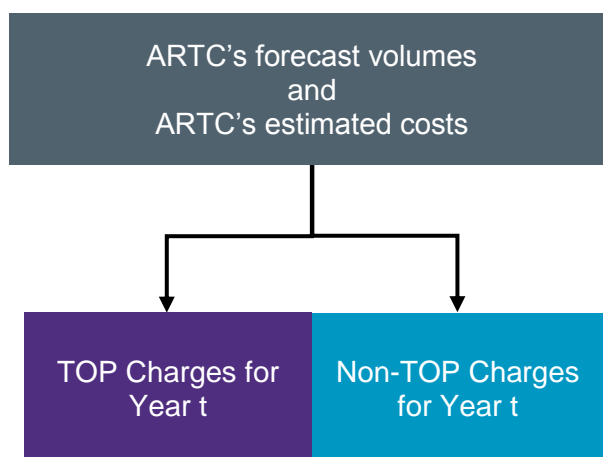
The ACCC understands that there is no requirement in the 2017 HVAU, the criteria set out in section 44ZZA(3) of the Act, or the pricing principles set out in section 44ZZCA of the Act that requires ARTC to align its tariff structure with its cost structures. Therefore, it is unclear to the ACCC why allocating Incremental Capital Costs on the basis of actual usage necessitates a change in the proportion of TOP Charges.

However, the ACCC considers that it is important to set out its understanding of the relationship between TOP Charges and reconciliation with the ceiling revenue tests through the annual compliance process.

Under section 4.19 of the 2017 HVAU, the ACCC understands that ARTC will inform Access Holders within the Services Envelope of the Standard Access Charges (which are split into TOP and non-TOP Charges) for the calendar year by 30 September of the preceding year. ARTC establishes these Standard Access Charges for the purposes of collecting revenue throughout the period.

As actual volumes and costs are unknown at the time ARTC informs Access Holders of the Standard Access Charges, ARTC establishes access charges using forecast volumes and estimates of costs for servicing those volumes. The forecasted volumes used for the purposes of setting Standard Access Charges are informed by coal producers' contracted commitments for below-rail capacity. The ACCC understands that this information will also be provided to Access Holders, under section 4.19(b)(i) of the 2017 HVAU. Figure 4 provides a stylised example of the ACCC's understanding of ARTC's approach to setting TOP and non-TOP Charges for a calendar year.

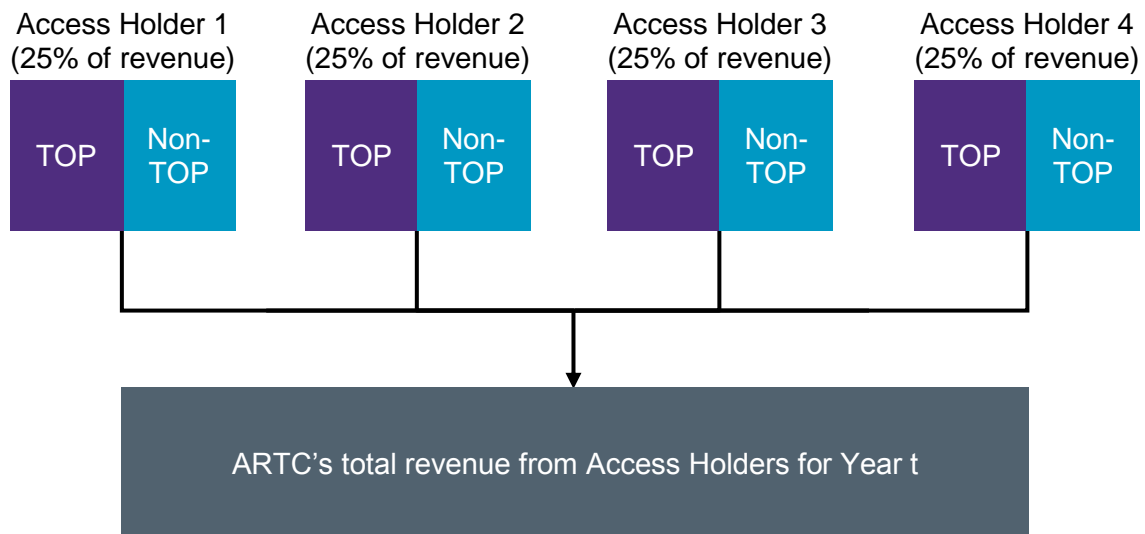
Figure 4: The ACCC's understanding of ARTC's approach to setting TOP and non-TOP Charges for a calendar year



Source: ACCC

The ACCC understands that the revenue received from TOP and non-TOP Charges over the calendar year are essentially intended to be sufficient to cover ARTC's Economic Cost of providing below-rail services to Access Holders. Figure 5 provides a stylised example of the ACCC's understanding of the relationship between Access Holders paying access charges to ARTC and ARTC's total revenue from Access Holders for the calendar year.

Figure 5: The ACCC’s understanding of the relationship between Access Charges and revenue from Access Holders for the calendar year

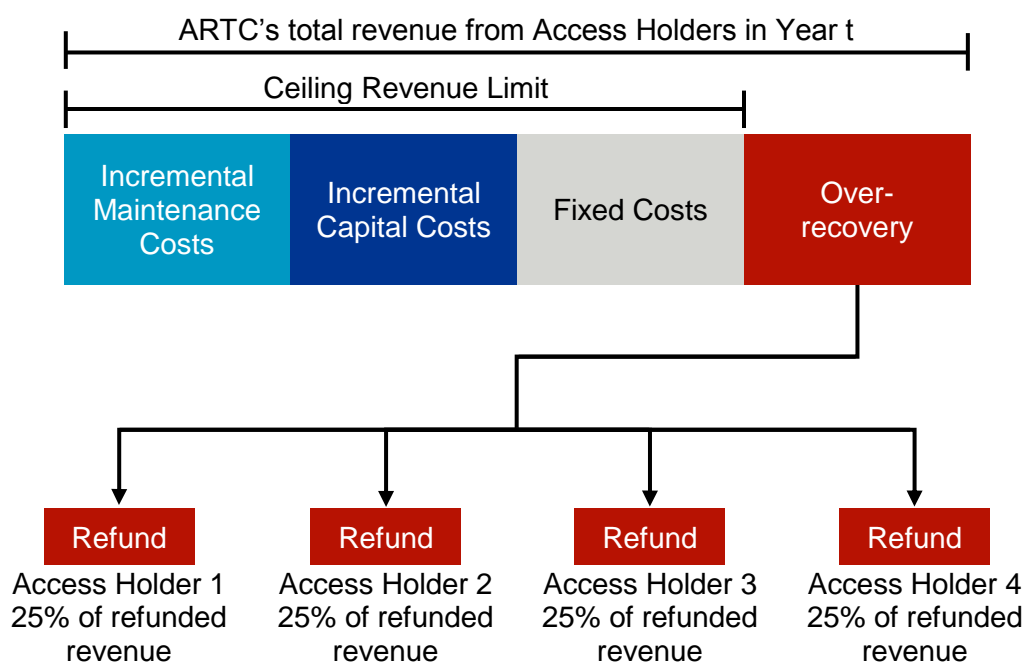


Source: ACCC

At the end of the period, when actual volumes and costs are known, ARTC reconciles its position to determine whether it should have received more (or less) revenue to cover its Economic Cost (this occurs through the unders and overs accounting process, discussed in chapter 10 of this Draft Decision). Broadly, this has occurred through calculating the Ceiling Revenue Limit for Constrained Coal Customers, and reconciling revenue from these Access Holders against this limit. This reconciliation is verified through the annual compliance process conducted by the ACCC. The ACCC notes that this reconciliation is not broken down into TOP and non-TOP components, but is conducted on ARTC’s total revenue from Constrained Coal Customers.

ARTC then recoups (or pays back) any difference in its revenue received and costs incurred to bring its net balance with Constrained Coal Customers to zero. The ACCC understands that any revenue ARTC receives from, or refunds to, Access Holders as a result of this reconciliation is a single lump sum. The ACCC notes that under section 4.9(b) of the 2017 HVAU, each Access Holder pays back (or recoups) funds based on the proportion of ARTC’s total revenue it contributed during the year. Figure 6 provides a stylised example of the ACCC’s understanding of the reconciliation process.

Figure 6: The ACCC’s understanding of the reconciliation of ARTC’s revenue and costs for a calendar year



Source: ACCC

Importantly, this end of period reconciliation effectively severs the link between access charges and costs. This is because the revenue ARTC ultimately receives from Access Holders does not necessarily bear any resemblance to its forecasts.¹⁷⁸ This is particularly the case where ARTC’s actual costs significantly deviate from its initial estimates.

The ACCC notes HRATF’s concerns about the transparency of the unders and overs accounting process, and its request for ARTC to provide worked examples to stakeholders to assist their understanding of the process.¹⁷⁹ As noted in chapter 10 of this Draft Decision, the ACCC considers that ARTC should, as part of a revised submission to the ACCC, provide worked examples to industry that clearly set out each proposed step of the annual compliance process. In addition, the ACCC considers that ARTC should additionally provide worked examples of the relationship between setting TOP Charges and reconciliation with the ceiling revenue tests through the annual compliance process. The ACCC is of the view that these examples will provide clarity and certainty to Access Holders.

As noted previously, the ACCC also seeks submissions from ARTC and stakeholders on the ACCC’s understanding of the relationship between setting TOP Charges and the reconciliation with ceiling revenue tests. Submissions on this issue will assist in informing the ACCC’s final decision on ARTC’s proposed approach to Economic Cost.

Incentives for users to over-contract for rail capacity

The ACCC notes concerns raised by ARTC and the majority of HRATF members that allocating Incremental Capital Costs on the basis of actual usage would increase the incentive for Access Holders to over-contract. Specifically, ARTC and the majority of HRATF

¹⁷⁸ The ACCC notes that this situation may change, depending on the structure of ARTC’s proposed opex efficiency incentive mechanism.

¹⁷⁹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, pp. 67–68.

members have raised concerns that Access Holders will deliberately over-contract to trigger new capex, and then under-utilise these commitments, pushing the cost onto users who fulfil their contractual commitments. Both ARTC and the majority of HRATF members are concerned that this scenario could undermine the RCG process.

The ACCC has not been provided with any evidence to suggest that deliberate over-contracting to trigger new capex is currently occurring in the network. The ACCC has also not been provided with evidence indicating the probability of such over-contracting occurring in the future. The limited information the ACCC has seen suggests that the difference between contracted and actual volumes in recent years has not been large.

Submissions on the 2017 HVAU suggest that if an Access Holder over-contracts its below-rail capacity, it would be liable for TOP Charges from not only ARTC but other parts of the supply chain. For example, Anglo American submits if an Access Holder were to over-contract its below-rail capacity, it would also be expected to increase its contracted above-rail and port commitments.¹⁸⁰ In its supplementary submission to the 2017 HVAU, HRATF submits that both coal export terminals at the Port of Newcastle operate on a 100 per cent TOP basis.¹⁸¹

The ACCC notes that there are provisions in the AHA and 2017 HVAU that are designed for ARTC to address Access Holders contracting excess rail capacity:

- Clause 11.4 of the AHA provides a mechanism for ARTC to remove Path Usages for under-utilisation. The provision states that if an Access Holder has used less than 85 per cent of its contracted Train Paths in the previous 6 months, ARTC will request the Access Holder to provide reasons for keeping the contracted paths. ARTC can also delete Path Usages.
- Clause 11.4 of the AHA is supported by section 5.7(a) of the 2017 HVAU, which provides for ARTC to reduce the under-utilised Capacity Entitlement of an Access Holder.

The ACCC also notes that the RCG's approval for, and the development of new capex projects, occurs in phases. Specifically, section 9.2(h) of the 2017 HVAU states that:

*the RCG will be involved at each stage of project development and will have the opportunity to endorse each stage before ARTC proceeds to the next stage.*¹⁸²

The ACCC notes that many major capex projects (from which incremental costs have been derived under the 2011 HVAU) have undergone a multi-phase endorsement process, which has extended over several years. Examples of such major capex projects include the Minimbah to Maitland and Nundah Third Bank Tracks. The ACCC notes that concept and feasibility studies for the Minimbah to Maitland Third Track project began prior to 2009, with Stage 2 of the project being implemented in 2012.

The ACCC has also observed instances where capital projects progress through a phase of endorsement, but have not ultimately proceeded to construction. An example of this are the rail projects associated with PWCS's T4 expansion. In a submission to the 2013 annual compliance process, ARTC noted:

A suite of projects were endorsed by the RCG prior to 2013 to enable the rail track capacity to match the additional capacity provided by T4. For each project, RCG endorsement is required to proceed to the next stage. For the T4 projects, the RCG

¹⁸⁰ Anglo American, *Supplementary Submission to the Australian Competition and Consumer Commission – Hunter Valley 2017 Draft Access Undertaking*, 27 February 2017, p. 4.

¹⁸¹ HRATF, *Hunter Rail Access Taskforce – submission with response to further ACCC questions*, 20 February 2017, p. 4.

¹⁸² The exception to this is in the instance of an Innovation Project (section 9.2(i)).

did not endorse project advancement due to the deferral of the T4 project by PWCS and the capital spent was sought to be expensed in 2013.

Taking into consideration this multi-stage endorsement approach, the ACCC considers that for an Access Holder to trigger capacity expansions that exceed its actual use (and result in other Access Holders paying a higher share of the Incremental Cost) then prolonged over-contracting would need to occur throughout various phases of the RCG endorsement process. Such over-contracting would also need to occur, in light of provisions in the AHA and 2017 HVAU for ARTC to remove under-utilised paths from Access Holders.

As noted previously, the ACCC seeks submissions from ARTC and stakeholders on its understanding of the likelihood of Access Holders over-contracting capacity as a result of allocating Incremental Capital Costs on the basis of actual usage, in the context of the operation of the 2017 HVAU and AHA. Submissions on this issue will assist in informing the ACCC's final decision on ARTC's proposed approach to Economic Cost.

9. Cost allocation

This chapter outlines how ARTC proposes to allocate non-segment specific costs, depreciation and return on assets to Segments. In particular, ARTC proposes allocating track maintenance related costs on the basis of GTK and all other costs on the basis of Train Km.

The ACCC considers that ARTC's cost allocation method is not appropriate. Instead, the ACCC considers that a transparent costing manual, which clearly sets out the evidence for ARTC's decisions regarding cost allocation, is required to provide clarity and certainty for both ARTC and stakeholders in relation to the processes set out in the 2017 HVAU.

9.1. ARTC proposal

Section 4.6 of the 2017 HVAU sets out the methodology by which ARTC will allocate Non-Segment Specific Costs to Segments, and the depreciation of and return on, Non-Segment Specific Assets to Segments.

- **Segment Specific Costs** are defined in the 2017 HVAU as operating costs that ARTC can directly identify with a Segment and, for the avoidance of doubt, includes any loss or gain incurred on the disposal of an asset.
- **Non-Segment Specific Costs** are defined as operating costs that ARTC cannot directly identify with a Segment.

See chapter 8 of this Draft Decision for further discussion on how ARTC proposes to allocate Segment Specific Costs, and the depreciation of, and return on, Segment Specific Assets.

Section 4.6 of the 2017 HVAU states that, where possible:

- Segment Specific Costs will be directly attributed to a Segment (section 4.6(a)(i))
- Non-Segment Specific Costs and Non-Segment Specific Assets will be identified with the Hunter Valley rail network, ARTC's other businesses including its interstate network, or identified as system-wide (section 4.6(a)(ii)). These Non-Segment Specific Costs and Assets will be allocated respectively on the basis of:
 - GTK where associated with track maintenance (4.6(a)(iii)(A))
 - Train Km for all non-maintenance activities (4.6(a)(iii)(B)).

9.1.1. Comparison to the 2011 HVAU

There are no material differences in ARTC's approach to cost allocation between the 2011 HVAU and the 2017 HVAU.

9.1.2. Comparison to the 2016 HVAU

The key difference between the 2016 HVAU and 2017 HVAU is the provision of a Costing Manual in the 2016 HVAU. The Costing Manual proposed in the 2016 HVAU set out ARTC's proposed processes and mechanisms, which are set out in more detail below. ARTC did not submit a costing manual in the 2017 HVAU. ARTC indicated that cost allocation and costing manual regimes were removed from the 2017 HVAU as a result of the proposed new opex efficiency incentive mechanism.¹⁸³

¹⁸³ ARTC, *2017 Hunter Valley Coal Network Access Undertaking - Summary of key changes to Draft 2016 HVAU*, December 2016, p. 6.

As noted previously, the 2017 HVAU allocates non-segment specific costs based on GTK for maintenance activities and Train Km for other non-maintenance activities, which is the same approach used in the 2011 HVAU. In contrast, the 2016 HVAU replaced the GTK or Train Km allocators with a relatively more detailed set of processes and mechanisms. These processes and mechanisms were set out in a Costing Manual.¹⁸⁴

In its Explanatory Guide to the 2016 HVAU, ARTC stated that the GTK and Train Km allocators in the 2011 HVAU were:

*...for the most part, very broad-brush allocators and are relatively poor in providing even an approximation of the allocations that one might expect to achieve through a more rigorous method and even less so in comparison to what costs might apply to a stand alone entity.*¹⁸⁵

Further, ARTC noted it:

*conducted a rigorous review of the allocation of indirect costs and came to the view that the existing GTK and Train Km allocators significantly understated the costs that should appropriately be applied to the Network.*¹⁸⁶

ARTC's proposed Costing Manual in the 2016 HVAU set out guidelines for how assets and costs would be allocated to Segments and Pricing Zones. This allocation of assets and costs ultimately determined allowable revenue and access prices for each Pricing Zone. The proposed cost attribution hierarchy is given in Figure 7 below. However, in summary:¹⁸⁷

- if assets or costs can be identified to a Segment, then these costs are attributed to that Segment
- if assets or costs cannot be identified to a Segment, then a causal allocator is applied
- if assets or costs cannot be identified to a Segment but a causal allocator is not available, then a non-causal allocator is applied.

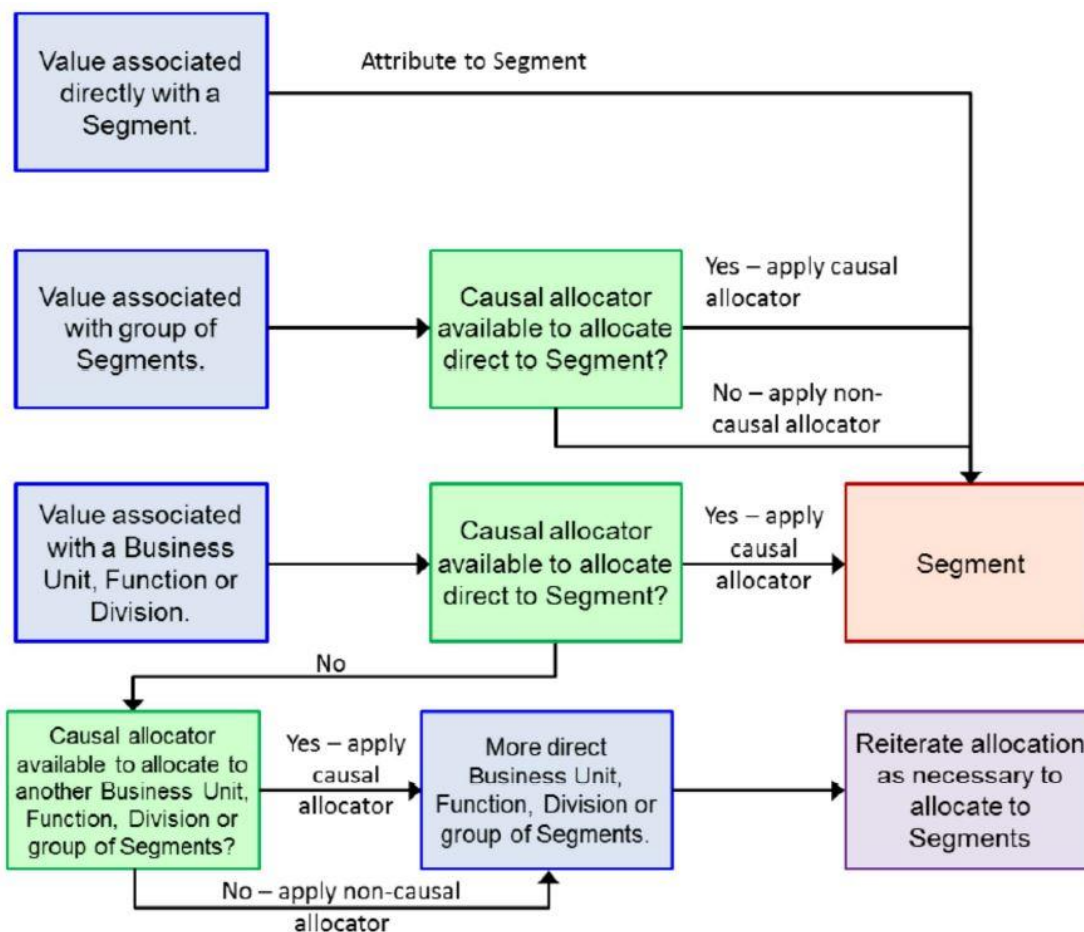
¹⁸⁴ ARTC, *2016 Hunter Valley Access Undertaking Explanatory Guide*, 23 December 2015, p. 13.

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

¹⁸⁷ ARTC, *Hunter Valley Coal Network Access Undertaking Costing Manual*, 23 December 2015, p. 4.

Figure 7: Cost attribution hierarchy proposed by ARTC in the 2016 HVAU



Source: ARTC, *Hunter Valley Coal Network Access Undertaking Costing Manual*, 23 December 2015, p. 5

ARTC submitted that where costs associated with network control, maintenance planning and administration and divisional administration can be identified with a specific Segment:

*... then they are attributed to that Segment. Similarly, any costs incurred on behalf of any other ARTC business unit or division will be attributed to that business unit or division. Otherwise, where a practical causal allocator is available, then that allocator is used, otherwise a general non-causal allocator is applied.*¹⁸⁸

For the Hunter Valley business unit, most operating cost activities are directly attributable to individual Segments, as such those operating costs are allocated to those segments.¹⁸⁹

However, some operating cost activities performed by the Hunter Valley business unit apply to groups of Segments. For example, some maintenance activities are conducted on groups of Segments, but costs are allocated to individual Segments within that group, in proportion to the GTK of each Segment.¹⁹⁰ In addition, ARTC proposed using GTK as a general allocator for infrastructure maintenance.¹⁹¹ This was on the basis that ‘infrastructure

¹⁸⁸ Ibid., p. 11.

¹⁸⁹ Ibid., p. 10.

¹⁹⁰ Ibid.

¹⁹¹ Ibid.

maintenance is generally held to vary more with the changes in gross mass over distance than with any other causal allocator'.¹⁹²

Another operating cost for the Hunter Valley business unit is network control. These costs are identified by control boards and cover specific Segments in the Hunter Valley. The Costing Manual proposed to allocate costs from the applicable group of Segments to individual Segments using Train Km.¹⁹³ Train Km was chosen as:

*...the network controllers interact with trains as they travel across the territory covered by the control board. Therefore the number of trains and the distance travelled (hence Train Km) is a better measure as a causal allocator rather than say any relationship to the size of the trains.*¹⁹⁴

ARTC submitted that the remainder of cost centre and activity codes for the Hunter Valley business unit cannot be causally allocated to Segments. As such, the Costing Manual proposed to allocate these costs to individual Segments using the non-causal allocator of GTK.¹⁹⁵ The Costing Manual noted that:

*For costs associated with track maintenance, a non-causal allocator of GTK is used. While GTK is not directly causal of these types of costs, GTK is an appropriate measure of the comparative scale and scope of track maintenance activities within the Hunter Valley Business Unit given that a significant element of track maintenance varies with the quantum of GTK.*¹⁹⁶

The Costing Manual proposed a number of different allocators for Corporate Support costs. Table 6 details allocators proposed by ARTC for Corporate Support costs to a group of Segments or a business unit.

ARTC calculated that an additional \$5.5 million would have been allocated to the Hunter Valley rail network using the Costing Manual's allocators compared to the allocators in the 2011 HVAU. ARTC stated that this is a demonstration of the level of under-recovery of these costs under the broad-brush approach in the 2011 HVAU.¹⁹⁷

¹⁹² Ibid.

¹⁹³ Ibid., p. 11.

¹⁹⁴ Ibid.

¹⁹⁵ Ibid.

¹⁹⁶ Ibid.

¹⁹⁷ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 37. The ACCC notes that there is a discrepancy between ARTC and HRATF's estimations. This discrepancy appears to be due to rounding.

Table 6: Allocation method for corporate support costs

Business Unit	Activities	Allocator
Executive	CEO, Legal, Internal Audit, Board, Corporate Affairs	Operating costs
Finance	Accounting, Treasury, Procurement and Contracts	Operating costs
People	All	FTEs ¹⁹⁸
Strategy and Corporate Development	All	Operating costs
Enterprise Services	Communications and Wayside	Train km
	Engineering Services and Track Monitoring	GTK
	IT and Workplace Health and Safety	FTEs
	Property and Corporate Safety	Train km
	Plant, Rail Grinding, Risk and Environment	Operating costs

Note: ARTC defined operating costs in the context of the allocator used in Table 1 as expenditure not capitalised as a major project, plus corridor and non-infrastructure capital.

Source: ARTC, *Hunter Valley Coal Network Access Undertaking Costing Manual*, 23 December 2015, p. 12.

9.2. Stakeholder submissions

9.2.1. 2017 HVAU

HRATF reiterated the concerns raised in its submission to the 2016 HVAU (summarised below), namely regarding ARTC's proposal to allocate incremental maintenance costs on a GTK basis.¹⁹⁹

HRATF does not support ARTC's proposal to remove the Costing Manual. However, HRATF submits that a cost allocation manual is required, but should be consulted upon and either endorsed by the RCG or approved by the ACCC.²⁰⁰

9.2.2. 2016 HVAU

HRATF

HRATF 'welcomed' the development of a Costing Manual, but considered that the proposed version did not provide sufficient transparency.²⁰¹ In particular, HRATF submitted the description of the cost allocation rules were either 'too vague in practice' or 'not justified'.²⁰² HRATF had two major concerns with the Costing Manual proposed in the 2016 HVAU:²⁰³

- the potential for cost shifting between ARTC's Hunter Valley and its remaining businesses

¹⁹⁸ Full Time Equivalent.

¹⁹⁹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 6 February 2017, p. 33.

²⁰⁰ Ibid.

²⁰¹ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 24.

²⁰² Ibid.

²⁰³ Ibid., pp. 24-25.

- the use of GTK as a general non-causal cost allocator.

HRATF considered that there are strong incentives for ARTC to allocate relatively more costs to the Hunter Valley than other parts of ARTC's business. HRATF also raised the following concerns in relation to ARTC's proposed cost allocation methodology:

- ARTC provided little detail to explain its estimate that, under its revised cost allocation methodology, an extra \$5.6 million of overhead costs would be allocated to the Hunter Valley rail network²⁰⁴
- although HRATF agreed that overhead costs should be set in reference to a hypothetical stand-alone Hunter Valley rail network, ARTC's methodology was flawed, as it did not perform the same analysis of its interstate network. HRATF considered that overhead costs on a stand-alone interstate network would be significantly higher than its current allocation due to dis-economies of scale.²⁰⁵

HRATF submitted that the use of GTK as a general non-causal cost allocator is aimed at shifting the allocation of operational expenditure from Hunter Valley rail network users.²⁰⁶

Further, HRATF viewed the application of GTK for allocating head office, IT and similar services to be inappropriate. HRATF submitted a more appropriate allocator of such costs would be the number of train paths (as a proxy for the time and administrative burden caused).²⁰⁷

Asciano

Asciano (now Pacific National) supported the inclusion of a Costing Manual in the 2016 HVAU, as it supported 'the principle of increased regulatory transparency', and 'the provision of increased information relating to cost allocation approaches via a Costing Manual'.²⁰⁸

Asciano did not comment on the appropriateness of the allocation methodology in the Costing Manual attached to the proposed 2016 HVAU.²⁰⁹ This was on the basis that it was not currently an Access Holder on the Hunter Valley coal rail network.²¹⁰

Idemitsu

Idemitsu submitted that the Costing Manual proposed in the 2016 HVAU represented a significant improvement' in transparency by ARTC.²¹¹ However, Idemitsu expressed concerns about the cost allocators used by ARTC in the Costing Manual. In particular, Idemitsu considered that neither Train Km or GTK were reflective of the costs incurred by ARTC.²¹²

²⁰⁴ Ibid., p. 24. The ACCC notes that there is a discrepancy between ARTC and HRATF's estimations. This discrepancy appears to be due to rounding.

²⁰⁵ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, pp. 24-25.

²⁰⁶ Ibid., p. 25.

²⁰⁷ Ibid., p. 24-25.

²⁰⁸ Asciano, *Submission to the ACCC 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 12.

²⁰⁹ Ibid.

²¹⁰ Ibid.

²¹¹ Idemitsu, *Consultation Paper – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 9 March 2016, p. 5

²¹² Ibid.

9.3. ACCC view

The ACCC considers that ARTC’s cost allocation method is not appropriate, having regard to the matters in section 44ZZA(3) of the Act. In coming to this view, the ACCC considered the:

- need for cost allocation to be transparent and cost reflective
- Costing Manual proposed in the 2016 HVAU
- development of the opex efficiency regime.

The need for cost allocation to be transparent and cost reflective

Under ARTC’s cost allocation methodology, ARTC proposes that where it is possible, ARTC will use causal allocation methods to allocate Non-Segment Specific Costs and Assets to Segments between its Hunter Valley and interstate networks. Where it is not possible, ARTC will rely on the allocators set out in Table 7 to allocate Non-Segment Specific Costs and Assets to Segments on its Hunter Valley rail network.²¹³

Table 7: Proposed allocators for Non-Segment Specific Costs and Assets

Allocator	Costs and assets allocated to
GTK	<ul style="list-style-type: none"> • Non-Segment Specific Costs associated with track maintenance • Depreciation of Non-Segment Specific Assets associated with track maintenance • Return on Non-Segment Specific Assets associated with track maintenance
Train Km	<ul style="list-style-type: none"> • Non-Segment Specific Costs not associated with track maintenance • Depreciation of Non-Segment Specific Assets not associated with track maintenance • Return on Non-Segment Specific Assets not associated with track maintenance

Source: Section 4.6(a)(iii) of the 2017 HVAU.

The ACCC notes that there is little evidence provided by ARTC to demonstrate that the nominated allocators are representative of how ARTC incurs those costs. The ACCC considers that it is important that cost allocators are reflective of how ARTC incurs those costs. The ACCC considers that this is in the interests of users who might want to access the Hunter Valley rail network because it provides clarity and certainty in the operation of the 2017 HVAU, and consequently promotes the economically efficient operation of, use of and investment in the Hunter Valley rail network (sections 44ZZA(3)(e) and (aa), respectively).

The ACCC notes that in its explanatory guide to the 2016 HVAU, ARTC submitted that the use of Train Km and GTK to allocate ‘indirect costs’²¹⁴ was:

...for the most part, very broad-brush allocated and are relatively poor in providing even an approximation of the allocation that one might expect to achieve through a

²¹³ These Segments collectively form the three Pricing Zones in the Hunter Valley rail network. The individual Segments that make up each Pricing Zone are given in Schedule E of the 2017 HVAU.

²¹⁴ Defined by ARTC as Non-Segment Specific Costs and the depreciation, return costs and loss on disposal associated with Non-Segment Specific Assets.

more rigorous method and even less so in comparison to what cost might apply to a stand alone entity.²¹⁵

ARTC's view was supported by the results of WIK's review of the costs of ARTC's Hunter Valley Coal Network, which was an input to the 2013 Annual Compliance Final Determination. For example, Table 8 below sets out the WIK approach to the incremental cost treatment of several capex projects. The projects presented in Table 8 illustrate that there can be a number of different drivers of costs.

Table 8: WIK Assessment of incremental cost share – Minor capex projects

Cost Types	% incremental (as assessed by WIK/TÜV)	Cost driver (incremental)	Cost driver (fixed)
Rerailing	90	GTK	time
Point machine replacement / Point motor renewal	50	Train Km	time
Signalling System investments/upgrades	50	Train Km	time
Track strengthening / upgrading	75	GTK	time
Turnout renewal with 60kg rail	75	GTK	time
Radio Upgrade, additional channels	25	Train Km	safety
Track Pads replacement	75	GTK	time
Flash Butt Welding	75	GTK	time
Repair of signalling equipment (relay boards)	25	Train Km	time
Installation of rail lubricators	50	GTK	time
Upgrading of structural deficiencies	75	GTK	time

Source: WIK-Consult, *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*, 30 September 2015, p. 30.

Table 9 sets out WIK's approach to the incremental treatment of several RCRM and MPM costs. The ACCC notes that the driver of the incremental portion of these costs was GTK, whereas the driver for the fixed proportion was time.

²¹⁵ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 13.

Table 9: WIK Assessment of incremental cost share – maintenance costs

Category	Cost Types	% incremental (as assessed by WIK/TÜV)	Cost driver (incremental)	Cost driver (fixed)
RCRM	163 - Rail Defect Removal	90	GTK	time
MPM	168 - Rerailing - Minor	90	GTK	time
	171 - Rail Grinding	90	GTK	time
	172 - Turnout Grinding	90	GTK	time
	187 - Turnout Steel Component Replacement	90	GTK	time
	203 - Maintenance Resurfacing	90	GTK	time
	205 - Turnout Resurfacing	90	GTK	time
	226 - Pad Replacement	75	GTK	time

Source: WIK-Consult, *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*, 30 September 2015, p. 27.

For the reasons noted above, the ACCC considers ARTC's proposed approach to cost allocation in the 2017 HVAU is insufficient to determine how Non-Segment Specific Costs and Assets are allocated between the Hunter Valley and interstate rail networks and among Segments of the Hunter Valley rail network. Therefore, the ACCC considers ARTC's approach to be inappropriate.

The ACCC considers that ARTC's cost allocation methodology should be replicable, consistent, transparent, and based on the principle of cost causality. Such an approach would ensure the economically efficient operation of, use of and investment in the Hunter Valley rail network, and is in the interests of users who might want to access the Hunter Valley rail network (sections 44ZZA(3)(aa) and (c)).

The ACCC therefore considers that ARTC must provide both qualitative and quantitative information to the ACCC and stakeholders to provide clarity and certainty to users about the method of cost allocation (section 44ZZA(3)(e)). In particular, the ACCC considers that ARTC needs to provide the following:

- information on all cost centre and activity codes, including demonstrations of how costs are allocated to the Hunter Valley rail network and between Pricing Zones. Aggregate information should be made available to coal producers, to demonstrate the Hunter Valley rail network's share of corporate costs and the drivers of those costs.
- evidence, including examples, to explain why the nominated cost allocators are the most appropriate.

The ACCC notes that the quantitative requirements will be in part dependent on the information made available as part of the opex efficiency mechanism (discussed in further detail below and in chapter 20 of this Draft Decision).

Costing Manual proposed in the 2016 HVAU

The ACCC notes that in its preliminary views letter from July 2016, it considered that ARTC's proposed approach to the Costing Manual in the 2016 HVAU was unlikely to be appropriate.²¹⁶ This was on the basis that ARTC needed to:

- provide more quantitative and qualitative justification of allocators used to address potential incentives to inappropriately allocate costs to the Hunter Valley network; and
- potentially change the choice of allocator for some costs.

The ACCC notes stakeholder's submissions on both the 2017 HVAU and 2016 HVAU that the introduction of a Costing Manual would improve transparency in ARTC's approach to allocating costs to the Hunter Valley rail network, and to Segments within the Network.

This view is also reflected by ARTC's consultant Lacertus Verum. Lacertus Verum noted that the Costing Manual proposed in the 2016 HVAU provided a useful precedent to move away from a broad brush approach such as Train Km.²¹⁷ Lacertus Verum further considered the proposed Costing Manual provided:

...a useful mechanism for presenting cost allocation information at a high level without requiring too much prescription and may be an acceptable way for ARTC to proceed that meets, at least to some extent, stakeholder calls for greater transparency.²¹⁸

Lacertus Verum also noted that:

The concept of incorporating a document into a regulatory undertaking explaining the cost allocation policy and methodology is widely accepted by regulators in Australia, including in the rail infrastructure area.²¹⁹

One example of this is the legislation governing Aurizon Network in Queensland. Specifically, under section 159 of the *Queensland Competition Authority Act 1997* (Qld), the Queensland Competition Authority (**QCA**) can request Aurizon Network to prepare and submit a cost allocation manual to the QCA. Of relevance to the Hunter Valley rail network, Aurizon Network's cost allocation manual sets out:

- the framework for the identification, attribution and allocation of assets, costs, revenue and investments relating to Queensland-based below rail services provided by Aurizon Network and the development of financial statements required in accordance with the [Access Undertaking for the Central Queensland Coal Network (**CQCN**)]
- the process for identifying the cost base for below rail services separate from other services provided by Aurizon Network
- an assignment of costs based on Aurizon Network's current costing accounts.²²⁰

As Lacertus Verum notes, cost allocation methodologies and regulatory accounting frameworks are in place in other regulated industries. Examples include:

- electricity distributors are required to submit regulatory proposals to the Australian Energy Regulator (**AER**) that comply with an approved cost allocation methodology. This

²¹⁶ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 5.

²¹⁷ Lacertus Verum, *Report on the Methods for Allocation of Overheads for ARTC*, 14 August 2015, p. 5.

²¹⁸ Ibid.

²¹⁹ Ibid., p. 11.

²²⁰ Aurizon Network Pty Ltd, *Costing Manual*, October 2016, pp. 1-2.

separate cost allocation methodology must give effect to and be consistent with the AER's guidelines for cost allocation.²²¹

- part 4A of the *Australian Postal Corporation Act 1989* (Cth) stipulates that the ACCC must require Australia Post to keep records about its monopoly letter services. The ACCC has issued a record keeping rule that requires Australia Post to keep records about its monopoly letter services.²²² This includes the cost allocation methodology Australia Post uses to allocate shared costs between its monopoly letter services and those services that are subject to competition (for example, parcel services).

As noted previously, the ACCC considered that the particular Costing Manual proposed in the 2016 HVAU was unlikely to be appropriate. However, the ACCC considers that a costing manual, which sets out the evidence for ARTC's decisions regarding cost allocation, would be in the interests of clarity and certainty for both ARTC and stakeholders, while also in the interests of those who might want to access the Network (sections 44ZZA(3)(e) and (c)). The ACCC also considers that providing evidence of a link between cost causation and cost allocation would provide clarity and certainty in the operation of the 2017 HVAU, and consequently, promote the economically efficient operation of, use of and investment in the Network (sections 44ZZA(3)(e) and (aa)).

Development of the operating expenditure efficiency mechanism

The ACCC notes ARTC's position that proposed changes in the 2016 HVAU relating to cost allocation and the Costing Manual were removed from the 2017 HVAU due to the proposed opex efficiency mechanism.²²³ However, the ACCC considers that a separate costing manual would be required irrespective of the structure of such a mechanism.

In particular, the ACCC considers that it is more appropriate for the cost allocation methodology to be described in a separate document rather than to include the methodology as part of ARTC's opex efficiency mechanism. The ACCC is of the view that ARTC's cost allocation methodology has a wider application than solely for the opex efficiency mechanism. This is highlighted in section 4.6(a)(iii) of the 2017 HVAU, which includes allocators for depreciation of, and return on, Non-Segment Specific Assets associated with track maintenance (Table 7).

The ACCC understands that ARTC's cost allocation methodology would be used to prepare forecast opex for the purposes of the opex efficiency incentive mechanism. In addition, the ACCC considers that it would also form a central part of the ARTC's annual compliance assessment (under section 4.10 of the 2017 HVAU). As a result, the ACCC considers that the provision of such a document would provide clarity and certainty to users who might want to access to the Hunter Valley Network about the operation of the 2017 HVAU (sections 44ZZA(3)(e) and (c)).

²²¹ AER, *Electricity distribution network service providers – Cost allocation guidelines*, 26 June 2008.

²²² ACCC, *Record Keeping Rules – Establishing a Regulatory Accounting Framework for Australia Post*, 1 July 2016. Available at: <https://www.accc.gov.au/system/files/Revised%20Australia%20Post%20regulatory%20accounting%20framework%20record%20keeping%20rules%20-%20201%20July%202016%20%28FINAL%29.PDF>.

²²³ ARTC's proposed opex efficiency mechanism is discussed in further detail in chapter 20 of this Draft Decision.

10. Unders and overs accounting

This chapter sets out the unders and overs accounting process, under section 4.9, undertaken as part of the ACCC's annual compliance assessment.

The ACCC considers that the unders and overs accounting provisions in the 2017 HVAU are not appropriate due to their interaction with the proposed dual Ceiling limit.

10.1. ARTC proposal

Section 4.9 of the 2017 HVAU provides for the unders and overs accounting process, undertaken as part of the annual compliance assessment (see chapter 11 of this Draft Decision for further discussion on annual compliance). The unders and overs process only applies to Constrained Coal Customers, defined under section 15.1 as an Access Holder who:

- holds Coal Access Rights under a current Access Agreement with ARTC, and
- has made payments to ARTC for access to the relevant Constrained Network (in addition to payments made for Incremental Costs) and such payments formed part of the annual coal Access revenue for the Constrained Group of Mines.

Section 4.9(b) of the 2017 HVAU details the method by which ARTC will determine an allocation of total unders and overs for each Ceiling Limit, for each applicable Constrained Coal Customer, based on the proportion of access revenue paid, less any TOP rebates applicable following the TUT. ARTC includes the following clarification at section 4.9(b)(iii):

To avoid doubt, a separate unders or overs accounting will be conducted for each Ceiling Limit in respect of each applicable Constrained Coal Customer on the basis of the relevant Constrained Network;

The ACCC notes that this clarification relates to ARTC's proposal to introduce a dual Ceiling Limit, a new proposal in the 2017 HVAU (see chapter 6 of this Draft Decision for further discussion on the dual Ceiling Limit).

Section 4.9(c) of the 2017 HVAU clarifies that any refunds to a Constrained Coal Customer will not exceed total payments made by that customer in excess of their Floor Revenue Limit (excluding any Innovation Incentive Payments).

Sections 4.9(d)–(f) of the 2017 HVAU states that if ARTC agrees to waive an Access Holder's TOP Charges for the sole benefit of that Access Holder, it cannot then recover this cost by increasing another Access Holder's TOP Charges or through the unders and overs process. Section 4.9(e) clarifies that waived TOP Charges arising from provisions under clause 11 of the 2017 indicative AHA, that lead to a more efficient use of Capacity or Coal Chain Capacity, will be defined as benefiting other Access Holders — and therefore, ARTC can recover this cost through increasing other Access Holders' TOP Charges or through the unders and overs process.

10.1.1. Comparison to 2011 HVAU

ARTC proposes drafting changes to incorporate ARTC's proposal to introduce a dual Ceiling Limit, for example the clarification at section 4.9(b)(iii) of the 2017 HVAU noted above. ARTC additionally proposes minor changes from the 2011 HVAU, relating to the introduction of path based pricing and the Innovation Incentive Mechanism.

10.1.2. Comparison to 2016 HVAU

The 2016 HVAU did not include drafting changes relating to the dual Ceiling Limit, as this is a new proposal in the 2017 HVAU. ARTC proposes no other material changes to the 2017 HVAU compared with the 2016 HVAU.

10.2. Stakeholder submissions

10.2.1. 2017 HVAU

HRATF submits that the unders and overs accounting methodology in the 2011 HVAU is complex and unclear, and requests further transparency in the 2017 HVAU. HRATF proposes that ARTC should provide clear worked examples to stakeholders to assist their understanding of the unders and overs process.²²⁴

HRATF notes its concern with a proposed amendment at section 4.9(b)(iii)—which states that separate unders and overs accounting will be conducted for each Ceiling Limit in respect of each applicable Constrained Coal Customer on the basis of the Constrained Network. HRATF considers this drafting to be unclear and is concerned with how it may interact with the reconciliation of ceilings around groups of customers.²²⁵

10.2.2. 2016 HVAU

Stakeholders did not comment on the unders and overs accounting process in their submissions on the 2016 HVAU.

10.3. ACCC view

The ACCC notes that, with the exception of the amendments arising from the proposed dual Ceiling Limit, ARTC has made no material changes to the unders and overs process provisions in the 2017 HVAU compared with the 2011 HVAU. The ACCC notes that so far, four annual compliance assessments have been completed for the 2011 HVAU. The ACCC considers that the unders and overs mechanism has worked well throughout these annual compliance assessments.

The ACCC notes HRATF's concern about the transparency of the unders and overs mechanism. The ACCC considers that this relates to broader concerns from stakeholders that there is a lack of understanding among industry about the annual compliance process; particularly around cost allocation and revenue reconciliation—see chapter 11 of this Draft Decision for further discussion on the annual compliance process. The ACCC considers that ARTC should, as part of a revised submission to the ACCC, provide worked examples to industry that clearly set out each step of the annual compliance process. The ACCC considers this would promote clarity and certainty in the operation of the 2017 HVAU, allowing current and future Constrained Coal Customers to be sufficiently aware of their rights and obligations in order to avoid unnecessary costs (section 44ZZA(3)(e)). Further, this would benefit persons who might want access to the Hunter Valley rail network (section 44ZZA(3)(c)).

The ACCC notes ARTC's proposed amendment at section 4.9(e) of the 2017 HVAU that relates to the introduction of path based pricing, specifically to changes to the Services Envelope. The ACCC notes that as it considers that ARTC's Services Envelope is

²²⁴ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, pp. 67–68.

²²⁵ *Ibid.*, p. 67.

appropriate, this amendment is also appropriate – see chapter 15 of this Draft Decision for further discussion on the Services Envelope.

The ACCC considers that if ARTC includes in the 2017 HVAU worked examples that clearly set out each step of the annual compliance process, that the proposed unders and overs mechanism is broadly appropriate.

The ACCC considers that HRATF's concern regarding the amendment to section 4.9(b)(iii) relates to broader concerns from stakeholders and the ACCC regarding ARTC's proposal to introduce a dual Ceiling Limit. As discussed in chapter 6 of this Draft Decision, the ACCC considers that ARTC's proposed dual Ceiling Limit is not appropriate. The ACCC considers that based on the current drafting, it is unclear how the floor and ceiling revenue limits would operate in practice. The ACCC considers that this does not reflect the intent of the 2017 HVAU, which is to use transparent and detailed methodologies, principles and processes for determining Access revenue limits (section 44ZZA(3)(e)). Additionally, the ACCC considers that based on the current drafting, it is unclear how maintaining a dual Ceiling Limit after capitalised losses have been recovered promotes the efficient operation of, use of and investment in the Hunter Valley rail network (section 44ZZA(3)(aa)).

Given the unders and overs mechanism necessarily interacts with the floor and ceiling revenue limits, the ACCC cannot accept ARTC's proposed drafting of the unders and overs mechanism. As noted in chapter 8 of this Draft Decision, the ACCC requires further clarification from ARTC on the rationale for, and practical operation of, the dual Ceiling Limit.

11. Annual compliance

This chapter sets out ARTC's proposal for annual compliance assessments in the 2017 HVAU.

The ACCC considers that ARTC's proposal is appropriate subject to changes to Schedule H of the 2017 HVAU requiring ARTC to provide the following additional information to the ACCC for its annual compliance assessment:

- actual and contracted Train Km and GTK for the Hunter Valley network (broken down into coal traffic by Pricing Zone and non-coal traffic) and for the interstate rail network
- all endorsements (that is, for all project stages) by the RCG of capex
- detailed explanations for minor and major projects where capex exceeds RCG endorsed values
- detailed explanations of ARTC's processes and procedures relating to disposal values.

11.1. ARTC proposal

Section 4.10 and Schedule H of the 2017 HVAU set out the requirements for the ACCC to conduct an annual compliance assessment each year to determine whether ARTC has complied with the financial model in the 2017 HVAU.

ARTC proposes that the ACCC performs its annual compliance assessment on a calendar year basis. However, between 1 July 2017 and 31 December 2017 (2017H2), ARTC proposes that the ACCC will perform its assessment for a half year period. This is to account for the 2017 HVAU starting on 1 July 2017 and allow future assessments to align with the calendar year.

Broadly, section 4.10 of the 2017 HVAU sets out that:

- by 30 April each year, ARTC will submit to the ACCC documentation detailing:
 - the roll-forward of the RAB and the RAB Floor Limit
 - calculations relevant to reconciliation of Access revenue with the applicable Ceiling Limit and calculation of any unders and overs amounts
- the documentation provided by ARTC will meet the information provision guidelines and timeframes set out in Schedule H
- if the ACCC reasonably considers it requires additional information other than that already provided by ARTC, then the ACCC may request this information
- the ACCC will determine whether ARTC has:
 - rolled-forward the RAB and RAB Floor Limit in accordance with the 2017 HVAU
 - correctly reconciled Access revenue with the applicable Ceiling Limit and calculated the allocation of the total unders and overs amount in accordance with the 2017 HVAU
- the ACCC will assess whether ARTC has incurred Efficient costs and Efficient opex
- the ACCC may consider stakeholder submissions for determining the roll-forward of the RAB and RAB Floor Limit, except if capex has been endorsed by the RCG the ACCC will not consider if the capex is prudent
- the ACCC will publish its determination on its website
- ARTC will revise the closing RAB and manage Constrained Coal Customer Accounts in accordance with the ACCC's determination.

Broadly, Schedule H sets out the information ARTC will provide to the ACCC. For example, this information includes (but is not limited to) documentation:

- demonstrating ARTC's compliance with the roll-forward of the RAB and RAB Floor Limit, including:
 - an explanation on how components have been calculated and any assumptions used
 - a breakdown of each component into the Constrained Network and non-Constrained Network
 - a breakdown of capex values into Segments and assets
 - a table of each component and the outcomes of calculations
 - RCG endorsements of proposed capex
 - evidence of disposal values, including any RCG endorsement
- detailing ARTC's compliance with the Ceiling Limit and allocation of total unders and overs to Constrained Coal Customers
- setting out PZ3 Standard Access charges when the RAB exceeds the RAB Floor Limit for PZ3.

Schedule H also sets out the indicative timetable for the annual compliance assessment, which proposes that the ACCC's annual compliance determination will be finalised and published by the end of October in the subsequent year. It should be noted that this indicative timetable would apply from 2018 and onwards.

ARTC notes that changes to section 4.10 would be required in response to the implementation of an opex efficiency mechanism (see chapter 20 of this Draft Decision).²²⁶

11.1.1. Comparison to 2011 HVAU

The differences between the 2011 HVAU and 2017 HVAU relate to administrative changes. For example:

- replacing references to Indicative Access Charges or Interim Access Charges with Standard Access Charges
- providing for a compliance assessment for the 6 month period between 31 December 2016 and 1 July 2017.

11.1.2. Comparison to 2016 HVAU

The differences between the 2016 HVAU and 2017 HVAU relate to the compliance assessment for the 6 month period between 31 December 2016 and 1 July 2017.

11.2. Stakeholder submissions

11.2.1. 2017 HVAU

Stakeholders did not comment on the procedural aspects of annual compliance in their submissions on the 2017 HVAU consultation paper. However, HRATF submits that prudence

²²⁶ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Attachment 8 – Opex changes*, 9 December 2016, p. 1.

of capex should only be assessed at the time of commissioning, not at the time that capex is incurred.²²⁷

11.2.2. 2016 HVAU

HRATF's comments on the annual compliance assessment process formed part of their views on the efficiency of opex. HRATF stated the opex framework under the 2016 HVAU is weak and does not reflect standard Australian regulatory practice.²²⁸

To improve the assessment of opex, HRATF stated the following changes to the annual compliance assessments would be needed at a minimum:

- an expanded role for Access Holders, through the RCG process, to endorse annual opex forecasts, with any endorsed forecasts providing a presumption of efficiency (or lack of efficiency) in the ex post annual compliance review
- substantial improvements to the annual compliance process, including providing minimum information requirements for ARTC around opex prudence and an improved process for ACCC engagement with Access Holders and other stakeholders – including the ACCC publishing guidelines, and from time to time, outlining its approach to assessing opex prudence in the context of the HVAU.²²⁹

11.3. ACCC view

The ACCC considers ARTC's proposal in section 4.10 and Schedule H of the 2017 HVAU is appropriate (subject to the changes set out below).

In coming to this view, the ACCC has considered:

- the transition between the 2011 HVAU and 2017 HVAU
- ACCC experience performing annual compliance assessments under the 2011 HVAU
- the process for endorsing and assessing the prudence of capex
- development of the opex efficiency mechanism.

It should be noted that in addition to the Annual Compliance assessment, ARTC is also required to perform a TUT. This aspect of the 2017 HVAU is examined in chapter 11 of this Draft Decision.

Transition from the 2011 HVAU to the 2017 HVAU

In the interests of clarity and certainty, the ACCC considers it essential that all stakeholders understand the timing and relevant input parameters for the annual compliance assessment during the transition from the 2011 HVAU to the 2017 HVAU (section 44ZZA(3)(e)). The ACCC considers this is in the interests of both ARTC and Access Holders (sections 44ZZA(3)(a) and (c)).

²²⁷ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 56.

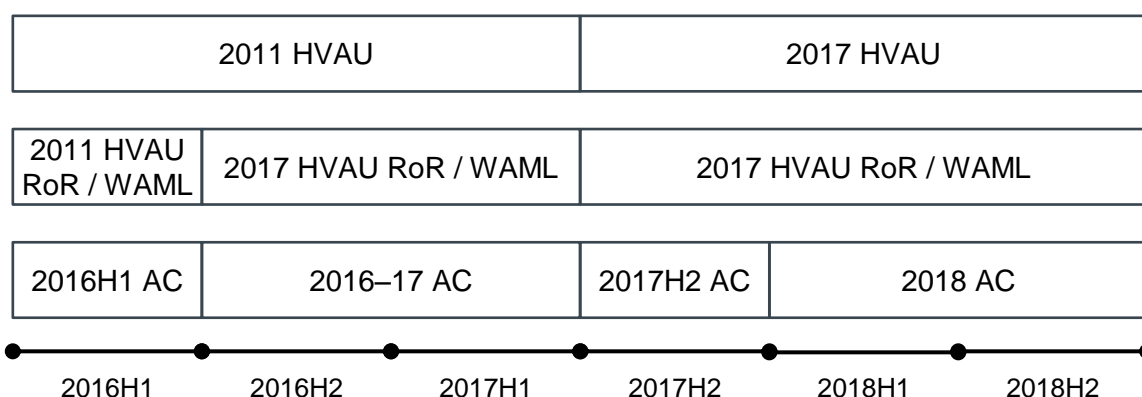
²²⁸ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 4.

²²⁹ *Ibid.*

Notably, the 2011 HVAU is scheduled to expire on 30 June 2017 and the 2017 HVAU is proposed to commence on 1 July 2017. As set out in Figure 8 below, the ACCC understands that ARTC proposes four annual compliance assessments to be conducted between 1 January 2016 and 31 December 2018:

- between 1 January 2016 and 30 June 2016 (2016 H1) using the pre-tax real ROR of 9.10 per cent and WAML of 16 years as at 1 July 2016—adopted in the 2011 HVAU
- between 1 July 2016 and 30 June 2017 (2016–17) with:
 - Indicative and Interim Access Charges calculated by ARTC and paid by Access Holders based on a pre-tax real ROR of 6.74 per cent and WAML of 16 years as at 1 July 2016—this was proposed by ARTC in the 2016 HVAU and agreed to by HRATF
 - roll-forward of the RAB and reconciliation of Access revenue against the Ceiling Limit using the pre-tax real ROR and WAML adopted in the 2017 HVAU—this was proposed by ARTC and agreed to by HRATF
- between 1 July 2017 and 31 December 2017 (2017H2) using the pre-tax real ROR and WAML adopted in the 2017 HVAU
- between 1 January 2018 and 31 December 2018 using the pre-tax real ROR and WAML adopted in the 2017 HVAU.

Figure 8: ACCC’s understanding of ARTC’s proposed annual compliance assessments between 1 January 2016 to 31 December 2018



Source: ACCC

From 2019, the Annual Compliance assessment will be performed on a calendar year basis.

As noted above, ARTC is required to perform a TUT on a calendar year basis concurrently with the annual compliance assessments. Under the 2011 HVAU, this TUT was submitted as part of the annual compliance assessments. However, under the transitional arrangement proposed by ARTC, the TUTs will continue to be performed on a calendar year basis.

ACCC experience in the 2011 HVAU annual compliance assessments

The ACCC considers that a robust annual compliance assessment is in the best interests of Access Holders (section 44ZZA(3)(c)) and is essential for promoting the efficient operation of, use of and investment in ARTC’s infrastructure (section 44ZZA(3)(aa)). This is because annual compliance assessments ensure that:

- ARTC is incurring prudent capex, efficient opex and is complying with its revenue cap so that ARTC is not extracting economic rents from Access Holders

- Access Holders are not paying less than the incremental cost they impose on the Network.

For example, under the 2011 HVAU, the ACCC has so far performed four annual compliance assessments of ARTC's compliance with the financial model for the Hunter Valley rail network. As part of these assessments, the ACCC ensured that ARTC correctly rolled-forward the RAB and RAB Floor Limit and reconciled Access revenue to the Ceiling Limit and unders and overs amounts. In a number of these assessments, the ACCC (and in some cases ARTC through its own further review) identified errors in calculations that resulted in amendments to the end result. The ACCC's assessments have also examined ARTC's opex to ensure that it has been efficiently incurred and appropriately allocated across the network.

Given there are no substantive administrative differences between the 2011 HVAU and 2017 HVAU, the ACCC broadly considers that ARTC's proposal for the 2017 HVAU to continue with the annual compliance assessments is appropriate. As previously noted, the ACCC considers that such assessments will be in the best interests of Access Holders and promote the efficient operation of, use of and investment in ARTC's infrastructure, in accordance with sections 44ZZA(3)(c) and (aa) of the Act.

However, based on its experience in performing annual compliance assessments under the 2011 HVAU, the ACCC considers ARTC should be required to provide additional information in its annual compliance submissions to the ACCC. In particular, the ACCC considers the following information requirements should be added to Schedule H:

- actual and contracted Train Km and GTK for the Hunter Valley network (broken down into coal traffic by Pricing Zone and non-coal traffic) and for the interstate rail network
- all endorsements (that is, for all project stages) by the RCG of capex.
- detailed explanations for minor and major projects where capex exceeds RCG endorsed values
- detailed explanations of ARTC's processes and procedures relating to disposal values.

The ACCC notes this information has formed part of additional information that the ACCC has routinely sought from ARTC in its annual compliance assessments under the 2011 HVAU, and most recently for the 2014 Annual Compliance assessment. The ACCC considers that having ARTC provide this information up-front in its initial submissions will enable the assessments to be completed more expeditiously. ARTC should also consider to what extent this information could be made available to stakeholders to provide greater transparency and also enable a more informed consultation process by the ACCC as part of the annual compliance assessment process.

The ACCC notes that there may be an oversight in section 4.10(g) of the 2017 HVAU. This section states that in accordance with the ACCC's determination, ARTC will revise the closing RAB and Constrained Coal Customers Accounts. The ACCC considers that this section should also include ARTC revising the closing RAB Floor Limit.

Prudence of capital expenditure

The ACCC notes HRATF's submission that the prudence of capex should only be assessed at the time of commissioning, not at the time that the capex is incurred. In particular, the ACCC considers that HRATF's proposal would not be in the legitimate business interests of ARTC and would not promote the economically efficiency operation of, use of and investment in ARTC's infrastructure.

First, section 4.10(e) of the 2017 HVAU states that 'if Capital Expenditure has been endorsed by the RCG in accordance with section 9, the ACCC will not consider whether that

Capital Expenditure is Prudent'. The ACCC considers the RCG continues to be best placed to understand the future investment needs for the Hunter Valley network.

Second, if the RCG decided not to endorse capex at commissioning, the ACCC would need to assess the prudence of the capex. The ACCC considers this type of analysis would take considerable time and resources and would delay the finalisation of the annual compliance assessments.

Third, the ACCC considers having RCG endorsement of capex at commissioning creates mixed incentives for ARTC. In particular, ARTC would have limited incentive to commit to projects where there is a chance that it would not recoup its capex.

Development of an opex efficiency incentive mechanism

ARTC is developing an opex efficiency incentive mechanism in consultation with stakeholders and in parallel with the ACCC's assessment of the 2017 HVAU. The ACCC notes that the content of section 4.10 and Schedule H may change in response to the finalisation of this opex efficiency incentive mechanism. The ACCC's views provided above assume that an appropriate opex efficiency incentive mechanism is implemented for the final 2017 HVAU. If an opex efficiency incentive mechanism is not implemented, then the ACCC will need to reconsider the appropriateness of the content of section 4.10 and Schedule H in that context. Further detail on the ACCC's proposed opex efficiency incentive mechanism is provided at chapter 20 of this Draft Decision.

12. Depreciation on Segment Specific Assets— Weighted average mine life

This chapter discusses ARTC's proposal to use Weighted Average Mine Life (WAML) as a proxy for the useful economic life of ARTC's Hunter Valley rail assets which is used to calculate the annual depreciation ARTC can recoup as part of its Economic Cost.

The ACCC considers that ARTC's proposal for adopting straight line depreciation based on a WAML calculated for the Hunter Valley rail network is appropriate.

In principle, the ACCC considers that ARTC's proposal for including WAML as part of the mandatory review (set out in section 2.3 of the 2017 HVAU) is appropriate. However, the ACCC considers it is not appropriate to exclude mines in care and maintenance or mines pending licence renewal from a recalculated WAML conducted as part of the mandatory review.

Further, the ACCC considers that ARTC's proposal for a WAML of 16.5 years (as at 1 July 2016) and WAML methodology, is not appropriate. In particular, the ACCC considers that ARTC's proposed methodology for:

- discounting proven and probable reserves is not appropriate
- discounting reserves for end-of-life mine risk is not appropriate
- setting a mine's production rate to the greater of historical production and contracted commitments is not appropriate
- limiting a mine's life to the remaining mine licence term is not appropriate.

Based on available information, the ACCC considers an appropriate range for WAML is between 20 and 32 years. This range is based on the sensitivity of a number of assumptions and as such requires ARTC to provide the ACCC with further information and evidence in support of its preferred assumptions or will otherwise require agreement between ARTC and Access Holders.

The ACCC recognises a single estimate of WAML relies on a number of assumptions. For example, using a saleable to run-of mine conversion factor of 76 per cent, a 3 per cent end-of-mine life adjustment and no proved and probable reserve adjustment results in a possible WAML point estimate of 23 years (using ARTC's data).

Finally, the ACCC suggests that ARTC consider possible alternatives for determining the depreciation of Hunter Valley network assets. One possible alternative is the approach used by Aurizon Network, which is a 20 year rolling asset life. The ACCC considers a 20 year rolling asset life would provide both investment certainty for ARTC and methodological certainty for HRATF.

12.1. ARTC proposal

Section 4.7 of the 2017 HVAU details the Depreciation on Segment Specific Assets that ARTC can then recoup as part of the Economic Cost (see section 4.5).

Given the breadth of topics covered in the Depreciation of Segment Specific Assets, the ACCC has separated this matter into two parts. The first part, the focus of this chapter, examines the method for determining WAML and depreciation. The second part, the focus of chapter 13 of this Draft Decision, examines the incorporation of Prospective Mines into the WAML.

The 2017 HVAU states that:

- depreciation is calculated using a straight line methodology—section 4.7(a)
- as at 1 July 2016, the WAML for the network is 16.5 years—section 4.7(b)
- WAML of coal mines will be determined by ARTC on a network wide basis—section 4.7(d)

- depreciation is to be charged each year on the inflation adjusted opening balance of the RAB Floor Limit and on the Prudent Capital Expenditure associated with all of the assets commissioned in that year—section 4.7(e)
- during the initial term, the WAML for the network will be the greater of 16.5 years (as at 1 July 2016) and the figure recalculated in accordance with section 4.7(f)—section 4.7(g).

Section 4.7(f) is in reference to Prospective Mines and as set out above, is examined in chapter 13 of this Draft Decision.

In addition, section 2.3(a) of the 2017 HVAU states that as part of the mandatory review, ARTC will review the WAML by removing from the calculation any coal mines which, prior to the Review Date:

- have been placed into care or maintenance, or
- are subject to the renewal of any licence, approval or other regulatory requirement that has not been granted by the Review Date.

ARTC's method for calculating weighted average mine life

ARTC submits that it wears the downside demand risk of the network with no compensation.²³⁰ As a result, ARTC outlines a methodology to calculate the WAML of the Hunter Valley rail network (in Appendix B of the Explanatory Guide to the 2017 HVAU), which it states fairly allocates such risks between it and producers.²³¹ Broadly, this method involves the following six steps:

1. adjusting marketable reserves for each mine for reserves and end-of-life risks
2. selecting the greater of contracted and actual production for each mine
3. calculating remaining mine life for each mine (based on steps 1 and 2)
4. determining the number of years remaining on current mine leases for each mine
5. selecting the smaller of remaining mine life and remaining mine lease for each mine (based on steps 3 and 4)
6. calculating the WAML for the Hunter Valley rail network (based on steps 1 through 5).

Step 1: Adjusting marketable reserves

Marketable reserves and the Joint Ore Resources Committee (**JORC**) code form a key part of ARTC's WAML methodology. Box 2 briefly outlines the JORC code and marketable reserves.

²³⁰ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, p. 5.

²³¹ *Ibid.*

Box 2: Marketable reserves

The JORC code is a professional code of practice that sets minimum standards for public reporting of minerals exploration results, mineral resources and ore reserves.²³² The JORC divides coal (and other resources) into two categories: resources and reserves.

Mineral Resources (Resources) are defined as:

*a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.*²³³

Ore Reserves (Reserves) are defined as:

*the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.*²³⁴

Reserves are further divided into:

- probable reserves, which are the *economically mineable part of an indicated, and in some circumstances, a measured mineral resource*²³⁵
- proved reserves, which are the *economically mineable part of a measured mineral resource*.²³⁶

ARTC states that marketable reserves are:

*developed based upon the JORC code and provide a consistent basis for calculating resources and reserves for companies to use in releases to investors. This provides for a consistent base for analysis and investment decisions by potential investors, lenders and analysts. ARTC is not disputing the basis of the JORC code or its application by producers.*²³⁷

However, ARTC disputes 'the way that these Reserves have been utilised in the [WAML] calculation and the risk allocations provided therein'.²³⁸

Therefore, step 1 of ARTC's method for calculating the WAML adjusts marketable reserves in two ways by accounting for:

- reserve risk

²³² Joint Ore Reserves Committee, *The JORC Code - 2012 Edition*, December 2012, p. 3.

²³³ *Ibid.*, p. 11.

²³⁴ *Ibid.*, p. 16.

²³⁵ *Ibid.*, p. 17.

²³⁶ *Ibid.*

²³⁷ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, pp. 10–11.

²³⁸ *Ibid.*, p. 11.

- end-of-life risk.

For reserve risk, ARTC states that:

*rather than assuming marketable reserves have no risk, that proved reserves are based upon a 92.5 % confidence interval and Proven 82.5 %. These uncertainty risks reflect Reserves Risk and are not capable of being managed by ARTC; but are the business of Producers to accept and manage these risks.*²³⁹

Therefore, ARTC's proposes that:

*Proven and Probable reserves that establish Marketable Reserves be discounted by the relevant Probability factor to that class of reserves.*²⁴⁰

The probability factors used by ARTC in discounting proved and probable reserves have been provided by ARTC in a confidential document as part of its 2017 HVAU application.²⁴¹

For end-of-mine risk, ARTC states that over the life of a mine:

*as the reserves decline, the cost of extraction of those reserves increases; initially driving a decrease in stated reserves and then forcing mine closure with reserves remaining in the ground.*²⁴²

Further, ARTC submits that:

*the decline in reserves leading to closure is a function of the uncertainty principle ... and highlights that making allowance for reserves in the ground is a separate risk.*²⁴³

To support its argument, ARTC referred to a study by Creech²⁴⁴ that ARTC notes sets out the following statements:

- over 62 mine closures since 1975, an average of 32Mt of Reserves remained unmined
- in the years leading up to the mine closure, the stated reserves of the mines were substantially reduced.²⁴⁵

As an example ARTC points to the Powder River Basin (USA) where reserves dropped before the closure of the mine.

ARTC states that it undertook:

*...a detailed analysis of the behaviour of Hunter Valley mines since the commencement of the 2011 HVAU and, in that short period alone, has identified that the combination of relevant mine closures and mines included but not commenced, accounted for a total of 430 MT of Reserves, or 10 % of total Marketable Reserves included in the 2011 Calculation.*²⁴⁶

²³⁹ Ibid.

²⁴⁰ Ibid.

²⁴¹ Ibid.

²⁴² Ibid., p. 12.

²⁴³ Ibid.

²⁴⁴ M. Creech, *Reserves, Reserves and not a Tonne to Mine – A Study of Reserves Reported Prior to Mine Closure* (2014).

²⁴⁵ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, pp. 11–12.

²⁴⁶ Ibid., p. 12.

Therefore, ARTC proposes:

...that all reserves used in the RML [Remaining Mine Life] calculation be reduced by 10 % to account for this end of life impact. Whilst this is a more conservative figure than applying the long term average of 32 MT remaining per mine, ARTC is happy to utilise the recent, conservative, 10 % impact demonstrated by its analysis of mine closures included in the 2011 HVAU.²⁴⁷

Step 2: Selecting production rate

Step 2 of ARTC's method for calculating the WAML involves selecting the greater of contracted and actual production for each mine.

In relation to contracted production, ARTC states:

the contracts Producers have entered into with ARTC for contracted capacity must reflect their view of the efficient production level of the mines based upon their view of future market conditions. As identified in the analysis of the JORC code, Reserves are calculated within a certainty band based on future economic production. The contracted rates of production and the reserves calculation are therefore linked in that they both reflect future economic production.²⁴⁸

However, ARTC states:

if the level of production is lower than contract, then a logical reason for this is that the production is uneconomic. If the production is uneconomic, and this is forecast to continue into perpetuity, then this must also be reflected in a reduction in reserves as clearly that difference (between efficient and actual production) is never forecast to be produced and so those reserves must be uneconomic.²⁴⁹

Further to this, ARTC states:

given that the current level of contracts on the ARTC network is below the system capacity, and that producers are producing at below their efficient rate; a producer may choose to under contract and rely on the risk of Ad Hoc services or capacity trading to meet its needs. The contracted position is therefore its minimum efficient production level and, if production is higher than contracted capacity this higher figure is a clearer representation of its efficient level.²⁵⁰

Therefore, ARTC is of the view that the denominator be adjusted to reflect 'efficient production level of that mine which is reflected in the greater of its historic production or future contract levels'.²⁵¹

Step 3: Calculating remaining mine life for each mine

Step 3 of ARTC's method for calculating the WAML involves calculating the remaining mine life for each mine. For each mine, this is the ratio of reserves (including discounting for reserves and end-of-mine life risk) and production (the greater of its historic production or future contract levels).

²⁴⁷ Ibid., p. 13.

²⁴⁸ Ibid., p. 15.

²⁴⁹ Ibid.

²⁵⁰ Ibid.

²⁵¹ Ibid.

Step 4: Calculate remaining mine licences for each mine

Step 4 of ARTC's method for calculating the WAML involves determining the number of years remaining for a mine's current mining licence. For each mine, ARTC determines the number of remaining years on the longest licence on the land parcels forming the mine. For example, if a mine comprises two land parcels and the remaining licences are 10 and 15 years, then the remaining mine licence is 15 years.

Step 5: Selecting lower of remaining mine life and longest dated approval

Step 5 of ARTC's method for WAML involves selecting the lower of remaining mine life and remaining mine licence for each mine. On this point, ARTC states that:

Social licences have developed into a critical informal factor in mine developments. The recent policy direction in NSW evidenced by the repurchase of the Caroonia licence by the NSW Government, suggests the risk of licence approvals is increasing.

This is not a risk that ARTC can manage, and therefore lies within the remit of the Producers themselves.²⁵²

As such, ARTC states it:

is prepared to accept an exposure to the longest dated approval that exists in respect of each mine, but not beyond that.

The ARTC proposal is therefore that the mine life calculated for each mine to be used in the weighted averaging process, is capped by the longest dated mine that applies to that mine. In this manner, ARTC is limiting its allocation of the relicensing risk that attaches to each mine; a risk it is unable to manage.²⁵³

Step 6: Calculating the WAML for the Hunter Valley network

Step 6 of ARTC's method for calculating the WAML involves the actual calculation of the WAML for the Hunter Valley rail network.

12.1.1. Comparison to the 2011 HVAU

Broadly, the main differences between the 2011 HVAU and 2017 HVAU are related to the following proposed methodological innovations:

- adjusting reserves
- making the maximum remaining mine life to be the longest dated approval that exists for each mine
- using the greater of historical production and contracted haulage.

For adjusting reserves, ARTC states these uncertainty risks reflect Reserves Risk and are not capable of being managed by ARTC; but are the business of Producers to accept and manage these risks.²⁵⁴ In addition, ARTC submits that a conservative estimate, based on closures since the 2011 HVAU commenced, indicates that 10 per cent of reserves included

²⁵² Ibid., p. 13.

²⁵³ Ibid.

²⁵⁴ Ibid., p. 11.

in the 2011 RML either closed or did not commence production; therefore reserves should be discounted by this figure to reflect this end of life effect.²⁵⁵

To justify the creation of an upper bound of the remaining mine life for each mine based on the life of the licence approval, ARTC states that there exists increased pressure on supply from political and community opposition to coal mining developments.²⁵⁶ As a result an automatic renewal of licences cannot be assumed and relicensing of projects is a risk which ARTC cannot manage and therefore cannot accept.²⁵⁷

ARTC is of the view that production should be measured as the greater of contracted or historical production. ARTC states that:

- contracted capacity must reflect coal producer's view of the efficient production level of the mines based upon their view of future market conditions.²⁵⁸
- the contracted position is therefore its minimum efficient production level and, if production is higher than contracted capacity, this higher figure is a clearer representation of its efficient level.²⁵⁹

Overall, ARTC submits that the intention of these changes is to:

- mitigate ARTC's stranding risk since it is above that which would result in a competitive environment²⁶⁰
- provide a defined period for capital recovery of investments²⁶¹
- reduce the stranding and credit risks faced by ARTC.²⁶²

ARTC also proposes other changes for WAML in the 2017 HVAU, including:

- section 2.3, under which WAML forms part of the mandatory review process
- modifying sections 4.7(d) and (e) to clarify that the WAML will be for the entire network instead of specific Pricing Zones
- including section 4.7(f), which sets out that when the WAML is recalculated, the variables with individual mines that were already included in the calculation will remain the same as applied at the commencement date of the undertaking
- including section 4.7(g), which states that during the initial term the WAML for the Network will be the greater of 16.5 years (as a 1 July 2016) and the figure recalculated in accordance with section 4.7(f).

12.1.2. Comparison to the 2016 HVAU

In the 2016 HVAU, ARTC proposed two main adjustments to the 2011 HVAU method for calculating the WAML. However, these adjustments were withdrawn and replaced with the adjustments proposed in the 2017 HVAU.

²⁵⁵ Ibid., p. 4.

²⁵⁶ Ibid., p. 9.

²⁵⁷ Ibid., p. 4.

²⁵⁸ Ibid., p. 15.

²⁵⁹ Ibid.

²⁶⁰ Ibid., p. 3.

²⁶¹ Ibid., p. 5.

²⁶² Ibid., p. 4.

First, ARTC proposed including an adjustment factor:

based upon the relationship between annual production and reserves for each individual mine compared to the weighted average of the largest mines in the region.²⁶³

This resulted in a situation where;

for example, a mine with large reserves but very low production will have a relatively low ratio. For those mines where the ratio is between 80% and 100% of the weighted average, a discount of 10% is applied to the RML of those mines. Mines with a ratio less than 80% are discounted by 20%.²⁶⁴

Second as set out above under 'Step 2', ARTC proposed using contracted haulage for production in the WAML calculation.

Similarly to the 2017 HVAU, ARTC also proposed changes to section 4.7(b) and (d) in the 2016 HVAU to clarify that the WAML was to be applied on a network wide basis.

12.2. Stakeholder submissions

12.2.1. 2017 HVAU

HRATF

HRATF does not support ARTC's proposed new methodology for calculating the WAML and the resulting value of 16.5 years. HRATF supports the method used in the 2011 HVAU. HRATF's own analysis undertaken by Castalia using the 2011 HVAU methodology produces a WAML estimate of 30 years. Overall, HRATF disagrees with ARTC's proposal in calculating WAML in the 2017 HVAU because it argues it:

...is internally inconsistent, involves a collection of sources that do not reflect the best or most accurate reserve and production information available. The sources for each value are simply not fit for purpose and appear designed to reverse engineer an RML value that is commercially acceptable to ARTC, rather than to provide the basis for a conservative, commercially predictable, independently verifiable and repeatable methodology.²⁶⁵

HRATF's views on ARTC's WAML proposal can be divided into the following matters:

- reserves adjustment
- production rates
- mining licence renewals
- 2011 HVAU method and regulatory consistency.

Reserve adjustments

HRATF does not support ARTC's proposal for adjusting mine reserves calculated based on the JORC code.

²⁶³ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 29.

²⁶⁴ Ibid.

²⁶⁵ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 25.

First, in terms of ARTC's discount to account for reserve and end-of-life risk, HRATF states:

*by seeking to apply arbitrary adjustments to that data based on concerns about the state of the market or about the ability to secure regulatory approvals, ARTC is ignoring the fact that the Code already incorporates rigorous analysis of such issues into the reporting process.*²⁶⁶

Second, HRATF states that coal mining companies in the Hunter Valley must comply with various legislative obligations and professional codes 'relevant to [the] reporting of mineral resources and ore reserves'.²⁶⁷ These include:

- ASX Listing Rules 5.6-5.24²⁶⁸
- JORC code²⁶⁹
- *Corporations Act 2001* (Cth)
- *Australian Securities and Investments Commission Act 2001* (Cth)

HRATF highlights rule 5.6 of the ASX Listing Rule that requires 'public reports by listed mining entities to be prepared in accordance with the JORC code if a report includes a statement relating to, among other things, mineral resources or ore reserves'.²⁷⁰ HRATF states that the JORC code:

- is a professional code of practice that sets minimum standards for Public Reporting of mineral Exploration Results, Mineral Resources and Ore Reserves
- provides a mandatory system for the classification of minerals Exploration Results, Mineral Resources and Ore Reserves according to the levels of confidence in geological knowledge and technical and economic considerations in Public Reports²⁷¹
- must include all relevant information that investors and their professional advisers would reasonably require, and reasonably expect to find in the report, for the purpose of making a reasoned and balanced judgement.²⁷²

HRATF states that a company commits an offence under the *Corporations Act 2001* (Cth) if it:

- makes a materially misleading statement in a document required by the Corporations Act or lodged with or submitted to ASIC, or knowingly omits information from the document which makes it materially misleading
- does not take reasonable steps to ensure that the statement was not misleading or did not omit information.²⁷³

Further, HRATF states that under the *Corporations Act 2001* (Cth) and the *Australian Securities and Investments Commission Act 2001* (Cth):

a mining company must have reasonable grounds for making a statement about future matters, which includes a statement regarding ore reserve and mineral

²⁶⁶ Ibid., p. 22.

²⁶⁷ Ibid.

²⁶⁸ ASX, *ASX Listing Rule: Chapter 5—Additional reporting on mining and oil and gas production and exploration activities*, 1 July 2014, available at: www.asx.com.au/documents/rules/Chapter05.pdf.

²⁶⁹ Joint Ore Reserves Committee, *The JORC Code - 2012 Edition*, December 2012.

²⁷⁰ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 23.

²⁷¹ Ibid., p. 22.

²⁷² Ibid., p. 23.

²⁷³ Ibid., p. 24.

*resource estimations. If not, the statement will be considered to be misleading under the Corporations Act.*²⁷⁴

HRATF submits that ARTC's reserve adjustments are based on ill-defined concerns and risks.²⁷⁵ Therefore, HRATF's view is that there should be no adjustment to proven and probable reserves of mines since the JORC code already 'rigorously defines all relevant risks in accordance with legally-binding standards'.²⁷⁶

Production rates

HRATF does not support ARTC's proposal for mine production rates being the greater of historical production and contracted rates. Instead, HRATF submits that the run-of-mine production²⁷⁷ values reported in JORC statements should be used.²⁷⁸ HRATF prefers run-of-mine because it is of the view that:

- it is conservative²⁷⁹
- the reporting requirements for annual production are targeted to the information that is relevant to investors²⁸⁰
- JORC statements reflect the anticipated annual output that is consistent with the current level of investment in the relevant projects²⁸¹
- this was the approach used in the 2011 HVAU.

HRATF does not support ARTC's view that if production is lower than contracted, then that production is uneconomic. Rather, HRATF submits that it:

*has previously provided the ACCC in the current process with detailed and independent market information (in its 'single commodity' paper) that demonstrates the strong and enduring position of Hunter Valley coal on the global cost curve. The fact that production in the Hunter Valley is, and continues to be, economic is clearly evidenced by the growth in reserves over the period since 2011 – highlighting continued investment by the industry in new and expanded production.*²⁸²

HRATF also does not support ARTC's proposal that it is "logically inconsistent" for there to be a level of production that is lower than the contracted position, while at the same time a growth in reserves.²⁸³ Rather, HRATF states:

These two outcomes are entirely consistent. Producers acquire contracted rail access rights well ahead of the development of mines, and there can therefore be a mismatch during the ramp up period of new or expanded projects or during the

²⁷⁴ Ibid., p. 22.

²⁷⁵ Ibid., p. 26.

²⁷⁶ Ibid.

²⁷⁷ It should be noted that when reserves are mined there are different types of production. Run-of-mine production refers to the raw volume of coal extracted without processing. Saleable production refers to coal that can be sold and includes unprocessed raw coal and coal that has undergone processing on-site. In this context, ARTC's network hauls saleable coal.

²⁷⁸ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 25.

²⁷⁹ Ibid.

²⁸⁰ Ibid.

²⁸¹ Ibid.

²⁸² Ibid., p. 24.

²⁸³ Ibid., p. 25.

*expansion of an existing product, when rights are being held (and renewed) pending commencement.*²⁸⁴

As a result, HRATF states:

*...the potential for a short term mismatch of rail rights and production rates is the reason that any RML calculation should be based on the most up-to-date view of business, at each Review Date, as to their production levels – which is the run of mine values reported in JORC statements.*²⁸⁵

It should be noted that although HRATF's main submission supports using run-of-mine production based on production from the JORC code, calculations performed by Castalia resulting in a WAML of 30 years used run-of-mine actual production in 2015.²⁸⁶

Mining licence renewals

HRATF does not support ARTC's view on its licence renewal risk and selecting the life of a mine based on the lower of remaining mine life and remaining licence term.

HRATF submits that there has been significant reforms to resources legislation in NSW under the Resources Legislation Package, which included changes to the:

- *Mining and Petroleum Legislation Amendment (Grant of Coal and Petroleum Prospecting Titles) Act 2015 (NSW)*
- *Protection of the Environment Operations Regulation 2009 (NSW)*

HRATF states that these reforms created:

*some additional complexities for the application process for exploration and mining licenses. It implemented changes to how and when coal mining tenements were granted, renewed, transferred and cancelled.*²⁸⁷

However, HRATF is of the view that the degree of protection ARTC enjoys from the rolling 10 year contracts has not changed since 2011.²⁸⁸ In fact, it is beneficial since a rolling 10 year forward commitment provides early warning of reductions in volumes that may result from market or regulatory changes.²⁸⁹ HRATF submits that as:

*ARTC's own analysis of expiration dates of mining licenses shows, mining companies are continuing to take on forward take-or-pay obligations for the period beyond mining license expiry. This is a strong signal that those with most at risk from the possible non-renewal of mining licenses are not assigning an economic value to that risk.*²⁹⁰

²⁸⁴ Ibid.

²⁸⁵ Ibid.

²⁸⁶ Castalia, *Mine Life Analysis: Data and Methodology*, August 2016, pp. 8–9.

²⁸⁷ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 19.

²⁸⁸ Ibid.

²⁸⁹ Ibid.

²⁹⁰ Ibid.

HRATF also states that:

The revealed forward behaviour of mining companies supports the view that [the] new mining licence approval process in New South Wales has not materially increased the risks for the majority of the mines.²⁹¹

HRATF provides the following examples of coal producers seeking licence renewal or amendments:

- Rix's Creek, owned by Bloomfield, is currently seeking approval to continue operating to 2038 (with its current licence expiring in 2019). Bloomfield has submitted a response to the Environmental Impact Statement process and is currently waiting for the NSW Planning Assessment Commission to grant the consent.²⁹²
- Rix's Creek North, owned by Bloomfield, purchased the former Integra Open Cut Mine in 2015 and is currently seeking approval to continue operations to 2035 (with its current licence expiring in 2022).²⁹³

HRATF states that ARTC attempts to draw generalised conclusions about the risks posed by the new mining lease approvals process from the example of the Drayton South project.²⁹⁴ However, HRATF views the inability of the Drayton South mine to secure a mining license as one noticeable exception to the general success in renewing licenses enjoyed by the industry.²⁹⁵

HRATF states that the revised version of the project was submitted in May 2015 and that:

the approval of the revised project has been recommended by the Department of Planning and Environment, the Expert Report by Dr Greg Houston and Prof Jeff Bennett of the Australian National University's peer review of the Houston report. This second application also generated over 4,300 community and special interest group submissions of which 98% were in support of the project, while 83 objected.²⁹⁶

HRATF does not support ARTC's view that the Powder River Basin in Wyoming and Montana (USA) is a comparable study for the Hunter Valley. HRATF views this comparison by ARTC as 'flawed and therefore irrelevant'.²⁹⁷ Table 10 summarises the differences highlighted by HRATF between the Powder River Basin and the Hunter Valley.

Table 10: Comparison of Powder River Basin and Hunter Valley

Factor	Powder River Basin	Hunter Valley
Market	Supply to domestic power generators	Exported to multiple countries
Product	Low quality coal	High quality coal
Substitutes	US shale gas	No substitutes

Source: HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 21.

²⁹¹ Ibid.

²⁹² Ibid., p. 20.

²⁹³ Ibid.

²⁹⁴ Ibid.

²⁹⁵ Ibid., p. 21.

²⁹⁶ Ibid.

²⁹⁷ Ibid.

2011 HVAU and consistency

HRATF submits that the method for calculating WAML under the 2017 HVAU should follow that set out in the 2011 HVAU. HRATF states it does not believe that 'any change is justified, by market conditions or otherwise, and it [does not provide] ... an appropriate balance between the interests and risks to users and the ARTC'.²⁹⁸ This, HRATF submits, is because:

- ARTC has failed to demonstrate that maintaining the RML at 16.5 years....is materially better in balancing the interests and risks of users and ARTC than a standard application of the (orthodox) methodology used under the 2011 HVAU²⁹⁹
- the new risks that ARTC claims to justify an RML of 16.5 years are neither great nor new³⁰⁰
- it is an opportunistic response to the fact that a proper application of the existing methodology, as undertaken by HRATF, puts the RML at 30 years'.³⁰¹

However, HRATF notes that it is open to alternative methods that are superior. As a result:

*[HRATF] don't mean that regulators should not change their approach, but that changes to regulatory methodologies should only be made when there is persuasive evidence that they produce a result that is "better", not just different.*³⁰²

Further, HRATF states that:

*it is essential to ask whether there has been a material change in market circumstances that could justify a move away from a logical and transparent methodology established by ARTC under the 2011 HVAU towards an essentially arbitrary number*³⁰³

Bloomfield

Bloomfield supports HRATF's position since it represents the view of the company for the key issues of WAML.³⁰⁴

HVEC

HVEC submits that it fully supports the position and reasons for that position set out by HRATF in its submission on the 2017 HVAU.³⁰⁵ HVEC views it as critical that the 2017 HVAU as a whole clearly define the methodologies for relevant inputs such as cost of capital and RML.³⁰⁶

²⁹⁸ Ibid., p. 18.

²⁹⁹ Ibid.

³⁰⁰ Ibid.

³⁰¹ Ibid.

³⁰² Ibid.

³⁰³ Ibid.

³⁰⁴ Bloomfield, *Submission on 2017 HVAU*, 3 February 2017, p. 1.

³⁰⁵ Hunter Valley Energy Coal, *HVEC submission on 2017 HVAU*, 3 February 2017, p. 1.

³⁰⁶ Ibid.

Idemitsu

Idemitsu supports HRATF's approach to calculating WAML.³⁰⁷ Idemitsu also includes the following additions:

- a more diligent and rigorous approach to independent mining data³⁰⁸
- a transparent process which can be repeated during the Mandatory Review³⁰⁹

Idemitsu also submits that there will be different WAML for each Pricing Zone to achieve the HRATF aggregate of 30 years.

Whitehaven

Whitehaven supports HRATF's position on WAML. In addition, Whitehaven claims that:

*The new assumptions ARTC have included in the draft HVAU have the single goal of reducing RML and increasing ARTC's cashflows through higher depreciation charges. These should be rejected with the proven 2011 HVAU principles to prevail.*³¹⁰

In addition to disagreeing with ARTC's proposed methodologies, Whitehaven also highlights the potential for different RML results across Pricing Zones.³¹¹ As a result:

*Whitehaven believes that any methodology that leads to a large variation of RML's between Pricing Zones should be viewed in conjunction with a move for the Network wide RML to be replaced by zone specific RML's for each zonal RAB.*³¹²

Shenhua Watermark Coal

Shenhua supports Whitehaven's position on the issue of RML.

12.2.2. 2016 HVAU

HRATF

HRATF noted that it did not support ARTC's proposal for rolling over the actual WAML from the 2011 HVAU.

HRATF supported the continued use of the approach to calculating WAML outlined in the 2011 HVAU and calculated an updated WAML of 22 years.

First, HRATF noted it does not support the rolling over of the WAML because:

*By definition, the asset lives of assets in the RAB are intended to reflect their remaining economic lives. As in other regulatory regimes (and standard accounting practice) this requires the periodic reassessment of economic lives, taking into account any change in circumstances.*³¹³

³⁰⁷ Idemitsu, *Consultation Paper – ARTC's 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 2.

³⁰⁸ *Ibid.*, p. 3.

³⁰⁹ *Ibid.*

³¹⁰ Whitehaven, *Whitehaven Coal response to ACCC Consultation paper on ARTC's draft [2017] Hunter Valley Access Undertaking*, 3 February 2017, p. 2.

³¹¹ *Ibid.*

³¹² *Ibid.*

³¹³ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, pp. 20–21.

As such, HRATF considered that the WAML should therefore be reviewed and updated at each 'reset'.³¹⁴

Second, HRATF submitted that rail assets should be depreciated over the period during which they can reasonably be expected to be used and remain useful.³¹⁵ HRATF believes that ARTC's proposal:

*...of the existing marketable reserves is overly narrow and does not represent a useful basis for setting the depreciation period. Indeed, focusing solely on the current marketable reserves and production arrangements would lead to mine life outcomes that are clearly out of step with the future of the industry.*³¹⁶

HRATF did not support ARTC's view that an increase in production leads to a shorter WAML. This is due to:

*higher production rates [being] ... in reality, likely to indicate continued (and potentially growing) demand for the commodity and this makes the development of other prospective developments more likely, which should have the opposite effect, and lengthen the WAML for the region.*³¹⁷

In terms of data sources, HRATF stated that:

*relying principally on publicly available information will tend to bias towards well developed mines and is therefore a conservative approach to defining prospective mines for the purposes of determining WAML. However, in the interests of achieving a degree of regulatory certainty, this approach is accepted by HRATF members*³¹⁸

In response to the 2016 HVAU, HRATF proposed an alternative method of calculating WAML with the following steps:

1. Identify operating mines that currently utilise the Hunter Valley rail network as well as Prospective Mines that could enter into operation over the regulatory period.
2. Use reserve and production estimates based on publicly available information that ARTC must take into account.
3. Determine the production rate for operating mines will be determined using the same publically available information used in step 2. For Prospective Mines HRATF proposed the following:

*To avoid the uncertainty in forecasting the production rates of prospective mines, we propose that all prospective mines are assumed to have 30 year operating lives.*³¹⁹

4. Calculate a reserve WAML using the production rates and marketable reserves of each mine, using:

$$WAML = \sum_{n=1}^i \frac{Reserves_i}{Total\ Reserves} \times RML_i$$

5. Adjust the WAML for timing differences.

Using this methodology, HRATF calculated a WAML of 22 years for the 2016 HVAU.

³¹⁴ Ibid., p. 21.

³¹⁵ Ibid.

³¹⁶ Ibid.

³¹⁷ Ibid.

³¹⁸ Ibid., p. 22.

³¹⁹ Ibid., p. 23.

Glencore

Glencore considered that only one WAML should apply to the Hunter Valley rail network. Glencore states this is because PZ3 customers are paying only Incremental Costs when they traverse PZ1, and so are 'effectively being cross subsidised by the existing users'.³²⁰ Glencore stated that:

*If that continues to be the case, we would strongly submit that, assuming that the mines in the unconstrained network have a longer average mine life, the depreciation profile of all existing infrastructure should reflect a weighted average mine life across the Network, rather than ever being calculated on a Pricing Zone by Pricing Zone basis.*³²¹

Glencore noted that the only exception was that if the WAML 'within the constrained network exceeds the weighted average mine life for the Network as a whole.'³²²

Idemitsu

Idemitsu stated that:

*as part of good regulatory practice it is appropriate to review and update (reset if appropriate) the RML for operating and prospective mines accessing HVCN [Hunter Valley Coal Network].*³²³

Idemitsu supported the WAML method proposed by HRATF. However, Idemitsu stated it did not support the use of a single WAML for the entire network since:

*pricing zones with a high RML provide a benefit to the pricing zones with a lower RML. This then leads to artificially accelerated depreciation cost of rail infrastructure assets for those pricing zones which have a higher RML.*³²⁴

Idemitsu viewed this difference in WAML between the Pricing Zones as expected to continue into the future since 'the growth in the NSW coal industry over the past number of years has occurred in the Gunnedah Basin and continues today'.³²⁵

As a result, Idemitsu determined that the WAML for PZ1 and PZ3 was 22 and 27 years respectively.

IPART

IPART stated that the economic life of the coal export business, rather than wear and tear, should determine the horizon over which the assets should be depreciated.³²⁶ However, IPART suggested the following alternative methods of depreciation:

- unit of production (**UOP**) approach
- longest-lived substantial mine (**LLSM**) approach.

³²⁰ Glencore, *Submissions to the Australian Competition and Consumer Commission Hunter Valley Coal Network Access Undertaking submitted by Australian Rail Track Corporation ("ARTC")*, 15 March 2016, p. 2.

³²¹ Ibid.

³²² Ibid.

³²³ Idemitsu, *Consultation Paper – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 9 March 2016, p. 3.

³²⁴ Ibid., p. 4.

³²⁵ Ibid.

³²⁶ IPART, *IPART submission to ACCC on its 8 January 2016 Consultation Paper*, 18 February 2016, p. 6.

The UOP approach determines the depreciation charge on the RML of the mines measured in tonnage rather than time. IPART preferred this as it is based on economic efficiency grounds and it minimises the risk of premature line closure and of stranding coal reserves.³²⁷

IPART noted that if the UOP approach cannot be used then it recommended the LLSM approach, which involves making the depreciation timeframe according to the life of the LLSM at a given time. IPART stated this method ensured that:

*a long rail line would not be kept operational unless there was sufficient tonnage. As long as the long-lived mine is a substantial mine, however, the railway line would remain operational for the balance of that life.*³²⁸

IPART stated that the LLSM approach was preferred over the WAML approach because it is unlikely that a rail line would be closed on the day that the weighted average life is attained if there is still substantial coal to be transported.³²⁹

Whitehaven

Whitehaven stated that a single WAML should not apply to the Hunter Valley rail network. Rather, Whitehaven proposed calculating a separate WAML for each Pricing Zone.

Whitehaven submitted that the 2016 HVAU is inconsistent in its treatment of RML compared with other sections of the HVAU.³³⁰ Whitehaven noted that if the Constrained and Unconstrained Networks are calculated separately, then the WAML for the Unconstrained Network should be 30.2 years (using the methodology provided in the HRATF submission).³³¹

In addition, Whitehaven stated it believed ARTC's stranding risk is minimised because:

- the HVAU includes a provision for review of the RML in 5 years, it seems reasonable that any significant changes to the RML (e.g. mine closures) would be captured by the 5 year review and negate any stranding risk for ARTC³³²
- the reduction of the RML below that which results from the weighted average production divided by market reserves lowers ARTC's risk profile. Therefore if adopted this should be reflected in a lower ROR.³³³

12.3. Supplementary submissions

The ACCC also received four supplementary submissions on WAML, three from ARTC and one from HRATF.

ARTC—17 February 2017

On 17 February 2017, ARTC provided a supplementary submission to the ACCC on its WAML equation to clarify its initial proposal. Table 11 sets out these equations.

³²⁷ Ibid.

³²⁸ Ibid.

³²⁹ Ibid., p. 7.

³³⁰ Whitehaven, *Whitehaven Coal Response to ACCC Consultation Paper on ARTC's draft 2016 Hunter Valley Access Undertaking*, 8 March 2016, p. 2.

³³¹ Ibid.

³³² Ibid.

³³³ Ibid.

Table 11: ARTC’s methodology to calculate weighted average mine life

Steps	Explanation
1	<p>Determine ‘Proven Reserves’ and ‘Probable Reserves’</p> <p>These values will be determined for each mine using relevant publicly available information reported pursuant to the requirements of a recognised stock exchange (including depreciation rates included in such reports or accounts). If no such information referred to above is publicly available, then using any reasonable estimates provided by the owner of the mine, the accuracy of which the owner warrants to ARTC.</p>
2	<p>Determine ‘Production’</p> <p>This is the greater of the average yearly production for that mine based on:</p> <ul style="list-style-type: none"> the tonnage calculated by reference to the Path Usages and Service Assumptions for the mine under its AHA with ARTC; or the Access Holder’s highest level of actual production between the 2016 contract year and the year in which the WAML calculation is made
3	<p>Calculate ‘Reserves’ for each mine which is marketable reserves using the following formula:</p> $Reserves = (P_1 \times Certainty_1 + P_2 \times Certainty_2) \times Yield \times (1 - EndOfLife_factor)$ <p>Where P_1 is proven reserves, $Certainty_1$ equals 0.925, P_2 is probable reserves, $Certainty_2$ equals 0.825, $EndOfLife_factor$ equal 0.1 and</p> $Yield = \frac{Saleable\ Coal}{Production}$
4	<p>Calculate ‘Remaining mine life’ for each mine:</p> $Remaining_mine_life = \min\left(license_life, \frac{Reserves}{Production}\right)$ <p>Where $license_life$ equals the years from expiry Year of the longest dated lease on the mine and July 2016.</p>
5	<p>Calculate the WAML for every identified mine:</p> $WAML = \sum_{j=1}^n (wt_of_mine_reserve_j \times Remaining_mine_life_j)$ <p>Where:</p> $wt_of_mine_reserve_j = \frac{Reserves_j}{Total\ Reserves}$
6	<p>Adjust WAML to maintain consistency:</p> $WAML_{adjusted} = \max(WAML, 16.5\ years)$

Source: ARTC, *RE: Remaining Mine Life (RML) Equation*, 17 February 2017, p. 1.

ARTC—20 February 2017

On 20 February 2017, ARTC provided a supplementary submission to the ACCC on its WAML methodology. In this supplementary submission, ARTC makes similar arguments in further support of its proposed methodology and disagrees with HRATF’s approach for using the methodology used in the 2011 HVAU. ARTC views HRATF’s proposal as inappropriate as it exposes ARTC to a number of risks that ARTC is not prepared to manage.

ARTC submits that regulatory certainty should promote investment efficiency and reflect competitive commercial realities. From ARTC's perspective, it views regulatory certainty as the provision of clear, appropriate risk allocation measures promoting investment efficiency and reflecting competitive commercial realities which promotes investment certainty by clearly defining risks and allocating them to the party best able to manage them.³³⁴

In this context, ARTC notes that HRATF's position that continuity of the WAML methodology is a critical feature of regulatory certainty.³³⁵ However, ARTC submits that HRATF's own position implies significant changes from the 2011 HVAU methodology.³³⁶

ARTC submits that the WAML calculation must:

- promote certainty and stability in investment returns
- ensure appropriate (efficient) risk allocation.³³⁷

For certainty and stability of investment returns, ARTC states that it considers 'certainty in investment returns [to be] ... critical for both ARTC and its customers'.³³⁸ However, ARTC notes that it 'invested approximately \$1.5 billion in to the HVCN [Hunter Valley coal network] on the assumption of capital return over a projects 22 years' from 1 July 2011.³³⁹ Further, ARTC states that the maintenance of this term is a critical feature of the ARTC proposal, unless there has been a clear change in the risk profile of the investment to warrant such a change. ARTC submits that the opposite has occurred.³⁴⁰

For risk allocation, ARTC believes that the 2011 HVAU method encompasses the following risks that ARTC is not prepared to manage:

- reserves risk
- market risk and short term changes in volumes
- license renewal for long dated mines.³⁴¹

ARTC states that it accepts that there are benefits in the efficient allocation of risks being defined via an equation.³⁴² However, ARTC is of the view that the 2011 HVAU methodology results in 'stranding risk which is negatively correlated to market risk³⁴³ and is 'transferring that market risk to the infrastructure provider...which it is neither rewarded nor structured to manage'.³⁴⁴

In developing the method for the 2017 HVAU, ARTC submits it 'assessed what risks are involved and an efficient allocation for them. Where the risks identified are beyond the control of ARTC, and ARTC is not compensated for accepting such risks, those risks are removed from the equation'.³⁴⁵ As a result, ARTC developed a method which mitigates its exposure to:

- reserves risk

³³⁴ ARTC, *RE: Remaining Mine Life (RML) Equation*, 20 February 2017, p. 1

³³⁵ *Ibid.*, p. 5.

³³⁶ *Ibid.*

³³⁷ *Ibid.*, p. 3.

³³⁸ *Ibid.*, p. 2.

³³⁹ *Ibid.*, p. 3.

³⁴⁰ *Ibid.*

³⁴¹ *Ibid.*, p. 2.

³⁴² *Ibid.*, p. 3.

³⁴³ *Ibid.*, p. 2.

³⁴⁴ *Ibid.*

³⁴⁵ *Ibid.*, p. 3.

- the risk of license renewals
- the contracting risks of producers (beyond the risk it accepts in the contract it writes) and production decisions taken to manage coal market exposures.³⁴⁶

ARTC submits that it does not view HRATF's proposal as appropriate as it exposes ARTC to the following issues:

- significant return volatility as demonstrated by a 36 per cent change in the product of the equation in a 5 month period (between February and August 2016)
- reserves risk by assuming all reserves are certain and every tonne will be produced
- licensing and political risk as it assumes leases are always granted and renewed
- development risk as Prospective Mines with no contractual commitment are assumed to be producing
- market risk as current production levels are assumed to apply permanently into the future (even if due to ramp-up requirements).³⁴⁷

ARTC also further supports its view on production, stating it is of the view that:

*contracted capacity is the best estimate of a mine's future production given ARTC has relied on that commitment to invest in the network; and has committed itself to the provision of that capacity.*³⁴⁸

ARTC—7 March 2017

On 7 March 2017, ARTC provided a supplementary submission to the ACCC on its WAML methodology. This supplementary submission set out:

- a comparison of the data provided by HRATF in its 2017 and 2016 submissions
- the impact of the WAML in the 2011 HVAU arising from mines that have closed, ceased production or have been placed on care and maintenance
- a review of the status of exploration and mining application and permits for mines.

However, given the date ARTC provided this supplementary submission, the ACCC has been unable to fully consider its content and will take this submission into account in any final decision on WAML.

HRATF—22 March 2017

On 22 March 2017, HRATF provided a supplementary submission to the ACCC on the WAML methodology.

In this supplementary submission HRATF refers to the 7 March 2017 supplementary submission from ARTC on its WAML methodology. HRATF states it strongly objects to the submission of such late material by ARTC. Further, HRATF states it considers that it would be inappropriate and unfair for the ACCC to take into account the material in the late ARTC submission.³⁴⁹

³⁴⁶ Ibid.

³⁴⁷ Ibid., p. 4.

³⁴⁸ Ibid., p. 3.

³⁴⁹ HRATF, *HRATF response to late supplementary submission from ARTC on remaining mine life*, 22 March 2017, p. 1.

12.4. ACCC view

Overall, the ACCC considers that ARTC's proposal for a WAML of 16.5 years and its proposed methodology is not appropriate having regard to section 44ZZA(3) of the Act.

The ACCC's views on the Depreciation of Segment Specific Assets and issues related to it are separated into the following matters:

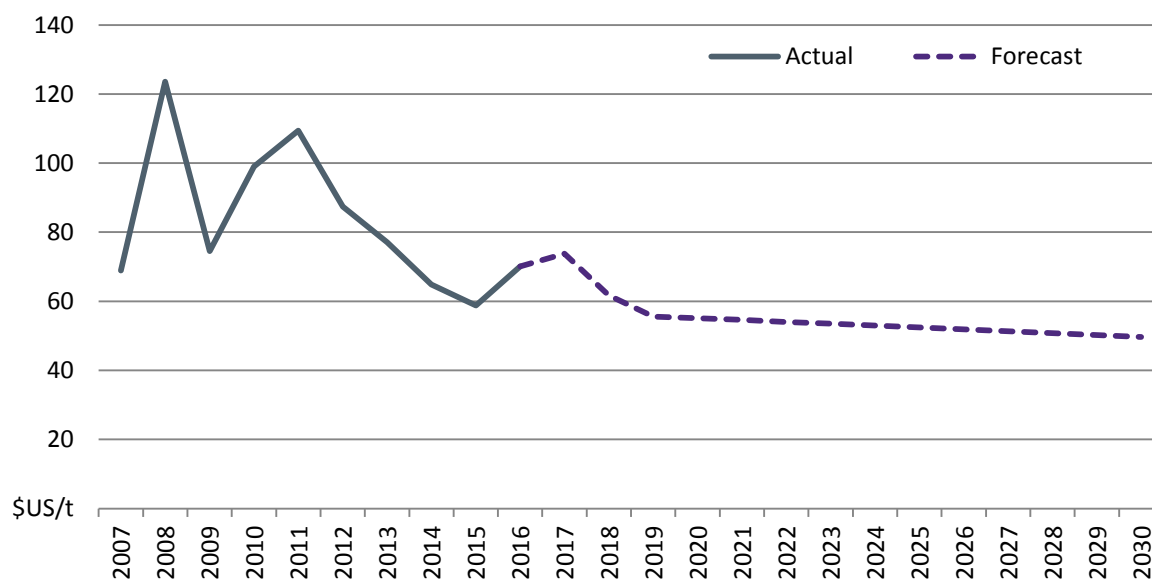
- long-term coal outlook
- ARTC's stranding risk
- straight-line depreciation
- single WAML
- proven and probable reserves discounts
- end-of-life reserve discount
- production rate
- mining licences
- mandatory review
- ACCC calculations of WAML
- alternative depreciation approaches.

Long-term coal outlook

The ACCC sought advice from ACIL Allen on (amongst other things) the long-term outlook of the coal industry and its implications for the Hunter Valley. As part of this advice, ACIL Allen assessed forecasts and projections of the international coal market by the World Bank and the International Energy Agency (**IEA**).

The World Bank forecasts Newcastle thermal coal prices increasing from US\$70.1 per tonne in 2016 to US\$73.8 per tonne in 2017, but then decreasing over the medium and long-term to US\$49.7 per tonne in 2030 (Figure 9). Between 2017 and 2030, this is equivalent to an average decrease of 3 per cent per year.

Figure 9: World Bank Newcastle thermal coal price forecast from 2017 to 2030—constant US dollars (2010=100)



Source: World Bank, *Commodity Markets Outlook*, January 2017, p. 32.

The IEA examines three scenarios on the long-term future of coal. These are the:

- new policies scenario—which reflects the way that governments, individually or collectively, see their energy sectors developing over the coming decades³⁵⁰
- current policies scenario—which depicts a path for the global energy system short of the implementation of any new policies or measures beyond those already supported by specifically implementing measures in place as of mid-2016³⁵¹
- 450 scenario—which has the objective of limiting the average global temperature increase to 2° C above pre-industrial levels by 2100.³⁵²

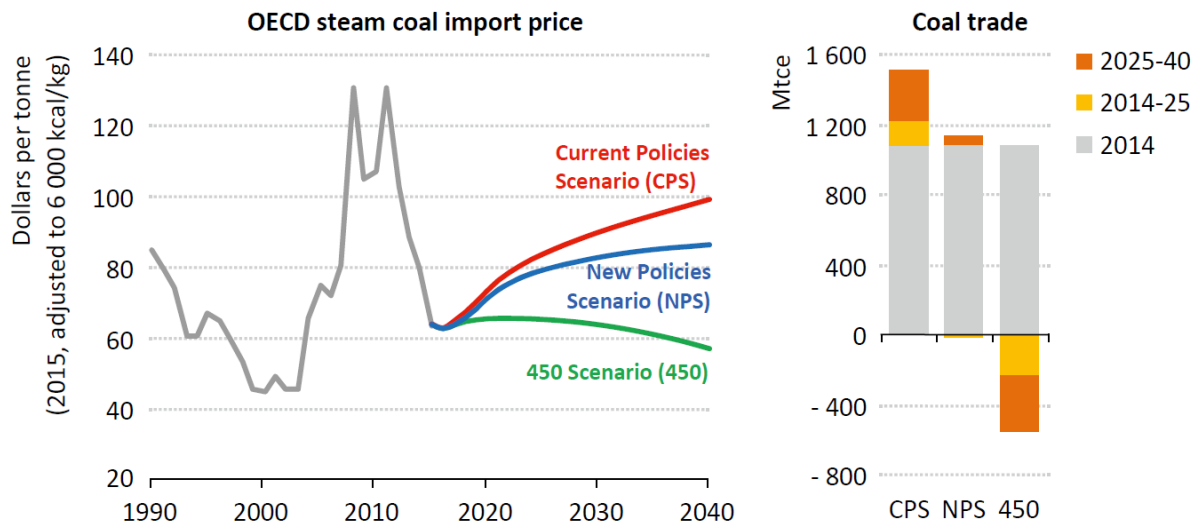
Using these scenarios, the IEA forecasts global Organisation for Economic Co-operation and Development (**OECD**) thermal import prices, coal trade, global coal demand and the share of coal in world energy demand from 2014 to 2040 (Figure 10 and Figure 11)

³⁵⁰ IEA, *World Energy Outlook 2016*, 2016, p. 33.

³⁵¹ *Ibid.*, p. 34.

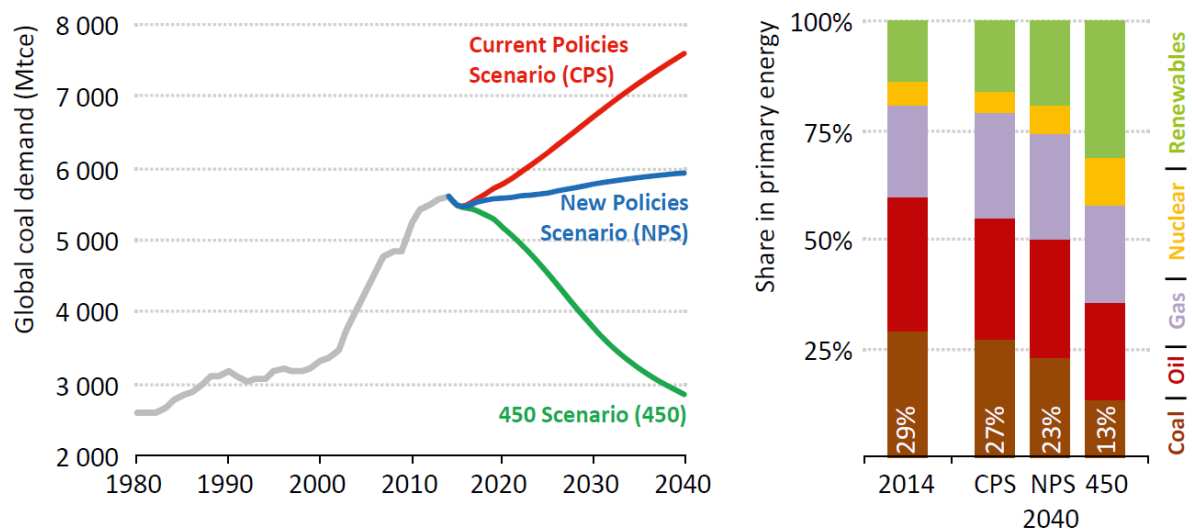
³⁵² *Ibid.*, p. 35.

Figure 10: IEA forecasts of OECD thermal coal import prices and global coal trade by scenario



Source: IEA, *World Energy Outlook 2016*, 2016, p. 210.

Figure 11: IEA forecasts of global coal demand and share of coal in world primary energy demand by scenario



Source: IEA, *World Energy Outlook 2016*, 2016, p. 206.

Under the current policy scenario, the IEA forecasts coal demand increasing by 1.2 per cent per year to 2040 and OECD thermal coal prices increasing to \$100 per tonne in 2040.

These increases in coal demand and prices are caused by continued growth in coal demand by Asian developing countries but are partially offset by the decarbonisation efforts currently in place by more developed countries.

The new policy scenario ‘incorporates all policies and measures that are in place today, while taking into account, in full or in part, the aims, targets and intentions that have been announced’.³⁵³ In addition, this scenario also incorporates the impact of the falling cost of

³⁵³ Ibid., p. 205.

renewable energy sources. Under this scenario, the IEA forecasts coal demand increasing at 0.2 per cent per year to 2040.³⁵⁴ In addition, the coal price is forecasted to increase to \$80 per tonne and \$90 per tonne for Japan and China respectively by 2040.³⁵⁵

The 450 scenario incorporates a 50 per cent chance of limiting global temperature increases to 2° C by 2100. Under this scenario, the IEA forecasts coal demand decreasing by 2.6 per cent per year to 2040 and resulting in a halving of coal demand between 2014 and 2040. In addition, coal prices are forecast to decrease to \$60 per tonne by 2040.³⁵⁶ The IEA notes the decrease in thermal coal demand will not uniformly affect all producers. In particular, the increased use of carbon capture and storage would favour local low cost producers, so 'those with low production costs and proximity to key importers in developing Asia, are slightly better off than exporters that have large market shares in the Atlantic basin'.³⁵⁷

As such, the ACCC considers there are various alternate coal demand and price trajectories over the long-term. ACIL Allen notes:

*Future coal production in the Hunter Valley region will depend on the relationship between the anticipated trajectories of product prices, and costs of mining, processing and transporting coal to the point of sale.*³⁵⁸

Access Holders in the Hunter Valley are price takers and cost minimisers, therefore they manage their production in relation to their avoidable costs. In particular,

*If the avoidable cost of extracting and transporting an incremental tonne of coal to the point of sale is above the price of the product at the point of sale, it should not be extracted. If the avoidable cost of extracting and transporting any of the remaining coal at a mine is greater than revenue from sale of the product, the mine should shut down.*³⁵⁹

HRATF's consultant Castalia draws on a cost curve of global seaborne thermal coal trade for 2016 estimated by Wood McKenzie (Figure 12). Castalia states that over 63 per cent of Hunter Valley thermal coal production is located in the bottom 25 per cent of the unit cost of production. In addition, almost 82 per cent of Hunter Valley thermal coal production is located in the bottom 25 per cent of the unit cost of production. As such, Castalia notes the bulk of Hunter Valley thermal coal reserves are located towards the lower end of the global cost curve for seaborne trade.³⁶⁰ Castalia estimates that if the global seaborne thermal coal trade were to fall by a half,³⁶¹ 81.6 per cent of Hunter Valley capacity can be expected to continue operating.³⁶²

³⁵⁴ Ibid.

³⁵⁵ Ibid., p. 221.

³⁵⁶ Ibid., p. 209.

³⁵⁷ Ibid., p. 208.

³⁵⁸ ACIL Allen, *Assessment of the proposed method of calculating remaining mine life in the ARTC's proposal for the 2017 Hunter Valley Access Undertaking*, 27 March 2017, p. 19.

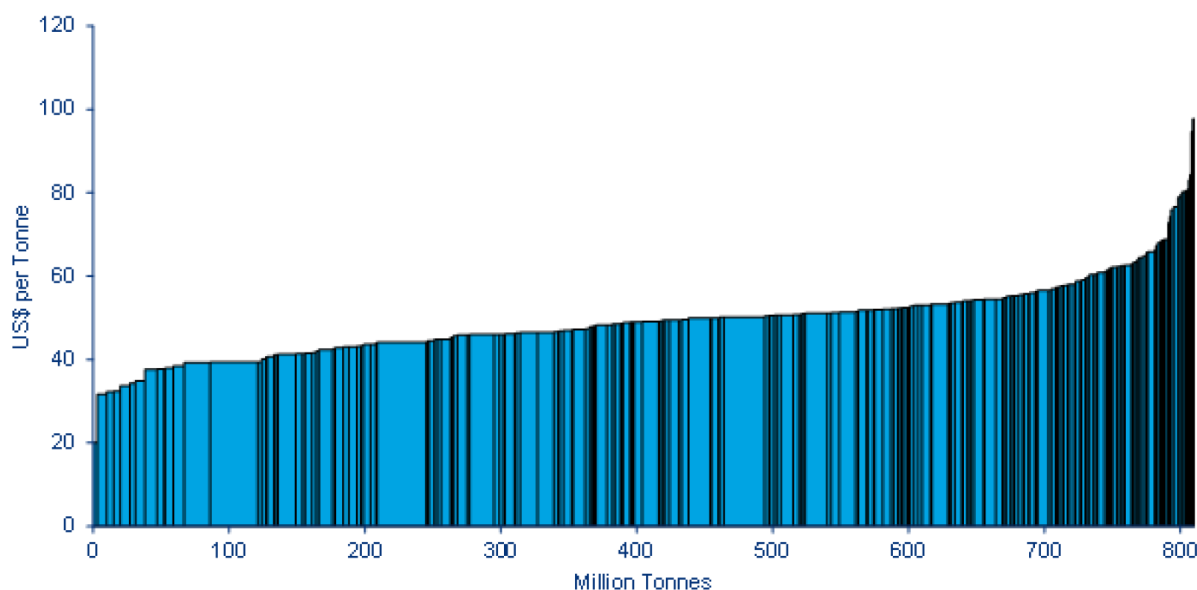
³⁵⁹ Ibid., p. 20.

³⁶⁰ Castalia, *Effect of Single Commodity Risk on ARTC*, 12 April 2016, p. 4.

³⁶¹ From the cost curve this is around US\$50 per tonne.

³⁶² Castalia, *Effect of Single Commodity Risk on ARTC*, 12 April 2016, p. 4.

Figure 12: Wood McKenzie 2016 seaborn export thermal cost curve (energy adjusted)



Source: Castalia, *Effect of single commodity risk on ARTC*, 12 April 2016, p. 3.

ACIL Allen highlights the sensitivity of assumptions behind the cost curves where alternative data sources showed that ‘costs derived by Castalia from Wood Mackenzie’s work were US\$5 to US\$20 per tonne lower than indicated by data from other sources’.³⁶³ Under the alternative cost curve, if the price of thermal coal drops to US\$50 per tonne 55 per cent current output would not be able to cover cash costs.³⁶⁴ In addition ACIL Allen warns that,

*An additional 13.8 million tonnes per year (10.5 per cent) would be vulnerable in the event of a small further price reduction.*³⁶⁵

The ACCC notes that there is uncertainty on the long-term outlook of the global coal industry and how it translates into the performance of coal mines in the Hunter Valley. Forecasts by the World Bank show a decrease in prices over the long-term. While forecasts by the IEA show changes in thermal coal prices, demand and exports depend on the policies that are implemented globally to address global warming and other objectives. However it would be naïve to assume that supply and the costs for each mine, remain unresponsive. ACIL Allen highlights a number of shortfalls in the interpretation of cost curves, these include that the following:³⁶⁶

- They do not allow for differences in operating costs within each mine, such that a mine may not shut down completely in response to a price drop since some production may remain economical.
- Cost curves are static constructs that do not recognise the intertemporal nature of production decisions, the depleting effect of production, and the heterogeneity of deposits.
- Cost curves may understate cash costs because they do not allow for rising marginal costs of extraction within individual mines as reserves are depleted.

³⁶³ ACIL Allen, *Assessment of the proposed method of calculating remaining mine life in the ARTC’s proposal for the 2017 Hunter Valley Access Undertaking*, 27 March 2017, p. 21.

³⁶⁴ Ibid.

³⁶⁵ Ibid.

³⁶⁶ Ibid.

- Capital investment may be required to extend mine life which may raise costs in future years.

With these shortfalls in mind, the ACCC considers it is not in a position to determine how many thermal coal mines in the Hunter Valley will close in response to policy changes, both locally and globally. However, the ACCC considers the best mechanism to incorporate future changes into the 2017 HVAU is through the mandatory review mechanism, as is currently proposed.

ARTC's stranding risk

The ACCC understands ARTC's primary reason for adjusting the WAML calculation in the 2017 HVAU, compared to that in the 2011 HVAU, is that ARTC has sought to minimise its stranding risk. However, the ACCC considers that the following factors in both the 2011 HVAU and the proposed 2017 HVAU already allow ARTC to significantly decrease its stranding risk:

- long term rolling TOP contracts
- unders and overs accounting
- loss capitalisation
- standard economic lives of ARTC's assets

Take-or-pay contracts

TOP Charges are a feature that is present in both the proposed 2017 HVAU and the 2011 HVAU. In the 2017 HVAU, section 4.12(a) discusses the structure of charges, which is a combination of actual usage charges and a TOP component. The TOP component will be charged to the Access Holder according to their contracted capacity irrespective of whether the Access Holder uses all or any of the Access Rights. The objective of TOP Charges is outlined in section 4.14(a)(ii) which states, it aims to achieve the maximum permitted recovery of Incremental Capital Costs and Fixed Costs.

TOP Charges allow ARTC to charge Access Holders irrespective of whether they traverse the Network which allows ARTC to mitigate its stranding risk and ensure a certain level of cash flow through two methods:

- Stranding risk is measured by the amount of sunk costs which cannot be recovered. Section 4.14(a)(ii) states that the TOP component of charges is intended to recover Incremental Capital Costs and Fixed Costs. The ACCC understands that TOP Charges also recover sunk costs. Since, TOP Charges will be recovered regardless of usage by Access Holders; they allow ARTC's stranding risk to be mitigated. As noted in chapter 8 of this Draft Decision, the ACCC is requesting further clarification from ARTC on the definition of Incremental Capital Costs and Fixed Costs.
- The capacity of the network is determined by contracted usage. However contracted commitments via TOP is most likely to reduce the incentive for coal producers to over-contract, since they will be required to pay for the contracted amount. With the disincentive to over contract, there is an increased probability of ad hoc usage of the network beyond contracted commitments. With actual usage most likely greater than contracted, this results in stranding risk being mitigated.

The optimal proportion of TOP Charges should result in ARTC meeting the floor revenue limits and should be no greater than the ceiling revenue limits for the Constrained Network. This ensures that ARTC recovers its Incremental Capital Costs and Fixed Costs. The 2017 HVAU allows ARTC to determine the composition of charges as outlined in section 4.14(b)

as long as ARTC has regard to the objective of providing for an open and equitable mechanism for the application of TOP Charges.

Unders and overs accounting

Section 4.9 of the 2017 HVAU provides for an unders and overs accounting process as part of the annual compliance assessment (see chapters 10 and 11 of this Draft Decision). ARTC reconciles revenue from Constrained Coal Customers against the Ceiling Limit for the Constrained Network. If revenue from Constrained Coal Customers exceeds the Ceiling Limit, then ARTC has over collected and must refund the difference to Constrained Coal Customers. However, if revenue from Constrained Coal Customers is less than the Ceiling Limit, then ARTC has under collected and must recoup the difference from Constrained Coal Customers.

As discussed in chapter 7 of this Draft Decision, when PZ3 forms part of the Constrained Network (and loss capitalisation no longer applies), all Access Holders will be Constrained Coal Customers. ARTC can then recoup revenue shortfalls from Access Holders from the entire Network. This allows ARTC to spread the risk of stranding risk to all Access Holders.

The ACCC considers that the unders and overs accounting process may significantly mitigate ARTC's stranding risk. In that, ARTC will recover the cost of the Constrained Network into the future (which includes depreciation costs). Therefore, the ACCC considers ARTC will recoup all of its capex.

Loss capitalisation

During the development of the 2011 HVAU, ARTC proposed a loss capitalisation model for PZ3, which at the time was underdeveloped. ARTC viewed this loss capitalisation model as a way to encourage investment in new assets for PZ3, where there was limited initial demand due to the large cost for the start-up phase of mines in PZ3. Practically, this model meant that Access Holders in PZ3 would only pay a proportion of their cost upfront, with the remainder placed into a loss capitalisation account to be paid off in the future. ARTC proposes to continue loss capitalisation under the 2017 HVAU.

The balance of the loss capitalisation account is the difference between the RAB and RAB Floor Limit for PZ3 (as defined in section 4.4 of the 2017 HVAU). Following the 2014 Annual Compliance Final Determination, the loss capitalisation account totalled almost \$77 million.

The ACCC considers that loss capitalisation may mitigate ARTC's stranding risk. The ACCC considers loss capitalisation does this by:

- 'capitalising' any economic losses incurred over time, provided its RAB is above a specified lower limit, so it is able to earn a regulated return on these losses in the future³⁶⁷
- allowing ARTC a greater degree of flexibility than is normally possible under the building block approach³⁶⁸ since 'the volumes in PZ3 are (at the current pricing levels) insufficient to recover the full economic cost in a year'³⁶⁹
- encouraging usage of PZ1 and PZ3 assets into the future.

³⁶⁷ ARTC, *Hunter Valley Access Undertaking 2009 Explanatory Guide*, 13 May 2009, p. 96.

³⁶⁸ *Ibid.*, p. 97.

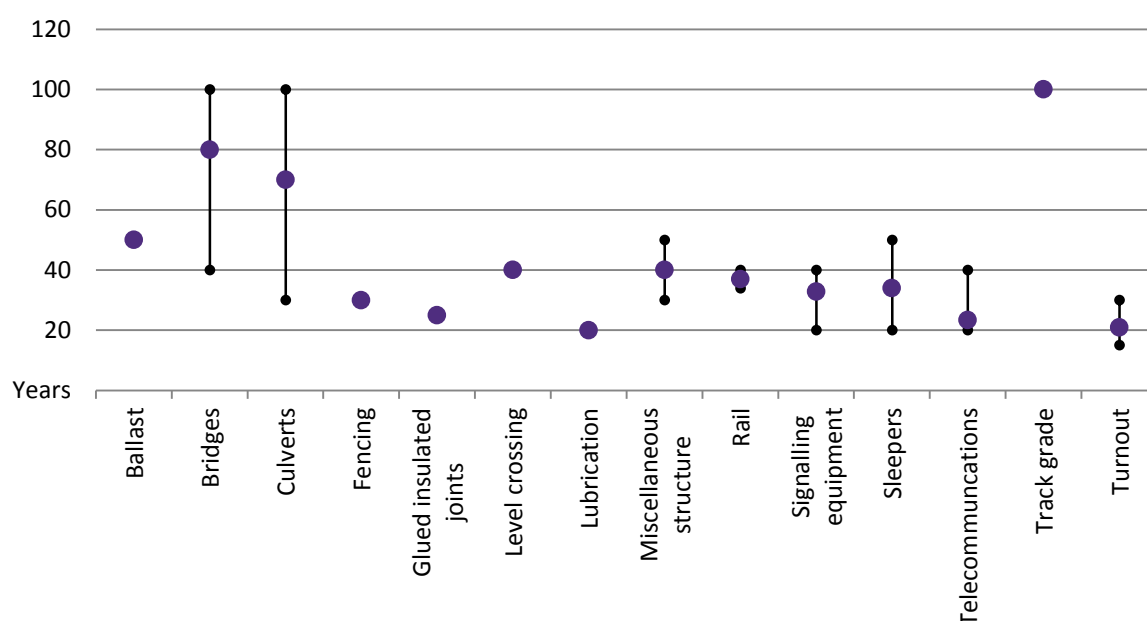
³⁶⁹ ARTC, *Hunter Valley Access Undertaking 2010 Explanatory Guide*, 7 September 2010, p. 12.

Standard economic lives of ARTC's assets

While ARTC and HRATF propose a WAML of 16.5 and 30 years respectively, the ACCC considers that the standard economic lives of ARTC's assets actually exceed these values.

In June 2013, ARTC submitted a variation to the ACCC to incorporate the Gap to Turrawan Segments into the 2011 HVAU. As part of this variation, ARTC engaged Evans & Peck to undertake a DORC valuation to derive an initial RAB for the Gap to Turrawan Segments. In their analysis, Evan & Peck based their calculation on a set of assumed standard economic lives of assets forming the Gap to Turrawan segments. Figure 13 sets out the minimum, mean and maximum standard economic lives of these asset classes (that is, some asset classes have more than one asset type).

Figure 13: Standard economic lives for asset classes in the Gap to Turrawan Segments



Note: The larger purple circles are the arithmetic average of lives for each asset class and the smaller black circles are the minimum and maximum asset lives for each asset class.

Source: Evans & Peck, *Depreciated Optimised Replacement Cost Calculation for additional segments of the ARTC network*, 28 June 2013, pp. 58–59.

The ACCC notes that:

- rail accounted for 35 per cent of Evans & Peck's DORC assessment (accounting for the largest share) and had an average assumed standard economic life of 37 years (but ranging between 34 and 40 years)
- culverts accounted for 10 per cent of Evans & Peck's DORC assessment and had an average assumed standard economic life of 70 years (but ranging between 30 and 100 years)
- track grade accounted for 7 per cent of Evans & Peck's DORC assessment and had an average assumed standard economic life of 100 years.

In light of this information, the ACCC considers that many of ARTC's rail assets will be depreciated well before these assets are no longer functional. That is, these assets will continue to be used by other Access Holders after the WAML proposed by both ARTC and HRATF. With this in mind, the ACCC considers that ARTC's stranding risk is lower than what ARTC has proposed.

Straight line depreciation

The ACCC considers that ARTC's proposal for straight line depreciation is appropriate.

The ACCC acknowledges that no stakeholders submitted on this issue in response to either the 2016 HVAU or 2017 HVAU consultation papers, but has included this issue for completeness.

The ACCC notes that straight line depreciation applies in the current 2011 HVAU, which the ACCC considered appropriate in the Draft Decision on the 2009 HVAU.³⁷⁰ The ACCC also notes that ARTC's proposal for straight line depreciation is consistent with regulatory practice. The ACCC considers that straight line depreciation ensures that ARTC does not over or under recover its return on capital, and by implication that it does not over or under recover revenue. As such, the ACCC considers that this proposed approach is in the legitimate business interests of ARTC and the interests of Access Holders as it promotes the economically efficient operation of, use of and investment in ARTC's infrastructure, in accordance with sections 44ZZA(3)(a),(c), and (aa) of the Act.

Single WAML

The ACCC considers that ARTC's proposal for a single WAML calculated for the entire Hunter Valley rail network is appropriate.

The ACCC notes submissions made by Whitehaven (to the 2016 and 2017 HVAU) and Idemitsu (to the 2016 HVAU) supporting a WAML calculated for each Pricing Zone. In addition, the ACCC notes the submission made by Glencore (to the 2016 HVAU) supporting a single WAML.

The ACCC notes that ARTC operates the Hunter Valley rail network as a single business unit, and not with separate business units based on each Pricing Zone. Therefore, the ACCC considers that it is in the legitimate business interests of ARTC to determine a single WAML and not separate WAMLS for each Pricing Zone (section 44ZZA(3)(a)). Further, the ACCC considers that determining separate WAMLS for each Pricing Zone would inappropriately increase the administrative complexity of the annual compliance process for ARTC.

Proven and probable reserve discount

The ACCC considers that ARTC's proposal to discount proven and probable reserves to account for reserve risk is not appropriate.

In coming to this view, the ACCC has considered:

- what proven and probable reserves represent
- whether there are different confidence levels for proven and probable reserves
- how proven and probable reserves can be used.

First, the ACCC considers it is important to understand what probable and proved reserves under the JORC code represent. The ACCC notes both ARTC and HRATF accept the principles underlying the JORC code. Advice from Geoscience Australia states that:

³⁷⁰ ACCC, *Australian Rail Track Corporation Limited – Hunter Valley Coal Network Access Undertaking – Draft Decision* – 5 March 2010, p. 587.

- a Probable Ore Reserve is the economically mineable part of an Indicated Mineral Resource, and in some circumstances, a Measured Mineral Resource, and has a very high level of confidence³⁷¹
- a Proved Ore Reserve is the economically mineable part of a Measured Mineral Resource and has the highest level of confidence.³⁷²

In addition, Geoscience Australia highlights that:

*The Ore Reserve is that part of the Mineral Resource that the Competent Person judges to be economic to extract within a commercial timeframe (typically around five years outlook). Importantly, this does not mean that all of the Ore Reserve will be extracted within that same timeframe.*³⁷³

However, Geoscience Australia notes that an ore reserve is not expected to remain static. Rather, the:

*ore reserve of an operating mine regularly changes as the Competent Person periodically reconciles the amount of ore mined to the original estimate and converts existing Mineral Resources to new Ore Reserves to replace the ore mined.*³⁷⁴

Second, ARTC's justification for applying discounts to proven and probable reserves is based on ARTC not being able to manage mine reserve risks. Therefore, using advice from a confidential consultant, ARTC applies a confidence level of 92.5 per cent to proved reserves and 82.5 per cent probable reserves. The ACCC considers it is important to understand whether proved and probable reserves have different confidence levels under the JORC code.

Advice from Geoscience Australian states that although the JORC code has a range of classifications for different confidence levels of resources, there is no quantifiable method in the classification. Instead:

*the Code relies on Competent Persons to provide their own interpretation of what is meant by confidence and accuracy levels in the context of their individual project.*³⁷⁵

The JORC code states:

*Competent persons are encouraged, where appropriate, to discuss the relative accuracy and confidence level of the Ore Reserve estimates with consideration of both underlying estimation and Modifying Factor uncertainties. ...where a statement of the relative accuracy and confidence level is not possible, a qualitative discussion of the uncertainties should be provided in its place.*³⁷⁶

³⁷¹ Geoscience Australia, *Geoscience Australia advice to the Australian Competition & Consumer Commission regarding certain geotechnical aspects of the Australian Rail Track Corporation submission to the 2017 Hunter Valley Coal Network Access Undertaking*, 20 February 2017, p. 4.

³⁷² Ibid.

³⁷³ Ibid., p. 5.

³⁷⁴ Ibid., p. 10.

³⁷⁵ Ibid., p. 4.

³⁷⁶ Joint Ore Reserves Committee, *The JORC Code - 2012 Edition*, December 2012, p. 14.

ACIL Allen views that ‘there is no precise science for selection of weights’.³⁷⁷ The JORC Code specifies that:

*Reports must not contain combined Proved and Probable Ore Reserve figures unless the relevant figures for each of the categories are also provided.*³⁷⁸

With this guidance, ACIL Allen provides the view that the proved and probable reserves ‘should not be interpreted as certainty equivalents’.³⁷⁹ However, ACIL Allen notes that there is insufficient data to comment on the extent to which the confidence issue is addressed.³⁸⁰ Without this data, and acknowledging that ACIL Allen ‘does not have a level of expertise in mining engineering matching that of ARTC’s expert advisers’,³⁸¹ ACIL Allen concluded that it ‘has no reason for challenging the main thrust of [ARTC’s confidential consultant’s] advice’.³⁸²

Drawing on advice from Geoscience Australia and ACIL Allen, the ACCC considers that proved and probable reserves have different levels of confidence, with proved reserves having a higher level of confidence than probable reserves. However, the ACCC is not in a position to determine whether the confidence levels proposed by ARTC are correct.

The ACCC notes that ARTC’s confidence levels are based on a report from a confidential consultant that have not been robustly tested. Geoscience Australia notes that the adjustments used by ARTC are not based on any detailed study of the Hunter Valley but merely thought to be ‘reasonable’.³⁸³ The ACCC considers that ARTC has adopted an approach which is not transparent and does not promote clarity and certainty in the operation of the 2017 HVAU (section 44ZZA(3)(e)).

In addition, the Geoscience Australia notes that ARTC’s confidence levels are taken from the lower bound of a reserve confidence interval. For example, ARTC’s confidential consultant recommended a confidence interval of 7.5 per cent for proved reserves. That is, for a proved reserve with a point estimate of 100 million tonnes, the proved reserve could vary between 92.5 and 107.5 million tonnes. However, the expectation of the proved reserve remains 100 million tonnes. The ACCC considers that by taking the lower bound of this confidence interval, ARTC is being inappropriately conservative. Ultimately, this would result in ARTC recouping more depreciation today than the ACCC considers would be appropriate, and would lead to the economically inefficient operation of, use of and investment in ARTC’s infrastructure (section 44ZZA(3)(aa)).

Third, the ACCC considers that it is important to set out how proven and probable reserve estimates based on the JORC code are used. As noted previously, mining producers must comply with various Acts and professional codes in relation to the reporting of resources and reserves. In particular, rule 5.6 of the ASX Listing Rule requires public reports by listed mining entities to be prepared in accordance with the JORC code if a report includes a statement relating to, among other things, mineral resources or reserves.³⁸⁴ Reserve estimates based on the JORC code are required for various financial transactions.

³⁷⁷ ACIL Allen, *Assessment of the proposed method of calculating remaining mine life in the ARTC’s proposal for the 2017 Hunter Valley Access Undertaking*, 27 March 2017, p. 6.

³⁷⁸ Joint Ore Reserves Committee, *The JORC Code - 2012 Edition*, December 2012, p. 14.

³⁷⁹ ACIL Allen, *Assessment of the proposed method of calculating remaining mine life in the ARTC’s proposal for the 2017 Hunter Valley Access Undertaking*, 27 March 2017, p. 6.

³⁸⁰ *Ibid.*, p. 5.

³⁸¹ *Ibid.*, p. 6.

³⁸² *Ibid.*

³⁸³ Geoscience Australia, *Geoscience Australia advice to the Australian Competition & Consumer Commission regarding certain geotechnical aspects of the Australian Rail Track Corporation submission to the 2017 Hunter Valley Coal Network Access Undertaking*, 20 February 2017, p. 17.

³⁸⁴ ASX, *ASX Listing Rule: Chapter 5—Additional reporting on mining and oil and gas production and exploration activities*, 1 July 2014, p. 503.

Therefore, the ACCC is not in a position to question how the ASX and other financial institutions require proved and probable reserves to be reported.

However, in the context of third-party use, the ACCC considers proved and probable reserve estimates based on the JORC Code can be reported with adjustments to take into account risk profile. In determining whether to invest in a developing mine, an investor would incorporate their expectations of reserves, input costs and coal prices to assess the long-term profitability. As part of this process, the investor would examine various scenarios ranging from conservative to optimistic. Then taking into account the probability of each scenario being realised, decide to commit to the investment or not.

The ACCC considers that ARTC, as a third-party user, is able to introduce its own risk preference on the reserve estimates. However, as discussed above, the ACCC considers that ARTC's proposal is not transparent—by basing its adjustment on a report by a confidential consultant—and takes an inappropriately conservative approach by taking the lower bound of the confidence interval.

In terms of applying this process to the WAML calculation, the ACCC considers:

- it does not promote clarity in the operation of the 2017 HVAU
- results in ARTC recouping more depreciation today from Access Holders than is appropriate
- results in the economically inefficient operation of, use of and investment in ARTC's infrastructure.

End-of-life reserve discount

The ACCC considers that ARTC's proposal to reduce reserves by 10 per cent to account for end-of-life mine risk is not appropriate.

In coming to this view, the ACCC has considered:

- why mines might close
- the Powder River Basin (USA) example
- the Creech (2014) paper
- ARTC's own calculations on the Hunter Valley.

First, ARTC states that it should not bear end-of-mine risk, where:

as reserves decline, the cost of extraction of those reserves increases; initially driving a decrease in stated reserves and then forcing mine closure with reserves remaining in the ground.³⁸⁵

However, advice from Geoscience Australia states that:

in the years leading up to mine closure, it is not unusual for mines to still have significant Ore Reserves that may be many years larger than the production rate.³⁸⁶

³⁸⁵ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, p. 12.

³⁸⁶ Geoscience Australia, *Geoscience Australia advice to the Australian Competition & Consumer Commission regarding certain geotechnical aspects of the Australian Rail Track Corporation submission to the 2017 Hunter Valley Coal Network Access Undertaking*, 20 February 2017, p. 11.

However, these mines may be:

*placed on “care-and-maintenance” for a period with a view to reopening when commodity markets improve. And even when mines are finally decommissioned, it is not unusual for old mines to be restarted years later under new owners.*³⁸⁷

The ACCC considers that ARTC has also adopted a simplistic and static perspective on when coal producers decide to exit the industry. Coal producers will determine whether to continue or cease production depending on their expectation of future input costs and coal prices. Technological changes or changes in input prices may mean that for a mine, production previously considered unprofitable becomes profitable. However, there will be circumstances where it is not viable to extract all reserves from a mine.

Second, ARTC pointed to the case of the Powder River Basin (USA) where reserves dropped before the closure of mines. However, advice from Geoscience Australia states it:

*does not consider that the recent troubles affecting coal production in the Powder River Basin justify an end-of-life discount to the Hunter Valley Coal Reserves.*³⁸⁸

Geoscience Australia states this is because:

- the macroeconomic conditions that apply to the Hunter Valley are different from the ones that are affecting the Powder River Basin
- time has not advanced sufficiently for the recent downturn in coal mining in the Powder River Basin to be described as ‘market destruction’.³⁸⁹

Third, ARTC cites Creech (2014) regarding the average reserves reported by coal companies for mines in the year prior to closure.³⁹⁰ Advice from Geoscience Australia states that Creech (2014) was useful for the purposes of providing general insight.³⁹¹ ACIL Allen supports Geoscience Australia’s view by noting that ‘a non-depletion discount should be applied [and] seems reasonable in light of the data presented by M.Creech (2014)’.³⁹² However, Geoscience Australia goes on to state it had a number of problems in interpreting the data, due to:

- difficulty in distinguishing between mines that have closed due to reserve depletion rather than being uneconomical
- incorrect reporting of average reserves in the year before closure
- there is a skew in the dataset as a result of significant outliers
- the estimates of Ore Reserves are constantly improving over time.

Fourth, instead of using the results from Creech (2014), ARTC proposes an adjustment of 10 per cent based on its own calculation for the Hunter Valley.³⁹³ Advice from Geoscience Australia states the proposed 10 per cent adjustment by ARTC is heavily skewed by projects

³⁸⁷ Ibid., p. 12.

³⁸⁸ Ibid., p. 16.

³⁸⁹ Ibid.

³⁹⁰ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, p. 11.

³⁹¹ Geoscience Australia, *Geoscience Australia advice to the Australian Competition & Consumer Commission regarding certain geotechnical aspects of the Australian Rail Track Corporation submission to the 2017 Hunter Valley Coal Network Access Undertaking*, 202 February 2017, p. 12.

³⁹² ACIL Allen, *Assessment of the proposed method of calculating remaining mine life in the ARTC’s proposal for the 2017 Hunter Valley Access Undertaking*, 27 March 2017, p. 6.

³⁹³ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, p. 13.

included in the 2011 HVAU WAML calculation which did not commence. Geoscience Australia calculates that if only existing mines were considered, the adjustment would only be 3 per cent.³⁹⁴ Geoscience Australia's calculation includes mines closing, those ceasing production and being placed into care and maintenance. ACIL Allen supports Geoscience Australia's calculation, noting it 'considers that ARTC should be required to provide additional support for the discount that it has proposed'.³⁹⁵

The ACCC considers that existing mines that are closing should contribute to the end-of-life discount. However, the discount should not include mines that are ceasing production or are being placed on care and maintenance since they have not reached the end of their mine life. Therefore, the ACCC notes that the current data provided by ARTC is incomplete and a further breakdown of the data is required to isolate the true amount of marketable reserves that have not been realised. The ACCC considers a 3 per cent adjustment serves as an upper bound for the true estimate of the end-of-life adjustment.

The ACCC considers ARTC's proposal to reduce reserves by 10 per cent artificially decreases the reserves in the Hunter Valley and therefore decreases the WAML. This lower WAML is not in the interest of Access Holders (section 44ZZA(3)(c)), as it increases depreciation today and does not promote the economically efficient operation of, use of and investment in ARTC's infrastructure (section 44ZZA(3)(aa)).

Production rate

The ACCC considers that ARTC's proposed production rate (the greater of historical production and contracted commitments) is not appropriate.

Instead, the ACCC considers that contracted commitments (adjusted from saleable to run-of-mine production) would be appropriate having regard to section 44ZZA(3) of the Act. In coming to this view, the ACCC has considered:

- efficient production levels of mines
- consistency between production and reserves.

First, the ACCC notes a key reason for ARTC proposing the greater of historical production and contracted capacity for a mine is that ARTC views it as the efficient production level of a mine. Specifically, ARTC states that if the level of production is lower than contracted capacity, then a logical reason for this is that the production is uneconomic.³⁹⁶ In response, HRATF does not support ARTC's view that production is uneconomic if it is below contracted capacity. Rather, HRATF considers the fact that production in the Hunter Valley is, and continues to be, economic is clearly evidenced by the growth in reserves over the period since 2011—highlighting continued investment by the industry in new and expanded production.³⁹⁷ As an alternative, HRATF proposes run-of-mine production determined as part of a JORC code statement.³⁹⁸

The ACCC considers that the efficient production level of a mine needs to be considered in the context of accepted concepts of efficiency. For example, a mine is productively efficient if

³⁹⁴ Geoscience Australia, *Geoscience Australia advice to the Australian Competition & Consumer Commission regarding certain geotechnical aspects of the Australian Rail Track Corporation submission to the 2017 Hunter Valley Coal Network Access Undertaking*, 20 February 2017, p. 15.

³⁹⁵ ACIL Allen, *Assessment of the proposed method of calculating remaining mine life in the ARTC's proposal for the 2017 Hunter Valley Access Undertaking*, 27 March 2017, p. 7.

³⁹⁶ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, p. 15.

³⁹⁷ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 24.

³⁹⁸ *Ibid.*

it produces an output using the least cost combination of inputs.³⁹⁹ As coal producers are also price takers, this means they would be determining their production now and into the future with a view to minimising costs. Further, the ACCC notes that this efficient production level is not static but dynamic and depends on short and long-term changes in input prices.

However calculating the true efficient production level for each mine requires complete information. The ACCC considers that a proxy for the efficient production level of a mine will be the measure of production that best indicates the revealed preferences of Access Holders.

The ACCC considers that current production is not a good representation of the revealed preferences of future production and should not be applied to a WAML calculation. Advice from ACIL Allen states that it accepts ARTC's contention that current production may not be a good indicator of future production.⁴⁰⁰ The ACCC notes that current production is determined by the combination of current input prices and expected future input prices. Therefore, the ACCC considers that this approach would not promote the economically efficient operation of, investment in and use of ARTC's infrastructure into the future (section 44ZZA(3)(aa)).

The ACCC considers that run-of-mine production determined as part of a JORC code statement is also not a good representation of the revealed preferences of future production. The ACCC notes that a JORC code statement of production is developed as part of a mine plan but has a maximum production level as set out in a mine's licence with the NSW Planning Assessment Commission. For example, HVEC's Mt Arthur mine has approval for extracting up to 32 million tonnes per year of run-of-mine coal.⁴⁰¹ However, in 2015–16, HVEC's Mt Arthur mine produced 17.1 million tonnes, 47 per cent lower than the maximum approved extraction.⁴⁰²

The ACCC considers that this volume of production may not be based entirely on economic efficiency but also incorporate other factors. Therefore, the ACCC considers that this approach would not promote the economically efficient operation of, investment in and use of ARTC's infrastructure into the future (section 44ZZA(3)(aa)). In addition, it will not be in the legitimate business interests of ARTC as it can lead to high production and a lower WAML (section 44ZZA(3)(a)).

The ACCC considers the contracted capacity to be the best measure for production. This measure provides a good representation of the revealed preferences of Access Holders since they will have committed significant costs to execute an AHA with ARTC and would be liable for TOP commitments for a certain volume of coal.

Second, the ACCC considers that there should be consistency between production and reserves. The ACCC notes that contract capacity volumes by miners is saleable production. That is, production has undergone some processing on-mine and may not be the same volume as run-of-mine production (represent raw production). As reserves are expressed in run-of-mine, the ACCC considers an adjustment factor needs to be added to the contracted commitments. Based on saleable and run-of-mine production data received from NSW Coal Services between July 2011 and January 2017, the ACCC calculates the average

³⁹⁹ ACCC. *A guideline to the declaration provisions for telecommunication services under Part IXC of the Competition and Consumer Act 2010*, 11 August 2016, p.42

⁴⁰⁰ ACIL Allen, *Assessment of the proposed method of calculating remaining mine life in the ARTC's proposal for the 2017 Hunter Valley Access Undertaking*, 27 March 2017, p. 7.

⁴⁰¹ NSW Planning Assessment Commission, *Determination of Mt Arthur coal open cut consolidation project modification*, 26 September 2014, available at: www.pac.nsw.gov.au/resources/pac/media/files/pac/projects/2014/06/mt-arthur-coal-open-cut-consolidation-project-modification-1/pac-determination/pac-determination-reportpdf.pdf

⁴⁰² BHP Billiton, *BHP Billiton annual report 2016*, 12 September 2016, www.bhpbilliton.com/-/media/bhp/documents/investors/annual-reports/2016/bhpbillitonannualreport2016.pdf?la=en, p. 241

conversion factors as 76 per cent. Using this average conversion factor, contracted commitments from ARTC would increase almost 32 per cent to be run-of-mine equivalents.

The ACCC notes that:

- ARTC states it used run-of-mine current production however, the ACCC's review of the relevant spreadsheets indicates that ARTC considered there was no difference between run-of-mine and saleable production (that is, the adjustment factor was 1). Therefore, there is an inconsistency in ARTC's calculation that would be corrected by including an appropriate adjustment factor for saleable and run-of-mine production.
- HRATF states that it prefers run-of-mine production from a JORC code statement. However, Castalia based its 30 year calculation of WAML on 2015 production. Therefore there is an inconsistency in HRATF's calculation which would be corrected by updating the production data to be run-of-mine production from a JORC code statement.

Mining licences

The ACCC considers that ARTC's proposal to set remaining mine life as the lesser of calculated remaining mine life and remaining years on an existing mine licence is not appropriate.

The ACCC considers that remaining mine life should not be limited by the number of years remaining on an existing licence. In coming to this view, the ACCC has considered:

- recent changes in mine licences
- upcoming licence renewals
- potential community opposition.

First, ARTC states it should not bear licence renewal risk, as this is a risk that ARTC cannot manage, and therefore lies within the remit of the coal producers themselves.⁴⁰³ Advice from ACIL Allen states:

*[ARTC] is just relying on the (more-reasonable) view that it has no control on whether or not licences are renewed and hence should not be exposed to the risk of non-renewal. Miners, on the other hand, do have some control over the renewal process.*⁴⁰⁴

Over recent years, the ACCC notes there have been developments in the mine licence renewals. ARTC cites the NSW Government's repurchase of Caroon from BHP Billiton as an example of the risk of licence approval increasing. However, the ACCC notes that Caroon was an exploration licence held by BHP Billiton and not a mining licence. HRATF also notes recent changes to the *Mining and Petroleum Legislation Amendment (Grant of Coal and Petroleum Prospecting Titles) Act 2015* (NSW) and *Protection of the Environment Operations Regulation 2009* (NSW). However, HRATF cites Rix Creek and Rix Creek North as recent examples of coal producers seeking licence renewals. Both mines have recently successfully renewed their licences.⁴⁰⁵

⁴⁰³ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, p. 13.

⁴⁰⁴ ACIL Allen, *Assessment of the proposed method of calculating remaining mine life in the ARTC's proposal for the 2017 Hunter Valley Access Undertaking*, 27 March 2017, p. 7.

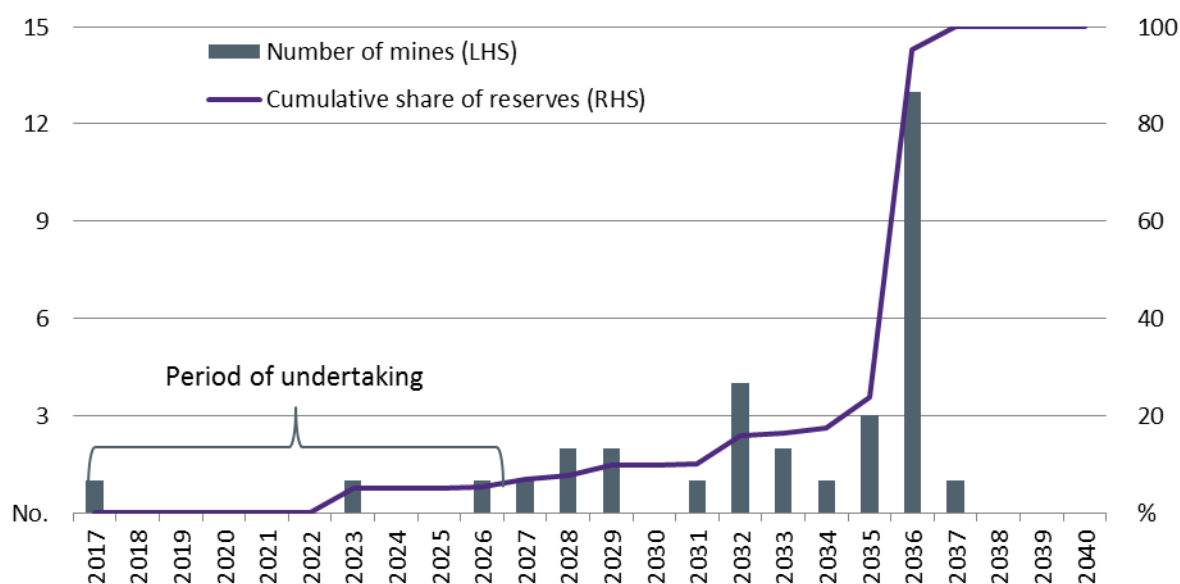
⁴⁰⁵ See EPA NSW, *Notice of Variation of Licence No. 3391*, 19 December 2016, available at: www.epa.nsw.gov.au/prpoeoapp/ViewPOEONotice.aspx?DOCID=-1&SYSUID=1&LICID=3391, and NSW Government Planning Assessment Commission, *Integra Underground Project MOD 5 and Integra Open Cut Project MOD 6 - D428/16*, 23 August 2016, available at: www.pac.nsw.gov.au/projects/2016/08/integra-underground-project-mod-5-and-integra-open-cut-project-mod-6.

The ACCC also notes the recent decision by the NSW Planning Assessment Commission not to approve the Drayton South Mine.⁴⁰⁶ However, in the case of Drayton South, this was not an application for licence renewal but rather a mine expansion.

The ACCC considers that little evidence has been provided by ARTC that existing mining licences are not being approved or that circumstances have changed significantly. Therefore, the ACCC considers it unjustified to limit remaining mine lives to licence terms as it is not in the interests of Access Holders (through ARTC over recovering) and may not lead to the economically efficient investment, operation and use of ARTC's infrastructure (section 44ZZA(3)(aa)).

Second, the ACCC has reviewed the data provided by ARTC on licence renewals as part of the 2017 HVAU (see Figure 14). During the initial term of the 2017 HVAU, only three mines will require a licence renewal. These are Bylong, Mount Thorley and Musswellbrook, which collectively account for over 5 per cent of marketable reserves (as provided by ARTC for the end of 2015). On the basis of insufficient evidence on licence renewals not being renewed in the past, the ACCC considers that ARTC will experience a relatively riskless environment in terms of the impact from licence renewal for the duration of the 2017 HVAU.

Figure 14: Number of mining licence renewals due and cumulative share of reserves by calendar year



Note: the share of reserves used ARTC's data.
Source: ARTC

From 2026 onwards, the ACCC notes that more mines in the Hunter Valley will require licence renewals. The licence renewals are staggered across the period from 2026 to 2035. By 2035, licence requiring renewal account for almost 24 per cent marketable reserves (as provided by ARTC for the end of 2015). In 2037, 13 licences will require renewal and account for almost 72 per cent of marketable reserves (as provided by ARTC for the end of 2015). The ACCC notes the potential for community opposition as an influencing factor for mine licence renewal. The ACCC is not in a position to form a view on this at this stage.

⁴⁰⁶ NSW Planning Assessment Commission, *Drayton South coal project (SSD 6875)*, 22 February 2017, available at: www.pac.nsw.gov.au/resources/pac/media/files/pac/projects/2016/09/drayton-south-coal-project/determination/drayton-south-coal-project-report--final.pdf

Overall, the ACCC does not consider it appropriate for ARTC to limit remaining mine lives to remaining licence terms. The ACCC considers the 2017 HVAU has a variety of factors which mitigate some of these risks (noted above in relation to stranding risk). In addition, the ACCC consider that the mandatory review process under section 2.3 is the preferred process for incorporating changes to licenses into the WAML if more evidence of changing circumstances come to light.

Mandatory review

The ACCC considers that ARTC's proposal for including WAML as part of the mandatory review in section 2.3 of the 2017 HVAU is appropriate in principle.

However, the ACCC considers that certain elements of the mandatory review related to the WAML are not appropriate. Under the mandatory review process, ARTC proposes that the WAML be recalculated with the following excluded:

- any mines that have either been placed in care and maintenance or have not been granted a licence renewal or other regulatory requirement by the Review Date
- any Prospective Mines which fail the requirements of a Prospective Mine at the Review Date.

The ACCC's view is that section 2.3(a)(i)(A) of the 2017 HVAU is not appropriate. The ACCC considers that mines that are placed in care and maintenance and are subject to licence renewal should be part of the recalculated WAML. The ACCC's views on care and maintenance and licence renewals are set out below.

Mines in care and maintenance under the mandatory review

The ACCC considers that ARTC's proposal to exclude mines in care and maintenance from the mandatory review's WAML calculation is not appropriate. In particular, the ACCC is of the view that this approach will not promote the economically efficient operation of, use of and investment in ARTC's infrastructure (section 44ZZA(3)(aa)).

The ACCC notes the submission from HRATF offering the example of the Integra mine coming out of care and maintenance and stating its preference for care and maintenance mines to be treated as Prospective Mines for the purposes of the WAML calculation. The ACCC considers that this approach ensures that the nominated life of ARTC's assets determined through the WAML calculation will best reflect its useful life. This is particularly so given that mines in care and maintenance will generally be better positioned to be able to recommence production in response to improved market conditions when compared to Prospective Mines.

Therefore, the ACCC considers for the purpose of the WAML calculation in the mandatory review, mines that have been placed in care and maintenance mines should be treated as Prospective Mines and subject to the same criteria. This approach ensures clarity and certainty in the effect and operation of the 2017 HVAU (section 44ZZA(3)(e)).

Mines subject to licence renewal in the mandatory review

The ACCC considers that ARTC's proposal to exclude mines that are waiting for a licence renewal process to conclude from the mandatory review's WAML calculation is not appropriate.

The ACCC notes that the process of licence renewal has changed in response to recent legislative developments in NSW. However, the ACCC also notes HRATF's submission that

states that out of the nine applications submitted following the legislative changes, eight have been approved.⁴⁰⁷ The ACCC notes that the Drayton South mine did not receive approval, but acknowledges that this application was for a mine expansion rather than a licence renewal.

The ACCC considers that mines should not be excluded from the WAML calculation in the mandatory review simply because they are awaiting approval for licence renewal. These mines would generally have contracted capacity with ARTC and would have an expectation of continued production. Therefore, the ACCC considers that in excluding these mines, ARTC has the potential to recoup more depreciation today than is appropriate, which may not lead to the economically efficient operation of, use of and investment in ARTC's infrastructure (section 44ZZA(3)(aa)).

In the event that mines are unsuccessful in their applications for licence renewal, the ACCC considers that these mines would then be able to be excluded from the WAML calculation.

ACCC calculations of WAML

In the context of promoting clarity and certainty, the ACCC considers it is important to set out:

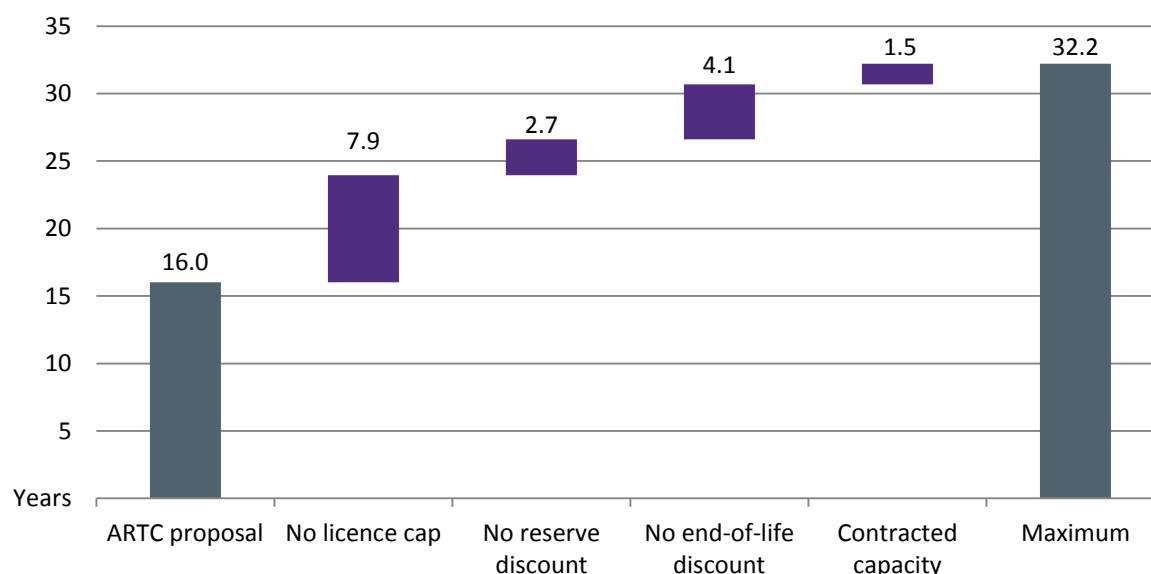
- the implications of ARTC's adjustment to WAML
- the ACCC's understanding of an appropriate WAML range based on ARTC's data.

The ACCC notes that ARTC includes a minor error in its calculation of WAML. In particular, ARTC has not included one mine in its calculation. The ACCC calculates that this changes ARTC's calculated WAML from 15.8 years to 16 years. The ACCC also notes that HRATF's calculated WAML of 30 years does not fully reflect its submission. In particular, HRATF advocates for run-of-mine production calculated from a JORC code statement. However, Castalia's calculation of WAML uses 2015 production.

Figure 15 sets out the cumulative effect to WAML of ARTC's adjustments to reserves and production as well as limiting remaining mine life to the remaining licence term. By removing the licence cap, WAML increased by 7.9 years to 23.9 years. In addition, by then removing the reserve discounts and end-of-life discount, WAML increased by 2.7 years and 4.1 years respectively to 30.7 years. Finally, by then using contracted capacity as the production level, WAML increases by 1.5 years to 32.2 years.

⁴⁰⁷ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 20.

Figure 15: Effect of ARTC adjustments on WAML



Source: ARTC and ACCC calculations

Throughout this chapter, the ACCC has provided its views on how WAML should be calculated. However, the ACCC considers there remains significant uncertainty in relation to the proposed methodology, which makes it unable to provide a point estimate on WAML. As an alternative, the ACCC considers a WAML of between 20 to 32 years is likely to be an appropriate range. This range is based on:

- ARTC's data
- mine lives not being capped by remaining licence term
- production rates measured by contracted capacity converted to run-of-mine equivalent
- the conversion factor for saleable and run-of-mine production ranging between 76 and 100 per cent
- end-of-mine adjustment ranging between 0 and 3 per cent
- proved reserve adjustment ranging between 0 and 7.5 per cent
- probable reserve adjustment ranging between 0 and 17.5 per cent.

As this range for WAML is based on the sensitivity of a number of assumptions, it requires ARTC to provide the ACCC with further information and evidence in support of its preferred assumptions or will otherwise require agreement between ARTC and Access Holders. The ACCC notes the following:

- For the conversion factor, the ACCC's range of between 76 and 100 per cent is based on analysis of saleable and run-of-mine production by mines in the Hunter Valley from July 2011, where 76 per cent is the average conversion factor.
- For the end-of-mine adjustment, the ACCC's range of between 0 and 3 per cent is based on analysis by Geoscience Australia and HRATF's proposal.
- For the proven and probable reserve discounts, the ACCC's range is based ARTC's and HRATF's proposals.

The ACCC recognises that a single estimate of WAML relies on a number of assumptions. For example, using a saleable to run-of mine conversion factor of 76 per cent, a 3 per cent

end-of-mine life adjustment and no proved and probable reserve adjustment results in a possible WAML point estimate of 23 years using ARTC's data.

Alternative depreciation options

The ACCC notes that both ARTC and HRATF are seeking certainty in relation to WAML. On the one hand, ARTC is seeking 'investment certainty'⁴⁰⁸ to recover the \$1.5 billion it has invested in the Hunter Valley rail network over the life of the 2011 HVAU. On the other hand, HRATF is seeking a conservative, commercially predictable, independently verifiable and repeatable methodology.⁴⁰⁹

However, the ACCC has a number of issues with the WAML proposed by ARTC. In particular, the ACCC considers that ARTC's approach to calculating the WAML in the 2017 HVAU requires high quality and consistent data and makes a number of assumptions, of which the basis of some are unclear. The ACCC considers that these issues create significant uncertainty in the WAML calculation itself.

Accordingly, the ACCC suggests that ARTC considers alternative approaches for determining the economic life of Hunter Valley rail network assets. One possible alternative is the approach used by Aurizon Network, which uses a 20-year rolling asset life.⁴¹⁰ The ACCC considers that a 20-year rolling asset life may provide both investment certainty for ARTC and methodological certainty for Access Holders.

⁴⁰⁸ ARTC, *RE: Remaining Mine Life (RML) Equation*, 20 February 2017, p. 1.

⁴⁰⁹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 25.

⁴¹⁰ QCA, *Final Decision – Aurizon Network 2014 Access Undertaking – Volume IV – Maximum Allowable Revenue*, 28 April 2016, p. 199.

13. Depreciation on Segment Specific Assets— Prospective Mines

This chapter sets out the proposed incorporation of Prospective Mines into WAML, affecting the Depreciation on Segment Specific Assets that ARTC can recoup as part of its Economic Cost under the 2017 HVAU.

The ACCC considers that ARTC's definition of Prospective Mines and the method for incorporating Prospective Mines into an annual WAML recalculation is appropriate. However, the ACCC considers the:

- setting of a Prospective Mine's production rate to the greater of contracted capacity and approved annual production limits is not appropriate
- discounting of proven and probable reserves is not appropriate
- discounting of reserves for end-of-life mine risk is not appropriate.

The ACCC considers that ARTC's proposal to remove Prospective Mines when they no longer satisfy the relevant criteria under the mandatory review WAML recalculation is appropriate.

13.1. ARTC proposal

Section 4.7 of the 2017 HVAU details the method for calculating Depreciation of Segment Specific Assets that ARTC can recoup (as per section 4.5 of the 2017 HVAU).

While chapter 12 of this Draft Decision considers ARTC's proposal for using WAML to determine the economic life of ARTC's assets in the Hunter Valley, this chapter examines ARTC's proposal to include Prospective Mines in the WAML calculation.

The 2017 HVAU defines a Prospective Mine as a mine or project which has both of the following:

- the proponent can reasonably demonstrate to ARTC that all reasonably necessary project approvals have been obtained, including that an approved and current mining lease has been granted pursuant to the *Mining Act 1992* (NSW), under which the holder is granted the exclusive right to mine for minerals over a specific area of land on which the coal mine is located
- an AHA has been executed with ARTC for Train Paths where the Prospective Mine is the designated load point.⁴¹¹

ARTC submits that it has proposed these criteria as it allows for prospective mines to be included in the calculation, provided they have a reasonable expectation of development and where that reasonable expectation is based upon 'objective facts'.⁴¹² In addition, ARTC submits that commitments by producers is the only objective test for determining a reasonable expectation of production as, if it is not prepared to commit funds in securing capacity for the project, it cannot be confident of the development proceeding.⁴¹³

With regards to incorporating Prospective Mines into the WAML calculation, the 2017 HVAU sets out:

- the information on resources and production required to determine the remaining mine life for a Prospective Mine— section 4.7(c)

⁴¹¹ Section 15 of the 2017 HVAU.

⁴¹² ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate*, 9 December 2016, p. 14.

⁴¹³ Ibid.

- how Prospective Mines are incorporated into a recalculated WAML and finalisation of Standard Access Charges—section 4.7(f)
- that the WAML for the network will be the greater of the recalculated WAML using the method outlined in section 4.7(f) and 16.5 years (as at 1 July 2016)— section 4.7(g)
- that if an Access Holders considers a mine or project to be a Prospective Mine, then relevant information should be provided to ARTC before 1 July each year— section 4.18(a)(i)
- that ARTC will notify by 30 September each year for the following calendar year if WAML is adjusted for Prospective Mines—section 4.18(d)
- that under the mandatory review process in the 2017 HVAU, ARTC can remove from the WAML calculation process ‘any Prospective Mines which at the Review Date no longer satisfy the requirements necessary to constitute a Prospective mine’—section 2.3(a).

Process for incorporating Prospective Mines

Broadly, the steps outlined in the 2017 HVAU for incorporating Prospective Mines into WAML are as follows:

1. by 1 July each year, Access Holders will submit relevant information to ARTC for assessment as to whether a mine or project satisfies the relevant criteria to be considered prospective
2. if ARTC assesses the mine or project to be a Prospective Mine, then ARTC recalculates WAML accounting for the Prospective Mine (subject to some constraints)
3. by 30 September each year, ARTC notifies Access Holders that WAML has been recalculated due to the inclusion of a Prospective Mine
4. where a new Prospective Mine has been identified in the preceding financial year, ARTC will determine the Standard Access Charges to apply taking into account any changes to the WAML.

For Step 1, section 4.18(a)(i) states that Access Holders who consider a mine or project as a Prospective Mine must provide ARTC the following before 1 July:

- information to support that position and enable ARTC to make an assessment as to whether the Applicant’s mine or project constitutes a Prospective Mine
- a statement of Marketable Coal Reserves in accordance with section 4.7(c)(ii).

In addition, an Access Holder should provide ARTC with information on a Prospective Mine’s resources and production. For resources, section 4.7(c)(ii) of the 2017 HVAU states the reserves of a Prospective Mine are the estimated proven and probable Marketable Coal Reserves coming from either:

- a JORC Code statement prepared by a Competent Person (as that term is defined in the JORC Code)
- a statement prepared in accordance with the JORC Code, with references to the current edition of ‘*Australian Guidelines for the Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves*’ or, if that document is discontinued any replacement document that substantially serves the same purpose.

Section 4.7(c)(ii) of the 2017 HVAU also states that proven and probable reserves for a Prospective Mine are subject to discounting to account for reserve risks. This discounting of proven and probable reserves is discussed in chapter 12 of this Draft Decision.

For average mine production levels of saleable coal for a Prospective Mine, section 4.7(c)(i) of the 2017 HVAU states that the production rate of a Prospective Mine will be determined as the greater of the following:

- the average yearly production determined by the tonnages calculated by reference to the Path Usages and Service Assumptions for the Prospective Mine under the AHA with ARTC
- the approved annual production limits specified in the mining licence for the Prospective Mine granted pursuant to the *Mining Act 1992* (NSW).

For Step 2, if ARTC assesses that a mine or project is a Prospective Mine, then section 4.7(f) of the 2017 HVAU states that ARTC will calculate the RML of the Prospective Mine. The process for calculating the RML is the same as that outlined in chapter 12 of this Draft Decision for operational mines. That is:

- ARTC calculates the RML for the Prospective Mine as the quotient of reserves and production (provided by Access Holders under section 4.18(d) of the 2017 HVAU)
- ARTC calculates the remaining lease term for the Prospective Mine as the longest lived lease for the Prospective Mine less 2016.5 years
- ARTC selects the lower of the RML and remaining lease term as the adjusted mine life.

Once the individual mine life of the Prospective Mine is calculated, section 4.7(f)(ii) of the 2017 HVAU sets out that ARTC will calculate an updated WAML for the Network including the Prospective Mine by:

- taking into account the individual mine life calculated for the new Prospective Mine
- retaining the individual mine life calculated for each Coal Mine (other than the new Prospective Mine) as at the Commencement Date
- using the assumptions and methodology used to calculate the average remaining mine life as at the Commencement Date.

Section 4.7(g) then states that the WAML for the Network will be the greater of 16.5 years and the recalculated WAML incorporating the Prospective Mines in accordance with section 4.7(f).

For Step 3, section 4.18(d) of the 2017 HVAU then states ARTC will notify Access Holders of a revised WAML. This notification is part of the wider update to Access Holders on the next calendar year's coal volumes, Standard Access Charges and RAB values for PZ3 Segments.

Finally, section 2.3(a) of the 2017 HVAU states that WAML forms part of the mandatory review. At the time of the review, ARTC proposes removing from the WAML calculation:

- any Coal Mines which, prior to the Review Date:
 - have been placed into care and maintenance; or
 - are subject to the renewal of any licence, approval or other regulatory requirement that has not been granted by the Review Date; and
- any Prospective Mines which at the Review Date no longer satisfy the requirements necessary to constitute a Prospective Mine.

13.1.1. Comparison to the 2011 HVAU

Prospective Mines were not included as part of the 2011 HVAU. As such, ARTC's proposals for Prospective Mines outlined in the previous section are new to the 2017 HVAU.

In incorporating Prospective Mines into the 2017 HVAU, ARTC states that it acknowledges the ACCC's position set out in its preliminary views letter⁴¹⁴ in respect of prospective mines based on a reasonable expectation they will move to production and has amended the 2017 HVAU to reflect this position.⁴¹⁵

ARTC also submits that this expectation that Prospective Mines will become operational:

*is defined by the presence of contracted capacity and an approval to develop the mine, as these commitments demonstrate the developers have sufficient confidence in the mine commencing they have made contractual commitments creating a financial exposure to the commencement of production.*⁴¹⁶

13.1.2. Comparison to the 2016 HVAU

Prospective Mines were not included as part of the 2016 HVAU. As such, ARTC's proposal for Prospective Mines, outlined in the previous section, are new to the 2017 HVAU.

ARTC notes HRATF's submission to the 2016 HVAU consultation paper where it states the WAML methodology should include a mechanism to account for the mine life of Prospective Mines.⁴¹⁷ In response, ARTC states that it has amended section 4.7 and other sections of the 2017 HVAU to reflect the inclusion of Prospective Mines in the calculation of the WAML.⁴¹⁸

13.2. Stakeholder submissions

13.2.1. 2017 HVAU

HRATF

HRATF submits that it has a number of concerns with the approach that has been adopted to the treatment of both prospective mines, and those that have been placed into care and maintenance.⁴¹⁹ In particular, HRATF raises concerns with the:

- treatment of mines that have been placed on care and maintenance
- production rate for prospective mines
- treatment of mines where there is a pending licence renewal.

For mines placed into care and maintenance, HRATF notes that ARTC proposes to entirely remove mines that are placed on care and maintenance from the RML calculation.⁴²⁰ In response, HRATF states:

It is costly to keep a mine in this condition and mining companies only do so where they intend to reopen a mine over the short to medium term (and certainly within the

⁴¹⁴ ACCC, 2016 Hunter Valley Access Undertaking – preliminary views, 7 July 2016, p. 5.

⁴¹⁵ ARTC, 2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Appendix B – RML estimate, 9 December 2016, p. 4.

⁴¹⁶ Ibid.

⁴¹⁷ ARTC, 2017 Hunter Valley Coal Network Access Undertaking – Summary of key changes to draft 2016 HVAU, 9 December 2016, p. 5.

⁴¹⁸ Ibid.

⁴¹⁹ HRATF, ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC, 6 February 2017, p. 25.

⁴²⁰ Ibid., p. 26.

*economic life of the Hunter Valley network, which is the relevant timeframe for RML purposes).*⁴²¹

HRATF provides the Integra mine as an example of a mine that reopened after a period of being in care and maintenance. As an alternative, HRATF states that mines placed under care and maintenance should be treated as prospective mines, for the purpose of the RML calculation.⁴²²

For the production rates of prospective mines, while HRATF notes ARTC's proposal for production based on the greater of contracted production and any associated rail contract, HRATF states in practice, each of these is a limiting factor for production.⁴²³ As an alternative, HRATF proposes:

- for mines placed into care and maintenance—the last run of mine rate applicable to the mine prior to it being placed on care and maintenance
- for other prospective mines—the lesser of the mine's licensed production and any associated rail contract.⁴²⁴

In response to ARTC's proposal that production be set at the greater of (a) the mine's contracted tonnage with ARTC; and (b) the approved mining limits under any licence, HRATF states:

*It is evident that each of these is an effective limitation on likely production from a prospective mine. Given that each is an effective 'floor' for production, the test for prospective mines should be based on the lesser of the contracted position and licensed production.*⁴²⁵

For the treatment of mines pending licence renewal, HRATF does not support ARTC's proposal of removing these mines from the WAML calculation. HRATF states this is because ARTC has inappropriately conflated the timeframe around an administrative process (licence renewal) with a meaningful and robust estimate of economic asset lives or reserves.⁴²⁶

Shenhua Watermark Coal

Shenhua Watermark states it does not believe the criteria for the inclusion of prospective mines suggested in the current draft 2017 HVAU is appropriate.⁴²⁷ Further, Shenhua Watermark Coal states the criteria will lead to conservative estimates of WAML.⁴²⁸ As a result, Shenhua Watermark Coal supports HRATF's view on the criteria for a Prospective Mine it submitted in response to the 2016 HVAU consultation paper (set out below).

Whitehaven

Whitehaven states it does not support ARTC's treatment of mines in care and maintenance, as there have been examples of such mines recommencing production in the past year.⁴²⁹

⁴²¹ Ibid.

⁴²² Ibid.

⁴²³ Ibid.

⁴²⁴ Ibid.

⁴²⁵ Ibid., p. 25.

⁴²⁶ Ibid., p. 26.

⁴²⁷ Shenhua Watermark Coal, *Response to ACCC Consultation Paper on ARTC's draft 2017 Hunter Valley Access Undertaking*, 13 February 2017, p. 2.

⁴²⁸ Ibid.

⁴²⁹ Whitehaven, *Whitehaven Coal response to ACCC Consultation paper on ARTC's draft [2017] Hunter Valley Access Undertaking*, 3 February 2017, p. 2.

13.2.2. 2016 HVAU

In response to the 2016 HVAU (where ARTC did not propose including Prospective Mines), the ACCC received one submission on this issue from HRATF.

Overall, HRATF did not support ARTC's proposal of not including Prospective Mines into the WAML calculation. HRATF states this is because economic efficiency requires rail assets to be depreciated over the period during which they can reasonably be expected to be used and remain useful.⁴³⁰ As such, HRATF views the period for the exhaustion of the existing marketable reserves (proposed by ARTC) is overly narrow and does not represent a useful basis for setting the depreciation period.⁴³¹ HRATF's view is that this would lead to accelerated depreciation, which may cause allocative inefficiency, by making some marginal mine developments in the Hunter Valley less viable.⁴³²

In response, HRATF proposed the following definition of Prospective Mines, where a mine should be included in the WAML:

- all reasonably necessary project approvals have been obtained; or
- contracts have been executed for Network Exit Capacity (i.e. port/terminal capacity) sufficient to provide for the delivery and export of any coal forecast to be produced over the remaining Term or any Further Term; or
- in all other cases, there is otherwise a reasonable expectation that the mine will commence operations and coal will be produced within 5 years of the review date.⁴³³

HRATF states that this approach for Prospective Mines:

*is likely to result in overly conservative (i.e. shortened) asset lives, because while our test, in each case, focuses on the next five years, when a more appropriate focus of any asset lives analysis should be on what mines are likely to come into operation over the entire depreciable period.*⁴³⁴

13.3. ACCC view

On 7 July 2016, the ACCC published a letter to stakeholders outlining its preliminary views on the 2016 HVAU. In this letter, the ACCC stated that Prospective Mines should be included in the WAML calculation and the process for including Prospective Mines should be transparent.⁴³⁵ The ACCC acknowledges the work undertaken by ARTC to incorporate the ACCC's preliminary views from July 2016 on Prospective Mines into the 2017 HVAU.

The ACCC's views on Prospective Mines in the 2017 HVAU are separated into the following matters:

- Prospective Mine definition
- method for incorporating Prospective Mines into WAML calculation
- production rate of Prospective Mines
- adjustments to reserves of Prospective Mines

⁴³⁰ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 21.

⁴³¹ Ibid.

⁴³² Ibid.

⁴³³ Ibid.

⁴³⁴ Ibid., pp. 21-22.

⁴³⁵ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 5.

- Prospective Mines in the mandatory review
- care and maintenance mines in the mandatory review.

Prospective Mine definition

The ACCC considers that ARTC's proposed definition of a Prospective Mine is appropriate.

In coming to this view, the ACCC has considered:

- the useful life of ARTC's assets
- transparency and objectivity
- demonstrating revealed preferences.

The ACCC considers it to be essential that the nominated life of ARTC's assets (used for determining depreciation) reflect the useful life of ARTC's assets. If a nominated asset life does not represent an asset's useful life, this results in economic inefficiency. For example, if a nominated asset life were less than the useful asset life, depreciation would be recouped at an accelerated rate. This would mean ARTC would be recouping greater levels of depreciation today when compared to future periods; and Access Holder's today would have paid more than would be efficient (sections 44ZZA(3)(aa) and (c)).

This is a key issue raised by HRATF in its submission to the 2016 HVAU consultation paper on why Prospective Mines should be included in the WAML. In that, the useful life of ARTC's assets is not determined by current mines but also mines likely to enter production over the term of the 2017 HVAU (that is, Prospective Mines).

The ACCC agrees with HRATF's position that Prospective Mines should be included in the WAML. The ACCC is of the view that not incorporating Prospective Mines into the WAML would result in an accelerated depreciation schedule for ARTC and result in Access Holders being faced with increased costs earlier than is warranted given the useful life of the assets. However, a major challenge is determining when a mine progresses from being in development to a Prospective Mine. That is, a mine likely to enter production at least over the term of the 2017 HVAU. If this threshold is set too low, then mines could be incorporated into WAML that are not likely to enter production and ARTC would not be able to recoup its capital investment over the useful life of the assets (section 44ZZA(3)(c)).

Therefore, the ACCC considers to achieve clarity and certainty, a transparent and objective threshold should be used to identify Prospective Mines and include them in the WAML calculation. This threshold should also incorporate the revealed preferences of Access Holders. That is, a mine should be considered a Prospective Mine if the Access Holder demonstrates a significant financial commitment.

As such, the ACCC considers that the two criteria proposed by ARTC in the 2017 HVAU for defining a Prospective Mine are transparent, largely objective and demonstrates the revealed preferences of Access Holders. These features ensure clarity and certainty in the effect and operation of the 2017 HVAU (section 44ZZA(3)(e)).

ARTC's first criterion requires that Access Holders hold an exclusive mining licence and have received all reasonably necessary project approvals. This requirement is transparent as an Access Holder either does have a licence or project approvals or does not. In addition, this requirement demonstrates the revealed preference as Access Holders would have incurred significant costs to secure a mining licence and project approvals.

However, this requirement is open to interpretation and so is subjective. The key issue here is what represents all reasonably necessary project approvals. In this aspect, ARTC's proposal must clarify which project approvals are necessary and those that are unnecessary.

An implication of not clarifying this criterion is if disputes arise when an Access Holder proposes a particular Prospective Mines and ARTC refuses to accept these into its WAML calculation. The ACCC also seeks clarification from ARTC as to its views on how such a dispute would be resolved under the 2017 HVAU.

ARTC's second criterion requires Access Holders to have an executed AHA with ARTC for the Prospective Mine's load point. This requirement is transparent, objective and demonstrates revealed preference. In respect of transparency and objectivity, Access Holders have this agreement with ARTC or they do not. In respect of demonstrating revealed preference, Access Holders, in executing an AHA with ARTC will have incurred significant costs and become liable for TOP commitments.

The ACCC considers that the proposal by Shenhua Watermark Coal in response to the 2017 HVAU consultation paper, taken from HRATF's response to the 2016 HVAU consultation paper, sets the Prospective Mine threshold too low.

Shenhua Watermark Coal's proposal states that a mine should be prospective if it has obtained all reasonably necessary approvals, or has contracts executed, or has a reasonable expectation to commence within 5 years. Shenhua Watermark Coal's third criterion ultimately determines if a mine is prospective or not because it creates the lowest threshold. Importantly, this criterion is not transparent or objective as what is a reasonable expectation varies between individuals. Therefore, adopting a threshold for Prospective Mines based on this proposal would lead to an economically inefficient outcome.

Method for incorporating Prospective Mines in WAML calculation

The ACCC considers that ARTC's proposed broad method for incorporating Prospective Mines into an annually updated WAML calculation is appropriate.

The ACCC considers that the method proposed by ARTC for incorporating Prospective Mines is largely transparent and objective. In that, the 2017 HVAU sets out how WAML, depreciation and Standard Access Charges for the next calendar year are updated in response to a Prospective Mine. These features ensure clarity and certainty in the effect and operation of the 2017 HVAU.

However, the ACCC considers that clarity and certainty in the operation of the 2017 HVAU would be improved if ARTC outlined with additional transparency how Standard Access Charges are determined. In addition, as mentioned previously, transparency and objectivity could also be improved by setting out the decision making process likely to be adopted by ARTC in determining whether a mine has satisfied the definition of Prospective Mine. More information on these factors would improve stakeholder understanding on the operation of the 2017 HVAU (section 44ZZA(3)(e)). See chapter 17 of this Draft Decision for further discussion on incorporating Prospective Mines into the calculation of Standard Access Charges.

The ACCC notes that the method for incorporating Prospective Mines allows updates to the WAML and depreciation on an annual basis as part of determining Standard Access Charges for the next year. This is a positive approach as it reduces the lag between a mine becoming prospective and the recalculation of the WAML. An alternative approach could have been to have WAML updated for Prospective Mines as part of the mandatory review (in section 2.3 of the 2017 HVAU). Essentially, this would mean WAML would be updated once every 5 years. However, by potentially updating WAML on an annual basis, WAML is more responsive to the useful life of ARTC's assets and is more likely to promote an economically efficient outcome (section 44ZZA(3)(aa)).

The ACCC notes that the method for incorporating Prospective Mines places obligations on both Access Holders and ARTC. That is, Access Holders need to provide certain information

in support of a potential Prospective Mine by 1 July. Then, ARTC need to make a decision on updating WAML, depreciation and Standard Access Charges by 30 September. These obligations clarify the roles of Access Holders and ARTC and promote clarity and certainty in the operation of the 2017 HVAU (section 44ZZA(3)(c) and (e)).

Production rate of Prospective Mines

The ACCC considers that ARTC's proposed production rate for Prospective Mines is not appropriate. In coming to this view, the ACCC has considered Access Holder's incentives for contracting capacity.

The 2017 HVAU proposes that the production rate of Prospective Mines to be the greater of either an Access Holder's contracted capacity and the approved annual production limits as set out in its licence terms under the *Mining Act 1992* (NSW). In response to the 2017 HVAU consultation paper, HRATF states that production should be the lesser of contracted capacity and approved annual production limits.

Broadly, contracted capacity will be less than or equal to the approved annual production limits. Therefore, ARTC's proposal could result in a higher production rate and lower mine life, while HRATF's proposal could result in a lower production rate and higher mine life (all other things held equal) (section 44ZZA(3)(aa)).

However, the ACCC considers that both ARTC's and HRATF's proposals for taking the maximum or minimum of contracted capacity and approved annual production limits is too selective. Rather, the ACCC views that a single metric should be used to represent the production rate of Prospective Mines.

The ACCC considers contracted capacity as the preferred measure of production for Prospective Mines. Adopting this ensures clarity and certainty in the effect and operation of the 2017 HVAU (section 44ZZA(3)(e)). The ACCC notes while there are other measures, such as approved annual production limits and a relevant mine plan's recommended production rate, these do not demonstrated the revealed preferences of Access Holders. That is, an Access Holder would have committed significant costs to execute an AHA with ARTC and would be liable for TOP commitments.

Adjustments to reserves of Prospective Mines

The ACCC considers that ARTC's proposed adjustments to reserves of Prospective Mines is not appropriate having regard to section 44ZZA(3) of the Act. The ACCC's view on this matter replicates that in chapter 12 of this Draft Decision.

Prospective Mines in the Mandatory Review

The ACCC considers that ARTC's proposal to exclude mines that no longer qualify as Prospective Mines from the mandatory review WAML calculation is appropriate.

In coming to this view, the ACCC has considered that just as mines could become prospective and be incorporated into WAML, Prospective Mines could (due to a range of circumstances) no longer be prospective and should be able to be removed from the calculation of the WAML. As such, the ACCC considers that there needs to be a method for removing mines that are no longer prospective from the WAML calculation. If mines that are no longer prospective remain in the WAML, they are likely to increase WAML beyond the useful life of ARTC's assets. This would lead to ARTC not being able recover its capital costs and lead to economic inefficiency (sections 44ZZA(3)(aa) and (c)).

If a mine is no longer prospective, but after the mandatory review an Access Holders receives new information allowing the mine to be considered prospective again, then the

Access Holder can utilise section 4.7 of the 2017 HVAU to have it included in a recalculated WAML. This approach ensures clarity and certainty in the effect and operation of the 2017 HVAU (section 44ZZA(3)(e)).

Care and maintenance mines in the Mandatory Review

The ACCC considers that ARTC's proposal to exclude mines in care and maintenance from the mandatory review WAML calculation is not appropriate.

The ACCC notes the submission from HRATF offering the example of the Integra mine coming out of care and maintenance and stating its preference for care and maintenance mines to be treated as Prospective Mines for the purposes of the WAML calculation. The ACCC is of the view that this approach ensures the nominated life of ARTC's assets determined through the WAML calculation best reflect its useful life (section 44ZZA(3)(aa)). In particular, the ACCC considers the care and maintenance mines are better able to start production in response to improved market conditions compared to Prospective Mines.

Therefore, the ACCC considers for the purpose of the WAML calculation in the mandatory review, care and maintenance mines should be included and treated as Prospective Mines. This approach ensures clarity and certainty in the effect and operation of the 2017 HVAU (section 44ZZA(3)(e)).

14. Rate of return

This chapter sets out ARTC's proposal for ROR, which is used to determine the return on assets ARTC can recoup as part of its Economic Cost under the 2017 HVAU.

The ACCC considers that ARTC's proposal for a real pre-tax ROR of 6.51 per cent and nominal pre-tax ROR of 7.86 per cent is not appropriate. Rather, the ACCC considers a real pre-tax ROR of 4.60 per cent and nominal pre-tax ROR of 7.11 per cent to be appropriate.

The ROR, otherwise known as the WACC, is the risk-adjusted ROR on capital required by debt and equity providers to a firm. It reflects the return investors could expect to earn by investing in the next best investment of equivalent risk (or the opportunity cost of capital). Box 3 summarises the main formulas the ACCC uses to calculate ROR.

Box 3: Rate of return formulas

Nominal post-tax ROR is an average of the return on equity (R_e) and return on debt (R_d), weighted by the equity (E) and debt (D) shares.

$$ROR_{post-tax}^{nominal} = R_e \times \frac{E}{D + E} + R_d \times \frac{D}{D + E}$$

Return on debt is the sum of the risk-free rate (R_f), debt risk premium (DRP) and debt issuance cost (DIC).

$$R_d = R_f + DRP + DIC$$

Return on equity uses the Sharpe–Lintner Capital Asset Pricing Model and is the sum of the risk free rate (R_f) and the product of equity beta (β_e) and the market risk premium (**MRP**).

$$R_e = R_f + \beta_e \times MRP$$

The ACCC uses the Monkhouse formula to transform asset beta (β_a) into the equity beta. In addition to asset beta, equity beta is also dependent on the return on debt, tax rate (T), gamma (γ), equity and debt. While equity beta is also dependent on debt beta (β_d), it is typically equal to zero.

$$\beta_e = \beta_a + (\beta_a - \beta_d) \times \left\{ 1 - \left[\frac{R_d}{(1 + R_d)} \right] \times T \times (1 - \gamma) \right\} \times \frac{D}{E}$$

The nominal pre-tax ROR is calculated by adjusting the nominal post-tax ROR for the tax rate and gamma.

$$ROR_{pre-tax}^{nominal} = R_e \times \frac{1}{1 - T \times (1 - \gamma)} \times \frac{E}{D + E} + R_d \times \frac{D}{D + E}$$

The real pre-tax ROR is calculated by adjusting the nominal pre-tax ROR for expected inflation (π).

$$ROR_{pre-tax}^{real} = \frac{1 + ROR_{pre-tax}^{nominal}}{1 + \pi} - 1$$

The 2017 HVAU proposes using:

- the real pre-tax ROR to calculate the return on capital, which is a component of the Economic Cost (section 4.5 of the 2017 HVAU) and Ceiling Revenue Limit (section 4.3 of the 2017 HVAU) which ARTC can recoup
- the nominal pre-tax ROR to roll forward the RAB for PZ3 (section 4.4(d) of the 2017 HVAU).

Table 12 details the ROR, parameter and variables values:

- proposed by ARTC in the 2011 HVAU⁴³⁶ and which became a negotiated outcome between ARTC and Access Holders⁴³⁷
- proposed by ARTC in the 2016 HVAU on 23 December 2015⁴³⁸ and proposed by HRATF on 9 March 2016 in response to the ACCC's consultation paper on the 2016 HVAU⁴³⁹
- proposed by ARTC in the 2017 HVAU on 9 December 2016,⁴⁴⁰ proposed by HRATF on 3 February 2017 in response to the ACCC's consultation paper on the 2017 HVAU⁴⁴¹ and the ACCC's preliminary views letter.

Based on these values, the ACCC considers that ARTC's proposal in the 2017 HVAU for a real pre-tax ROR of 6.51 per cent and a nominal pre-tax ROR of 7.86 per cent is not appropriate having regard to section 44ZZA(3) of the Act. In particular, the ACCC considers that it would fail to promote the economically efficient operation of, use of and investment in ARTC's infrastructure, and would not be in the legitimate business interests of ARTC, nor in the interests of access seekers, in that it would allow ARTC to obtain a return on its investment that is incommensurate with the regulatory and commercial risks faced by ARTC.

The ACCC notes HRATF's proposal in response to the 2017 HVAU consultation paper, proposing a real pre-tax ROR of 4.42 per cent and a nominal pre-tax ROR of 7.03 per cent. The ACCC does not accept that HRATF's proposal is appropriate when having regard to section 44ZZA(3) of the Act. In particular, the ACCC considers that it would fail to promote the economically efficient operation of, use of and investment in ARTC's infrastructure, and would not appropriately recognise the legitimate business interests of ARTC.

The ACCC considers that a real pre-tax ROR of 4.60 per cent and a nominal pre-tax ROR of 7.11 per cent is appropriate having regard to section 44ZZA(3) of the Act. In particular, the ACCC considers this ROR would promote the economically efficient operation of, use of and investment in ARTC's infrastructure and would allow ARTC to obtain a return on its investment that is commensurate with the regulatory and commercial risks its faces as well as recognising the interests of access seekers, including export coal and domestic coal users of the Network.

The following nine sections outline for each parameter value, ARTC's proposal in the 2017 HVAU, stakeholder submissions (including relevant consultant reports) and the ACCC's views.

The ROR in the 2011 HVAU was a negotiated outcome between ARTC and coal producers.⁴⁴² This negotiated ROR was higher than the ROR viewed by the ACCC as

⁴³⁶ ARTC, *2011 Hunter Valley Access Undertaking Rate of Return*, 23 June 2011, p. 4.

⁴³⁷ ACCC, *Decision – in relation to Australian Rail Track Corporation's Hunter Valley Rail Network Undertaking*, 29 June 2011, pp. 46-49.

⁴³⁸ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 33.

⁴³⁹ Castalia, *Review of Synergies WACC Analysis for ARTC*, 11 March 2016, p. 2.

⁴⁴⁰ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 31.

⁴⁴¹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 16.

appropriate. Importantly, while ARTC proposed parameter values for the ROR, coal producers accepted the *overall* ROR and not the individual parameter values.

Table 12: Rate of return parameters and variable values

Parameters and variables	2011 HVAU	2016 HVAU		2017 HVAU		
		ARTC	HRATF	ARTC	HRATF	ACCC views
		23 Dec 2015	9 Mar 2016	9 Dec 2016	3 Feb 2017	20 Apr 2017
Risk free rate (R_f)	5.43%	2.89%	2.45%	2.14%	2.14%	2.12%
Debt risk premium (DRP)	4.33%	2.86%	2.67%	2.70%	2.70%	2.81%
Debt issuance cost (DIC)	0.0095%	0.0095%	0.0095%	0.0095%	0.0095%	0.0095%
Market risk premium (MRP)	6.0%	6.50%	6.00%	6.50%	6.00%	6.00%
Asset beta (β_a)	0.50	0.47	0.40	0.475	0.45	0.45
Tax rate (T)	30%	30%	30%	30%	30%	30%
Gamma (γ)	0.45	0.40	0.45	0.25	0.45	0.40
Inflation (π)	2.50%	1.50%	2.50%	1.27%	2.50%	2.40%
Equity beta (β_e)	1.04	0.98	0.84	0.99	0.94	0.94
Return on equity (R_e)	11.70%	9.29%	7.48%	8.60%	7.80%	7.78%
Return on debt (R_d)	9.86%	5.85%	5.22%	4.94%	4.94%	4.96%
Equity (E)	47.5	47.5	47.5	47.5	47.5	47.5
Debt (D)	52.5	52.5	52.5	52.5	52.5	52.5
Post-tax nominal rate of return	10.73%	7.48%	6.29%	6.68%	6.30%	6.30%
Pre-tax nominal rate of return	11.83%	8.45%	6.99%	7.86%	7.03%	7.11%
Post-tax real rate of return	8.03%	5.89%	3.70%	5.34%	3.70%	3.81%
Pre-tax real rate of return	9.10%	6.85%	4.38%	6.51%	4.42%	4.60%
Proposed pre-tax real rate of return	9.10%	6.74%	4.70%	6.51%	4.42%	4.60%

14.1. Risk-free rate

The risk-free rate represents the return to an investor from holding an asset with a promised repayment amount and no risk of default. As no risk-free assets are directly observable, an appropriate proxy, and the sampling period over which the proxy is measured, must be determined. Typically, Australian Commonwealth Government Securities (**CGS**), available from the Reserve Bank of Australia (**RBA**), is used as a proxy for the risk-free asset.

⁴⁴² ACCC, *Decision – in relation to Australian Rail Track Corporation’s Hunter Valley Rail Network Undertaking*, 29 June 2011, pp. 46-49.

14.1.1. ARTC proposal

In the 2017 HVAU, ARTC proposes a risk-free rate of 2.14 per cent, based on advice from Synergies Economic Consulting (Synergies).⁴⁴³ Synergies calculated the risk-free rate based on a 20 day average of the 10 year [Australian] CGS bond yield, as at 30 June 2016.⁴⁴⁴ This proposed risk-free rate is the effective annual rate.⁴⁴⁵

Comparison to 2011 HVAU

In the 2011 HVAU, ARTC adopted a risk-free rate of 5.43 per cent.

Comparison to 2016 HVAU

In the 2016 HVAU, ARTC proposed a risk-free rate of 2.89 per cent, based on advice from Synergies.⁴⁴⁶ Synergies viewed the appropriate nominal risk-free proxy as the estimated yield to maturity on Australian CGS with a maturity of ten years.⁴⁴⁷ It considered that as the 10 year Australian CGS is the longest-lived liquid bond, it represents the most relevant benchmark to apply. Synergies sourced data on Australian CGS yields from the RBA. Synergies calculated a 20 day average for yield to maturity on 10 year Australian CGS from 18 December 2015 and converted into an effective annual rate.⁴⁴⁸

14.1.2. Submissions

2017 HVAU

HRATF proposes a risk-free rate of 2.14 per cent, based on advice from Castalia.⁴⁴⁹ This risk-free rate is based on a 20 day average to 30 June 2016.

2016 HVAU

HRATF proposed a risk-free rate of 2.45 per cent, based on advice from Castalia.⁴⁵⁰ Castalia used the same method and data source as Synergies to calculate the risk-free rate. However, Castalia calculated a 20 day average for yield to maturity on 10 year Australian CGS from 3 March 2016. It is important to note that this rate is not converted into an effective annual rate.

14.1.3. ACCC view

The ACCC considers that a risk-free rate of 2.12 per cent is appropriate. This is based on:

- using the yield to maturity on 10 year Australian CGS sourced from the RBA
- applying a 20 day average to 30 June 2016

⁴⁴³ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, pp. 29–31.

⁴⁴⁴ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 10.

⁴⁴⁵ The following formula converts semi-annual compounding daily rates to effective annual rate. $y_t^{ea} = \left[\left(1 + \frac{y_t}{2} \right)^2 - 1 \right] \times 100$, where y_t^{ea} is the effective annual yield for day t and y_t is the daily ten-year bond yield for day t (expressed as 0.02 for 2 per cent).

⁴⁴⁶ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, pp. 32–33.

⁴⁴⁷ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network*, July 2015, p. 22.

⁴⁴⁸ Synergies Economic Consulting, *Memorandum – Calculation of WACC inputs for ARTC*, 21 December 2015, p. 1.

⁴⁴⁹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 16.

⁴⁵⁰ Castalia, *Review of Synergies WACC Analysis for ARTC*, 11 March 2016, p. 3.

- converting into an effective annual rate.

Both ARTC and HRATF adopt the same proxy (10 year Australian CGS) and averaging method (20 days) for calculating the risk-free rate, which are consistent with the ACCC's view. The ACCC adopted the 10 year Australian CGS and 20 day averaging period in the Fixed Line Services Final Access Determination⁴⁵¹ (released in October 2015). This also formed part of the ACCC's views in the Draft Decision for the 2009 HVAU (released in March 2010).⁴⁵²

The ACCC maintains the view that the risk-free rate should be based on a 20 day averaging period commencing as close as possible to the start of the undertaking as is feasible. However, the ACCC agrees with ARTC and HRATF that the risk-free rate should be calculated based on a 20 day average period ending 30 June 2016. This is due to special circumstances surrounding the transition from the 2011 HVAU to the 2017 HVAU. Namely:

- the 2011 HVAU was originally set to expire on 30 June 2016
- ARTC submitted the first proposed 2016 HVAU to the ACCC for assessment on 23 December 2015
- ARTC withdrew the first proposed 2016 HVAU on 14 June 2016 and then applied to the ACCC to vary the 2011 HVAU on 20 May 2016 to extend the term to 31 December 2016. This was accepted by the ACCC on 22 June 2016
- for the extension period (1 July 2016 to 31 December 2016) the varied 2011 HVAU incorporated:
 - an interim ROR and WAML
 - a reconciliation as part of the 2016 annual compliance process with the effect of backdating any difference between the ROR and WAML accepted for the next undertaking and the interim ROR and WAML applying during the extension period
- ARTC submitted a further application to the ACCC to vary 2011 HVAU on 13 October 2016 to extend the term to 30 June 2017, maintaining the interim ROR and RML and reconciliation process for the longer extension period (1 July 2016 to 30 June 2017).⁴⁵³

Given that the ROR applying to the 2017 HVAU forms part of the reconciliation process for the extension period under the 2011 HVAU, the ACCC's view is that the risk-free rate should be calculated as the 20 day average to 30 June 2016.

The RBA's data on Australian CGS yields are annual rates with semi-annual compounding. As such, the ACCC's preferred method is to convert these raw yields into effective annual rates.⁴⁵⁴

Using the ACCC method, the ACCC's view is that a risk-free rate of 2.12 per cent is appropriate. The ACCC notes there is a difference of two basis points between this calculation and the calculations of ARTC and HRATF, however, the ACCC is unable to determine how this difference arose.

⁴⁵¹ ACCC, *Public inquiry into final access determinations for fixed line services - Final Decision*, 9 October 2015, pp. 71–73.

⁴⁵² ACCC, *Australian Rail Track Corporation Limited – Hunter Valley Coal Network Access Undertaking – Draft Decision* – 5 March 2010, pp. 535, 537.

⁴⁵³ ARTC, *Application by ARTC to vary the Hunter Valley Access Undertaking to extend term*, 20 May 2016, p. 2.

⁴⁵⁴ See footnote 445.

14.2. Debt risk premium

The debt risk premium represents the debt-specific risk compensation over and above the risk-free rate. The debt risk premium is dependent on a firm's gearing level, credit rating, term of the debt and other factors. It is the difference between the yield to maturity on a benchmark bond and the risk-free rate.

However, differences in the debt risk premium primarily arise from different approaches for calculating the yield of a benchmark bond. This includes different:

- credit ratings—for example, A-rated or BBB rated
- target tenors—for example, 10 or 7 years
- data sources—RBA, Bloomberg or both⁴⁵⁵
- extrapolation techniques to extend yields beyond the observed terms—for instance, the actual tenor of most ten year bonds is normally less than 10 years
- interpolation techniques to calculate daily yields between two published estimates—for instance, the RBA publishes yields at the end of each month but a yield estimate may be needed for some time in the middle.
- averaging period length—for example, 20 days or 40 days.

The definition of debt risk premium relies on the definition of the risk-free rate. Therefore, difference in the debt risk premium can also be due to difference in the calculations of the risk-free rate.

14.2.1. ARTC proposal

In the 2017 HVAU, ARTC proposes a debt risk premium of 2.70 per cent and is based on advice from Synergies.⁴⁵⁶ Synergies adopts the following factors to calculate debt risk premium:

- a credit rating of BBB with 10 year target tenors to represent ARTC
- data from both RBA and Bloomberg⁴⁵⁷
- extrapolation of the target 10 year yield based on the slope of the RBA's 7 and 10 year yields to produce a 'true' 10 year estimate
- the ACCC and AER approach to interpolate between the two most recent published month end estimates from RBA
- a 20 day average yield estimate converted into an effective annual rate.⁴⁵⁸

Synergies estimates a debt risk premium of 2.64 per cent using Bloomberg data and 2.76 per cent using RBA data. Synergies applied a simple average to the two estimates and proposed a debt-risk premium of 2.70 per cent.⁴⁵⁹

Comparison to 2011 HVAU

In the 2011 HVAU, ARTC adopted a debt risk premium of 4.33 per cent.

⁴⁵⁵ While there are other potential data sources for bond yield, the AER and ACCC use RBA and Bloomberg.

⁴⁵⁶ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 31.

⁴⁵⁷ Synergies does not specifically state which RBA and Bloomberg data series it used.

⁴⁵⁸ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 21.

⁴⁵⁹ Ibid.

Comparison to 2016 HVAU

In the 2016 HVAU, ARTC proposed a debt risk premium of 2.86 per cent, based on advice from Synergies. Synergies adopted the following factors to calculate debt risk premium:

- a credit rating of BBB with ten year target tenor to represent ARTC
- data sourced from the RBA⁴⁶⁰
- extrapolation of the target 10 year yield based on the slope of the RBA's yield (calculated using the 3, 5, 7 and 10 year yields) to produce a 'true' 10 year estimate
- averaging the effective annual rates for September and October 2015 as there are normally around 20 business days each month and so it matches the 20 day average for the risk-free rate.⁴⁶¹

14.2.2. Submissions

2017 HVAU

HRATF proposes a debt risk premium of 2.70 per cent, based on advice from Castalia.⁴⁶² This debt risk premium is based on a 20 day average to 30 June 2016.

2016 HVAU

HRATF proposed a debt risk premium of 2.67 per cent, based on advice from Castalia.⁴⁶³ Castalia adopted the following factors to calculate debt risk premium:

- a credit rating of BBB with ten year target tenor to represent ARTC
- data sourced from the RBA
- linearly interpolating between the bond yields on 29 January 2016⁴⁶⁴ and 29 February 2016, and then calculating a 20 day average to 29 February 2016.

The ACCC notes that Castalia did not convert the bond yield into an effective annual rate.

14.2.3. ACCC view

The ACCC considers that a debt risk premium of 2.75 per cent is appropriate, calculated based on a bond yield of 4.87 per cent less a risk-free rate of 2.12 per cent (as outlined in section 14.1.3 of this chapter).

This bond yield estimate:

- uses both RBA and Bloomberg data⁴⁶⁵
- adopts a BBB-rated bond with a 10 year target tenor as the benchmark bond to represent ARTC
- is a 20 business day average to 30 June 2016

⁴⁶⁰ Castalia does not specifically state which RBA series it used.

⁴⁶¹ Synergies Economic Consulting, *Memorandum – Calculation of WACC inputs for ARTC*, 21 December 2015, p. 2.

⁴⁶² HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 16.

⁴⁶³ Castalia, *Review of Synergies WACC Analysis for ARTC*, 11 March 2016, p. 3.

⁴⁶⁴ RBA publishes bond yields on the last business day of the month, which was 29 January 2016.

⁴⁶⁵ The ACCC uses 'Aggregate Measures of Australian Corporate Bond Spread and Yields – F3' (www.rba.gov.au/statistics/tables/xls/f03hist.xls) from the RBA and Australian BVAL curves from Bloomberg.

- has been converted into an effective annual rate.

The RBA and Bloomberg are the two main independent third parties providing data for estimating benchmark bond yields used in ACCC and AER decisions. There are various differences in the data provided by these parties—including available credit ratings and tenors of bond estimates, publication frequency and bonds sampled to produce yield estimates.⁴⁶⁶

Broadly, the RBA publishes bond yield estimates for broad A and BBB rated bonds for 3, 5, 7 and 10 years target tenors. It should be noted that the credit ratings are based on Standard & Poor's with broad A including A+, A, and A- and broad BBB including BBB+, BBB, and BBB-. Both the estimates⁴⁶⁷ and the method⁴⁶⁸ used to derive these are publicly available. However, some of the limitations of the RBA's bond yield estimates include:

- they are only produced for the last business day of the month
- the effective tenors are normally less than the target tenors
- the published yield are not an effective annual rate.

Bloomberg, through its subscription service, publishes a large variety of bond yield estimates. In particular, Bloomberg publishes daily bond yield estimates, known as BVAL corporate debt yield curves, for broad A and BBB rate bonds for between 1 and 10 years and up to 30 year target tenors. However, Bloomberg's method to calculate these bond yields is not publicly available and the published yields are not an effective annual rate.

Ultimately, there are three options for calculating the yield on a benchmark bond:

- calculating a yield estimate for a benchmark bond based on RBA data
- calculating a yield estimate for a benchmark bond based on Bloomberg data
- applying a simple average of yield estimates calculated from RBA and Bloomberg data.

The ACCC's preferred approach is to take an average of yield estimates calculated from RBA and Bloomberg data. This approach has been adopted by the ACCC in the Fixed Line Services Final Access Determination⁴⁶⁹ and by the AER.⁴⁷⁰ This approach is preferred because:

- neither method adopted by the RBA or Bloomberg is clearly superior in terms of bond selection and curve fitting method
- there is no clear indication of one estimate being consistently higher or lower than the other over time

⁴⁶⁶ ACCC, *Return on debt estimation: a review of the alternative third party data series – Report for the AER*, August 2014, pp. 2-3, available at: https://www.aer.gov.au/system/files/ACCC%20Regulatory%20Economic%20Unit%2C%20Return%20on%20debt%20estimation%2C%20a%20review%20of%20the%20alternative%20third%20party%20data%20series%20-%20Report%20for%20the%20AER%2C%20August%202014_3.pdf; Lally, M, *Implementation issues for the cost of debt*, 2014, 20 November 2014, p. 22-25.

⁴⁶⁷ RBA, *Aggregate measures of Australian corporate bond spreads and yields – F3*, RBA, Sydney, 2016, viewed 28 October 2016, www.rba.gov.au/statistics/tables/xls/f03hist.xls.

⁴⁶⁸ Arsov, I, Brooks, M and Kosev, M, 'New measures of Australian corporate credit spread', *Bulletin*, December Quarter 2013, RBA, Sydney, 2013, pp. 15–26, viewed 28 October 2016, www.rba.gov.au/publications/bulletin/2013/dec/pdf/bu-1213.pdf.

⁴⁶⁹ ACCC, *Public inquiry into the final access determinations for fixed line services – Final Decision*, 9 October 2015, p. 86.

⁴⁷⁰ AER, *Final decision SA Power Networks determination 2015 to 2019: Attachment 3 – Rate of Return*, 29 October 2015, p. 149.

- a simple average of the two estimates will lower estimation error in comparison to selecting one estimate.⁴⁷¹

Appendix A sets out the method used by the ACCC to calculate bond yield for debt risk premium.

An important step for calculating bond yield and debt risk premium is selecting a benchmark bond to represent ARTC. This requires selecting a credit rating and tenor length. The ACCC considers that a broad BBB-rated bond with a ten year target tenor is the benchmark bond best representing ARTC. In coming to this view, the ACCC considered:

- ARTC's current credit rating and recent changes to that credit rating
- competitive neutrality for government owned businesses
- credit ratings for major above and below-rail companies
- proposed term of the 2017 HVAU.

First, ARTC's current credit rating from Moody's is A1 (equivalent to a Standard & Poor's rating of A+).⁴⁷² Moody's states:

*ARTC's strong investment-grade rating is underpinned by its robust market position and the essential nature of its business, as conferred by its ownership and/or long-term lease of monopoly rail track assets across five Australian states; and ARTC's ability to recover costs and earn a return on assets, as enshrined in transparent regulated third-party access undertakings.*⁴⁷³

It is important to note this credit rate from Moody's is for the whole of ARTC and includes both the Interstate and Hunter Valley networks. The ACCC notes that on 11 April 2016, Moody's downgraded ARTC's credit rating from AA2 (equivalent to a Standard & Poor's rating of AA).⁴⁷⁴ Moody's states this downgrade was in the context of ARTC's 'rising exposure to weak coal market conditions'.⁴⁷⁵ Further, Moody's states:

*that adverse market conditions are eroding the financial capacity of ARTC's mine counterparties -- for whom it transports coal -- raising the likelihood of default and reducing revenue visibility in this business.*⁴⁷⁶

However, Moody's notes:

ARTC's rating recognizes (sic) the company's ability to socialize (sic) lost revenue among its remaining coal mining counterparties in the event of early termination of a contract in this business.

*The rating also recognizes the depth and diversification of ARTC's coal customer base which comprises the entire Hunter Valley network with a current run rate of just under 200 million tonnes per annum, and includes high quality thermal coal mines in the region.*⁴⁷⁷

⁴⁷¹ Lally, M, *Implementation issues for the cost of debt*, 2014, 20 November 2014, p. 44.

⁴⁷² BIS, 2017, viewed 3 April 2017, <http://www.bis.org/bcbs/qis/qisrating.htm>.

⁴⁷³ Moody's Investor Service, *Moody's downgrades ARTC to A1; outlook stable*, 11 April 2016, viewed 18 November 2016, www.moodys.com/research/Moodys-downgrades-ARTC-to-A1-outlook-stable--PR_345781.

⁴⁷⁴ Ibid.

⁴⁷⁵ Ibid.

⁴⁷⁶ Ibid.

⁴⁷⁷ Ibid.

Second, the Australian Government and state governments adopt the Commonwealth Competitive Neutrality Policy Statement.⁴⁷⁸ This statement sets out that government owned entities, like ARTC, should be subjected to similar borrowing costs to those faced by private sector businesses.⁴⁷⁹ The ACCC notes that Moody's credit rating of ARTC incorporates a two-notch uplift from its baseline credit assessment of A3 (equivalent to a Standard & Poor's rating of A-).⁴⁸⁰ This two-notch uplift arises from Moody's Government-Related Issuers credit policy and 'reflects the probability of the government providing extraordinary support'.⁴⁸¹

Third, Table 13 summarises credit ratings and debt gearing for major above-rail and below-rail operators. In implementing the Commonwealth Competitive Neutrality Policy Statement, these private sector businesses show the borrowing costs that ARTC would be subjected to. However, it is important to note the nature of each of the businesses differ to that of ARTC. As such, these credit ratings should be considered in the context of where each business operates and the natures of goods hauled.

The ACCC notes Aurizon Network, a subsidiary of Aurizon and the below-rail operator of the CQCN has a credit rating from Moody's of BAA1 (equivalent to a Standard & Poor's rating of BBB+). In addition, the average credit rating for the major above and below-rail operators is BAA1 (equivalent to Standard & Poor's rating of BBB+).

The ACCC considers that ARTC's credit rating should be at least BBB+ if not higher. However, as a BBB+ is not available from both RBA and Bloomberg, the ACCC consider the next best alternative is a broad BBB (that is, encompassing BBB+, BBB and BBB-). In addition, ARTC and HRATF both use this credit rating.

It should be noted that the ACCC considers a broad BBB credit rating as a conservative estimate for ARTC. This is because:

- ARTC's current Moody's credit rating, excluding the uplift from being a government owned business, is A3 (equivalent to a Standard & Poor's rating of A-) but is for both the Interstate and Hunter Valley networks
- if the interstate rail network were excluded, a revised credit rating would be higher than A3 (equivalent to a Standard & Poor's rating of A-) as the Hunter Valley rail network 'contributes some 57 per cent of ARTC's total revenue, and 89 per cent of this coal revenue is contracted on a TOP basis with users'.⁴⁸²

Fourth, for determining the bond tenor, the ACCC considers that the term of a debt should equate to the proposed regulatory term and their use as a proxy should result in ARTC receiving a return in line with the regulatory and commercial risks facing it. The ACCC notes that the proposed initial term of the 2017 HVAU is 9.5 years. The available tenor lengths from both RBA and Bloomberg are 3, 5, 7 and 10 years. The ACCC considers a 10 year tenor best represents ARTC as it is the closest available to the term length.

⁴⁷⁸ COAG, *Commonwealth Competitive Neutrality Policy Statement*, June 1996, viewed 8 March 2016, archive.treasury.gov.au/contentitem.asp?ContentID=275.

⁴⁷⁹ Ibid., p. 17.

⁴⁸⁰ Moody's Investor Service, *Moody's downgrades ARTC to A1; outlook stable*, 11 April 2016, viewed 18 November 2016, www.moodys.com/research/Moodys-downgrades-ARTC-to-A1-outlook-stable--PR_345781.

⁴⁸¹ Moody's Investor Service, *Rating methodology: Government-related issuers*, 30 October 2017, viewed 10 March 2016, www.moodys.com/research/documentcontentpage.aspx?docid=PBC_173845.

⁴⁸² Moody's Investor Service, *Moody's downgrades ARTC to A1; outlook stable*, 11 April 2016, viewed 18 November 2016, www.moodys.com/research/Moodys-downgrades-ARTC-to-A1-outlook-stable--PR_345781.

Table 13: Credit ratings and debt gearing for major above-rail and below-rail businesses⁴⁸³

Country	Company	Debt gearing (%)	Moody's rating	S & P equivalent
Australia	Asciano Limited	53.2	BAA3	BBB-
Australia	Aurizon Network Pty Ltd	69.5	BAA1	BBB+
Australia	Australian Rail Track Corporation Limited	27.8	A1	A+
Australia	Genesee & Wyoming Australia Pty Ltd	62.9	BA2	BB
Canada	Canadian National Railway Company	58.9	A2	A
Canada	Canadian Pacific Railway Company	75.6	BAA1	BBB+
United States	Burlington Northern Santa Fe	33.2	A3	A-
United States	CSX Corporation	66.7	BAA1	BBB+
United States	Kansas City Southern Railway Company	49.3	BAA3	BBB-
United States	Norfolk Southern Corporation	64.4	BAA1	BBB+
United States	Union Pacific Corporation	59.8	A3	A-

Using a benchmark bond with a broad BBB credit rating and 10 year tenor and implementing the method outlined in Appendix A, the ACCC's view is that a debt risk premium of 2.75 per cent is appropriate. This encompasses a bond yield estimate of 4.87 per cent (the average of 4.93 per cent from RBA data and 4.81 per cent from Bloomberg data) and a risk-free rate of 2.12 per cent.

14.3. Debt issuance costs

Debt issuance costs are the ongoing cost of having debt on issue. Regulated entities are compensated for these costs, either through a direct cash flow or through an adjustment in the ROR.

14.3.1. ARTC proposal

In the 2017 HVAU, ARTC proposes a debt issuance cost of 0.095 per cent, based on advice from Synergies. Synergies cites its previous analysis from ARTC for finalising the 2011 HVAU.

⁴⁸³ Asciano, *Financial year 2016: Full year financial results*, 15 August 2016, viewed 18 November 2016, www.asx.com.au/asxpdf/20160816/pdf/439b9g00xgsqd0.pdf; ARTC, *2016 annual report*, 19 September 2016, viewed 18 November 2016, www.artc.com.au/uploads/AR_2016_FINAL_Spreads_LR.pdf; Aurizon Network, *Financial report for the year ended 30 June 2016*, 15 August 2016, viewed 18 November 2016, www.aurizon.com.au/~media/aurizon/files/investors/documents%20and%20webcasts/2016/full%20year%20results/fyr%202016%20aurizon%20network%20financial%20report.ashx; Burlington Northern Santa Fe Railway, *Form 10-K for 2015*, 26 February 2016, viewed 18 November 2016, www.bnsf.com/about-bnsf/financial-information/form-10-k-filings/pdf/10k-railway-2015.pdf; Canadian Pacific Railway, *2015 annual report*, 3 March 2016, viewed 18 November 2016, www.cpr.ca/en/investors-site/Lists/FinancialReports/cp-ar-2015.pdf; Canadian National Railway, *2015 annual report*, 16 March 2016, viewed 18 November 2016, www.cn.ca/~media/Files/Investors/Investor-Annual-Report/2015-CN-Annual-Report-en.pdf?la=en; CSX, *2015 annual report*, 28 March 2016, viewed 18 November 2016, phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MzI5MTMzfnENoaWxkSUQ9LTF8VHlwZT0z&t=1&cb=635947711662465208; Genesee & Wyoming, *2015 annual report*, 31 March 2016, viewed 18 November 2016, ir.gwrr.com/sites/genesee.investorhq.businesswire.com/files/doc_library/file/GWR_2015_AR_and_10K_with_Bookmarks.pdf; Kansas City Southern, *2015 annual report*, 23 March 2016, viewed 18 November 2016, investors.kcsouthern.com/~media/Files/K/KC-Southern-IR-V2/annual-report-2015.pdf; Moody's Investor Service, 2016, viewed 18 November 2016, www.moodys.com; Norfolk Southern, *2015 annual report*, 2 March 2016, viewed 18 November 2016, www.nscorp.com/content/dam/nscorp/get-to-know-ns/investor-relations/annual-reports/annual-report-2015.pdf; Union Pacific, *Form 10-K for 2015*, 6 February 2016, viewed 18 November 2016, www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf_upc_10k_02062015.pdf

Comparison to 2011 HVAU

In the 2009 HVAU, ARTC proposed a debt issuance cost of 0.125 per cent based on advice from Synergies.⁴⁸⁴ In the Draft Decision for the 2009 HVAU, the ACCC considered that a debt issuance cost of 0.125 per cent was not appropriate. Instead, the ACCC considered that a debt issuance cost of 0.095 per cent was appropriate.⁴⁸⁵

In the 2010 HVAU and the revised 2010 HVAU, ARTC adopted the ACCC's views and proposed a debt issuance cost of 0.095 per cent.

The 2011 HVAU implicitly adopted a debt issuance cost of 0.095 per cent.⁴⁸⁶

Comparison to 2016 HVAU

The 2016 HVAU also proposed a debt issuance cost of 0.095 per cent. Synergies noted in its accompanying report that this is consistent with the last review for the 2011 HVAU.⁴⁸⁷

14.3.2. Stakeholder submissions

2017 HVAU

HRATF supports a debt issuance cost of 0.095 per cent.

2016 HVAU

HRATF agreed with ARTC's 0.095 per cent allowance for debt raising issuance costs and note that this is consistent with the 2011 HVAU.⁴⁸⁸

14.3.3. ACCC view

The ACCC considers that a debt issuance cost of 0.095 per cent is appropriate. In reaching this view, the ACCC considers that the analysis undertaken as part of the Draft Decision for the 2009 HVAU remains broadly applicable.⁴⁸⁹ The ACCC also notes that both ARTC and HRATF agree on a debt issuance cost of 0.095 per cent.

14.4. Market risk premium

The MRP represents the expected risk premium investors require over the risk-free return to be willing to invest in a well-diversified risky market portfolio. The MRP is not directly observable.

⁴⁸⁴ Synergies Economic Consulting, *ARTC's Hunter Valley coal network: Weighted average cost of capital review*, April 2009, p. 76.

⁴⁸⁵ ACCC, *Australian Rail Track Corporation Limited – Hunter Valley Coal Network Access Undertaking – Draft Decision – 5 March 2010*, p. 545.

⁴⁸⁶ ARTC, *2011 Hunter Valley Access Undertaking Rate of Return*, 23 June 2011, p. 4.

⁴⁸⁷ Synergies Economic Consulting, *The Rate of Return to Apply to ARTC's Hunter Valley Coal Network*, July 2015, p. 62.

⁴⁸⁸ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 27.

⁴⁸⁹ ACCC, *Australian Rail Track Corporation Limited – Hunter Valley Coal Network Access Undertaking – Draft Decision – 5 March 2010*, p. 545.

14.4.1. ARTC proposal

In the 2017 HVAU, ARTC proposes a MRP of 6.5 per cent. While ARTC sought advice from Synergies on MRP, it did not adopt its recommendation for a MRP of 7.5 per cent.⁴⁹⁰ In not adopting Synergies' recommendation, ARTC states it:

has balanced the recommendations of Synergies with the understanding of the position of stakeholders, being both the ACCC and customers, and has been prepared to adjust its expectations on individual parameters, to deliver a WACC [rate of return] outcome that it can accept; consistent with stakeholder requirements.⁴⁹¹

In addition, ARTC states it is prepared to adjust the MRP to be consistent with previous ACCC rulings.⁴⁹²

Synergies' recommendation for a MRP of 7.5 per cent was calculated in two stages. The first stage involved reapplying a method it used in its advice for the 2016 HVAU. This was a weighted average of estimates derived from:

- Ibbotson historical excess returns
- Wright historical excess returns
- dividend growth models.

Table 14 presents the results of these calculations and the weighted average MRP of 7.96 per cent. In regards to weights applied to each method, Synergies states it adopts 'a process similar to IPART where we give equal weighting to estimates based on historical averages and forward-looking DGM [dividend growth models]'.⁴⁹³ In addition, Synergies states within the historical average methodologies we equally weight the Ibbotson and Wright approaches as they provide estimates of the historical excess returns at two ends of the spectrum.⁴⁹⁴

Table 14: Weighted average MRP

Method	Estimate	Weighting
Ibbotson historical excess returns	6.50%	25%
Wright historical excess returns	9.65%	25%
Dividend growth models	7.85%	50%
Weighted average MRP	7.96%	

Source: Synergies, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 11.

Next, Synergies calculates the average of its weighted average MRP (7.96 per cent) and the estimates of MRP from the Economic Regulation Authority Western Australia (7.3 per cent) and IPART (7.4 per cent). This resulted in Synergies' recommended MRP of 7.5 per cent. Synergies' states this estimate is appropriate since:

This would be a more conservative estimate that reflects approaches that combine estimates derived from historical excess returns and forward-looking DGMs, placing

⁴⁹⁰ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 31.

⁴⁹¹ Ibid., p. 30.

⁴⁹² Ibid.

⁴⁹³ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 11.

⁴⁹⁴ Ibid.

more weight (two-thirds) on estimates most recently applied by two Australian regulators.⁴⁹⁵

Comparison to 2011 HVAU

In the 2009 HVAU, ARTC proposed a MRP of between 6 and 7 per cent based on advice from Synergies.⁴⁹⁶ In the Draft Decision for the 2009 HVAU, the ACCC considered that the proposal for MRP between 6 and 7 per cent was not appropriate. Instead, the ACCC considered that 6 per cent was likely to be appropriate.⁴⁹⁷

In response to the Draft Decision for the 2009 HVAU, ARTC proposed a MRP of 6.5 per cent for the 2010 HVAU. ARTC stated it had provided 'ample evidence supporting a long term forward-looking estimate of more than 6 per cent'.⁴⁹⁸ In the Position Paper for the 2010 HVAU, the ACCC reaffirmed its view in the Draft Decision for the 2009 HVAU that a MRP of 6 per cent was more likely to be appropriate compared to 6.5 per cent.⁴⁹⁹

In response to the Position Paper for the 2010 HVAU, ARTC proposed a MRP of 6 per cent for the revised 2010 HVAU. ARTC stated it:

considers that there are strong arguments supporting its claims in relation to many of these parameters such as market risk premium and gamma. However, ARTC has elected not to pursue better outcomes for itself in these cases, choosing to allow the regulatory process to set appropriate levels.⁵⁰⁰

Subsequently in the 2011 HVAU, ARTC implicitly adopted a MRP of 6 per cent.⁵⁰¹

Comparison to 2016 HVAU

In the 2016 HVAU, ARTC proposed a MRP of 6.5 per cent. It is worthwhile noting that Synergies recommended a MRP of 7.89 per cent.⁵⁰²

Synergies' recommended MRP was a weighted average of estimates derived from:

- Ibbotson historical excess returns
- Wright historical excess returns
- dividend growth models.

Table 15 presents the results of these calculations and the weighted average MRP of 7.89 per cent.

⁴⁹⁵ Ibid., p. 12.

⁴⁹⁶ Synergies Economic Consulting, *ARTC's Hunter Valley coal network: Weighted average cost of capital review*, April 2009, p. 74.

⁴⁹⁷ ACCC, *Australian Rail Track Corporation Limited – Hunter Valley Coal Network Access Undertaking – Draft Decision – 5 March 2010*, p. 565.

⁴⁹⁸ ARTC, *Explanatory guide to 2010 HVAU: Appendix 3 - Revised Rate of Return proposal*, 7 September 2010, p. 20.

⁴⁹⁹ ACCC, *Position Paper in relation to the Australian Rail Track Corporation's proposed Hunter Valley Rail Network Access Undertaking*, 21 December 2010, p. 113.

⁵⁰⁰ ARTC, 2011 Hunter Valley Access Undertaking *Rate of Return*, 23 June 2011, p. 4.

⁵⁰¹ Ibid.

⁵⁰² Synergies Economic Consulting, *The Rate of Return to Apply to ARTC's Hunter Valley Coal Network*, July 2015, p. 40.

Table 15: Synergies weighted average MRP

Method	Estimate	Weighting
Ibbotson historical excess returns	6.42%	25%
Wright historical excess returns	8.32%	25%
Dividend growth models	8.41%	50%
Weighted average MRP	7.89%	-

Source: HRATF, ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC, 6 February 2017, p. 15.

14.4.2. Stakeholder submissions

2017 HVAU

HRATF proposes a MRP of 6 per cent.⁵⁰³ HRATF submits that recent ACCC decisions in the telecommunications, post and water sectors⁵⁰⁴ have adopted MRP values of 6 per cent and not 6.5 per cent.⁵⁰⁵

On the one hand, HRATF states it considers that evidence of the historical average MRP, measured over a long time period, is the most reliable indicator of the forward-looking MRP.⁵⁰⁶ On the other hand, HRATF also states that ‘DGM [dividend growth models] and survey-based estimates can be volatile and highly sensitive to choices on input parameters’.⁵⁰⁷

2016 HVAU

HRATF proposed a MRP of 6 per cent, based on advice from Castalia.⁵⁰⁸ HRATF states long term historical MRP estimates continue to support a MRP estimate of 6 per cent.⁵⁰⁹ In addition, HRATF states ‘an estimate of 6 per cent would also be consistent with the ACCC’s recent determination for NSW State Water and for Telstra’.⁵¹⁰

14.4.3. Supplementary submission to 2017 HVAU

On 22 February 2017, ARTC provided a supplementary submission to the ACCC. This was in response to HRATF’s submission to the 2017 HVAU consultation paper. ARTC states:

that the MRP result in the final AER determination quoted by HRATF was 6.5 per cent. HRATF’s proposed upper range of 6 per cent is therefore [inconsistent] with the AER determination.⁵¹¹

⁵⁰³ HRATF, ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC, 6 February 2017, p. 16.

⁵⁰⁴ ACCC, Public inquiry into final access determinations for fixed line services: Final Decision, 9 October 2015, pp. 73-77; ACCC, ACCC decision on Australian Postal Corporation 2015 price notification, 9 December 2015, p. 30; ACCC, Water NSW Annual review of regulated charges: 2016-17: Final decision, 19 May 2016, p. 17.

⁵⁰⁵ HRATF, ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC, 6 February 2017, p. 15.

⁵⁰⁶ Ibid.

⁵⁰⁷ Ibid.

⁵⁰⁸ HRATF, ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC, 9 March 2016, p. 27.

⁵⁰⁹ Ibid.

⁵¹⁰ Ibid.

⁵¹¹ ARTC, RE: WACC responses, 22 February 2017, p. 2.

14.4.4. ACCC view

The ACCC considers that a MRP of 6 per cent is appropriate. In coming to this view, the ACCC has considered:

- historical estimates
- market surveys
- previous regulatory decisions.

First, the ACCC has placed most reliance on historical estimates, as this is the most robust source of evidence for estimating the MRP. Table 16 sets out arithmetic and geometric average historical excess returns estimated over different sample periods up until the 2014 calendar year. Arithmetic averages range between 5.2 and 6.2 per cent; and geometric averages range between 3.5 and 4.8 per cent.⁵¹² At present, the historical returns produce a MRP estimate of 6 per cent from within this range.

Table 16: Historical excess return estimates

Sampling period	Arithmetic mean	Geometric mean
1883–2015	6.1	4.8
1937–2015	5.7	3.9
1958–2015	6.2	3.8
1980–2015	5.9	3.5
1988–2015	5.2	3.6

Source: AER, *Powercor distribution determination final decision 2016–20: Attachment 3 – Rate of return*, 28 May 2016, pp. 212–213.

Second, market surveys directly ask investors and market participants about their market expectations and what they apply in practice.⁵¹³ The ACCC places some reliance on survey estimates in evaluating an appropriate MRP. Table 17 sets out recent survey results on MRP. The mean and median of MRP across these surveys is supportive of 6 per cent as opposed to 6.5 per cent.

Third, previous regulatory decisions by the ACCC have supported a MRP of 6 per cent. In particular, a MRP of 6 per cent was adopted in the:

- Final Decision for ARTC’s 2008 IAU⁵¹⁴
- NSW State Water Price Determination in June 2014⁵¹⁵
- Fixed Line Services Final Access Determination in October 2015.⁵¹⁶

⁵¹² AER, *Powercor distribution determination final decision 2016–20: Attachment 3 – Rate of return*, 28 May 2016, pp. 212–213.

⁵¹³ AER, *Better Regulation - Explanatory Statement Rate of Return Guideline (Appendices)*, 17 December 2013.

⁵¹⁴ ACCC, *Final Decision Australian Rail Track Corporation Access Undertaking – Interstate Rail Network*, 30 July 2008, p. 158.

⁵¹⁵ ACCC, *Final Decision on State Water Pricing Application: 2014-15 – 2016-17*, 26 June 2014, p. 39.

⁵¹⁶ ACCC, *Public Inquiry into final access determinations for fixed line services – Final Decision*, 9 October 2015, p. 67.

Table 17: Key findings of MRP survey⁵¹⁷

Survey	Numbers of responses	Mean (%)	Median (%)	Mode (%)
Fernandez et al (2013)	73	5.9	6.0	N/A
KPMG (2013) ^a	19	N/A	6.0	6.0
Fernandez et al (2013)	17	6.8	5.8	N/A
Asher and Hickling (2013)	46	4.8	5.0	6.0
Fernandez et al (2014) ^b	93	5.9	6.0	N/A
Asher and Hickling (2015) ^c	27	4.4	4.6	6.0
Fernandez et al (2015)	40	6.0	5.1	N/A
KPMG (2015) ^d	27	N/A	6.0	6.0

Notes: **a** While this survey had 23 market participants, 19 specified what market risk premium they used; **b** the 2014 survey did not report the response rate. AER staff obtained this information from Professor Fernandez via email correspondence on 22 July 2014; **c** the response rate for this survey is lower than the response rate in previous Asher and Hickling surveys because the survey took place from 5 December 2014 to 14 December 2014, which was very close to Christmas. AER staff obtained the mode from Associate Professor Anthony Asher via email correspondence on 17 September 2015; **d** KPMG (2015) survey had 29 market participants, but figure 24 indicates that not all the market participants gave a response for the market risk premium. However, visual inspection indicates that the response rate was approximately 27.

It is important to note, the ACCC does not consider results of dividend growth models in determining MRP. The ACCC notes the following concerns identified in the AER's 2013 ROR guideline on dividend growth models:

- they are highly sensitive to its assumptions on long-term dividend growth rate and the length of transition to long term growth⁵¹⁸
- they use assumptions about one unobservable variable (expected growth in future dividends) to derive values for another unobservable variable (expected return on equity), meaning results depend on the assumptions used⁵¹⁹
- they require strong assumptions (for example, the term-structure of the discount rate, the trajectory of expected future dividends, the assumption that at each point of time the price of equity equals its fair value) about unobservable input variables (for example, the expected long-term growth rate of future dividends) when estimating the MRP⁵²⁰
- generate a market cost of equity excessively 'sticky' because:
 - dividends follow slowly with changes in profits, and are particularly 'sticky' downwards⁵²¹
 - dividend growth models make strong assumptions about the term-structure of the cost of equity

⁵¹⁷ KPMG, *Australian valuation practices survey 2015*, May 2015; Fernandez, Ortiz, Acin, *Discount rate (risk-free rate and market risk premium) used for 41 countries in 2015: a survey*, April 2015; Asher and Hickling, *Equity Risk Premium Survey 2014*, Actuaries Institute, April 2015; Fernandez, Linares, Acin, *Market Risk Premium used in 88 countries in 2014*, IESE Business School, June 2014; Asher and Hickling, *Equity Risk Premium Survey*, Actuary Australia, December 2013; Fernandez, Arguirreamalloa and Linares, *Market Risk Premium and Risk Free Rate used for 51 countries in 2013*, IESE Business School, June 2013; KPMG, *Valuation Practices Survey 2013*, February 2013; Fernandez, Arguirreamalloa and Corres, *Market Risk Premium used in 82 Countries in 2012*, IESE Business School, January 2013

⁵¹⁸ AER, *Explanatory Statement – Rate of Return Guideline (Appendices)*, 17 December 2013, p. 128.

⁵¹⁹ *Ibid.*, p. 172.

⁵²⁰ *Ibid.*, p. 155.

⁵²¹ McKenzie, Partington, *Report to the AER, Part A: Return on equity*, October 2014, pp. 29–30.

- tend to overestimate MRP in low interest rate environments and underestimate MRP in high interest rate environments.⁵²²

The ACCC notes the initial proposal and supplementary submission made by ARTC stating recent determinations by AER for a MRP of 6.5 per cent as being consistent with previous ACCC decisions. The ACCC considers that it is desirable to have a consistent approach to access regulation across industries. However, this does not necessarily imply that a decision in one industry serves as a binding regulatory precedent for a decision in another industry. It is important to note the ACCC makes its decisions in accordance with the framework set out in Part IIIA of the Act. In contrast, the AER makes its decisions in accordance with the frameworks set out in the *National Gas Law and Rules* and *National Electricity Law and Rules*.

Overall, the ACCC considers that a MRP of 6 per cent is appropriate.

14.5. Asset beta

The asset and equity betas reflect the systematic or non-diversifiable risk faced by a firm. The asset beta represents the risk of the ungeared firm, while equity beta incorporates business and financial risk. For this reason, equity beta is always greater than asset beta.

For both asset and equity beta, a value:

- less than one indicates a lower systematic risk relative to the market
- more than one indicates a higher systematic risk relative to the market.

14.5.1. ARTC proposal

ARTC proposes an asset beta of 0.475 and an equity beta of 0.99. It is important to note that ARTC's proposal differs from Synergies' recommendation for an asset beta of 0.47. ARTC states it is prepared to:

*reduce asset beta to provide an equity beta less than 1.0, whilst still maintaining a modest premium to the asset beta assigned to Aurizon on the Central Queensland Coal Network reflecting the higher risk nature of thermal coal which supports the Hunter Valley asset to Metallurgical Coal which supports the Aurizon network.*⁵²³

Synergies' based its recommendation to ARTC for an asset beta and equity beta of 0.47 and 0.98 respectively on the views:

- ARTC should not be compared to Aurizon Network
- the thermal coal market has already entered a structural decline.

First, Synergies' view is that ARTC should not be compared to Aurizon Network because the QCA compared Aurizon Network to energy networks and water utilities. Further, Synergies states it:

*cannot see how a firm that services an industry that is exposed to changes in the demand and supply of coal could be considered to have similar systematic risk to firms that provide an essential service, which at least in the case of household consumption is largely invariant to changes in economic activity.*⁵²⁴

⁵²² AER, *TransGrid draft decision – Attachment 3: Rate of return*, 27 November 2014, pp. 3 - 343–344.

⁵²³ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 30.

⁵²⁴ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 13.

Synergies also states that it does not agree with the argument that the revenue cap form of regulation is the primary factor driving Aurizon Network's systematic risk profile.⁵²⁵

Synergies states:

*a revenue cap only provides protection for the length of the regulatory period, which in the context of the long horizon of investors in infrastructure networks, is comparatively short. Take or pay contracts also provide some protection but only for the term of the contract, and then only while the counterparty remains solvent.*⁵²⁶

Synergies considers that the underlying demand profile for ARTC's Hunter Valley rail network is different to Aurizon Network, because coal producers utilising Aurizon Network produce metallurgical coal while ARTC predominately services the thermal coal export market.⁵²⁷ As such, Synergies considers that the cash flows and demand drivers from different buyers, users and ultimately purposes will result in a different risk profile for the two networks.⁵²⁸ This is because:

- coking [metallurgical] coal is an indispensable ingredient in steel production as it is almost pure carbon. Demand for coking coal is expected to be reasonably stable in the medium to long run⁵²⁹
- thermal coal is more abundant as it is 'wetter' than coking coal⁵³⁰
- the global shift to renewable energy will decrease demand for this type of coal in the middle to long run, with some analysts already suggesting that the thermal coal is in a 'structural decline'.⁵³¹

Second, Synergies considers that the thermal coal market has already entered a structural decline. Synergies states this is because:

- while ARTC's Hunter Valley network transports mainly thermal coal, all of the mines deemed completed or committed are mainly coking coal deposits and all other projects on this list have a high chance of not proceeding further⁵³²
- while the short to medium term demand outlook for thermal coal is flat, the global push for cleaner energy and carbon targets will depress long term demand for thermal coal and all of NSW's major export markets have set clean energy goals.⁵³³

Synergies notes its recommendation to ARTC was influenced by an expectation that ARTC's beta should be no higher than one.⁵³⁴ Compared to Aurizon Network, Synergies believes that some uplift is required to reflect the fact that the Hunter Valley rail network is predominantly used for thermal coal.⁵³⁵

As a result, Synergies recommended an asset beta of 0.47, which is only slightly higher than Aurizon Network's current asset beta of 0.45, and results in an equity beta of 0.98 at 52.5 per cent gearing.⁵³⁶

⁵²⁵ Ibid., p. 14.

⁵²⁶ Ibid.

⁵²⁷ Ibid.

⁵²⁸ Ibid.

⁵²⁹ Ibid., p. 15.

⁵³⁰ Ibid., p. 17.

⁵³¹ Ibid., p. 18.

⁵³² Ibid.

⁵³³ Ibid., p. 19.

⁵³⁴ Ibid., p. 20.

⁵³⁵ Ibid.

⁵³⁶ Ibid.

Comparison to 2011 HVAU

In the 2009 HVAU, ARTC proposed an asset beta of between 0.50 and 0.60 and an equity beta of between 0.99 and 1.32, based on advice from Synergies. In the Draft Decision for the 2009 HVAU, the ACCC considered that an asset beta of between 0.50 and 0.60 was unlikely to be appropriate. Rather, an asset beta of 0.50 was likely to be appropriate.

In the 2010 HVAU, ARTC proposed an asset beta of 0.55 and an equity beta of 0.94. In the Position Paper to the 2010 HVAU, the ACCC considered that an asset beta of 0.55 was not appropriate. Rather, an asset beta of 0.45 was appropriate.

In the revised 2010 HVAU, ARTC proposed an asset beta of 0.50 and an equity beta of 1.04. Subsequently in the 2011 HVAU, ARTC adopted an asset beta of 0.50 and an equity beta of 1.04.

Comparison to 2016 HVAU

In the 2016 HVAU, ARTC proposed an asset beta of 0.47 and an equity beta of 0.98. ARTC stated this value for asset and equity beta was driven by an acceptance that its risk was no greater than the market as a whole (effectively an equity beta of one).⁵³⁷ ARTC also states that there is evidence which supports an increasing level of systemic risk faced by ARTC in respect of its Hunter Valley assets.⁵³⁸

It is important to note that ARTC did not adopt Synergies' recommendation for an asset beta of 0.54 and equity beta of 1.13. In determining ARTC's asset and equity beta, Synergies considered ARTC's risk profile since its assessment for the 2009 HVAU (which recommended an asset beta of between 0.50 and 0.60) had changed sufficiently to warrant the application of a different beta.⁵³⁹

Synergies conducted their analysis in two stages:

- using first principles analysis to create a qualitative assessment of ARTC's risk profile⁵⁴⁰
- conducting an analysis of comparable companies to identify a set of companies that face similar systematic risk to ARTC.⁵⁴¹

First, in undertaking its first principles analysis of ARTC's risks, Synergies identified two changes since the last review for the 2009 HVAU:

- that the coal industry is facing a structural cost competitiveness problem⁵⁴²; indicating that although market conditions may improve and coal prices rise, Australian producers could emerge from this downturn with considerably lower market share⁵⁴³
- the introduction of long term contracts does not protect ARTC from volume risk in the medium to long term⁵⁴⁴; while in the short term, producers may have difficulties meeting TOP commitments.⁵⁴⁵

⁵³⁷ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 32.

⁵³⁸ Ibid.

⁵³⁹ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network*, July 2015, p. 43.

⁵⁴⁰ Ibid., p. 51.

⁵⁴¹ Ibid., p. 52.

⁵⁴² Ibid., p. 51.

⁵⁴³ Ibid.

⁵⁴⁴ Ibid.

⁵⁴⁵ Ibid.

Synergies stated that:

*it is possible that ARTC's systematic risk has increased...however, at least while the implications of the current industry environment remains uncertain, there is no case to conclude that ARTC's systematic risk has reduced.*⁵⁴⁶

Second, in undertaking an analysis of comparator companies, Synergies selected companies from the:

- International and Australian rail sector
- Australian industrial transport sector.

Table 18 sets out the results of Synergies' estimation of asset betas for comparable companies. For International and Australian rail operators, Synergies estimated an average asset beta of 0.704; while for Australian industrial transport sector, Synergies estimated an average asset beta of 0.585.

Table 18: Synergies' assessment of comparable companies to determine asset beta

Industry	Average asset beta
Railway operators	0.704
Australian industrial transport firms	0.585

Source: Synergies, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network*, July 2015, p. 51.

Synergies noted:

*ARTC's current asset beta remains below the lower bound of the range for the comparable companies. As noted above, it is possible that on balance, the structural shift in the relative competitiveness of the export coal industry has actually increased ARTC's systematic risk. However, at least while the nature and extent of this shift remains uncertain, there is no case to conclude that ARTC's systematic risk has reduced.*⁵⁴⁷

Further, Synergies noted that the existence of long-term contracts provides limited protection in the medium to long term.⁵⁴⁸

Synergies highlighted that its estimates have a number of deficiencies.⁵⁴⁹ This includes:

- under/overestimating the true return required by the market for firms with low/high measured betas⁵⁵⁰
- actual risk is likely to be better described by the more complex intertemporal capital asset pricing model, which takes into account that investors care about returns over multiple periods rather than a single period⁵⁵¹
- returns are influenced by factors other than systematic risk.⁵⁵²

⁵⁴⁶ Ibid., p. 52.

⁵⁴⁷ Ibid., p. 56.

⁵⁴⁸ Ibid.

⁵⁴⁹ Ibid.

⁵⁵⁰ Ibid.

⁵⁵¹ Ibid.

⁵⁵² Ibid., p. 57.

Synergies concluded that ‘on balance, we propose to retain ARTC’s current asset beta of 0.54. While it is possible that its beta has actually increased, there is certainly no case to reduce it’.⁵⁵³

14.5.2. Stakeholder submissions

2017 HVAU

HRATF submits that ARTC’s asset beta and equity beta should be 0.45 and 0.94 respectively.

2016 HVAU

HRATF proposed an asset beta of between 0.3 and 0.4, and an equity beta of 0.84. HRATF considered that ARTC’s asset beta should be materially lower than Aurizon Network’s and Queensland Rail’s asset betas of 0.45. This is because:

- ARTC and Aurizon Network are regulated under a revenue cap, whereas Queensland Rail is regulated under a price cap. HRATF considered that a revenue cap provides relatively more revenue certainty over the regulated period relative to a price cap.
- Queensland Rail has relatively little diversification in coal producers, with ARTC and Aurizon Network obtaining revenue from approximately 25 and 50 mines, respectively
- the Hunter Valley contains some of the lowest cost marginal producers of coal in Australia and is better equipped to deal with market challenges
- coal producers provide additional financial security to ARTC in form of bank guarantees and parent company guarantees
- Aurizon Network operates several different coal systems with limited cross system traffic, with each individual coal system having lower volumes and less diversification of users than the Hunter Valley
- Aurizon Network’s coal systems are each located in remote regional Queensland, and are geographically dispersed
- Aurizon Network and Queensland Rail are exposed to the risk of cyclones
- ARTC has rolling 10 year agreements. Aurizon Network’s access agreements have a term of 10 years with a right to renew, meaning that for an individual user the total future volume contracted to Aurizon will decline each year until renewal
- Aurizon Network faces the risk that the QCA may remove from its RAB the value of infrastructure which is deemed no longer to be required. This is not a risk faced by ARTC
- Aurizon Network’s depreciation profile is not based on WAML.⁵⁵⁴

Glencore stated it believed an appropriate asset beta for ARTC was between 0.27 and 0.36.⁵⁵⁵ Glencore stated this range was based on the following:

- Incenta Economic Consulting (Incenta), commissioned by the QCA to assess the asset and equity beta for Aurizon Network, evaluated beta for energy firms in Australia, New

⁵⁵³ Ibid.

⁵⁵⁴ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 28.

⁵⁵⁵ Glencore, *Submissions to the Australian Competition and Consumer Commission Hunter Valley Coal Network Access Undertaking submitted by Australian Rail Track Corporation (“ARTC”)*, 15 March 2016, p. 6.

Zealand and the United Kingdom under a revenue cap pricing model and estimated a mean of 0.32 and median of 0.27⁵⁵⁶

- a conventional asset beta by Glencore's analysis was a mean of 0.36 and median of 0.34.⁵⁵⁷

14.5.3. ACCC view

The ACCC considers that an asset beta of 0.47, resulting in an equity beta of 0.99, is not appropriate. Rather, the ACCC considers an asset beta of 0.45, resulting in an equity beta of 0.94, is appropriate. In coming to this view, the ACCC considered:

- the first principles of what an asset and equity beta represent
- the ACCC's view on asset beta in the Position Paper for the 2010 HVAU and changes since
- a comparison between Aurizon Network and ARTC's Hunter Valley network.

First principles

The ACCC considers it is important to set out clearly what an asset beta represents. Broadly, an asset beta is defined as the covariance between an asset's cash flows and that of the aggregate market.

One way a firm can reduce its asset beta is through decreasing its cyclicalities. That is, the strength of the positive correlation between a firm's earnings and the aggregate earnings of all real assets. To decrease the strength of this positive correlation, and therefore the asset beta, a firm can:

- hedge using financial derivatives or create natural hedges
- match revenues to cost or passing through costs to the consumers.

For ARTC, the ACCC considers a benchmark asset beta should first be selected based on comparable firms. Then, further adjustments are made to this initial asset beta to account for systematic risk mitigating factors. In particular, the ACCC considers that ARTC's ability to decrease its cyclicalities is critical. In that, ARTC's cash flows are regulated so revenue does not exceed Economic Cost and an unders and overs accounting mechanism applies through the annual compliance assessment (see chapter 11 of this Draft Decision). The ACCC considers this implies a low degree of cyclicalities for ARTC. In coming to a final asset beta, the ACCC considers this low degree of cyclicalities in the context of comparable firms.

Changes since the Position Paper for the 2010 HVAU

In the Position Paper for the 2010 HVAU, the ACCC considered that an asset beta of 0.45 was appropriate. In coming to this view, two key considerations of the ACCC were:

- systematic risks facing ARTC
- factors within the 2010 HVAU mitigating these risks.

In the Position Paper for the 2010 HVAU, the ACCC determined that the medium to long term demand for coal was likely to continue due to increasing demand from developing countries.⁵⁵⁸ However, the ACCC recognised that there may be risks on possible changes to

⁵⁵⁶ Ibid.

⁵⁵⁷ Ibid.

⁵⁵⁸ ACCC, *Position Paper in relation to the Australian Rail Track Corporation's proposed Hunter Valley Rail Network Access Undertaking*, 21 December 2010, p. 108.

policies regarding climate change affecting coal demand. The ACCC noted it was difficult to quantify this risk and acknowledged that it may contribute to a quantum of risk.⁵⁵⁹

The ACCC identified a number of features within the 2010 HVAU, which was also present during the 2011 HVAU, which enabled ARTC to mitigate this systematic risk. This included:

- long term TOP contracts providing certainty on a significant proportion of ARTC's revenue⁵⁶⁰
- the use of loss capitalisation for PZ3, which should:
 - mitigate the impact of under-recovery in that Zone
 - reduce the likelihood that over the term of the regulatory period it cannot earn a return on its investment.⁵⁶¹
- asset lives are estimated conservatively⁵⁶²
- ARTC can require the demonstration of financial viability from access seekers prior to entering access contracts.⁵⁶³

In the context of the 2017 HVAU, the ACCC recognises that ARTC faces systematic risks. For example, while there is expected to be continued demand for thermal coal over the short to medium term, there are potential policy changes in response to international agreements on climate change that would affect future thermal coal demand and use of ARTC's network (to the extent this represents a systematic risk). However, the ACCC considers that the nature and severity of these systematic risks has not significantly changed.

Further, the ACCC considers ARTC continues to have powerful risk mitigation factors, which can mostly mitigate for the systematic risks it faces. In particular:

- the use of long-term TOP contracts
- loss capitalisation for PZ3
- demonstrations of financial viability from access seekers
- unders and overs accounting of revenue as part of the annual compliance assessment.

Therefore, the ACCC considers the asset beta for ARTC should not change from 0.45 as set out in the Position Paper for the 2010 HVAU.

Comparison of Aurizon Network and ARTC's Hunter Valley network

The ACCC notes both ARTC and HRATF express the view the Hunter Valley network should be benchmarked against Aurizon Network in the QCA. In particular, ARTC states:

*ARTC is prepared to adjust the MRP consistent with previous ACCC rulings and reduce asset beta to provide an equity beta less than 1.0, whilst still maintaining a modest risk premium to the asset beta assigned to Aurizon on the Central Queensland Coal Network reflecting the higher risk nature of thermal coal which supports the Hunter Valley asset to Metallurgical Coal which supports the Aurizon network.*⁵⁶⁴

⁵⁵⁹ Ibid.

⁵⁶⁰ Ibid.

⁵⁶¹ Ibid.

⁵⁶² Ibid.

⁵⁶³ Ibid.

⁵⁶⁴ ARTC, 2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide, 9 December 2016, p. 30.

While HRATF states:

Our view is that a careful analysis of risks faced by ARTC compared to other regulated rail service providers on the east coast of Australia strongly supports our position that ARTC's asset beta should be materially lower than the level observed (and determined) for Aurizon and QR.⁵⁶⁵

The ACCC considers that it is important to compare Aurizon Network and ARTC's Hunter Valley rail network, especially in the context of their ability to mitigate risk. Table 19 sets out this summary.

In light of this information, the ACCC considers ARTC has a slightly better ability to mitigate systematic risks compared to Aurizon Network. Therefore, the ACCC considers ARTC's asset beta should be equal to or lower than that of Aurizon Network.

Overall view

The ACCC considers that an asset beta of 0.475 is not appropriate. Rather, the ACCC considers that an asset beta of 0.45 is an appropriate and conservative value. Broadly, the ACCC considers:

- in comparison to the ACCC's view in the Position Paper for the 2010 HVAU:
 - ARTC's systematic risk remains unchanged
 - the 2017 HVAU continues to have a variety of mechanisms that allow ARTC to mitigate systematic risk
- the 2017 HVAU provides ARTC with various features that enable it to have more stable cash flows compared to Aurizon Network.

Therefore, the ACCC considers there should be no change from the asset beta of 0.45 in the Position Paper for the 2010 HVAU as ARTC's systematic risk and mechanisms mitigating these are unchanged. In addition, the ACCC considers that ARTC should have an asset beta equal to or less than the 0.45 determined by QCA for Aurizon Network, as ARTC's cash flows are likely to be more stable than Aurizon Network.

⁵⁶⁵ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 28.

Table 19: Comparison of risk mitigating factors for ARTC’s Hunter Valley network and Aurizon Network

Source	ARTC’s Hunter Valley network	Aurizon Network
Long term TOP contracts	<p>Long-term contracts for 10 years and allow ARTC to recover both its avoidable and unavoidable fixed costs from the mines. These contracts also have a high TOP component (up to 90 per cent of access revenue). ARTC can also alter the share of TOP in total access charges each year.</p> <p>This means ARTC experiences smoothed cash flows as Access Holders have contracted commitments. For example, between 2014–15 and 2015–16, ARTC’s access revenue decreased 0.4 per cent.⁵⁶⁶</p> <p>Also, even if all Access Holders exit the industry, ten year TOP commitments means ARTC will receive access revenue for at least 10 years.</p> <p>Both of these outcomes mean ARTC can effectively hedge against any major effects from cyclicalities.</p>	<p>Long-term contracts between 10 and 15 years allow Aurizon Network to recover both its avoidable and unavoidable fixed costs from the mines that remain on the network.</p> <p>These contracts also have a high TOP component (70 per cent) and serves to considerably stabilise expected future cash flow.⁵⁶⁷</p> <p>If there is a drop in volume, Aurizon Network will experience a drop in non-TOP charges, however Aurizon Network will also avoid the variable component of operating costs and maintain profit margins.</p> <p>This will hedge Aurizon from experiencing any major effects from cyclicalities.⁵⁶⁸</p>
Asset life and depreciation	<p>ARTC’s WAML is lower than the functional lives of ARTC’s assets. For example, concrete sleepers and earthworks have an economic life 50 years.⁵⁶⁹ This allows ARTC to front-load the depreciation of its assets to minimise any future fixed expenses in the long term.</p>	<p>Aurizon Network’s assets are given a rolling 20 year depreciation period which is significantly lower than the functional lives of many of its assets. This allows Aurizon to front-load the depreciation of its assets to minimise any future fixed expenses in the long term.</p>
Revenue and cost reconciliation	<p>ARTC uses an unders and overs reconciliation process to recoup any shortfall in revenue. While a fall in volumes may increase the risk of one or several miners defaulting or not renewing their TOP contracts, the under/overs reconciliation process will simply raise the effective unit fixed charges so that ARTC’s cash flows are unaffected.</p>	<p>Aurion Network uses an adjusted tariff. In the event that the take-or pay mechanism does not recover a revenue shortfall, it will be recovered 2 years later through an adjusted tariff.⁵⁷⁰</p>

⁵⁶⁶ ARTC, *2016 Annual Report*, 19 September 2016, p. 14.

⁵⁶⁷ Incenta, *Review of Regulatory Capital Structure and Asset/Equity Beta for Aurizon Network and response to stakeholder comments*, Report for QCA, April 2014, p. 10

⁵⁶⁸ Ibid.

⁵⁶⁹ Worsley Parson and Evans & Peck, *Depreciated optimised replacement cost calculation for additional segments of the ARTC network: Gap to Turravan valuation report*, 28 June 2013, p. 59.

⁵⁷⁰ Incenta, *Review of Regulatory Capital Structure and Asset/Equity Beta for Aurizon Network and response to stakeholder comments*, Report for QCA, April 2014, p. 36.

Source	ARTC's Hunter Valley network	Aurizon Network
Capitalised losses	ARTC is able capitalise losses in PZ3 to be recouped in the future. The default of one or several mines will simply raise the capitalised losses that can be recouped from the remaining mines originating from that zone. As a result this will smooth out cash flows over time.	Not available.

14.6. Gamma

Gamma (γ) represents the value of tax credits, otherwise referred to as imputation credits, generated by the regulated business that could be distributed in the form of franked dividends to shareholders. Imputation credits arise because Australian personal taxpayers receive a tax credit for the company tax paid that is embedded in company dividend distributions. Gamma is included in the ROR calculation because imputation credits are valued by investors as they can offset personal income tax liabilities.

Gamma has generally been defined for regulatory purposes as the product of the:

- distribution rate (F)—the proportion of imputation credits that are distributed by companies
- utilisation rate (θ)—the value an average investor places on \$1 of franking credits.

That is:

$$\gamma = F \times \theta$$

14.6.1. ARTC proposal

ARTC proposes a gamma of 0.25, based on advice from Synergies.⁵⁷¹ Synergies states:

There have been continuing developments in the valuation of gamma with three appeals to the Australian Competition Tribunal (the Tribunal) concluded in 2016, with one of these currently subject to a further appeal to the Federal Court.⁵⁷²

Synergies also states:

In three of the four appeals the Tribunal found in favour of the applicants. In two of the decisions the Tribunal has found the value of gamma to be 0.25. In the other it remitted the decision back to the AER to remake, while finding that the value of gamma should be no higher than 0.3. In the most recent appeal, the Tribunal adopted a different position and found in favour of the AER.⁵⁷³

Synergies' concern with the AER approach:

is that it places most weight on the utilisation approach. We do not agree that the utilisation approach arrives at a value of theta from the perspective of an investor.

⁵⁷¹ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 31.

⁵⁷² Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 4.

⁵⁷³ Ibid.

*We remain of the view that this can only be informed by market values, consistent with all of the other parameters in the WACC.*⁵⁷⁴

Synergies concludes that the value of gamma must be considered from the perspective of investors, which based on the best available evidence, is currently a value of 0.25.⁵⁷⁵

Comparison to 2011 HVAU

In the 2009 HVAU, ARTC proposed a gamma of zero, based on advice from Synergies.⁵⁷⁶ In the Draft Decision for the 2009 HVAU, the ACCC formed a view that a gamma of zero was unlikely to be appropriate. Rather, a gamma of 0.65 was appropriate.⁵⁷⁷

In the 2010 HVAU, ARTC proposed a gamma of 0.50, due to a gamma of 0.50 applying to the 2008 IAU. In the Position Paper for the 2010 HVAU, the ACCC formed a view a gamma of 0.50 was appropriate.⁵⁷⁸

In the revised 2010 HVAU, ARTC proposed a gamma of 0.45, a value lower than what it had proposed in the initial 2010 HVAU.⁵⁷⁹ Subsequently in the 2011 HVAU, ARTC implicitly adopted a gamma of 0.45.⁵⁸⁰

Comparison to 2016 HVAU

In the 2016 HVAU, ARTC proposed a gamma of 0.40.⁵⁸¹ It is important to note that this proposed gamma was different from Synergies' recommendation for a gamma of 0.25. Synergies stated that a gamma of 0.25 is preferred given the decision by the Tribunal in relation to the AER's Statement of Regulatory Intent in the 2009 WACC guidelines review.⁵⁸²

14.6.2. Stakeholder submissions

2017 HVAU

HRATF proposes a gamma of 0.45.⁵⁸³ HRATF states that the ACCC should adopt the more comprehensive process and rigorous analysis undertaken by the AER.⁵⁸⁴ As such, HRATF states that a value for gamma of 0.45, as applied in the 2011 HVAU decision, continues to be appropriate.⁵⁸⁵

⁵⁷⁴ Ibid.

⁵⁷⁵ Ibid.

⁵⁷⁶ ARTC, *Hunter Valley Access Undertaking 2009 Explanatory Guide*, 13 May 2009, p. 107.

⁵⁷⁷ ACCC, *Australian Rail Track Corporation Limited – Hunter Valley Coal Network Access Undertaking – Draft Decision – 5 March 2010*, p. 533.

⁵⁷⁸ ACCC, *Position Paper in relation to the Australian Rail Track Corporation's proposed Hunter Valley Rail Network Access Undertaking*, 21 December 2010, p. 114.

⁵⁷⁹ ARTC, Revised Application 2010 HVAU, *ARTC Hunter Valley Access Undertaking Rate of Return*, 13 April 2011, p. 4.

⁵⁸⁰ Ibid.

⁵⁸¹ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 33.

⁵⁸² Synergies Economic Consulting, *The Rate of Return to Apply to ARTC's Hunter Valley Coal Network*, July 2015, pp. 63-66

⁵⁸³ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 4.

⁵⁸⁴ Ibid.

⁵⁸⁵ Ibid.

2016 HVAU

HRATF proposed a gamma of 0.45, stating that there has been insufficient evidence to justify a change from the 2011 HVAU.⁵⁸⁶ Castalia stated a gamma of 0.45 remains consistent with the academic reviews from experts in the field, empirical evidence, and engagement with Australian Tax Office.⁵⁸⁷ Furthermore, Castalia noted the QCA adopted a gamma of 0.47 in recent decisions related to Aurizon Network in Queensland.⁵⁸⁸

In addition, HRATF noted that it considers the recent decision by the Tribunal in relation to the AER's revenue determination for Ausgrid recommending a gamma of 0.25 not appropriate for ARTC.⁵⁸⁹ This is because the Tribunal's decision was in relation to electricity distribution and not below-rail.

14.6.3. Supplementary submissions on the 2017 HVAU

On 22 February 2017, ARTC provided a supplementary submission to the ACCC. This was in response to HRATF's submission to the 2017 HVAU consultation paper. ARTC states:

the ACCC did not make a determination on WACC [rate of return] in the 2011 HVAU approval. Therefore the statement that the ACCC approved a gamma of 0.45 is factually incorrect.

ARTC reinforces its view that a gamma of 0.25 reflects market based assessments of the value of gamma, thereby ensuring consistency of methodology across all WACC [rate of return] parameters.⁵⁹⁰

14.6.4. ACCC view

The ACCC considers that a gamma of 0.25 is not appropriate. Rather, the ACCC considers that a gamma of 0.40 is appropriate. In coming to this view, the ACCC has considered:

- AER analysis and decisions
- QCA analysis and decisions for Aurizon Network.

First, the AER considers a gamma of 0.4, selected within a range of 0.3 to 0.5, as reasonable.⁵⁹¹ In coming to this view, the AER conducted analysis on the values utilisation and distribution rates using:

- different methods for determining the utilisation rate
- data on equity for all companies and only listed companies.

Table 20 sets out the results of this analysis.

⁵⁸⁶ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 28.

⁵⁸⁷ Castalia, *Review of Synergies WACC Analysis for ARTC*, 11 March 2016, p. 5.

⁵⁸⁸ Ibid.

⁵⁸⁹ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 28.

⁵⁹⁰ ARTC, *RE: WACC responses*, 22 February 2017, p. 2.

⁵⁹¹ AER, *SA Power Networks determination 2015-2020: Attachment 4 – Value of imputation credits*, 29 October 2015, p.16.

Table 20: AER estimates of utilisation rate, distribution rate and gamma

Utilisation rate evidence	Utilisation rate	Distribution rate	Gamma
<i>Evidence from all equity</i>			
–Equity ownership approach	0.56 to 0.68	0.70	0.40 to 0.47
–Tax statistics	0.45	0.70	0.31
<i>Evidence from listed equity</i>			
–Equity ownership approach	0.38 to 0.55	0.77	0.29 to 0.42
–Implied market value studies	0 to 1	0.77	0 to 0.77
–SFG dividend drop off study	0.35	0.77	0.27

Source: AER, *SA Power Networks determination 2015-2020: Attachment 4 – Value of imputation credits*, 29 October 2015, p. 16.

Overall, the AER determines a gamma of 0.40 is reasonable because:

the equity ownership approach, on which we [AER] have placed the most reliance, suggests a value between 0.40 and 0.47 when applied to all equity and between 0.29 and 0.42 when applied to only listed equity. Therefore, the overlap of the evidence from the equity ownership approach suggests a value between 0.40 and 0.42.

the evidence from tax statistics suggests the value could be lower than 0.4. Therefore, with regard to this evidence and the less reliance we place on it, we choose a value at the lower end of the range suggested by the overlap of evidence from the equity ownership approach (that is, 0.4).

the evidence from SFG's dividend drop off study also suggests that the value could be lower than 0.4. However, we place even less reliance on this evidence. We therefore consider that choosing a value at the lower end of the range suggested by the overlap of evidence from the equity ownership approach (that is, 0.4) has appropriate regard to the merits of SFG's evidence. Moreover, evidence from other implied market value studies suggests that the value could be both higher or lower than 0.4.⁵⁹²

Second, the ACCC notes analysis and the decision made by the QCA in setting a gamma of 0.47 for Aurizon Network.⁵⁹³ Aurizon Network operates and manages the CQCN. The QCA's estimate for a gamma of 0.47 comprises an utilisation rate of 0.56 and distribution rate of 0.84.

The QCA sought advice from Dr Martin Lally (Capital Financial Consultant) on values for the utilisation and distribution rates. For the utilisation rate, the QCA considered results from various estimation methods—including dividend drop off studies (estimating 0.35), redemption approach (estimating 0.53) and equity ownership approach (estimating 0.56).⁵⁹⁴ The QCA concluded 'the equity ownership approach provides the best available estimate of

⁵⁹² Ibid., pp.18–19.

⁵⁹³ QCA, *Final decision – Aurizon Network 2014 access undertaking – Volume IV – Maximum Allowable Revenue*, 28 April 2016, p. 282.

⁵⁹⁴ QCA, *Draft decision – Aurizon Network 2014 draft access undertaking –Maximum Allowable Revenue*, 30 September 2014, pp. 254–261.

the utilisation rate and represents a conservative estimate'.⁵⁹⁵ For the distribution rate, the QCA used an estimated developed by Dr Lally, which estimated the average distribution rate of the 20 largest ASX companies (by market capitalisation) directly from their financial statements from 2000 through 2013.⁵⁹⁶

The ACCC notes two recent decisions of the Tribunal on gamma. First, the decision of the Tribunal on a merits review of the AER's 2015–16 to 2019–20 revenue determination for SA Power Networks released on 28 October 2016.⁵⁹⁷ A key aspect of SA Power Network's application for leave for merits review was on the issue of gamma. The AER adopted a gamma of 0.40 for SA Power Network in the revenue determination; however SA Power Network sought this to be changed to 0.25. The Tribunal affirmed the AER's revenue determination, including a gamma of 0.40.⁵⁹⁸

Second, the decision made by the Tribunal for gamma in relation to a merits review of the AER's 2014–15 to 2018–19 revenue determination for Ausgrid on 26 February 2016.⁵⁹⁹ In this decision, the Tribunal found that the AER had made errors in its revenue determination and set aside the decision—in particular finding gamma should be set to 0.25 instead of 0.40.⁶⁰⁰ On 24 March 2016, the AER applied to the Federal Court for judicial review of the Tribunal's decision to set aside the revenue determination. As at April 2017, the Federal Court is yet to hand down its decision on this matter.

In light of the above, the ACCC considers that a gamma of 0.40 is appropriate. This view draws on the analysis of the AER and the other available information set out above.

14.7. Tax rate

The ACCC calculates a ROR after corporate tax and any imputation credits (see gamma) that have been accounted for elsewhere in cash flows. Removing these tax impacts requires adjusting a calculated ROR for corporate tax.

14.7.1. ARTC proposal

ARTC proposes the corporate tax rate of 30 per cent.

Comparison to 2011 HVAU

In the 2011 HVAU, ARTC adopted the corporate tax rate of 30 per cent.

Comparison to 2016 HVAU

In the 2016 HVAU, ARTC proposed the corporate tax rate of 30 per cent.

14.7.2. Stakeholder submissions

2017 HVAU

HRATF supports the corporate tax rate of 30 per cent.⁶⁰¹

⁵⁹⁵ QCA, *Final decision – Aurizon Network 2014 access undertaking – Volume IV – Maximum Allowable Revenue*, 28 April 2016, p. 261.

⁵⁹⁶ *Ibid.*, p. 256.

⁵⁹⁷ Application by SA Powers Networks [2016] ACompT 11.

⁵⁹⁸ *Ibid.*

⁵⁹⁹ Applications by Public Interest Advocacy Centre Ltd and Ausgrid [2016] ACompT 1.

⁶⁰⁰ *Ibid.*

⁶⁰¹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 16.

2016 HVAU

HRATF supported a tax rate of 30 per cent, with Castalia noting that this is the standard regulatory tax rate.⁶⁰²

14.7.3. ACCC view

The ACCC considers that a tax rate of 30 per cent is appropriate as this is the current corporate tax rate.

14.8. Gearing

Gearing is the proportion of capital funding sourced through debt as opposed to equity. The gearing level weights the return on equity and cost of debt in the ROR formula.

Where the firm's capital structure is highly geared (that is, the firm has a high level of debt) and holding all else equal, this implies greater financial risk for the firm and therefore a greater required ROR for equity holders. Importantly, gearing is not reflective of the observed proportion of the regulated firm that is financed through debt. Rather, it is the long-term gearing that an efficient firm in the industry would target.

14.8.1. ARTC proposal

ARTC proposes a gearing ratio of 52.5 per cent, based on advice from Synergies.

Synergies did not provide any further reasons to adjust the gearing ratio in its report. However, Synergies acknowledges that the gearing ratio may need to be revisited at the next review of the HVAU.⁶⁰³

Comparison to 2011 HVAU

In the 2010 HVAU, ARTC initially proposed a gearing ratio of 52.5 per cent.⁶⁰⁴ The ACCC considered in the Position Paper to the 2010 HVAU that a gearing ratio of 52.5 per cent was appropriate.⁶⁰⁵

In the 2011 HVAU, ARTC adopted a gearing ratio of 52.5 per cent.

Comparison to 2016 HVAU

ARTC proposed a gearing ratio of 52.5 per cent, based on advice from Synergies.⁶⁰⁶ Synergies' noted that gearing was set at 52.5 per cent in the previous regulatory period. It states to justify a change in gearing from this, there would have to be:

- a material and persistent change in ARTC's risk profile, suggesting that it could sustain either more or less debt
- a material difference in the average gearing levels maintained by similar firms.⁶⁰⁷

⁶⁰² Castalia, *Review of Synergies WACC Analysis for ARTC*, 11 March 2016, p. 6.

⁶⁰³ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 24.

⁶⁰⁴ ARTC, *Hunter Valley Access Undertaking 2010 Explanatory Guide – Revised rate of return proposal*, 7 September 2010, p. 21.

⁶⁰⁵ ACCC, *Position Paper in relation to the Australian Rail Track Corporation's proposed Hunter Valley Rail Network Access Undertaking*, 21 December 2010, p. 102.

⁶⁰⁶ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 33.

⁶⁰⁷ Synergies Economic Consulting, *The rate of return to apply to ARTC's Hunter Valley coal network*, July 2015, p. 20.

Synergies highlighted a number of possible benchmarks for gearing ratio. For example, for US Class 1 railways 'the range for gearing is between 22 per cent and 66 per cent, with an average of around 40 per cent'.⁶⁰⁸ However, Synergies stated these firms have a higher risk profile (and hence lower gearing ratio) due to exposure to competition for their above-rail arms. Synergies also recognised that regulated water and electricity business in Australia have used a gearing ratio of 60 per cent, but argued these firms have lower risk profiles than ARTC and hence should hold relatively more debt.⁶⁰⁹

14.8.2. Stakeholder submissions

2017 HVAU

HRATF supports a gearing ratio of 52.5 per cent.⁶¹⁰

2016 HVAU

HRATF supported a gearing ratio of 52.5 per cent, based on advice from Castalia.⁶¹¹ Castalia stated the 52.5 per cent gearing ratio is prudent and should continue to be used and that this low level of gearing is consistent with a low risk rating for ARTC debt.⁶¹²

14.8.3. ACCC view

The ACCC considers that a gearing ratio of 52.5 per cent is appropriate. In coming to this view, the ACCC has considered:

- the ACCC's Position Paper on the 2010 HVAU
- the 2014 Aurizon Network Draft Access Undertaking
- agreement between ARTC and HRATF on this issue.

First, the ACCC considered in the Position Paper for the 2010 HVAU that a gearing ratio of 52.5 per cent was appropriate.⁶¹³ Since the Position Paper on the 2010 HVAU, the ACCC considers that ARTC's financial risk has not significantly changed.

Second, the QCA accepted a gearing ratio of 55 per cent for Aurizon Network in the Final Decision for the 2014 Aurizon Network Draft Access Undertaking.⁶¹⁴ The ACCC notes Aurizon Network operates and manages the CQCN and has some similarities to ARTC's Hunter Valley rail network.

The QCA engaged Incenta to advise an appropriate benchmark capital structure for Aurizon Network. Incenta considered a range of compactor groups (including rail, coal, transport, regulated energy and regulated water) and compared the earnings volatility of the business to Aurizon Network. Incenta concluded an appropriate benchmark capital structure for Aurizon Network was 55 per cent debt and 45 per cent equity.⁶¹⁵

⁶⁰⁸ Ibid.

⁶⁰⁹ Ibid., p. 21.

⁶¹⁰ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 16.

⁶¹¹ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 27.

⁶¹² Castalia, *Review of Synergies WACC Analysis for ARTC*, 11 March 2016, p. 6.

⁶¹³ ACCC, *Position Paper in relation to the Australian Rail Track Corporation's proposed Hunter Valley Rail Network Access Undertaking*, 21 December 2010, p. 102.

⁶¹⁴ QCA, *Final decision – Aurizon Network 2014 access undertaking – Volume IV – Maximum Allowable Revenue*, 28 April 2016, p. 217.

⁶¹⁵ Ibid., p. 212.

Third, the ACCC notes that both ARTC and HRATF agree on a gearing ratio of 52.5 per cent.

Therefore, the ACCC considers that a gearing ratio of 52.5 per cent is appropriate.

14.9. Inflation

To determine a ROR, firstly the nominal ROR is calculated using nominal values. However, the real ROR is needed to determine return on capital. Therefore, a measure of expected inflation is needed to determine the real ROR.

14.9.1. ARTC proposal

ARTC proposes an inflation rate of 1.27 per cent, based on advice from Synergies.⁶¹⁶ ARTC states it is proposing a:

reversion to the calculation of inflation based on the Fisher method (being that used by the AER up to the GFC [Global Financial Crisis]) as comparing the difference between nominal and indexed bonds.⁶¹⁷

ARTC notes Australia is entering a phase of low inflation, so the:

application of the current regulatory approach of utilising the mid-point of the RBA inflation target (2.5 per cent) as the appropriate forecast for inflation will therefore significantly overestimate inflation and, given the risk free rate calculation is based on spot market data, result in a negative real risk free rate. Such a negative real rate result is contrary to the bond market realities and highlight the flaws in utilising the current methodology.⁶¹⁸

Further, Synergies states:

The RBA has acknowledged the difficulty of maintaining its inflation target when the cash rate approaches zero. With traditional monetary policy it can become difficult to influence inflation for a number of reasons. It may be impossible to cut rates further, banks may stop passing on the rate cuts, or people and businesses lose confidence in the economy and do not want to consume or invest as a result. At this point inflation cannot be influenced by traditional methods.⁶¹⁹

Synergies states that while the RBA is predicting a return to target band inflation by the end of 2017, Synergies notes the RBA's forecasts to be more optimistic as it does not want to undermine its credibility in moving inflation back to within its target band.⁶²⁰

Synergies explains that using the approach that has previously been applied by the AER and the ACCC, which is likely to materially overstate inflation, at least for the 5 year horizon of the 2016 HVAU.⁶²¹ With this assumption, using an approach that is likely to materially overstate inflation significantly increases the risk of forecast error⁶²² and that alternative approaches to forecast inflation therefore need to be considered.⁶²³

⁶¹⁶ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p.31.

⁶¹⁷ *Ibid.*, p.30.

⁶¹⁸ *Ibid.*

⁶¹⁹ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 28.

⁶²⁰ *Ibid.*

⁶²¹ *Ibid.*, p. 29.

⁶²² *Ibid.*, p. 30.

⁶²³ *Ibid.*

Synergies set out its alternative method for determining inflation based on Treasury Indexed Bonds. Synergies notes:

*Treasury Indexed Bonds reveal expectations of inflation via change in the difference between the face value and the nominal value of the bond (being the inflation adjusted face value). Investors in these bonds (whether they are hedgers or speculators) will trade in them depending on their exposure to, and/or their expectations of, future inflation. The market's expectation of future inflation can be derived by comparing the yields on inflation indexed bonds and nominal bonds, using the Fisher equation.*⁶²⁴

Using 10 year Commonwealth Government nominal and indexed bond yields, Synergies calculates inflation of 1.27 per cent, which Synergies believes is a reasonable indication of the market's consensus view on expected inflation.⁶²⁵

Comparison to 2011 HVAU

In the 2009 HVAU, ARTC did not propose an inflation rate or estimation method despite the fact that an annual inflation forecast is required to calculate ARTC's real pre-tax ROR for the purposes of section 4.4 of the 2009 HVAU. However, implicit in ARTC's ROR estimates was an inflation rate of 2.5 per cent, equivalent to the centre of the target inflation range of the RBA.

In the Draft Decision for the 2009 HVAU, the ACCC noted:

*Until recently, the ACCC commonly used the Fisher equation to estimate future inflation in revenue determinations for regulated firms. However, since a 2007 National Economic Research Associates (NERA) report, which argued that indexed Commonwealth Government Bonds are biased due to a lack of supply, the ACCC has been cautious of using this method to forecast inflation.*⁶²⁶

Further, the ACCC considered an inflation forecast based on current RBA short forecasts and then on the centre of the RBA target range beyond where short term forecasts are published would be likely to be appropriate.⁶²⁷

In the 2010 HVAU, ARTC subsequently proposed an inflation rate of 2.5 per cent (set at the underlying RBA inflation target).⁶²⁸ In the Position Paper on the 2010 HVAU, the ACCC did not form a view on the inflation rate as ARTC had adopted the ACCC's view from the Draft Decision on the 2009 HVAU.

Finally, in the 2011 HVAU, ARTC implicitly adopted an inflation rate of 2.5 per cent as part of the negotiated outcome between ARTC and coal producers.

Comparison to 2016 HVAU

ARTC proposed an inflation rate of 1.5 per cent, based on advice from Synergies. ARTC stated a key principle in its ROR proposal was having inflation reflecting its actual rate rather than a long term forecast.⁶²⁹ Further, ARTC states:

⁶²⁴ Ibid.

⁶²⁵ Ibid., p. 31.

⁶²⁶ ACCC, *Australian Rail Track Corporation Limited – Hunter Valley Coal Network Access Undertaking – Draft Decision – 5 March 2010*, p. 539.

⁶²⁷ Ibid.

⁶²⁸ ARTC, *Hunter Valley Access Undertaking 2010 Explanatory Guide – Revised rate of return proposal*, 7 September 2010, p. 8.

⁶²⁹ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 33.

*The valuation of inflation at its existing rate is critical to the ARTC position as it is accepting significantly greater systemic and funding risk through the changes in equity beta and market calculations based at historical lows; and cannot accept even greater risk of valuing inflation at a higher forecast level than current levels. The principle of valuing parameters at their current rates underpins the negotiated outcome being pursued by ARTC with Industry.*⁶³⁰

Synergies calculated the annual increase in Sydney's CPI to September 2015, but excluded housing due to speculation in Sydney's housing market.⁶³¹

14.9.2. Stakeholder submissions

2017 HVAU

HRATF proposes an inflation rate of 2.5 per cent, because it contains the following features:

- is simple, transparent and easily replicated
- is both internally consistent and appropriate — by aligning the inflation forecast period with the debt term implicit in the cost of debt analysis
- is not subject to estimation bias or error and so is likely to improve regulatory certainty and reduce the scope for gaming
- provides for a consistency of approach between regulatory periods.⁶³²

HRATF states it acknowledges:

*Australia is going through a period of low inflation, and on current forecasts, it is possible that average inflation until the next pricing review under the HVAU may be less than the mid-point of the RBA target.*⁶³³

However, HRATF states that even though there is a period of low inflation, it is not a sufficient reason to change the 'inflation factor' for the calculation of the WACC.⁶³⁴ Further, HRATF states there does not need to be an accurate forecast of inflation as long as the 'inflation' rate used in the calculation of the real WACC is the same as the rate used in escalating the RAB.⁶³⁵

HRATF notes the AER's Ausnet Services decision, which supports its view that it is important in maintaining consistency in approach to inflation between regulatory periods — and in particular that it is not appropriate to switch on a decision by decision basis.⁶³⁶

HRATF states:

regardless of what the actual inflation turns out to be, the investor receives full compensation for inflation and enjoys Financial Capital Maintenance.

The use of a notional forecast inflation both to calculate the 'real' WACC and to roll forward the RAB means that any risk of inflation forecast error is eliminated, and the "inflation" adjustment simply becomes a deferral factor, i.e.:

⁶³⁰ Ibid., p. 32.

⁶³¹ Synergies Economic Consulting, *Updated calculation of WACC Inputs*, 21 December 2015, p. 3.

⁶³² HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 9.

⁶³³ Ibid.

⁶³⁴ Ibid.

⁶³⁵ Ibid.

⁶³⁶ Ibid., p. 13.

- a higher inflation adjustment back-ends return of capital; and
- a lower inflation adjustment front-ends return of capital.⁶³⁷

HRATF considers this will not affect the total return since investors will always receive the market expectation of inflation in the nominal WACC.⁶³⁸

HRATF considers the advantage of a long run forecast is that:

- the return profile will be stable⁶³⁹
- the RBA midpoint forecast:
 - reflects an orthodox and independent assessment of forecast inflation⁶⁴⁰
 - is routinely adopted by other regulatory models⁶⁴¹
 - reduces the scope for disputes at each reset.⁶⁴²

HRATF considers that ARTC's proposal for inflation will, if inflation expectations vary materially, introduce unnecessary volatility to the profile of investor returns.⁶⁴³ As a result, continued use of the 2.5 per cent adjustment provides such stability to the time profile of returns, while ensuring Financial Capital Maintenance for ARTC.⁶⁴⁴

HRATF notes it was concerned about the accuracy of ARTC's inflation forecast, as the forecast period that matters is not the length of the pricing period but the tenor of the risk free rate.⁶⁴⁵ Further, HRATF notes the correct measure of expected inflation for converting nominal returns into real returns is expected inflation over the life of the 10 year nominal CGS bond from which the inflation estimate is being removed.⁶⁴⁶ HRATF states this is consistent with the approach recommended by Synergies where they 'derived the inflation estimate based on 10 year Commonwealth Government nominal and indexed bond yields as at 30 June 2016'.⁶⁴⁷

2016 HVAU

HRATF proposed an inflation rate of 2.5 per cent.⁶⁴⁸ This represents the mid-point of the official RBA target band. HRATF argued using actual inflation rather than expected inflation is a non-standard regulatory approach.⁶⁴⁹

⁶³⁷ Ibid., p. 9.

⁶³⁸ Ibid.

⁶³⁹ Ibid., p. 10.

⁶⁴⁰ Ibid.

⁶⁴¹ Ibid.

⁶⁴² Ibid.

⁶⁴³ Ibid.

⁶⁴⁴ Ibid., p. 11.

⁶⁴⁵ Ibid.

⁶⁴⁶ Ibid., p. 12.

⁶⁴⁷ Synergies Economic Consulting, *The Rate of Return to apply to ARTC's Hunter Valley Coal Network: Update*, October 2016, p. 31.

⁶⁴⁸ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 29.

⁶⁴⁹ Castalia, *Review of Synergies WACC Analysis for ARTC*, 11 March 2016, p. 18.

14.9.3. Supplementary submissions on the 2017 HVAU

On 22 February 2017, ARTC provided a supplementary submission to the ACCC. This was in response to HRATF's submission to the 2017 HVAU consultation paper. ARTC states the critical priorities for inflation forecasting are that it should be:

- accurate
- consistent with the underlying methodology used for all market parameters being market calculations reflecting rates at the time of lodgement; particularly the risk free bond rate.⁶⁵⁰

Further, ARTC states:

*Market outcomes are, in the view of ARTC, the most objective form of data available. Market rates of the nominal bond (used in setting both debt and equity returns) reflect the inflation expectations of the market of the investment horizon. It is therefore entirely appropriate to align the market's view of inflation with the nominal bond rate, given the critical nature of that bond rate in the WACC [rate of return] determination.*⁶⁵¹

14.9.4. ACCC view

The ACCC considers an inflation rate of 1.27 per cent, using the difference between nominal and indexed CGS bond yields, is not appropriate. Instead, the ACCC considers an inflation rate of 2.40 per cent, using a weighted geometric average of RBA forecasts and mid-band inflation target, is appropriate.

In coming to this view, the ACCC has considered:

- forward-looking estimates of inflation
- issues in ARTC's inflation method
- previous ACCC and AER decisions.

First, the ACCC considers an inflation forecast adopted for determining the ROR should be forward-looking and takes into consideration expected returns. For this reason, the ACCC considers that ARTC's initial proposal in the 2016 HVAU for using actual inflation in a ROR calculation is a novel and unorthodox approach.

Second, the ACCC considers there are significant issues inherent in ARTC's proposed approach in the 2017 HVAU. That is, the difference between the nominal and indexed CGS yields does not exclusively represent inflation expectations but incorporates (but is not limited to):

- convexity biases⁶⁵²
- liquidity premiums⁶⁵³
- inflation risk premiums.⁶⁵⁴

⁶⁵⁰ ARTC, *RE: WACC responses*, 22 February 2017, p. 1.

⁶⁵¹ Ibid.

⁶⁵² K Apedjinou, P Misram and A Pradhan, *A TIPS valuation framework*, *Fixed Income Research—US Interest Rate Strategy*, *Lehman Brothers*, 2006, pp. 1–20.

⁶⁵³ see A Moore, 'Measures of inflation expectations in Australia', *RBA Bulletin*, December 2016, pp.23–31; C Pflueger and L Viceira, 'Return Predictability in the Treasury Market: Real Rates, Inflation, and Liquidity', Working Paper, 2015; R Finlay and D Olivan, 'Extracting information from financial market instruments', *RBA Bulletin*, March 2012, pp. 45–54; R Finlay and S Wende, 'Estimating inflation expectations with a limited number of inflation-indexed bonds', *RBA Research Discussion Paper*, March 2011, pp. 1–35.

Therefore, the ACCC considers that the estimates derived from ARTC's proposed method do not accurately represent expected inflation.

Third, the ACCC and AER in recent decisions have used a geometric average of the RBA's inflation forecasts in the Statements of Monetary Policy and the mid-point of the RBA's inflation targeting band over a 10 year period. For example, this approach was used in:

- the ACCC's Fixed Line Services Final Determination⁶⁵⁵
- the AER's SA Power Networks Revenue Determination 2015–16 to 2020–21.⁶⁵⁶

The ACCC considers this to be an appropriate method as it is transparent, replicable and simple to employ. In addition, analysis by the RBA has shown inflation expectations have become anchored to the RBA target inflation band since inflation targeting was introduced.⁶⁵⁷

Therefore, the ACCC considers that a geometric average of RBA inflation forecasts and mid-band target inflation over a 10 year period be used to calculate inflation. The ACCC considers a 10 year period (between 1 July 2016 and 30 June 2026) for calculating inflation is preferable as it aligns it with the period used for calculating the risk-free rate and debt risk premium. The ACCC notes this inflation calculation period does not match to the expiry date of the 2017 HVAU however, the ACCC considers it is preferable to have consistency in the estimation of the ROR parameter values.

However, a complication is that the ROR, and therefore inflation, is calculated as at 30 June 2016. Therefore, the ACCC considers inflation forecasts that would have been available at the 30 June 2016 should be used. As such, the ACCC draws its inflations forecasts from the RBA Statement of Monetary Policy published in May 2016.

Figure 16 sets out the financial year expected inflation rates used in the ACCC's calculation and the calculated geometric inflation rate of 2.40 per cent.

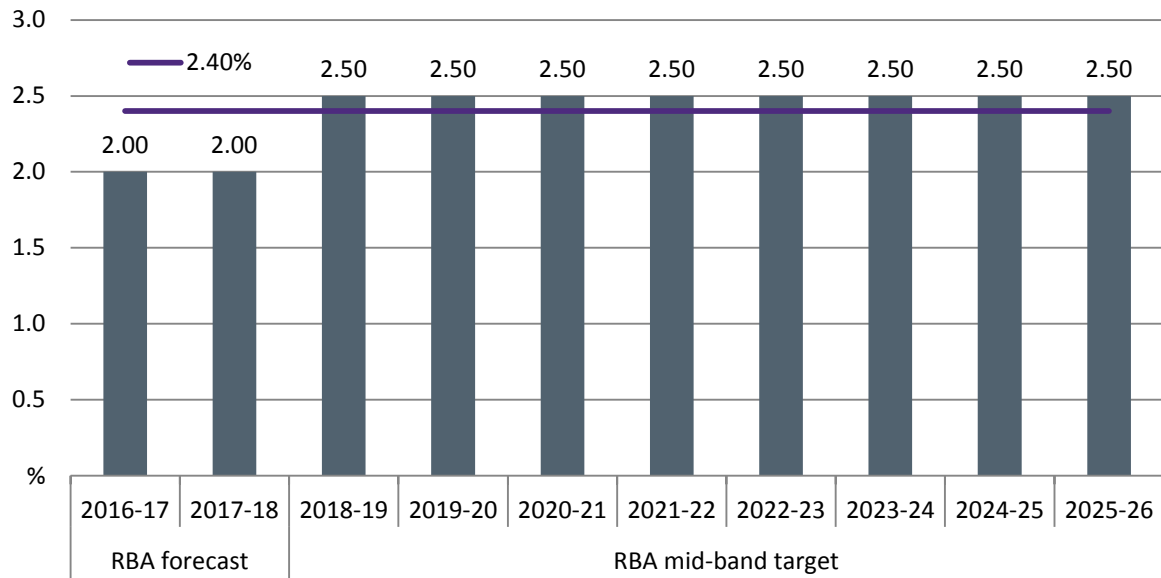
⁶⁵⁴ see C Pflueger and L Viceira, 'Return Predictability in the Treasury Market: Real Rates, Inflation, and Liquidity', Working, 2015; S D'Amico, D Kim and M Wei, 'Tips from TIPS: The informational content of Treasury Inflation-Protected Security prices', *Finance and Economics Discussion Series*, Divisions of Research and Statistics and Monetary Affairs, Federal Reserve Board, 2014–24, pp. 1–69; R Finlay and S Wende, 'Estimating inflation expectations with a limited number of inflation-indexed bonds', *RBA Research Discussion Paper*, March 2011, pp. 1–35.

⁶⁵⁵ ACCC, *Public Inquiry into final access determinations for fixed line services – Final Decision*, 9 October 2015, p. 66.

⁶⁵⁶ AER, *SA Power Networks determination 2015 to 2019: Attachment 3 – Rate of Return*, 29 October 2015, pp.252–253.

⁶⁵⁷ see C Gillitzer and J Simon, 'Inflation targeting: A victim of its own success?', Research Discussion Paper, RBA, August 2015; S Leu and J Sheen, 'Asymmetric monetary policy in Australia', *The Economic Record*, vol 82 no1, pp. 85-96.

Figure 16: Financial year expected inflation rates and calculated geometric mean



Source: RBA, *Inflation target*, viewed 15 March 2017, www.rba.gov.au/inflation/inflation-target.html; RBA, *Statement of Monetary Policy*, May 2016, p. 61.

15. Structure of access charges—coal

This chapter sets out the methodology by which ARTC will determine access charges for coal customers. ARTC proposes a path based approach to pricing where access charges are made up of two components—a TOP component charged on a Train Km basis, and a non-TOP component charged on a GTK basis. ARTC proposes that TOP and non-TOP Charges will apply to all train configurations that are consistent with the characteristics outlined in the Services Envelope.

The ACCC has not formed a view on ARTC's proposal to use Train Km as the basis for the TOP component of access charges. The ACCC does not have sufficient information to determine whether this proposal encourages the economically efficient use of the Network because ARTC has not provided enough evidence of the cost drivers for Incremental Capital Costs and Fixed Costs in the Network. The ACCC requires further information from ARTC in order to form a view.

The ACCC considers ARTC's proposal to use GTK as the basis for the non-TOP component of access charges is appropriate, subject to ARTC providing further information on the cost drivers of activities recovered by non-TOP Charges, and subject to minor amendments.

The ACCC considers ARTC's proposal to use a Services Envelope is appropriate, subject to ARTC providing guidelines for consultation between ARTC and stakeholders on changes to section run times.

15.1. ARTC proposal

Pricing Unit for TOP and non-TOP Charges

In the 2017 HVAU, ARTC proposes a 'path based pricing' methodology for access charges for coal customers. Under section 4.12(a) of the 2017 HVAU, charges may be on the basis of a combination of two components:

- A TOP component, charged on a Train Km basis for each Pricing Zone.
- Actual usage (**non-TOP**), charged on a GTK basis for each Pricing Zone.

As outlined in section 4.14(a) of the 2017 HVAU, ARTC's objectives in setting charges are to achieve:

- the full recovery of Incremental Maintenance Costs from all Access Holders via non-TOP Charges
- the maximum permitted recovery of Incremental Capital Costs and Fixed Costs through TOP Charges.

The definition of Incremental Maintenance Costs, Incremental Capital Costs and Fixed Costs are discussed further in chapter 8 of this Draft Decision.

Services Envelope

TOP and non-TOP Charges will apply to all train configurations within the range (Services Envelope) specified in section 4.15(c) of the 2017 HVAU, which are given in Table 21 below.

Table 21: Services Envelope characteristics for each Pricing Zone

Segments	Services Envelope characteristics
Pricing Zone 1	Maximum length: 1543 metres Maximum axle load: 30 tonnes Maximum speed (empty): 80 kmh Maximum speed (loaded): 60 kmh Sectional running times (must meet) – As published on ARTC’s website from time to time
Pricing Zone 2	Maximum length: 1543 metres Maximum axle load: 30 tonnes Maximum speed (empty): 80 kmh Maximum speed (loaded): 60 kmh Sectional running times (must meet) – As published on ARTC’s website from time to time
Pricing Zone 3	Maximum length: 1329 metres Maximum axle load: 30 tonnes Maximum speed (empty): 60 kmh Maximum speed (loaded): 60 kmh Sectional running times (must meet) – As published on ARTC’s website from time to time

Note: Schedule E of the 2017 HVAU provides a list of the Segments applicable to each Pricing Zone.
Source: Based on Section 4.15(c) of the 2017 HVAU.

The access charges associated with the Services Envelope characteristics are referred to as Standard Access Charges in the 2017 HVAU and AHA.

Section 4.16 outlines ARTC’s considerations in formulating access charges for coal customers whose train configuration falls outside the Services Envelope. In particular, section 4.16(b) provides provisions for train configurations that are restricted by other networks it traverses, irrespective of whether it is within or outside the Services Envelope. In this situation ARTC may have regard to the particular characteristics of the Other Network required to utilise the Access Rights sought and the characteristics of Services capable of being operated on the Other Network.

ARTC’s proposed approach to TOP Charges also has implications for other parts of the 2017 HVAU. This includes disputing Standard Access Charges, RCG voting rights and endorsing capacity or innovation projects. These changes are discussed in further detail in chapters 15, 19 and 20 of this Draft Decision, respectively.

ARTC proposes to make a number of changes to the AHA to reflect the use of Train Km and introduction of the Services Envelope. These proposed changes include:

- amendments to section 11.5(b) to clarify that if ARTC consents to the use or operation of a Non-Compliant Service that is outside the Services Envelope, then ARTC may update the TOP Charges and Innovation Charges to reflect the characteristics of the Non-Compliant Services used or operated by the Access Holder.
- updating Schedule 3, which outlines the formulas used to calculate TOP and non-TOP Charges, to reflect the proposed change to charging the TOP component on the basis of Train Km. Schedule 3 has also been updated to reflect the use of the Services Envelope and Standard Access Charges in the 2017 HVAU.

ARTC notes that the charging formula set out in the AHA is a new Tier 1 (Mandatory) Provision. If accepted, these changes will be automatically incorporated into existing AHAs.⁶⁵⁸ ARTC's proposed AHA is discussed further in chapter 22 of this Draft Decision.

ARTC submits that it proposes to move away from the indicative services approach used in the 2011 HVAU, due to the divergent views within industry on the final indicative service.⁶⁵⁹ The indicative services approach is discussed further below. ARTC submits that path based pricing '...is consistent with developments across the 2017 HVAU to focus on the efficiency of the utilisation and costs of running the network'.⁶⁶⁰

In addition, ARTC submits that path based pricing, combined with the Services Envelope significantly simplifies pricing for the majority of coal train services.⁶⁶¹ ARTC also notes that:

*The adoption of path based pricing will reward the consumption of Capacity by higher payload trains compared to lower payload trains and to that extent provides an appropriate incentive to utilise the Network efficiently, but it removes the requirement for ARTC to form (and impose on Access Holders) a judgement as to what is the most appropriate train configuration, provided that the train falls within the Services Envelope.*⁶⁶²

ARTC proposes adopting Train Km as the pricing unit for TOP Charges in the 2017 HVAU as it reflects the length of a train journey, and that this was necessary because a Train Path utilises the Network for only the Segments traversed.⁶⁶³ ARTC also notes that pricing on the basis of train paths, independent of volume, provides an incentive to increase the volume per path, reducing the price per tonne.⁶⁶⁴

ARTC notes that it retained GTK as the basis for non-TOP Charges as it reflects the Incremental Maintenance Costs caused by each train, which is broadly related to the gross tonnes traversing the Network.⁶⁶⁵

15.1.1. Comparison to 2011 HVAU

Under the 2011 HVAU, both TOP and non-TOP Charges were levied on a GTK basis. The TOP component of the access charge was intended to:

- fully recover NCC over the economic life of new investments; and
- recover some or all FCC from applicable Access Holders on the basis of forecast network usage. The proportion of FCC recovered through TOP Charges was to be consistently applied to all Access Holders holding Coal Access Rights within a Pricing Zone.⁶⁶⁶

The non-TOP component of the access charge was designed to fully recover VCC and the proportion of FCC that was based on actual network usage. These cost components are discussed further in chapter 8 of this Draft Decision.

⁶⁵⁸ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 10.

⁶⁵⁹ *Ibid.*, p. 9.

⁶⁶⁰ *Ibid.*

⁶⁶¹ *Ibid.*

⁶⁶² *Ibid.*, p. 26.

⁶⁶³ *Ibid.*

⁶⁶⁴ *Ibid.*, p. 9.

⁶⁶⁵ *Ibid.*, p. 26.

⁶⁶⁶ Section 4.13(a) of the 2011 HVAU.

The 2011 HVAU specified access charges using the concept of the Indicative Service, which varied according to train characteristics. The characteristics were intended to represent the coal train configuration(s) that would contribute to achieving optimum utilisation of the Network.⁶⁶⁷

The Indicative Services characteristics are largely the same as those specified in the Services Envelope (see Table 21). Exceptions to this are:

- Indicative Services specified the maximum number of wagons for each service, whereas this is not included as a characteristic in the Services Envelope
- the length of trains in PZ3 is 1350 metres in the 2011 HVAU, but 1329 metres in the 2017 HVAU. ARTC notes that all train services currently contracted by ARTC meet the Services Envelope criteria.⁶⁶⁸

ARTC noted that at the time the 2011 HVAU was developed, stakeholders raised concerns about whether GTK was the appropriate pricing unit for encouraging the efficient use of capacity. In response, ARTC noted that there was an absence of any reliable network or coal chain capacity modelling that would enable access pricing (in particular pricing differentials) that would incentivise efficient use of capacity with any confidence.⁶⁶⁹ On this basis, ARTC considered that GTK was a reasonable approach until pricing incentives could be determined in a reliable and robust manner.⁶⁷⁰

In its December 2010 Position Paper, the ACCC noted stakeholders' concerns about the use of GTK. In light of these concerns, it recommended that the development of the Final Indicative Services should include consideration of whether GTK was the appropriate pricing unit to promote the efficient use of capacity in the Network.⁶⁷¹

The 2011 HVAU provided for the following multi-stage approach to developing Indicative Services:

- Stage one – Interim Indicative Services, which applied from the commencement of the 2011 HVAU (in accordance with section 4.19)
- Stage two – Initial Indicative Services, which utilised existing HVCCC modelling, developed within 5 months of the commencement of the 2011 HVAU (in accordance with section 4.17)
- Stage three – Final Indicative Services, which utilised more advanced HVCCC modelling, developed within 30 months of the commencement of the 2011 HVAU (in accordance with section 4.18). This included a review of the appropriateness of GTK in promoting the efficient use of capacity in the Network.

In December 2011, ARTC submitted a variation to the 2011 HVAU to implement Initial Indicative Services characteristics and associated access charges for ACCC assessment, in line with stage two noted above.⁶⁷² During the assessment process, ARTC proposed to defer the implementation of Initial Indicative Access Charges to 1 January 2013.⁶⁷³ ARTC

⁶⁶⁷ ACCC, *Position Paper – Australian Rail Track Corporation's Hunter Valley Coal Network Access Undertaking – Final Indicative Services variation*, 1 August 2014, p. 5.

⁶⁶⁸ *Ibid.*, p. 27.

⁶⁶⁹ ARTC, *Hunter Valley Access Undertaking – Section 4.18 Determination of the Final Indicative Service – is gtkm the appropriate pricing unit to encourage efficient consumption of Capacity?*, October 2013, p. 5.

⁶⁷⁰ *Ibid.*, p. 6.

⁶⁷¹ ACCC, *Position Paper in relation to the Australian Rail Track Corporation's proposed Hunter Valley Rail Network Access Undertaking*, 21 December 2010, p.134.

⁶⁷² ARTC, *Application for variation for Hunter Valley Coal Network Access Undertaking*, 1 December 2011.

⁶⁷³ ACCC, *Further consultation on Initial Indicative Service variation – ARTC proposal to defer implementation of Initial Indicative Access Charges*, 26 July 2012.

withdrew its application in August 2012.⁶⁷⁴ ARTC submitted a new variation to the ACCC in September 2012, which the ACCC consented to in October 2012. The resulting characteristics of the Initial Indicative Services are presented in Table 22 below.

Table 22: Initial Indicative Services characteristics for each Pricing Zone

Segments	Initial Indicative Service characteristics
Pricing Zone 1	Maximum axle load: 30 tonnes Maximum speed (empty): 80 kmh Maximum speed (loaded): 60 kmh 96 wagon train length Maximum length: 1543 metres Sectional running times as per applicable Hunter Valley standard working timetable
Pricing Zone 2	Maximum axle load: 30 tonnes Maximum speed (empty): 80 kmh Maximum speed (loaded): 60 kmh 96 wagon train length Maximum length: 1543 metres Sectional running times as per applicable Hunter Valley standard working timetable
Pricing Zone 3	Maximum axle load: 25 tonnes Maximum speed (empty): 80 kmh Maximum speed (loaded): 60 kmh 82 wagon train length Maximum length: 1350 metres Sectional running times as per applicable Hunter Valley standard working timetable

Note: Schedule E of the 2011 HVAU provides a list of the Segments applicable to each Pricing Zone.
 Source: ACCC, *Decision in relation to Australian Rail Train Corporation's Hunter Valley Rail Network Access Undertaking – Initial Indicative Service Variation*, 17 October 2012, pp. 19-20

In January 2014, ARTC submitted a variation to the 2011 HVAU to implement Final Indicative Services and associated access charges for ACCC assessment, in line with stage three noted above.⁶⁷⁵ Following two rounds of consultations, the ACCC found there remained divergent views within industry on the characteristics of the Final Indicative Services.⁶⁷⁶ In light of this, ARTC withdrew the variation in November 2014.⁶⁷⁷

As part of the process for determining Final Indicative Services, ARTC consulted with the HVCCC, Access Holders and Operators on whether GTK was the appropriate pricing unit to encourage efficient consumption of Capacity.⁶⁷⁸ As a result of these consultations, ARTC considered, in the context of Indicative Services, that GTK was the appropriate pricing unit, as it did not consider that an alternative pricing unit would deliver any significant benefit in

⁶⁷⁴ ARTC, *Variation of Hunter Valley Coal Network Access Undertaking (HVAU) to incorporate the Initial Indicative Services – withdrawal of variation application*, 15 August 2012.

⁶⁷⁵ ARTC, *Application for variation of Hunter Valley Coal Network Access Undertaking*, 31 January 2014.

⁶⁷⁶ ACCC, *Re: ARTC Hunter Valley Coal Network Access Undertaking – withdrawal of the proposed Final Indicative Services Variation*, 10 November 2014.

⁶⁷⁷ ARTC, *Variation of Hunter Valley Coal Network Access Undertaking (HVAU) to incorporate the Final Indicative Service – withdrawal of variation application*, 7 November 2014.

⁶⁷⁸ Section 4.18(b)(i) of the 2011 HVAU.

encouraging efficient use/consumption of capacity.⁶⁷⁹ The ACCC agreed with ARTC's submission, but noted that the appropriateness of GTK as a pricing unit should continue to be reviewed for future undertakings.⁶⁸⁰

Section 4.13(b)(iv) of the 2011 HVAU included a provision that FCC, recovered through TOP Charges, should be applied consistently to all Access Holders holding Coal Access Rights within a Pricing Zone. This has been removed from the 2017 HVAU. ARTC noted that this was due to repetition.

15.1.2. Comparison to 2016 HVAU

ARTC's path based pricing proposal in the 2017 HVAU is largely the same as that proposed in the 2016 HVAU.

The definition of the costs recovered by TOP and non-TOP Charges differed slightly in the 2016 HVAU. Specifically, under the 2016 HVAU:

- the TOP component of charges were intended to fully recover fixed operating and capital related costs
- the non-TOP component were intended to achieve the full recovery of the Direct Costs from all Access Holders on the basis of actual network usage.⁶⁸¹

The only area of difference in the Services Envelope characteristics relates to services traversing PZ3. In the 2016 HVAU the maximum speed of an empty train was 80 kmh, but is 60 kmh in the 2017 HVAU. Section 4.15(c) in the 2017 HVAU states that this is in the process of revision with the staged 30 tonne axle load program implementation.

15.2. Stakeholder submissions

15.2.1. 2017 HVAU

Aurizon

Aurizon supports modifications to the approach taken in the 2011 HVAU to improve simplicity and transparency.⁶⁸² In addition, Aurizon supports ARTC's proposal for non-TOP Charges to be based on GTK for services within the Services Envelope. However, it considers that subsequent differentiation (outside the Services Envelope) should be supported by engineering and econometric analysis.⁶⁸³

Aurizon, however, has raised a number of concerns about the use of Train Km for the TOP component of access charges. These concerns are outlined below.

The need for path based pricing

Aurizon raises concerns about the need for path based pricing, submitting that there is no evidence from ARTC to suggest that capacity is sufficiently scarce to require a strong capacity signal to promote upstream or downstream investment.⁶⁸⁴ Aurizon notes that the

⁶⁷⁹ ARTC, *Application to vary the 2011 Hunter Valley coal network access undertaking to provide for adoption of the Final Indicative Services and charges in accordance with section 4.18(b) – Supporting Documentation*, January 2014, p. 50.

⁶⁸⁰ ACCC, *Position Paper – Australian Rail Track Corporation's Hunter Valley Coal Network Access Undertaking – Final Indicative Services variation*, 1 August 2014, p. 36.

⁶⁸¹ Section 4.14(b) of the 2016 HVAU.

⁶⁸² Aurizon, *2017 ARTC Hunter Valley Access Undertaking*, 3 February 2017, p. 6.

⁶⁸³ *Ibid.*, p. 22.

⁶⁸⁴ *Ibid.*, p. 10.

volume of coal exported from the Port of Newcastle in 2016 remains well below the Port's capacity, and that ARTC has submitted that there is downward pressure on the demand for coal in the Hunter Valley.⁶⁸⁵ Aurizon also notes that the 2016 Hunter Valley Corridor Capacity Strategy does not identify any 'immediate investment requirements in [PZ1] to meet current or prospective volumes and only minor investment in [PZ2] to meet prospective volumes'.⁶⁸⁶

Aurizon also submits that an incentive price for capacity has not been needed to increase the volume per path over the course of the 2011 HVAU. In particular, Aurizon notes that based on data from the 2016 Hunter Valley Corridor Capacity Strategy, the average volume of coal per path has increased by approximately 17 per cent since the 2011 HVAU commenced.⁶⁸⁷

Aurizon considers that 'the incremental cost of alleviating a capacity constraint is relatively low and materially less than that implied by the proposed [path based pricing]'.⁶⁸⁸ This is based on the cost of ARTC Network Control Optimisation, which Aurizon submits is a project which would allow a higher utilisation rate of the Hunter Valley Rail Network.⁶⁸⁹ Aurizon submits that a significant capacity uplift can be obtained for a modest capital investment of \$30 million.⁶⁹⁰ Aurizon considers transparency on the incremental cost of capital can only be achieved if the price per Train Km for projects related to rail corridor strategies is disclosed. Aurizon submits that this will demonstrate whether Train Km is the appropriate measure for the forward-looking cost of capacity, and assist the RCG on the 'materiality of the project'.⁶⁹¹

Interaction with other sections of the 2017 HVAU

Aurizon submits that the incentive path based pricing provides to increase the volume of coal hauled per path can lead to an Access Holder reducing the number of paths it requires. However, Aurizon is concerned that the 2017 HVAU and AHA retains provisions for Access Holders to find alternative uses for the train paths it no longer requires.⁶⁹²

Aurizon submits that retaining such provisions is incompatible with the objectives of path based pricing, and the issue of path based pricing and path relinquishment 'cannot be considered in isolation, particularly when the current demand environment and available capacity... is considered'.⁶⁹³ Aurizon considers that this can be addressed by either:

- a path based pricing approach which promotes heavy and longer trains and a mandatory obligation to permanently vary train paths to select a heavier and longer train
- a weaker incentive on a capacity price and an appropriate mechanism for relinquishment which minimises cost transfers.

Aurizon's submission on capacity management is discussed in further detail in chapter 18 of this Draft Decision.

⁶⁸⁵ Ibid., p. 9.

⁶⁸⁶ Ibid., p. 10.

⁶⁸⁷ Ibid.

⁶⁸⁸ Ibid., p. 12.

⁶⁸⁹ Ibid., p. 11.

⁶⁹⁰ Ibid.

⁶⁹¹ Ibid., p. 12.

⁶⁹² Ibid.

⁶⁹³ Ibid.

The effect on competitiveness

Aurizon notes that Frontier Economics' report on ARTC's path based pricing proposal for the 2016 HVAU indicates that while the effect on individual producers may not be great, the relative effect may have implications for individual users' competitiveness.⁶⁹⁴

Aurizon submits that its investment in rolling stock in the Hunter Valley is both complementary and sunk, and there is limited prospect of being able to use that rolling stock without modification outside of the Hunter Valley.⁶⁹⁵ Aurizon also notes that given the 30 year physical and economic life of its wagons, if changes in structure of access charges had been foreseeable at the time of investment, it would have chosen different rolling stock.⁶⁹⁶

Aurizon considers that the path based pricing proposal increases regulatory uncertainty, which it considers has implications for efficiency or productivity related investments. In particular, Aurizon submits that a rail operator may not pursue productivity enhancing investments where:

*...a rail operator has concerns that future changes to the pricing framework may have the effect of expropriating the efficiency gains from that investment through value transfers to other users.*⁶⁹⁷

Alternatively, Aurizon considers that such regulatory risk could lead to above-rail operators factoring such risk by charging higher haulage rates, which would increase the overall cost of rail freight.⁶⁹⁸

Whether path based pricing is efficient

Aurizon raises a number of concerns about whether the structure of prices for coal access in the 2017 HVAU is efficient. In particular, Aurizon submits that:

- the variable cost charge does not include all avoidable costs
- the capacity charge exceeds the incremental costs associated with capacity, as a significant proportion of total fixed costs have a weak relationship with Train Km
- common and fixed costs that are unrelated to incremental capacity are not allocated in a competitively neutral manner.⁶⁹⁹

Aurizon submits that in a uniform pricing framework, the allocation of common costs should not distort competition in upstream or downstream markets. It considers that a 'competitively neutral' pricing unit, such as net tonnes, net tonne kilometres may be a more efficient approach to allocating common and joint costs which are not identified as incremental to a particular user.⁷⁰⁰ Aurizon submits that GTK may act as a proxy for net tonne kilometres given the 'relative homogeneity in axle load and train speed'.⁷⁰¹

⁶⁹⁴ Ibid., p. 7.

⁶⁹⁵ Ibid., p. 18.

⁶⁹⁶ Ibid.

⁶⁹⁷ Ibid.

⁶⁹⁸ Ibid.

⁶⁹⁹ Ibid.

⁷⁰⁰ Ibid., p. 13.

⁷⁰¹ Ibid.

Aurizon submits than an alternative approach to the structure of access charges is:

- a variable charge levied on a GTK basis, which reflects the direct short run marginal costs of usage
- a capacity charge levied on a Train Km or per path basis, based on the contracted paths
- a 'common costs' charge levied on a GTK basis, allowing ARTC to recover the balance of its efficient costs.⁷⁰²

Aurizon considers that its alternative approach is more reflective of cost drivers in the network and consistent with projected market conditions, while retaining a productivity incentive.⁷⁰³

Centennial Coal

Centennial Coal notes that it transports all its coal through the Sydney Trains network, which has restrictions that limits the amount of coal it can transport to 3500 tonnes per train. In contrast, trains in the Hunter Valley are capable of transporting at least 7000 tonnes of coal.

Centennial submits that under ARTC's proposed approach, its per tonne cost of transporting coal to the Port of Newcastle could double.⁷⁰⁴ Centennial considers that the 2017 HVAU should:

*...formally [recognise] the restrictions of the adjoining networks and ensure that no disadvantage in the pricing of access will result from any pricing mechanism in the proposed HVAU.*⁷⁰⁵

HRATF

HRATF raised concerns about the removal of section 4.13(b) of the 2011 HVAU from the 2017 HVAU. In particular, HRATF considered that section 4.13(b)(ii), the objective of achieving the maximum recovery of FCC and NCC from all users, was an important and central objective to the tariff setting process. HRATF considered that this objective should remain irrespective of whether it was a duplication of another section.⁷⁰⁶

HRATF also submitted that section 4.13(b)(iv) of the 2011 HVAU should remain in the 2017 HVAU. This section stated that the proportion of FCC recovered through TOP Charges would be consistently applied to all Access Holders holding Coal Access Rights within a Pricing Zone. HRATF considered that the section should remain as the issue of consistency and non-discrimination in the treatment of costs and charges is critical to users.⁷⁰⁷

HRATF also considered that section 4.14(a)(i) of the 2017 HVAU should specifically refer to non-TOP Charges. HRATF submitted that such a change would make the section consistent with 4.14(a)(ii), which specifically refers to TOP Charges.

Idemitsu

Idemitsu submits that ARTC's path based pricing proposal does not consider, or provide an incentive to, Access Holders who are already using the most efficient configuration the rail

⁷⁰² Ibid., pp. 19-20.

⁷⁰³ Ibid., pp. 20-21.

⁷⁰⁴ Centennial Coal, *Centennial Submission on 2017 HVAU – Per Path Pricing*, 3 February 2017, p. 1.

⁷⁰⁵ Ibid.

⁷⁰⁶ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC submission*, 6 February 2017, p. 75.

⁷⁰⁷ Ibid.

infrastructure will allow. In particular, Idemitsu notes that PZ3 users will pay a ‘significantly higher rate in [PZ1] compared to other Access Holders’.⁷⁰⁸

Idemitsu also raises concerns that ARTC has not provided updated pricing estimates to individual Access Holders, to provide Access Holders with a greater understanding of the effects of ARTC’s proposed approach.

Pacific National

Pacific National supports ARTC’s proposed approach, noting that it has:

*...consistently put forward the position that larger and higher payload trains configured with sufficient power to operate within system assumptions are the most efficient trains for the Hunter Valley coal supply chain. Pacific National continues to hold this view and believes that the Hunter Valley coal supply chain is best served by providing access pricing incentives for larger and higher payload trains.*⁷⁰⁹

Pacific National also reiterated its concerns, raised in its submission to the 2016 HVAU (as Asciano), about the proposed Services Envelope characteristics. This is discussed in further detail in 15.2.2 below. Pacific National considers that the Services Envelope characteristics and pricing structure should be included in the mandatory review process (section 2.3 of the 2017 HVAU).

Whitehaven

Whitehaven reiterates its view, raised in its submission to the 2016 HVAU, that producers should be charged a similar rate per tonne when they are using the maximum configuration allowed by the infrastructure. Whitehaven considers that ‘path based pricing in [PZ1] leads to higher charges for [PZ3] producers despite the fact they are operating the most efficient [train] allowed in [PZ3]’.⁷¹⁰ However, Whitehaven also notes that it:

*...believes Path Based Pricing should be adjusted to equalize costs per tonne (subject to the minimum Service Envelop[e] for the journey is met), we believe that the Revenue Allocation drafting proposed by ARTC provides a reasonable and balanced position for all users of the Hunter Valley Coal Chain and would therefore endorse the Path Based Pricing concept as drafted.*⁷¹¹

15.2.2. 2016 HVAU

Asciano (now Pacific National)

Asciano submitted that ARTC’s proposed approach to access pricing has the potential to encourage more efficient utilisation of capacity in the Hunter Valley coal rail network.⁷¹² However, Asciano also considered that the proposed pricing structure should form part of the mandatory review of the 2016 HVAU, in order to assess whether the proposed pricing structure provides the incentives for the efficient consumption of capacity.

Asciano considered that GTK was the appropriate pricing unit for non-TOP Charges.

⁷⁰⁸ Idemitsu, *Consultation Paper – ARTC’s 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 3.

⁷⁰⁹ Pacific National, *Pacific National Submission to the ACCC on the ARTC Proposed 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 5.

⁷¹⁰ Whitehaven, *Whitehaven, Whitehaven Coal response to ACCC Consultation paper on ARTC’s draft [2017] Hunter Valley Access Undertaking*, 3 February 2017, p. 3.

⁷¹¹ Ibid.

⁷¹² Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 15.

Asciano submitted that it did not support ARTC's proposed Services Envelope, and raised the following concerns:

- The Services Envelope should also include minimum restrictions for coal trains to remove the potential for any grossly inefficient usage of paths.
- Maximum speeds should be removed from the Services Envelope as they are technical and engineering matters and not primarily a commercial matter.
- The sectional run times included in the Services Envelope are not contained in the 2016 HVAU, but published on the ARTC website. Changes to the sectional run times may affect the Services Envelope, but not be subject to the same level of scrutiny as other characteristics. Asciano considered that if there were to be material changes to the sectional run times, it should be subject to stakeholder consultation and the ACCC should be informed. Asciano suggested that the sectional run times be included as a schedule to the 2016 HVAU.
- The Services Envelope should require that adequate banking capacity is to be provided when needed.
- ARTC should clarify what process it will use to change the Services Envelope when infrastructure and rolling stock change over the proposed 10 year term of the 2016 HVAU. Asciano submitted that this issue should be addressed in the mandatory review of the undertaking.⁷¹³

Aurizon

Aurizon raised concerns about ARTC's proposal to include Services Envelope characteristics in the minor variations process. In particular, Aurizon submitted that changes to the Services Envelope:

*...could lead to operators having to conform to or adopt certain train configurations, which may be inefficient from a commercial and operational perspective and could impact on longer term investment decisions*⁷¹⁴

Aurizon submitted that a more robust consultation would be required for changes to the Services Envelope, which would include involving industry and interested parties. This would ensure that any changes reflected the whole supply chain.⁷¹⁵

Aurizon considered that path based pricing should be limited to recovering the avoidable costs of relieving bottlenecks in the rail system.⁷¹⁶ Where a Train Km charge does not recover full economic costs, Aurizon submits that it is typically supplemented with another pricing mechanism, which is generally unrelated to the cost drivers of providing the service.⁷¹⁷

Aurizon also raised concerns about the timing of ARTC's proposal. In particular, it submitted that forecasted demand in the network suggested that the scarcity value of train paths in PZ1 is 'immaterial'.⁷¹⁸ Aurizon submits that path based pricing should be deferred until it is apparent that further network investment is required to increase capacity.⁷¹⁹

⁷¹³ Ibid., p.16.

⁷¹⁴ Aurizon, *Consultation Paper on 2016 Hunter Valley Access Undertaking*, 7 March 2016, p. 2.

⁷¹⁵ Ibid.

⁷¹⁶ Ibid., p. 4.

⁷¹⁷ Ibid.

⁷¹⁸ Ibid., p. 5.

⁷¹⁹ Ibid., p. 6.

Aurizon considered that if users responded to the incentive to run longer and heavier trains without an increase in volumes in the network, it could lead to a decrease in paths demanded by a user, but still be liable for TOP Charges for the paths they do not use.⁷²⁰

Aurizon also contended that path based pricing could lead to an increase in access charges on a per kilometre basis, resulting from an aggregate decrease in paths required in the network, or increased capital investment to accommodate longer, heavier trains.⁷²¹

Bloomfield

Bloomfield submitted that ARTC's path based pricing proposal for the TOP component of access charges was appropriate.⁷²²

Centennial Coal

Centennial Coal noted that it is subject to configuration restrictions from the Sydney Trains network, which Centennial traverses to reach the Port of Newcastle. Centennial submitted that the access pricing structure should not allow ARTC to discriminate against users whose trains are restricted by their travel over other networks.⁷²³ Centennial Coal also submitted that it should not pay any more for access to Segments of the Hunter Valley rail network than the most efficient user.⁷²⁴

Glencore

Glencore considered that ARTC's proposal would help incentivise the efficient utilisation of the available capacity on the Network.⁷²⁵ Glencore submitted that Train Km was appropriate as train paths are the 'product' that Access Holders contract for under their AHAs.⁷²⁶

Glencore noted that it previously supported the determination of the efficient train for the Final Indicative Services, but it was impossible to determine. Glencore considers that the determination of the efficient train would not be achieved during the term of the next undertaking.

Glencore also submitted that there will not be any material adverse impact on existing Access Holders as a result of path based pricing.⁷²⁷ Glencore noted that it operates a train that is 'not of the optimal size'⁷²⁸, and that path based pricing may lead to a slight increase in access charges on a per tonne basis for that train.

HVCCC

The HVCCC submitted that ARTC's proposed path based pricing and removal of Indicative Services was likely to be beneficial for overall coal chain efficiency. The HVCCC also

⁷²⁰ Ibid., p. 5.

⁷²¹ Ibid., p. 6.

⁷²² Bloomfield, *Submission on 2016 HVAU*, 9 March 2016, p. 3.

⁷²³ Centennial Coal, *Submission by Centennial Coal to Consultation Paper ARTC's 2016 Hunter Valley Access Undertaking*, 29 February 2016, p. 1.

⁷²⁴ Ibid.

⁷²⁵ Glencore, *Submissions to the Australian Competition and Consumer Commission – Hunter Valley Coal Network Access Undertaking submitted by Australian Rail Track Corporation ("ARTC")*, 15 March 2016, p. 2.

⁷²⁶ Ibid.

⁷²⁷ Ibid., p. 3.

⁷²⁸ Ibid.

submitted that the proposal may provide a stronger incentive for Access Holders to adopt train configurations that minimise the per-tonne mine-to-ship cost of coal exported.⁷²⁹

Idemitsu

Idemitsu submitted that ARTC's proposal would simplify pricing for the majority of Access Holders, but would have a significant effect on coal producers with distant mines.

Idemitsu considered that path based pricing was not cost reflective, and raised concerns that it did not provide the correct signals. Idemitsu considered that these signals were:

- rewarding the consumption of capacity by higher payload trains compared to lower payload trains (despite any infrastructure limitations)
- distant mines will pay more than mines closer to the port, in the absence of a distance taper.⁷³⁰

Idemitsu considered that these signals could increase train payloads, which could in turn lead to inefficient capital investment in the current economic climate.⁷³¹

Idemitsu submitted that a layered access charge similar to that used by Aurizon may be a compromise between simplicity and a cost-reflective approach.⁷³²

IPART

IPART submitted that path based pricing seemed to be a useful simplification in principle. IPART considered that it would preserve the incentives for operators to use train paths efficiently.⁷³³

PWCS

PWCS submitted that path based pricing is aligned to the access pricing principles that provide transparency and economic incentives for efficient use of Coal Chain Capacity. PWCS noted, in relation to those principles, that price differentiation:

*...should accurately reflect the relative cost of providing capacity for each type of service and not provide a cost subsidy to those who elect not to utilise the more efficient services.*⁷³⁴

Whitehaven

Whitehaven submitted that path based pricing negatively affects PZ3 producers in PZ1 by increasing the access price per tonne.⁷³⁵ In particular, Whitehaven noted that infrastructure limitations in PZ3 means it hauls a relatively smaller volume in PZ1 but is charged at the same rate as others hauling larger volumes.

⁷²⁹ HVCCC, *Hunter Valley Coal Chain Coordinator – Submission – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 7 March 2016, pp. 3-4.

⁷³⁰ Idemitsu, *Consultation Paper – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 9 March 2016, p. 5.

⁷³¹ Ibid.

⁷³² Ibid., pp. 5-6.

⁷³³ IPART, *IPART submission to ACCC on its 8 January 2016 Consultation Paper – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 18 February 2016, p. 10.

⁷³⁴ PWCS, *Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking – Consultation Paper*, 19 February 2016, p. 2.

⁷³⁵ Whitehaven, *Whitehaven Coal Response to ACCC Consultation Paper on ARTC's draft 2016 Hunter Valley Access Undertaking*, 8 March 2016, p. 4.

Whitehaven considered that path based pricing could lead to an equitable outcome in the event that the 2016 HVAU provides for either:

- an adjustment to access charges faced by PZ3 users, to provide a similar rate per tonne to an efficient PZ1 train; or
- using a single Pricing Zone with a single RAB for the entire network.⁷³⁶

15.3. ACCC view

The ACCC's view on the structure of access charges for coal customers are separated into the followings matters:

- Pricing Unit for TOP Charges
- Pricing Unit for non-TOP Charges
- Services Envelope

Pricing Unit for TOP Charges

The ACCC has not formed a view on ARTC's proposal to use Train Km as the basis for the TOP component of access charges. The ACCC does not have sufficient information to determine whether this proposal encourages the economically efficient use of the Network because ARTC has not provided enough evidence of the cost drivers for Incremental Capital Costs and Fixed Costs in the Network. The ACCC requires further information from ARTC in order to form a view.

The ACCC notes that there are divergent views among stakeholders on the appropriate pricing unit for TOP Charges.

Those stakeholders who support the use of path based pricing in the 2017 HVAU appear to share the view that it leads to a more efficient use of the Network. This is the view put forward by Glencore, IPART, HVCCC, Pacific National (as both Pacific National and Asciano) and PWCS in their respective submissions. In the Explanatory Guide to the 2017 HVAU, ARTC notes that path based pricing provides an incentive to increase the volume of coal hauled per path.⁷³⁷ This, in turn, 'provides the incentive for producers to increase the efficient utilisation of their contracted commitments, therefore increasing the efficient utilisation of the network'.⁷³⁸ The ACCC considers that ARTC's view that the most efficient operation of the Network would be on the basis of increasing coal volumes hauled per path, thus sending price signals to users on this basis, is in ARTC's legitimate business interests (section 44ZZA(3)(a)).

The ACCC notes Glencore's view that Train Km is the appropriate pricing unit for the TOP component of access charges, as it reflects the capacity that ARTC is selling. In contrast, Aurizon and Idemitsu consider that ARTC's path based pricing proposal is not cost reflective. The ACCC is of the view that the pricing units used for access charges should reflect how those costs are caused. This leads to the economically efficient operation of, use of, and investment in the Network as there is a direct connection between:

- how a cost is incurred
- who causes that cost
- who bears that cost

⁷³⁶ Ibid.

⁷³⁷ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 9.

⁷³⁸ Ibid.

- how that cost is borne.

For example, if there is an Incremental Capital Cost that is driven by volume (that is, GTK) but ARTC bases TOP Charges (which, as noted above, are intended to recover Incremental Capital Costs) on Train Km, this means that those who caused the cost are not necessarily paying for the full cost they have caused on the Network. This, in turn, means that users are not getting a clear signal about the cost they are imposing on the network. Such a situation could have implications for users' investment decisions, which could then have implications for ARTC's investment in the Hunter Valley rail network (section 44ZZA(3)(aa)).

The ACCC's view on cost causality is consistent with Frontier Economics' (Frontier's) review of ARTC's path based pricing proposal in the 2016 HVAU, commissioned by the ACCC.⁷³⁹ Frontier also considered that pricing approaches need to be able to be 'transparently verified and explained'.⁷⁴⁰

Under section 4.14 of the 2017 HVAU, TOP Charges are intended to achieve the maximum permitted recovery of Incremental Capital Costs and Fixed Costs. However, the ACCC considers that ARTC has provided little evidence of the cost drivers for projects that fall under those categories. As a result, it is unclear to the ACCC whether Train Km is reflective of how Incremental Capital Costs and Fixed Costs are incurred. The ACCC is therefore unable to form a view on ARTC's proposal in the absence of information on these cost drivers.

In addition to establishing whether using Train Km as the pricing unit for TOP Charges encourages the economically efficient use of the Network, the ACCC considers that information on cost drivers is in the interests of users who might want to access the Network. This is because it will aid in making the pricing structure and associated cost causation more transparent to users of the Network.

The ACCC considers that previous reviews and analysis of cost drivers provide examples of the type of information the ACCC seeks in order to assess ARTC's proposal. For example, WIK provided information on the activity, the cost driver and an explanation for that cost driver (see Table 23).

The ACCC notes that ARTC commissioned a consultant, Bull Head Services Pty Ltd (Bull Head Services), to apply and extend the WIK methodology for the purposes of the 2014 annual compliance process. A table summarising Bull Head Services' assessment of the cost drivers for incremental costs for minor capex in the Hunter Valley rail network between 2014 and 2016 is given in Table 24.

⁷³⁹ Frontier Economics, *Assessment of the path-based pricing proposal in the 2016 Hunter Valley Access Undertaking*, 5 July 2016, p. 9.

⁷⁴⁰ Ibid.

Table 23: Cost drivers for minor capex projects in the WIK analysis

Project type	Cost Driver (incremental)	Cost Driver (fixed)	Explanation
Rerailing	GTK	Time	The majority of rail wear is related to volume but that there is still a small fixed time related element
Point machine replacement / Point motor renewal	Train Km	Time	The need for point machine replacement resp. point motor renewal is caused by both, time and volume
Signalling System investments/upgrades	Train Km	Time	The need for signalling system investments/upgrades is caused by both, time and volume
Track strengthening / upgrading	GTK	Time	The need for track strengthening and upgrading is more caused by volume than time
Turnout renewal with 60kg rail	GTK	Time	The need for turnout renewals with an upgrade to 60kg rails is more related to volume than time
Radio Upgrade, additional channels	Train Km	Safety	The need for a radio upgrade and also for additional channels is related to both safety and traffic
Track Pads replacement	GTK	Time	The need for track pad replacement is more related to volume than time
Flash Butt Welding	GTK	Time	The need for flash butt welding is more related to volume than time
Repair of signalling equipment	Train Km	Time	The need for an upgrade of the signalling equipment is related to both safety and traffic
Installation of rail lubricators	GTK	Time	The need to install rail lubricators is driven by both volume and the need to reduce maintenance costs
Upgrading of structural deficiencies	GTK	Time	The need for upgrading the structural deficiencies under 30 tonne axle loads is more related to volume than time

Note: this table is an adaptation of analysis of incremental costs undertaken by WIK-Consult. It is a selection of minor capex projects that were assessed as part of WIK's report.
Source: WIK, *Assessment of the Incremental Costs of Pricing Zone 3 Access Holders' Use of the Pricing Zone 1 and 2 of the Australian Rail Track Corporation's Hunter Valley Rail Network*, 30 September 2015, pp. 30-31.

Table 24: Cost drivers for incremental portion of minor capex projects in the Bull Head Services analysis

Project type	Cost Driver	Explanation
Rail Lube Overhaul/Major Maintenance	GTK	The Consultant agrees with WIK's assessment of cost allocator for the incremental portion
Rerailing Upgrading	GTK	The allocators for Rerailing Upgrading from 53kg to 60kg rails is more related to volume than time
Rerailing	GTK	The Consultant agrees with WIK's assessment of cost allocator for the incremental portion
Turnout Renewal	GTK	The Consultant agrees with WIK's assessment of cost allocator for the incremental portion
Resleepering	GTK	The Consultant recommends GTK as a cost allocator
Track Strengthening/Upgrading	GTK	The Consultant agrees with WIK's assessment of cost allocator for the incremental portion
Bridge End Track Upgrades	GTK	Bridge end ballast and track degradation are variant with GTK
Insulated Rail Joints	GTK	The replacement of an insulated joint occurs when simple repair is not feasible but the underlying causes for degradation of the joint are likely to be similar in nature. The Consultant has applied GTK for this capital activity.
Level Crossing Upgrade	GTK	The Consultant agrees with WIK's assessment of cost allocator for the incremental portion. However, where the cost is related to the road user/owner this would be expected to be paid for by a third party
Signalling System Upgrades	Train Km	The Consultant agrees with WIK's assessment of cost allocator for the incremental portion

Note: this table does not include the minor capex projects that Bull Head Services assessed as being 0 per cent incremental, as no cost driver was assigned to such projects.
Source: Bull Head Services, *RE: Independent Engineering Assessment of Incremental Costs – ARTC HVAU – 2014 to 2016*, 21 July 2016, p. 17.

Asciano (now Pacific National) submitted that path based pricing should be considered under the mandatory review, to ensure that it was providing the incentives for the efficient consumption of capacity. The ACCC refers to its views on the mandatory review process set out in chapter 4 of this Draft Decision. In particular, the ACCC notes that the mandatory review provisions allow for stakeholders to provide submissions not only on those issues raised in ARTC's issues paper, but on any other issue as well⁷⁴¹, with ARTC required to consider all submissions in good faith.⁷⁴² The ACCC therefore does not consider that path based pricing needs to be specifically included as part of the mandatory review process under the 2017 HVAU.

The ACCC notes Aurizon's concerns about the use of Train Km for TOP Charges in providing an incentive to maximise the coal hauled per path, and the interaction with sections of the 2017 HVAU that relate to Relinquished Capacity⁷⁴³, a permanent variation of Train Paths⁷⁴⁴ and a permanent change to Service Assumptions.⁷⁴⁵ The ACCC considers that these sections seek to fulfil two different purposes:

- the mechanism for relinquishing Paths and adjusting TOP Charges ensures that ARTC receives TOP revenue from Access Holders, as to recover Fixed and Incremental Costs
- path based pricing is intended to encourage maximising the volume of coal hauled per path.

As Aurizon noted in its submission to the 2016 HVAU, an Access Holder may respond to the incentive given by path based pricing by increasing the volume of coal hauled per path. In the absence of increased production from the Access Holder, this would decrease its total demand for paths in the Network. However, responding to this incentive will not necessarily result in a reduction in TOP Charges or commitments. The ACCC considers that this may highlight a conflict between the two purposes, and welcomes further views on this issue.

The ACCC notes HRATF's concerns about the drafting of sections 4.14(a) and (b) of the 2017 HVAU. The ACCC also notes ARTC's intention with these proposed changes, which are to reflect the change in definitions and to remove duplication. The ACCC considers that the objective set out in section 4.13(b)(ii) that was previously included in the 2011 HVAU is likely to be adequately reflected in section 4.14(a)(ii). The ACCC considers that it is unclear how repetition in this instance is beneficial to either ARTC or users.

The ACCC also notes HRATF's concerns about the removal of section 4.13(b)(iv) from the drafting that was included in the 2011 HVAU, relating to the recovery of FCC from Access Holders. The ACCC notes that section 4.14(b) in the 2017 HVAU states in determining Charges, ARTC will have regard to the objective of providing for an open and equitable mechanism for the application of TOP Charges. As noted previously, the ACCC considers that ARTC providing information on cost drivers for the components of TOP Charges provides transparency and clarity for users of the Network. However, the ACCC considers that it is unclear whether section 4.14(b) of the 2017 HVAU was intended to replace section 4.13(b)(iv), and seeks clarification from ARTC on this issue.

The ACCC notes that stakeholders have raised further concerns about the implications of the use of Train Km for TOP Charges on sunk above-rail investments and future investment in the Network. The ACCC considers that the use of Train Km as the basis for TOP Charges is the cause of these concerns. That is, if another pricing unit was used, such as GTK, the

⁷⁴¹ Section 2.3(b)(ii) of the 2017 HVAU.

⁷⁴² Section 2.3(c) of the 2017 HVAU.

⁷⁴³ Section 4.20 of the 2017 HVAU.

⁷⁴⁴ Clause 11.1 of the AHA.

⁷⁴⁵ Clause 11.5 of the AHA.

ACCC considers that these concerns would be addressed. As noted previously, the ACCC has not formed a view on ARTC's proposal to use Train Km as the basis for the TOP component of Access Charges, and requires further information from ARTC in order to form a view. Until such point as the ACCC receives the information required in order to form a view on ARTC's broader proposal, the ACCC is also unable to provide a view on these related concerns.

Pricing Unit for non-TOP Charges

The ACCC notes that submissions on the pricing unit for non-TOP Charges to both the 2016 and 2017 HVAU were generally supportive of ARTC's proposal to continue to use GTK. The ACCC also notes ARTC's view that Incremental Maintenance Costs, which are recovered by non-TOP Charges under 4.14(a)(i) of the 2017 HVAU, is broadly related to the gross tonnes traversing the Network.

The ACCC also notes HRATF's concerns that section 4.14(a)(i) should specifically refer to the costs recovered by non-TOP Charges. HRATF notes that such a change would make the drafting consistent with the drafting of section 4.14(a)(ii), which refers to the costs recovered by TOP Charges.

Although ARTC does not provide further evidence of cost drivers for activities that fall under Incremental Maintenance Costs, the ACCC accepts that GTK is largely reflective of how the costs recovered by non-TOP Charges are incurred. As GTK reflects how Incremental Maintenance Costs are incurred in the Network, the ACCC considers that ARTC's proposal for the treatment of non-TOP Charges in the 2017 HVAU is likely to promote the economically efficient operation of the network. On that basis, the ACCC considers that GTK is likely to be the appropriate pricing unit for non-TOP Charges, subject to ARTC providing further information on the drivers of activities that are recovered by non-TOP Charges. This would provide further clarity to users of the relationship between cost causation and how costs are charged out.

The ACCC considers that ARTC should specify that section 4.14(a)(i) relates to the costs (Incremental Maintenance Costs) recovered by non-TOP Charges. Such a change would provide clarity to users wanting to access the Network, and would be consistent with the drafting of section 4.14(a)(ii) (section 44ZZA(3)(e)).

Services Envelope

The ACCC notes the divergent views amongst stakeholders on the characteristics of the efficient train in the development of the Initial and Final Indicative Services in the 2011 HVAU. Submissions from stakeholders and ARTC suggest that this would be unlikely to be resolved during the term of the 2017 HVAU.

As noted previously in this chapter, Glencore expressed its concerns about the likelihood of determining the characteristics of the efficient train configuration in the next HVAU.⁷⁴⁶ ARTC considered that Initial Indicative Services, as set out in the 2011 HVAU has proved to be administratively complex for both ARTC and Access Holders.⁷⁴⁷ ARTC also submitted that it is unlikely that future attempts to determine the most appropriate indicative service and differentiation factors will be any more successful than the previous attempts.⁷⁴⁸

⁷⁴⁶ Glencore, *Submissions to the Australian Competition and Consumer Commission Hunter Valley Coal Network Access Undertaking submitted by Australian Rail Track Corporation ("ARTC")*, 15 March 2016, p. 2.

⁷⁴⁷ Ibid.

⁷⁴⁸ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 25.

In addition, the HVCCC considered that the Services Envelope, along with path based pricing, may be beneficial to overall coal chain efficiency.

The ACCC considers that the proposed Services Envelope in the 2017 HVAU represents a relative simplification of Indicative Services, which aids transparency in the calculation of access charges. The ACCC considers that this benefits users who might wish to access the Network. In addition, the ACCC notes that the structure of the Services Envelope provides a signal that longer trains are the most efficient configuration for the Network. As noted previously, the ACCC considers that ARTC's decision to send this signal is in ARTC's legitimate business interests (section 44ZZA(3)(a)).

The ACCC notes the concerns raised by Asciano (now Pacific National) about the characteristics that make up the Services Envelope. These concerns were reiterated in Pacific National's submission to the 2017 HVAU. Asciano submitted that:

*the Services Envelope in the proposed 2016 HVAU section 4.15 contains maximum restrictions with no apparent minimum restrictions. Asciano believes that some minimum restrictions for coal trains should be included to remove the potential for grossly inefficient usage of paths;*⁷⁴⁹

Asciano also submitted that the 2016 HVAU Services Envelope should require that adequate banking capacity is to be provided when needed.⁷⁵⁰

The ACCC notes that under section 3.14(c)(i) of the 2017 HVAU, ARTC must offer an indicative AHA to an Applicant for Coal Access Rights if the Applicant seeks Access Rights for the operation of a Service within the Services Envelope. However, the ACCC considers that a train configuration that leads to the 'grossly inefficient use of paths', and/or has insufficient banking capacity, would be unable to meet the section run times, which a service must meet. This would mean that such services would fall outside of the Services Envelope and ARTC would not be obliged to offer an indicative AHA. ARTC would have some indication about a train service's ability to meet section run times through the information it can seek from an access seeker through section 3.7(a)(vi) of the 2017 HVAU. ARTC would also have an understanding of the effect such a service would have on overall Coal Chain Capacity through the initial review of Capacity requirements, outlined in section 3.6 of the 2017 HVAU.

The ACCC therefore considers that there are sufficient mechanisms in other sections of the 2017 HVAU, such as those outlined in sections 3.3 and 3.7 and 3.14, to prevent the use of train configurations that lead to the 'grossly inefficient use of paths' and/or insufficient banking capacity for the Segments the service utilises.

The ACCC also notes Asciano's concerns about the inclusion of maximum speeds in the Services Envelope characteristics, as it considers speeds to be technical and engineering matters and not primarily a commercial matter.⁷⁵¹ Although the ACCC appreciates that setting maximum speeds is a technical and engineering matter, it is unclear how the other Services Envelope characteristics are not also technical and engineering matters. The ACCC considers that all Services Envelope characteristics are inputs into the economically efficient operation of the Network, and thus it is appropriate to continue to include them in specifying the Standard Access Charges for each Pricing Zone.

Asciano also submitted that in the absence of consultation with stakeholders on material changes, section run times should be included as a schedule to the 2017 HVAU. The ACCC

⁷⁴⁹ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 16.

⁷⁵⁰ Ibid.

⁷⁵¹ Ibid.

notes that the section run times were not included as a schedule to the 2011 HVAU. The ACCC also notes that the Indicative Section Running Times was last updated on ARTC's website in August 2013. Including the section run times as a schedule to the 2017 HVAU would mean that any variation to it would require ARTC to submit a variation application to the ACCC for assessment as per section 44ZZA(7) of the Act. The ACCC agrees that ARTC should consult with stakeholders on issues that could affect the operation of their businesses, and this is likely to be in the interests of users who want to access the Network. The ACCC therefore considers that ARTC should set out principles to guide consultation between ARTC and stakeholders regarding any changes to the section run times. This would provide clarity and certainty to stakeholders that they can provide input into any proposed changes to the section run times.

The ACCC notes Asciano's view that Services Envelope characteristics should be part of the review process at the mandatory review date, given the likelihood of the Services Envelope changing over the term of the 2017 HVAU. The ACCC refers to its views on the mandatory review process set out in chapter 4 of this Draft Decision. In particular, the ACCC notes that the mandatory review provisions allow for stakeholders to provide submissions not only on those issues raised in ARTC's issues paper, but on any other issue as well,⁷⁵² with ARTC required to consider all submissions in good faith.⁷⁵³ The ACCC therefore does not consider it necessary that Services Envelope characteristics be specifically included as part of the mandatory review process under the 2017 HVAU.

The ACCC also notes Centennial's concerns about the effect of path based pricing on the costs of hauling coal on the Hunter Valley Rail Network, given the infrastructure constraints it faces on other rail networks it uses. These concerns appear to relate to both the use of Train Km as the pricing unit for the TOP component of access charges, as well as the introduction of the Services Envelope. The ACCC considers that section 4.16(b) of the 2017 HVAU applies to Centennial's current circumstances, which suggests that it is a factor ARTC can take into account in formulating access charges.

For the reasons given above, the ACCC considers that the proposal to use a Services Envelope in applying Standard Access Charges in the 2017 HVAU is likely to be appropriate, subject to ARTC providing guidelines for consultation between ARTC and stakeholders on changes to section run times.

⁷⁵² Section 2.3(b)(ii) of the 2017 HVAU.

⁷⁵³ Section 2.3(c) of the 2017 HVAU.

16. Structure of access charges—non-coal

This chapter sets out the methodology by which ARTC will determine access charges for non-coal customers. ARTC proposes non-coal traffic be charged on the basis of:

- a variable component—a function of distance and gross mass (\$ per GTK);
- a flagfall component—specific to each train service type and segment (\$ per Train Km)
- an excess network occupancy component—a function of time (\$ per hour or part thereof)

The ACCC seeks further information on ARTC’s proposal for the structure of non-coal access charges. Once the further information is provided on the definition of Incremental Maintenance Costs, the ACCC will be able to form a view on the appropriateness of ARTC’s proposal.

In addition, the ACCC seeks further information from ARTC on:

- charges for non-coal traffic traversing the Unconstrained Network
- the cost components covered by the flagfall component.

16.1. ARTC proposal

Section 4.13(a) of the 2017 HVAU proposes that non-coal traffic be charged on the basis of:

- a variable component—a function of distance and gross mass (\$ per GTK)
- a flagfall component—specific to each train service type and segment (\$ per Train Km)
- an excess network occupancy component—a function of time (\$ per hour or part thereof), where this component only applies where the applicant contracts a train path on the network, which is in excess of:
 - a reasonable allowance for section run times for the applicable train service type as determined by ARTC
 - dwells for crossing and passing other trains as determined and made available by ARTC for the train path
 - an allowance for the reasonable requirements for operational activities while the train occupies the network in a Pricing Zone (Table 25).

Table 25: Allowances for operational activities while train occupies the network

Pricing Zone	Allowance for reasonable requirements for operational activities (hr)
Pricing Zone 1	0
Pricing Zone 2	0
Pricing Zone 3	0.16

Source: Section 4.13(c) of the 2017 HVAU.

Section 4.13(b) proposes that charges for non-coal Access Holders will be set so that the average non-coal revenue received by ARTC per journey⁷⁵⁴ will not exceed the average revenue received by ARTC for coal access rights to complete the same journey. These

⁷⁵⁴ A single journey is defined as between a network entry and network exit point.

charges will take into account each component of charges listed above, with adjustments made to reflect the relative levels of capacity.

Sections 4.13(d) to (h) relate to how ARTC will apply the excess network occupancy component. ARTC states the application of the excess network occupancy component applies to the contracted train path, not the utilisation of the train path. Section 4.13(f) notes that, unless otherwise provided in the Access Agreement, both the flagfall and excess network occupancy components are levied from the date ARTC grants access to the Train Path to the Access Holder until the expiry of the Train Path, irrespective of whether that Train Path has been used. In determining the excess network occupancy requirement ARTC also proposes that the excess network occupancy component will not apply where ARTC is unable to provide the contracted train path or an agreed substitute, as per section 4.13(h).

Section 4.13(i) states that notwithstanding the structure described in the rest of section 4.13, all elements of non-coal access charges are open to negotiation.

In the preamble to the 2017 HVAU, ARTC recognises that, in relation to non-coal traffic using the Network, it:

*Operates in a competitive environment where competition from other modes of transport (particularly road) places constraint on rail transport and access pricing. Access pricing for this traffic is such that it only meets their Incremental Maintenance Costs of Access to the Constrained Network.*⁷⁵⁵

In the 2017 HVAU, Incremental Maintenance Cost is defined as ‘...maintenance expenditure, including major periodic maintenance that varies with usage of the Segment’.⁷⁵⁶

The definition of Incremental Maintenance Costs is discussed further in chapter 8 of this Draft Decision.

16.1.1. Comparison to the 2011 HVAU

The proposed approach to non-coal access charges in the 2017 HVAU is largely the same as that in the 2011 HVAU. The major difference is the definition of costs non-coal traffic using the Network must meet, as outlined in the preamble of the 2011 HVAU and 2017 HVAU.⁷⁵⁷

The preamble to the 2011 HVAU stated that access charges for non-coal are set so that they only meet the Direct Cost of Access to the Constrained Network.⁷⁵⁸ Direct Cost is defined in the 2011 HVAU as maintenance expenditure, including major periodic maintenance that varies with usage of the Network, and may include other costs that vary with the usage of the Network but excluding Depreciation, assessed on an efficient basis.⁷⁵⁹

In contrast, and as noted above, the preamble to the 2017 HVAU states that access pricing for non-coal traffic will be set such that it only meets its Incremental Maintenance Costs of access to the Constrained Network.

ARTC’s proposed change in the definition of costs for non-coal users reflects ARTC’s proposed definitions for the structure of coal access charges. The structure of coal access charges is examined in chapter 15 of this Draft Decision.

⁷⁵⁵ Section 1.1(g) of the 2017 HVAU.

⁷⁵⁶ Section 15.1 of the 2017 HVAU.

⁷⁵⁷ Section 1.1(g) of the 2011 HVAU and 2017 HVAU.

⁷⁵⁸ Section 1.1.(g) of the 2011 HVAU.

⁷⁵⁹ Section 14 of the 2011 HVAU.

16.1.2. Comparison to the 2016 HVAU

ARTC did not propose any material changes to the structure of non-coal access charges between the 2011 HVAU and 2016 HVAU.

16.2. Stakeholder submissions

16.2.1. 2017 HVAU

Whitehaven submits that non-coal access charges should be based on a minimum charge equal to the Incremental Cost of operating the number of train paths allocated to non-coal Access Holders in PZ3. Whitehaven considers that through this mechanism, ARTC would be able to reduce these Access Holders' charges by reducing the number of train paths they are allocated. Whitehaven's submission states that non-coal Access Holders use a high proportion of total available train paths (up to 30 per cent) in PZ3, however this is not reflected in the revenue contributed by non-coal traffic.⁷⁶⁰

Shenhua Watermark Coal supports Whitehaven's submission on this issue.⁷⁶¹

16.2.2. 2016 HVAU

Asciano (now Pacific National) submitted that the pricing for non-coal access rights should remain consistent with the pricing structure and levels which apply for ARTC's interstate rail network.

Asciano's view was that this approach ensures pricing consistency and removes the potential for pricing anomalies.⁷⁶²

16.3. ACCC view

In considering the appropriateness of ARTC's proposal in section 4.13 of the 2017 HVAU, the ACCC notes its consideration of ARTC's proposed definition of Economic Cost (discussed further in chapter 8 of this Draft Decision).

In particular, the ACCC considers that as a key component of Economic Cost, it is necessary for both Incremental Capital and Incremental Maintenance Costs to be clearly and sufficiently defined, including how the incremental proportion is calculated. As ARTC proposes to set non-coal access charges such that they meet Incremental Maintenance Costs, the ACCC considers that further detail around the definition of those costs is relevant in this context.

Accordingly, and consistent with the discussion in chapter 8 of this Draft Decision, the ACCC considers that ARTC providing further clarity around the definition of Incremental Maintenance Costs is also in the interests of non-coal users who may want to access the Hunter Valley rail network (sections 44ZZA(3)(c) and (e)). In addition, providing Access Holders with a clear understanding of how Incremental Costs are determined promotes the economically efficient use of, operation of and investment in the Hunter Valley rail network (section 44ZZA(3)(aa)).

On this basis the ACCC seeks further information on ARTC's proposal for the structure of non-coal access charges. Once further information is provided on the definition of

⁷⁶⁰ Whitehaven, *Whitehaven Coal response to ACCC Consultation paper on ARTC's draft [2017] Hunter Valley Access Undertaking*, 3 February 2017, p. 3.

⁷⁶¹ Shenhua Watermark Coal, *Response to ACCC Consultation Paper on ARTC's draft 2017 Hunter Valley Access Undertaking*, 13 February 2017, p. 1.

⁷⁶² Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 6.

Incremental Maintenance Costs, the ACCC will be able to form a view on the appropriateness of ARTC's proposal.

Although not specifically raised by stakeholders, the ACCC considers that ARTC should also set out further information to clarify the following regarding its proposed structure of its non-coal access charges:

- charges for non-coal traffic traversing the Unconstrained Network
- cost components covered by the flagfall component.

The ACCC notes that sections 1.1(g) and 4.13 of the 2017 HVAU only refer to the Constrained Network. The ACCC therefore requires further clarification on the access charges non-coal traffic face in the Unconstrained Network. The ACCC considers that this information is required for the clarity of non-coal users traversing Segments of the Unconstrained Network and also in the interest of coal users who intend to access PZ3 (sections 44ZZA(3)(c) and (e)). The ACCC also considers that this information would help promote the economically efficient use of and investment in ARTC's Network (section 44ZZA(3)(aa)).

The ACCC also considers that ARTC has provided little detail on what types of costs are contained in the flagfall component of ARTC's proposed charging structure for non-coal traffic. As a result, it is unclear to the ACCC whether Train Km is the appropriate basis for the flagfall component of non-coal Access Charges. As noted in chapter 15 of this Draft Decision, the ACCC considers that the components should be cost reflective, as it would lead to the economically efficient operation of, use of, and investment in the Hunter Valley rail network (section 44ZZAA(3)(aa)). The ACCC requires further information on how costs are apportioned within the charging components for non-coal access charges.

The ACCC notes submissions from stakeholders regarding the structure of access charges for non-coal traffic. The ACCC considers that these concerns relate to:

- setting non-coal access charges such that it is equal to Incremental Costs
- consistency of non-coal access charges between the Hunter Valley and interstate rail networks

The ACCC sets out its views on these issues below.

Setting of non-coal access charges equal to Incremental Costs

The ACCC notes concerns raised by Whitehaven and Shenhua Watermark Coal that non-coal Access Holders pricing should be based on a minimum charge equal to the Incremental Cost (i.e. Incremental Maintenance Cost plus Incremental Capital Cost, as defined by ARTC in the 2017 HVAU) of operating the number of train paths allocated to non-coal Access Holders in PZ3.

The ACCC recognises that the preamble to the 2017 HVAU states that ARTC operates in a competitive environment where there is competition from other modes of transport (particularly road), and that this places a constraint on non-coal rail transport and access pricing. The ACCC considers that pricing non-coal traffic use of the unconstrained PZ3 below the full economic cost aids efficiency as it allows for greater utilisation of the network. Further, the ACCC notes that under the pricing principles set out in section 44ZZCA, access providers are allowed to price discriminate when it aids efficiency, and considers that the proposed differentiation between coal and non-coal users is consistent with the pricing principles in section 44ZZCA.

The ACCC notes that in its submission for the 2014 annual compliance process, ARTC adopted and extended the application of the WIK methodology as determined appropriate in

the 2013 Annual Compliance Final Determination. Regarding the allocation of Incremental Costs to non-coal users, ARTC noted in its 2014 annual compliance submission that:

In preparing this submission for the 2014 calendar year, ARTC has interpreted the WIK Report and the ACCC 2013 Final Determination as intending to apply incremental maintenance costs to non-coal traffics in order to apply the Floor Limit requirements of HVAU 4.2(a), modified in accordance with the changes noted above. The actual allocation for 2013 included in the WIK Report did not explicitly make an allocation to non-coal traffics, but ARTC has adopted this approach as it otherwise would contravene the Floor Limit for non-coal traffics.

Incremental maintenance costs are applied to each Segment in the Network and applied to all traffics, including non-coal traffics, on the basis of either weighted actual GTK or actual Train Km, depending on the allocator nominated for the particular activity.⁷⁶³

The ACCC notes that at the time of assessing ARTC's 2014 Annual Compliance documentation, no stakeholders raised concerns with the approach adopted by ARTC to apply only incremental maintenance costs to non-coal traffic.

Further, the ACCC notes Idemitsu's submission in that process, which set out:

Idemitsu is supportive of ARTC's approach to assigning incremental maintenance costs to non-coal traffic despite WIK not explicitly undertaking allocation in the 2013 Annual Compliance.⁷⁶⁴

Regarding whether further incremental costs (i.e. Incremental Capital Costs) should be applied to non-coal traffic, the ACCC notes that capex projects are presented to RCG for approval, and that RCG membership includes coal Access Holders only. The ACCC understands that non-coal Access Holders are not consulted or asked to endorse the level of capex in the Hunter Valley rail network. Further, the ACCC considers that the majority, if not all capex projects undertaken in the Hunter Valley Network have been aimed at facilitating coal Access Holders' usage of the Network.

In its consideration of the 2011 HVAU the ACCC accepted that Access pricing for non-coal traffic would be set such that it only meets the Direct Cost of Access to the Constrained Network. While the ACCC requires further clarification on the definition of Incremental Maintenance Costs, it would appear that these costs would not be dissimilar to Direct Costs as defined under the 2011 HVAU.

Consistency of non-coal access charges between Hunter Valley and Interstate Networks

The ACCC also notes concerns raised by Asciano (now Pacific National) regarding the benefits of consistency with pricing structures for non-coal access between ARTC's Hunter Valley and Interstate networks.⁷⁶⁵

⁷⁶³ ARTC, *Hunter Valley Coal Network Access Undertaking – 2014 Compliance Assessment – Submission to Australian Competition & Consumer Commission*, September 2016, p. 7.

⁷⁶⁴ Idemitsu, *Submission on the ACCC's consultation paper*, 28 October 2016, p. 5.

⁷⁶⁵ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 6.

The ACCC notes that the 2008 IAU sets out requirements with regards to non-coal users for use of ARTC's interstate rail network. Section 4.4 of the IAU sets out the Floor Limit, which would be applicable to non-coal traffic, and states:

Floor Limit means revenue for ARTC sufficient to cover the incremental cost of that Segment or group of Segments. For the purpose of this clause, incremental costs means the costs that could have been avoided if a Segment was removed from the Network including Segment Specific Costs and Non-Segment Specific Costs relating to the following activities:

- i. track and signalling and communication maintenance;*
- ii. maintenance contract support, administration and management and project management;*
- iii. train control and communication;*
- iv. train planning and operations administration; and*
- v. system management and administration;*

but excluding Depreciation and return on assets relating to Segment Specific Assets and Non-Segment Specific Assets, such return being determined by applying a real Rate of Return to the value of these assets.

The ACCC notes that the above costs outlined in the 2008 IAU may be similar to the definition of Incremental Maintenance Costs in the 2017 HVAU. However, as noted previously, the definition of Incremental Maintenance Costs is subject to clarification from ARTC.

17. Finalising access charges and forecasts

This chapter sets out the process for finalising Standard Access Charges (under section 4.18) and sets out the forecasting information that ARTC will provide to Access Holders as part of this process (under section 4.19).

ARTC proposes the following changes from the 2011 HVAU:

- new provisions that reflect changes made to other parts of the 2017 HVAU to incorporate Prospective Mines into the WAML (section 4.7), the Relinquished Capacity provision (section 4.20), and the change to path based pricing (section 4.12)
- a new provision requiring ARTC to provide Access Holders a 2 year forecast of Standard Access Charges in the format set out in Schedule F (section 4.19(a)(iii)(B))
- to change the date by which ARTC will provide financial and forecasting information to Access Holders under provisions in 4.18 and 4.19, from 1 November to 30 September
- an amendment to section 4.18(a) stating that ARTC can seek information from Access Holders about proposed variations for the next 10 years (where the 2011 HVAU specified 1 year).

The ACCC considers sections 4.18 and 4.19 are appropriate, subject to the following amendments:

- ARTC providing additional information to Access Holders around the decision process ARTC will undertake when assessing whether a mine or project satisfies the definition of a Prospective Mine under section 4.18(a)(i), and the steps ARTC will take when determining Standard Access Charges under section 4.18(c).
- ARTC correcting the apparent drafting error regarding the calculation of Standard Access Charges, under section 4.18(c).
- ARTC specifying a forecast range, under section 4.19(a)(iii)(B).

17.1. ARTC proposal

Section 4.18 of the 2017 HVAU sets out the process for finalising Standard Access Charges. Section 4.19 states the forecasting information that ARTC will provide to Access Holders as part of this process. ARTC notes that the content of these two sections may change as a result of the proposed opex efficiency mechanism (discussed in further detail in chapter 20 of this Draft Decision).

Standard Access Charges are defined as Charges for Services with characteristics within the Services Envelope. The Services Envelope is discussed in further detail in chapter 15 of this Draft Decision.

Section 4.18(b) of the 2017 HVAU states that:

[e]ach calendar year, ARTC will determine its annual forecast of costs for the Network in each Pricing Zone which are to be recovered by ARTC in the next calendar year.

Section 4.18(c) of the 2017 HVAU states that the Standard Access Charges will be determined by this annual forecast of costs, as well as the Contracted Coal KM for that calendar year, including any additional Kms that ARTC considers are likely to be Contracted Coal KM that calendar year, taking into account variations resulting from the Relinquished Capacity provision (under section 4.20).

Section 4.18(a) of the 2017 HVAU sets out the information that ARTC may seek from an Access Holder to enable it to make a forecast of annual costs. This includes:

- information to enable ARTC to make an assessment of whether a mine or project meets the requirements of a Prospective Mine, in circumstances where an Access Holder considers it does, and has:
 - not provided such information pursuant to section 3.7 previously or
 - provided such information pursuant to section 3.7 but has not met the requirements previously.
- information on any proposed variations to the Access Holder's Contracted Coal KM and tonnage requirements for the following 10 years, including any proposed reductions resulting from the Relinquished Capacity provision (under section 4.20).

Section 4.18(d) of the 2017 HVAU states the information that ARTC will provide to Access Holders by 30 September each year for the following calendar year:

- Aggregate coal volumes and KMs, which will include reasonably expected volumes and Contracted Coal KM, ARTC's annual forecast costs to those Access Holders holding Coal Access Rights in each Pricing Zone.
- Standard Access Charges to those Access Holders holding Coal Access Rights for Services within the Services Envelope.
- ARTC's forecast RAB value of the aggregate of Segments in PZ3, at both the start and end of the following calendar year, to those Access Holders holding Coal Access Rights in PZ3.
- The revised WAML if adjusted in accordance with the provisions in section 4.7 of the 2017 HVAU.

Section 4.18(e) of the 2017 HVAU clarifies that ARTC will not provide the information under section 4.18(d) where it would allow an Access Holder to determine the coal volumes or Contracted Coal KM of another Access Holder.

Section 4.19(a) of the 2017 HVAU states the forecasting information that ARTC will provide to Access Holders by 30 September each year:

- ARTC's forecast annual total opex for each of the following 10 years.
- ARTC's forecast annual capex for each of the following 10 years—as set out in the Hunter Valley Corridor Capacity Strategy.

In addition to the following forecasting information which is subject to the clarification that ARTC will not provide it where it would allow an Access Holder to determine the coal volumes or Contracted Coal KM of another Access Holder⁷⁶⁶:

- The aggregate annual coal volumes contracted by Access Holders for each of the following 10 calendar years.
- The forecast range of Standard Access Charges for each of the 2 calendar years following the year for which Standard Access Charges are notified under section 4.18(d) (ARTC states that the proposed opex efficiency mechanism will make this clause redundant).

⁷⁶⁶ Section 4.19(a)(iii) of the 2017 HVAU.

- The minimum aggregate annual coal volumes for all Access Holders for each of the following 10 calendar years, which will be determined by identifying the shortest possible term applicable to each AHA, should the Access Holder exercise any rights of early termination under that agreement.

Section 4.19(b) of the 2017 HVAU clarifies that the forecasts provided to Access Holders are not binding on ARTC.

Section 4.18(f) of the 2017 HVAU describes the dispute resolution process available to Access Holders if they dispute the Standard Access Charges. The dispute resolution process can only be triggered if Access Holders that hold at least two-thirds of the Contracted Coal KM for all Services within the Services Envelope in the relevant Pricing Zone for the following calendar year raise a dispute.

Section 4.18(g) states that ARTC will publish its final Standard Access Charges on its website.

17.1.1. Comparison to 2011 HVAU

Sections 4.18 and 4.19 of the 2017 HVAU replace sections 4.20 and 4.21 of the 2011 HVAU, respectively.

ARTC proposes the inclusion of two new provisions into section 4.18 of the 2017 HVAU that reflect changes made to section 4.7 to incorporate Prospective Mines into the calculation of WAML—discussed in further detail in chapter 13 of this Draft Decision:

- Section 4.18(a)(i) states that an Access Holder can provide information to ARTC to demonstrate the requirements of a Prospective Mine.
- Section 4.18(d)(iv) states that if relevant, ARTC will notify Access Holders of any changes to the calculation of the WAML.

Section 4.18(a)(ii) of the 2017 HVAU has been amended to clarify that proposed variations may arise from the new provisions relating to Relinquished Capacity under section 4.20 (and a similar amendment at section 4.18(c)). Additionally, ARTC specifies that it may seek information from Access Holders about proposed variations for the following 10 calendar years, where the equivalent provision in the 2011 HVAU stated that ARTC may seek this information from Access Holders only for the following calendar year.

Sections 4.18 and 4.19 of the 2017 HVAU contain drafting amendments to reflect ARTC's path based pricing proposal (discussed in further detail in chapter 15 of this Draft Decision).

Section 4.19(a)(iii)(B) of the 2017 HVAU is a new provision that states that ARTC will provide Access Holders with a forecast of Standard Access Charges for the following 2 years in the format set out in Schedule F. ARTC notes that this change was made in response to requests from members of HRATF.⁷⁶⁷ ARTC submits that this clause and the associated Schedule F will likely be made redundant with the introduction of the proposed opex efficiency mechanism.

ARTC proposes to change the date by which ARTC must provide cost and forecasting information to Access Holders, from 1 November (in the 2011 HVAU) to 30 September (in the 2017 HVAU). ARTC notes that this change was made in response to requests from members of HRATF.⁷⁶⁸

⁷⁶⁷ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 18.

⁷⁶⁸ *Ibid.*

17.1.2. Comparison to 2016 HVAU

The only material change from the 2016 HVAU are the provisions arising from the inclusion of Prospective Mines into the calculation of the WAML, discussed above (sections 4.18(a)(i) and 4.18(d)(iv) of the 2017 HVAU).

17.2. Stakeholder submissions

17.2.1. 2017 HVAU

While HRATF notes a number of concerns around ARTC's treatment of prospective mines, it has not made specific submissions on the inclusion of prospective mines into the process for finalising access charges. For further discussion about the treatment of prospective mines, see chapter 13 of the Draft Decision.

HRATF identifies that under section 4.18(c) of the 2017 HVAU, Standard Access Charges will be calculated with reference only to Contracted Coal KM. HRATF notes that this only includes TOP Charges, however non-TOP Charges should be calculated with reference to GTK.⁷⁶⁹

HRATF proposes an amendment to section 4.19(a)(iii)(B) of the 2017 HVAU that requires ARTC to specify a forecast range of +/- 5 per cent of the Standard Access Charges.

17.2.2. 2016 HVAU

No stakeholders commented on finalising access charges and the provision of forecasts in their submissions on the 2016 HVAU.

17.3. ACCC view

The ACCC notes that the proposed amendments relating to the inclusion of Prospective Mines and to Relinquished Capacity are broadly appropriate as they reflect amendments made to other sections of the 2017 HVAU which the ACCC has determined appropriate. See chapter 13 of this Draft Decision for further discussion on the inclusion of Prospective Mines into the calculation of WAML. See chapter 18 of this Draft Decision for further discussion on the provision relating to Relinquished Capacity (under section 4.20).

The ACCC considers that the transparency and objectivity of processes under section 4.18 of the 2017 HVAU should be improved. Specifically, that ARTC should describe the decision making process it would undertake when assessing whether a mine or project satisfies the definition of a Prospective Mine under section 4.18(a)(i). The ACCC notes that this amendment would need to be reflected in other sections of the 2017 HVAU that reference Prospective Mines, including sections 3.7 and 4.7. Additionally, the ACCC considers that ARTC should outline the steps it will take when determining the Standard Access Charges under section 4.18(c). The ACCC considers that these amendments will promote clarity and certainty in the effect and operation of the 2017 HVAU (section 44ZZA(3)(e)).

The ACCC notes that HRATF identifies a drafting error in section 4.18(c) of the 2017 HVAU relating to the calculation of Standard Access Charges. The ACCC agrees with HRATF that the calculation of Standard Access Charges in section 4.18(c) should reflect ARTC's proposed structure of access charges in section 4.12(a). Namely, that access charges are made up of the combination of a TOP component, charged on a Train Km basis, and a non-TOP component, charged on a GTK basis. See chapter 15 of this Draft Decision for

⁷⁶⁹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 79.

further discussion on ARTC's proposed structure of coal access charges. The ACCC therefore considers that ARTC should amend section 4.18(c) so that it is consistent with the drafting in section 4.12(a).

The ACCC notes that ARTC proposes an amendment to section 4.18(a) that allows ARTC to seek any proposed variations to an Access Holder's Contracted Coal KM and tonnage requirement for the following 10 calendar years, where the equivalent provision in the 2011 HVAU stated that ARTC could only seek this information from Access Holders for the following calendar year. The ACCC considers that this amendment may place additional burden on Access Holders. However, the ACCC also considers that by having information about likely capacity variations over a 10 year period, rather than only a 1 year period will enable ARTC to make more accurate capacity management decisions and more efficient investment decisions. The ACCC additionally notes that no stakeholders made a submission on this proposed amendment. Having regard to the legitimate business interests of ARTC (section 44ZZA(3)(a)) and to the economically efficient operation of, use of and investment in the Hunter Valley rail network (section 44ZZA(3)(aa)), the ACCC considers that overall this amendment is appropriate.

The ACCC considers the change of date that ARTC is required to provide cost and forecasting information to Access Holders (from 1 November to 30 September, under sections 4.18(d) and 4.19(a)), benefits persons who might want access to the Hunter Valley rail network (section 44ZZA(3)(c)), as it provides additional time for Access Holders to make planning and investment decisions. This, in turn, promotes the economically efficient use of the Hunter Valley rail network (section 44ZZA(3)(aa)).

The ACCC notes HRATF's proposal that section 4.19(a)(iii)(B) be amended to specify a forecast range of +/- 5 per cent of the Standard Access Charges. The ACCC notes that ARTC has identified that this clause will likely be made redundant with the introduction of the proposed opex efficiency mechanism. If the section remains in the 2017 HVAU however, the ACCC considers it appropriate that ARTC specify a forecast range as it would provide additional clarity and certainty in the effect and operation of the 2017 HVAU (section 44ZZA(3)(e)). The ACCC therefore considers that ARTC should amend section 4.19(a)(iii)(B) to specify the intended forecast range for its Standard Access Charges forecasts.

In light of the above, and subject to ARTC providing additional details to Access Holders around the processes under sections 4.18(a)(i) and 4.18(c) and ARTC correcting the apparent drafting error in section 4.18(c), the ACCC considers ARTC's proposal for finalising access charges to be appropriate.

In addition, subject to ARTC amending section 4.19(a)(iii)(B) to specify a forecast range as discussed above, the ACCC also considers ARTC's proposal for providing forecast information, pricing and coal volumes to be appropriate.

18. Capacity management

This chapter considers the capacity management provisions under section 4.20, section 5 and Schedule G of the 2017 HVAU, and clause 16 of the 2017 indicative AHA.

ARTC proposes the following changes from the 2011 HVAU:

- additional principles to guide ARTC's consultation with the HVCCC (under Schedule G)
- a new provision relating to ARTC facilitating the voluntary relinquishment of capacity by Access Holders (under section 4.20)
- removing the requirements to undertake a review of the mechanism to identify and assign capacity losses (section 5.8 of the 2011 HVAU), and a review of the appropriate timeframes for ARTC to approve or reject trades (clause 16.8 of the 2011 indicative AHA).

The ACCC considers that the capacity management provisions in the 2017 HVAU and indicative AHA are appropriate, subject to amendments to Schedule G to require ARTC to undertake consultation with the HVCCC within particular timeframes.

The ACCC notes submissions on the potential inclusion of a mechanism to facilitate short term or one off spot purchasing agreements in the event there is spare capacity. The ACCC would welcome ARTC submitting such a proposal for assessment in any revised undertaking.

18.1. ARTC proposal

Capacity management provisions in the 2017 HVAU are designed to facilitate coordination and cooperation between various parties in the Hunter Valley Coal Chain, with the objective of ensuring contracted volumes align with overall supply chain capacity. These provisions are underpinned by the consultation commitments between ARTC and the HVCCC.⁷⁷⁰

In section 5.1 of the 2017 HVAU, ARTC sets out that in consultation with the HVCCC, it will develop 'System Assumptions'—consistent protocols for capacity management. Section 5.2 describes the process ARTC will undertake to determine Available Capacity on the Hunter Valley rail network in response to an application for Access. Section 5.7 provides a mechanism for reducing the Capacity Entitlement of an Access Holder, and is supported by various provisions in the 2017 indicative AHA. Section 4.20 (a new provision in the 2017 HVAU), details the process by which ARTC can facilitate the permanent assignment of Relinquished Capacity.

The remaining provisions of section 5 set out how ARTC will identify and allocate available capacity or shortfalls in capacity. Section 5.3 describes how ARTC will proceed if it identifies a shortfall in existing capacity. Sections 5.4 and 5.5 describe how ARTC will proceed if it identifies a capacity shortfall of less than 5 days, or more than 5 days, respectively. Section 5.6 describes how ARTC will proceed if it identifies a shortfall in capacity resulting from a project intended to create Additional Capacity.

Schedule G of the 2017 HVAU sets out the principles that ARTC will commit to when consulting with the HVCCC.

Capacity management provisions are reflected in the 2017 indicative AHA. Clause 11.4 is an 'anti-hoarding' provision, allowing ARTC to remove capacity allocations in some circumstances, where Access Holders cannot demonstrate a sustained need for that

⁷⁷⁰ Capacity management provisions in the 2017 HVAU are supported by the Hunter Valley Supply Chain Alignment Protocol, the objective of which is to ensure ARTC and the HVCCC establish, develop, implement and monitor suitable mechanisms that assist both parties to carry out their respective roles in an effective, timely and consistent manner that meets the requirements of the HVAU.

capacity. Clauses 11.5 and 11.6 provide for the variation or cancellation of Access Rights in circumstances where an Access Holder runs Services that are inconsistent with their contracted allocation. Clauses 11.5 and 11.6 are discussed further in chapter 22 of this Draft Decision. Clause 16 sets out a number of provisions relating to the permanent and temporary trading of paths.

18.1.1. Comparison to 2011 HVAU

The 2017 HVAU does not include section 5.8 of the 2011 HVAU, which required ARTC to undertake a review of the mechanism to identify and assign capacity losses. ARTC completed this review in 2013.⁷⁷¹ ARTC notes that neither ARTC nor the HVCCC considered this requirement effective or appropriate and, therefore, it has removed the provision in the 2017 HVAU.⁷⁷²

Section 5 has otherwise remained largely unchanged between the 2011 HVAU and the 2017 HVAU.

ARTC has included additional principles to guide ARTC's consultation with the HVCCC in Schedule G of the 2017 HVAU (compared with Schedule F of the 2011 HVAU). ARTC notes that these changes relate to strengthening ARTC's commitments in the event that ARTC disagrees with a view of the HVCCC, and provides increased transparency requirements on ARTC in the event of a disagreement with the HVCCC (sections 6 and 7 of Schedule G of the 2017 HVAU).⁷⁷³

ARTC introduced a new provision relating to Relinquished Capacity (section 4.20 of the 2017 HVAU). ARTC notes this provision was included at the request of the HRATF.⁷⁷⁴ Section 4.20(a) outlines the principles by which ARTC will facilitate the voluntary relinquishment of contracted capacity by Access Holders. Section 4.20(b) states that if an Access Holder nominates Relinquished Capacity but is unable to assign or trade the capacity to a third party, then the Access Holder will be liable for the TOP Charges.

ARTC removed clause 16.8 of the 2011 indicative AHA, which required ARTC to undertake a review of the appropriate timeframes for ARTC to approve or reject trades. The ACCC notes that ARTC completed this review in 2012.⁷⁷⁵

Clause 16 has otherwise remained largely unchanged in the 2011 indicative AHA, compared with the 2017 indicative AHA.

18.1.2. Comparison to 2016 HVAU

ARTC has made no material changes to section 5 and Schedule G in the 2017 HVAU compared with the 2016 HVAU.

⁷⁷¹ ARTC, *ARTC Hunter Valley Access Undertaking: Capacity loss review report*, 27 June 2013, available at: <https://www.artc.com.au/customers/access/access-hunter-valley/review-of-mechanism-to-identify-and-assign-capacity-losses/>.

⁷⁷² ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 18.

⁷⁷³ *Ibid.*, p. 21.

⁷⁷⁴ *Ibid.*, p. 18.

⁷⁷⁵ ARTC, *2011 Hunter Valley Coal Network Access Undertaking Review of Timeframes for Temporary Trade Advice*, 29 June 2012, available at: <https://www.accc.gov.au/system/files/HVAU%202011%20-%20Letter%20from%20ARTC%20to%20HVCCC%20-%20Review%20of%20timeframes%20for%20temporary%20trades%20-%2029%20June%202012.pdf>

18.2. Stakeholder submissions

18.2.1. 2017 HVAU

AGL proposes that a new mechanism be introduced into the 2017 HVAU which provides for a workable process for obtaining 'last minute' spare capacity, particularly for non-export Access Holders. AGL acknowledges that clause 16.4 of 2017 indicative AHA provides a mechanism by which an Access Holder can trade for short term or one off capacity that would otherwise go unused. However, clause 16.4 requires HVCCC endorsement and several days advanced notice to ARTC and as such, does not enable an Access Holder to respond to fast-paced market developments. AGL endorses Asciano's (now Pacific National) comments on this issue in its submission on the 2016 HVAU.⁷⁷⁶

AGL additionally proposes that ARTC be required to report on the amount of spare (unused) capacity on a weekly basis, as well as provide a 3 month forecast. This would allow Access Holders to identify Segments where it may be possible to acquire last minute spare capacity. AGL argues that this would allow non-HVCCC members to have access to a similar degree of information to HVCCC members.⁷⁷⁷

Pacific National reiterated the views in its 2016 submission regarding a short-term spot purchasing mechanism—this is discussed below.

Aurizon notes its concern with the new provision at section 4.20 of the 2017 HVAU that provides for facilitating assignments of Relinquished Capacity. Aurizon is concerned with section 4.20(b) that states, where an Access Holder is unable to assign or trade capacity to a third party, it will remain liable for TOP Charges.⁷⁷⁸

18.2.2. 2016 HVAU

HRATF noted that the capacity management provisions in section 5 of the existing 2011 HVAU have generally worked well.⁷⁷⁹

HRATF acknowledged that ARTC has incorporated some of HRATF's feedback by improving the consultation process in Schedule G. However, HRATF considered the process could be further strengthened. HRATF proposed drafting changes to Schedule G that strengthen the requirements on ARTC when consulting with the HVCCC. Namely, by imposing timelines on ARTC's consultation periods and by broadening the obligation on ARTC to consult with Access Holders in the event that ARTC disagrees with a view of the HVCCC.⁷⁸⁰

HRATF supported ARTC's decision to remove the provision requiring ARTC to undertake a review of the mechanism to identify and assign capacity losses (section 5.8 of the 2011 HVAU) given the review has been completed.⁷⁸¹

HRATF noted its support for the addition of the mechanism facilitating Relinquished Capacity (section 4.20 of the 2016 HVAU) and proposed drafting changes to section 5.2 that requires

⁷⁷⁶ AGL, *ARTC 2017 HVAU – ACCC Consultation Paper*, 2 February 2017, p. 2.

⁷⁷⁷ *Ibid.*, pp. 3–4.

⁷⁷⁸ Aurizon, *2017 ARTC Hunter Valley Access Undertaking*, 3 February 2017, p. 12.

⁷⁷⁹ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 30.

⁷⁸⁰ *Ibid.*, pp. 30–31.

⁷⁸¹ *Ibid.*, p. 31.

ARTC to check whether capacity could be made available under the Relinquished Capacity mechanism when undertaking a Capacity Analysis.⁷⁸²

Bloomfield endorsed HRATF's position on capacity management.⁷⁸³

The HVCCC supported ARTC's decision to remove the provision relating to the assignment of capacity losses (under section 5.8 of the 2011 HVAU) on the grounds that other efficiency mechanisms are developed, such as the Innovation Incentive Mechanism and the opex incentive mechanism (sections 14 and 9.3 of the 2016 HVAU respectively).⁷⁸⁴

Asciano (now Pacific National) considered Schedule G should include an explicit provision that requires ARTC to consult with above-rail operators in circumstances where decisions negotiated between ARTC and the HVCCC directly relate to train operations.

Asciano noted it had no concerns with the removal of the provision relating to the assignment of capacity losses (section 5.8 of the 2011 HVAU) as long as there are alternative provisions relating to achieving efficiency – such as the Innovation Incentive Mechanism or opex incentive mechanism.⁷⁸⁵

Asciano additionally proposed that ARTC develop a new mechanism to be incorporated into the indicative AHA, which facilitates short term spot purchasing agreements when there is spare capacity. Such a mechanism could facilitate coal chain alignment in circumstances when non-export Access Holders purchase coal on spot markets where the quantity of coal is not necessarily known in advance.⁷⁸⁶

PWCS highlighted that:

*[p]ositive performance incentives may lead to beneficial results for capacity and logistics costs, however mechanisms are also required to deal with capacity shortfalls on track.*⁷⁸⁷

However, PWCS additionally noted that its capacity and performance management system should not be relied on by ARTC to allocate losses of track system capacity.

Centennial Coal did not directly address the changes proposed by ARTC but noted the imperative to promote an efficient interface between the Hunter Valley rail network and other rail networks.⁷⁸⁸

18.3. ACCC view

Capacity management and HVCCC consultation

The ACCC notes that stakeholders consider that the existing capacity management provisions in the 2011 HVAU have 'generally worked well'. Consequently ARTC has made only minor changes to section 5.

⁷⁸² HRATF, *Submission on 2016 HVAU: Attachment Proposed Amendments to HVAU*, 9 March 2016, p. 62.

⁷⁸³ Bloomfield Coal, *Submission on 2016 HVAU*, 9 March 2016, p. 2.

⁷⁸⁴ HVCCC, *Submission – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 7 March 2016, pp. 4-5.

⁷⁸⁵ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, pp. 6-17.

⁷⁸⁶ *Ibid.*, p. 23.

⁷⁸⁷ PWCS, *Australian Rail Track Corporation's 2016 HVAU – Consultation Paper*, 19 February 2016, p. 2.

⁷⁸⁸ Centennial Coal, *Submission by Centennial Coal to Consultation Paper ARTC's 2016 Hunter Valley Access Undertaking*, 29 February 2016, p. 1.

ARTC's proposed amendments to Schedule G clarify the processes around HVCCC consultation and strengthen obligations on ARTC in the event that ARTC disagrees with a view of the HVCCC. The ACCC considers these amendments provide additional clarity around the HVCCC consultation process compared with the 2011 HVAU.

The ACCC notes that HRATF broadly supported the proposed changes and acknowledged that ARTC incorporated feedback from HRATF into the drafting of Schedule G. HRATF proposed additional drafting changes that impose timelines within which ARTC must comply with specific obligations and additionally to broaden the obligation on ARTC to consult with Access Holders in the event that ARTC disagrees with a view of the HVCCC. The ACCC maintains the position set out in its preliminary views letter, that it agrees with HRATF's suggested amendments where they provide further certainty without unduly restricting ARTC's ability to manage its network.⁷⁸⁹ Particularly, the ACCC considers the consultation process could be improved if ARTC incorporates HRATF's proposed timelines within which ARTC must comply with specific obligations. The ACCC considers this provides an appropriate balance between ARTC's legitimate business interests (section 44ZZA(3)(a)), the interests of those who might want access to the Hunter Valley rail network (section 44ZZA(3)(c)), and the objects of Part IIIA (section 44ZZA(3)(aa)). Accordingly, the ACCC considers that ARTC's proposal (incorporating HRATF's proposed timelines) is appropriate.

The ACCC notes that ARTC has introduced a new provision relating to Relinquished Capacity (section 4.20 of the 2017 HVAU) at the request of HRATF, and that HRATF noted its support for this provision in its submission to the 2016 HVAU. ARTC states that this new provision will allow Access Holders to manage their TOP exposure.⁷⁹⁰ The ACCC considers that this new provision will provide flexibility to Access Holders by facilitating the trade of capacity in circumstances where an Access Holder requires less capacity than contracted for and / or an Access Holder requires more capacity than contracted for. The ACCC considers this provision benefits Access Holders by providing them flexibility and a mechanism to manage TOP exposure (section 44ZZAA(3)(c)), and maximises the use of the network, promoting the economically efficient operation of, use of and investment in the Hunter Valley rail network (section 44ZZAA(3)(aa)). Consequently, the ACCC considers this new provision is appropriate.

The ACCC notes Aurizon's concern with section 4.20(b) which states that where an Access Holder is unable to assign or trade capacity, it remains liable to ARTC for the TOP Charges for that Relinquished Capacity. Aurizon argues that this caveat contradicts the efficiency objective that ARTC notes as its rationale for the proposed change to path based pricing—see chapter 15 of this Draft Decision for further discussion ARTC's path based pricing proposal.

Capacity losses

ARTC has removed the requirement to undertake a review of the mechanism to identify and assign capacity losses (section 5.8 of the 2011 HVAU). The ACCC notes that ARTC completed this review in 2013, in compliance with section 5.8 of the 2011 HVAU.

The ACCC notes that HRATF supports this amendment. The HVCCC and Pacific National additionally support it, on the condition that ARTC pursue alternative efficiency proposals, for example the Innovation Incentive Mechanism and the opex efficiency mechanism. PWCS raised the concern that while positive performance initiatives may reduce capacity and

⁷⁸⁹ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 7.

⁷⁹⁰ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 8.

logistics costs, it is also important that there are mechanisms in place to deal with capacity shortfalls.

The ACCC agrees with the HVCCC and Pacific National that if alternative efficiency proposals are in place, such as a workable opex efficiency mechanism, there is less imperative to include a mechanism requiring ARTC to assign capacity losses.

Having regard to the legitimate business interests of ARTC (section 44ZZA(3)(a)) and the interests of persons who might want access to the Hunter Valley rail network (section 44ZZA(3)(c)) – given both ARTC and Access Holders support the removal of section 5.8 – the ACCC considers it to be appropriate to remove section 5.8 from the 2017 HVAU.

Short term trading

The ACCC notes submissions by Pacific National and AGL that the 2017 HVAU could be improved by including a mechanism to facilitate short term or one off spot purchasing agreements in the event there is spare capacity. The ACCC considers such a mechanism has the potential to maximise the use of spare capacity and promote efficiency. The ACCC would welcome ARTC submitting such a proposal for assessment in any revised undertaking.

19. Capacity investment framework

The proposed investment framework for providing additional capacity on the Hunter Valley rail network is set out in sections 7 to 11 of the 2017 HVAU. The capacity investment framework comprises of three sections:

- **Project initiation** - a process to identify new projects that increase capacity. ARTC is required to prepare a Concept Assessment Report for endorsement by the RCG.
- **Industry consultation** - a staged process is set out for the development and implementation of a project in consultation with industry (represented by the RCG).
- **User funding option** - if ARTC elects not to fund all or part of a project (whether or not endorsed by the RCG or ACCC), users have the option to fund it themselves and ARTC will become obliged to undertake the project pursuant to a user funding agreement.

The ACCC considers that the proposed capacity investment framework is appropriate, subject to the following amendments to the industry consultation provisions:

- section 9.2(i) should be expanded to include a section providing that ARTC could seek ACCC endorsement of a proposal under section 9.2(a)(ii) of capital costs being treated as fixed costs rather than incremental capital costs if not endorsed by the RCG.
- the 2017 HVAU should set out the minimum number of monthly RCG meetings required per year.

Project initiation

19.1. ARTC proposal

Section 8 of the 2017 HVAU sets out the project initiation process proposed by ARTC. The project initiation process is the means by which new projects offering additional capacity are identified. Pursuant to section 8.1, ARTC is required to develop the Hunter Valley corridor capacity strategy on an annual basis in order to ensure sufficient capacity exists to meet producers' demand.

ARTC may seek endorsement from the RCG for projects identified in the Hunter Valley corridor capacity strategy to proceed to concept assessment.⁷⁹¹ Should this take place, ARTC propose to include the costs of undertaking the Concept Assessment Report in the RAB or expensed in the year incurred.⁷⁹² ARTC may also seek RCG endorsement for other projects not necessarily identified in the Hunter Valley corridor capacity strategy.⁷⁹³ The project initiation process sets out a process for the HVCCC to recommend a project to provide additional capacity, as well as for an access seeker to request additional capacity.⁷⁹⁴

19.1.1. Comparison to 2011 HVAU

ARTC do not propose any material changes to the project initiation process in section 8 of the 2017 HVAU compared with the 2011 HVAU

19.1.2. Comparison to 2016 HVAU

ARTC made no material changes to the project initiation process compared with the 2016 HVAU.

⁷⁹¹ Section 8.2 of the 2017 HVAU.

⁷⁹² Ibid.

⁷⁹³ Section 8.5 of the 2017 HVAU.

⁷⁹⁴ Sections 8.3-8.4 of the 2017 HVAU.

19.2. Stakeholder submissions

19.2.1. 2017 HVAU

Stakeholders did not comment on the project initiation provisions in their submissions on the 2017 HVAU.

19.2.2. 2016 HVAU

PWCS noted that there has been significant change in the coal industry environment in recent years. PWCS noted that the focus has now shifted from rapid growth to optimisation of infrastructure and cost reductions. PWCS submitted that the 2016 HVAU should be responsive to a range of industry conditions and cater for additional investment, optimisation of existing infrastructure, and possible contraction of capacity where appropriate.⁷⁹⁵

19.3. ACCC view

The ACCC notes submissions from ARTC and PWCS on the change in market conditions, and the change in focus for the industry from capacity investment in the Hunter Valley coal network to consolidation, productivity improvement, and reduction.⁷⁹⁶ The ACCC notes that ARTC has sought to recognise this change in its development of the 2017 HVAU, for example with the proposed introduction of an opex efficiency mechanism. Consequently, ARTC has not made any material changes to the project initiation process under the Capacity Investment Framework. In light of the above, and having regard to the interests of persons who might want access to the Hunter Valley rail network (section 44ZZA(3)(c)) and the legitimate business interests of ARTC (section 44ZZA(3)(a)), the ACCC considers that the project initiation process is appropriate.

Industry consultation

19.4. ARTC proposal

Section 9 of the 2017 HVAU sets out the objectives and process for industry consultation – in particular through the RCG. ARTC submits that the role of the RCG has been expanded to include a greater level of consultation with Access Holders and other stakeholders in decision making.⁷⁹⁷ First, under section 9.2(c) of the 2017 HVAU, ARTC proposes extending membership of the RCG to all coal Access Holders, rather than having some members represented by an elected representative member, so that the RCG is representative of all coal producers.

Second, ARTC submits that in response to stakeholder requests for greater transparency it has proposed amendments to expand the matters it reports on to the RCG. In addition to consulting with the RCG for obtaining endorsement of capital costs, in the 2017 HVAU ARTC also proposes to:

- provide information to the RCG on planned maintenance, and forecast maintenance costs
- report to RCG on efficiency and operational outcomes, actual maintenance undertaken by ARTC, and associated maintenance costs incurred.

⁷⁹⁵ PWCS, *Australian Rail Track Corporation's 2016 HVAU – Consultation Paper*, 19 February 2016, p. 2.

⁷⁹⁶ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 7.

⁷⁹⁷ *Ibid.*, p. 18.

However, ARTC note that the provisions set out in section 9.2 for the reporting to RCG on efficiency measures and general operational outcomes are likely to be impacted by the proposed opex efficiency mechanism, and are therefore likely to change.⁷⁹⁸

In keeping with the proposed move to path based pricing, ARTC also proposes to adjust the weighting for voting of the RCG from GTK to Train Km.

ARTC also proposes to remove the requirement for monthly meetings. That is, under section 9.2 ARTC will convene and conduct monthly meetings of the RCG, unless ARTC reasonably considers that a meeting for a month is not required. ARTC submits it has made this amendment to avoid situations, for example in the Christmas period, when the requirement for monthly meetings is restrictive.

19.4.1. Comparison to 2011 HVAU

Changes to the RCG in the 2017 HVAU extend membership to all coal Access Holders. The 2011 HVAU required that meetings be held monthly for the express purpose of seeking endorsement of capex associated with additional capacity or capex on the Network. The 2017 HVAU now proposes to broaden the scope of consultation with the RCG, including in relation to innovation projects, the provision of information to the RCG on planned maintenance, and reporting on efficiency and operational outcomes.

19.4.2. Comparison to 2016 HVAU

ARTC proposed no material changes to the industry consultation provisions in the 2017 HVAU compared to the 2016 HVAU. A minor change is the inclusion of paragraph 9.2(ii) in the 2017 HVAU to allow ARTC to request endorsement by the RCG of capital costs being treated as Fixed Costs rather than Incremental Capital Costs.⁷⁹⁹

19.5. Stakeholder submissions

19.5.1. 2017 HVAU

HRATF supports the proposal to expand the scope of the RCG to be able to approve any amendment to endorsing specific costs as Fixed Costs, rather than Incremental Capital Costs. HRATF note that this support is conditional, provided that the voting process does not result in material unfairness as between producers in different Pricing Zones.⁸⁰⁰

Idemitsu submits that it has concerns regarding the role of the RCG in the application of section 9.2(a)(ii). That is, based on the proposed voting process, Idemitsu consider it highly unlikely that there will be endorsement by the RCG of capital costs being treated as Fixed Costs rather than Incremental Capital Costs.⁸⁰¹ Idemitsu submits that to ensure an equitable outcome it may be appropriate for the ACCC to adjudicate on such a situation.⁸⁰²

AGL supports the inclusion of all coal Access Holders in the RCG as it considers this will allow more equitable and fulsome participation in the decision making processes that impact rail users.⁸⁰³

⁷⁹⁸ Ibid., p. 19.

⁷⁹⁹ Section 9.2 of the 2017 HVAU.

⁸⁰⁰ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 34.

⁸⁰¹ Idemitsu, *Consultation Paper – ARTC’s 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 3.

⁸⁰² Ibid., p. 4.

⁸⁰³ AGL, *ARTC 2017 HVAU – ACCC Consultation Paper*, 2 February 2017, p. 4.

19.5.2. 2016 HVAU

HRATF submitted that it considers that the RCG has been proven to be an effective, and therefore, valuable mechanism for balancing the interests of ARTC with those of Access Holders. In particular, HRATF submitted that the benefits arising from the RCG engagement process include the following:

- providing the opportunity for Access Holders to seek to ensure that investment in the Hunter Valley rail network would align with capacity expansions at the coal terminals at the Port of Newcastle and underpin complementary investment in mine expansions
- acting to incentivise ARTC to invest efficiently, consistent with the objects of Part IIIA of the Act.
- providing for a number of stages where the RCG is asked to endorse a project for it to proceed to the next stage.⁸⁰⁴

However, HRATF submitted that the proposed changes to consultation for maintenance plans, forecast operating costs, and reporting of actual costs and operational outcomes do not go far enough. HRATF submitted there should be further changes to specify clear reporting and metrics on efficiency and to include a clear prudence requirement for endorsement of innovation projects.⁸⁰⁵ HRATF also considered that ARTC should be obliged to give RCG members at least 10 days written notice if it considers an RCG meeting for that month is not required. Further, that if, having received notice from ARTC that it does not propose to convene a meeting in a particular month, any RCG member disagrees, then that member should have the right to convene the meeting.⁸⁰⁶ Individual members of HRATF have also responded to the membership extension of RCG and changes in the weighting for voting.⁸⁰⁷

PWCS considered the representation by the terminal operators (in a non-voting capacity) could add value and context to the discussions of the group and contribute to addressing alignment issues.⁸⁰⁸

Asciano (now Pacific National) submitted that extending the RCG membership is appropriate and considers that membership of the RCG should be extended further to include above-rail operators.⁸⁰⁹ Asciano supported the proposal for the RCG to take a more active role in consultation with regard to ARTC's maintenance plans and operational outcomes.⁸¹⁰ However, Asciano submitted that as these are matters of direct interest to train operators (as they directly impact train operations rather than access rights), any consultation between the RCG and ARTC in relation to ARTC's maintenance plans and operational outcomes must include train operators.⁸¹¹ In relation to the changes to weighting for voting, Asciano submitted that it would seem that this approach would increase the relative voting power of Access Holders which have smaller tonnages and / or are further away from the port and decrease the voting power of Access Holders with larger tonnages and / or are closer to the port.⁸¹²

⁸⁰⁴ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 32.

⁸⁰⁵ *Ibid.*

⁸⁰⁶ *Ibid.*, pp. 32-33.

⁸⁰⁷ *Ibid.*, p. 33.

⁸⁰⁸ PWCS, *Australian Rail Track Corporation's 2016 HVAU – Consultation Paper*, 19 February 2016, p. 2.

⁸⁰⁹ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 17.

⁸¹⁰ *Ibid.*

⁸¹¹ *Ibid.*, p. 18.

⁸¹² *Ibid.*

Bloomfield submitted that changes in RCG membership should be at the election of Access Holders and not at the direction of ARTC. Further, agreement from ARTC should not be required if an access holder no longer wishes to be a part of RCG.⁸¹³

Glencore submitted that membership of RCG should not be extended to allow participation of all Access Holders; it should remain only for significant Access Holders to ensure a more effective decision making body. Glencore also submits that voting should remain based on GTK, as it is more reflective of the basis on which costs are recovered from Access Holders.⁸¹⁴

The HVCCC submitted that establishing a requirement for a minimum number of RCG meetings per year would guarantee a degree of meeting regularity but still allow for timing or frequency flexibility.⁸¹⁵

Whitehaven submitted that as all Access Holders contribute revenue to ARTC, RCG membership should therefore be open to all Access Holders. Whitehaven submitted that the inclusion of coal chain service providers at RCG meetings should be at the discretion of the Access Holders. Whitehaven also submitted that in the event path based pricing is adopted, voting rights within the RCG should also be calculated based on Train Km rather than GTK.⁸¹⁶

19.6. ACCC view

The ACCC considers that the industry consultation provisions are appropriate, subject to the inclusion of a minimum number of meetings and expansion of section 9.2(i) enabling the potential for ACCC endorsement.

The ACCC considers that the RCG should be an appropriately representative body in relation to its functions and purpose. The ACCC notes the support of HRATF, Whitehaven, AGL, Pacific National, and PWCS for the proposed extended membership of the RCG to all coal Access Holders. The ACCC also notes the concerns of Glencore that RCG membership be limited to significant Access Holders to ensure a more effective decision making body. The ACCC considers the wider participation in the RCG will contribute to promoting efficient investment decisions, and efficient operation of the Hunter Valley rail network, in accordance with section 44ZZA(3)(aa). Consequently, the ACCC considers that extending the membership of the RCG to all Access Holders to include a greater level of consultation is appropriate.

Asciano (now Pacific National) submits that membership of the RCG should be extended further to include train operators. The ACCC notes that train operators currently comprise part of the membership of the RCG albeit in a non-voting capacity. The ACCC considers that maintaining this role is still likely to be appropriate considering that train operators will have input into any consultation between the RCG and ARTC on the matters that impact train operations, such as ARTC's maintenance plans and operational outcomes. Further, train operators may also be in a position to influence its coal access holder customers to represent its interests in their voting capacity given the substantial alignment of interests in the efficient operation of the Hunter Valley rail network. PWCS considers the representation by the terminal operators (in a non-voting capacity) could add value and context to RCG discussions and contribute to addressing alignment issues. The ACCC considers that the

⁸¹³ Bloomfield, *Submission on 2016 HVAU*, 9 March 2016, p. 3.

⁸¹⁴ Glencore, *Submissions to the Australian Competition and Consumer Commission Hunter Valley Coal Network Access Undertaking submitted by Australian Rail Track Corporation ("ARTC")*, 15 March 2016, p. 6.

⁸¹⁵ HVCCC, *Submission – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 7 March 2016, p. 3.

⁸¹⁶ Whitehaven, *Whitehaven Coal Response to ACCC Consultation Paper on ARTC's draft 2016 Hunter Valley Access Undertaking*, 8 March 2016, p. 5.

participation of terminal operators at RCG meetings should be at the discretion of ARTC and Access Holders (section 44ZZA(3)(a) and (c)). The ACCC understands that in practice terminal operators and any other relevant stakeholders are invited to RCG meetings on an as needs basis where their input as part of a consultation process is sought. The ACCC encourages the continuance of this practice.

The ACCC notes that in general HRATF considers the RCG has proven to be an effective, and therefore, valuable mechanism for balancing the interests of ARTC with those of Access Holders. However, the ACCC notes HRATF's view that the proposed changes to the scope of RCG reporting to include consultation on planned maintenance, forecast operating costs, and reporting of actual costs and operational outcomes do not go far enough. The ACCC considers that the requirements under section 9.2(a)(iv) and (v) are demonstrative of the steps ARTC is undertaking to increase transparency for Access Holders in relation to costs, and maintenance plans. The ACCC considers that the proposed discussion of maintenance activities at RCG meetings reflects an appropriate balance of the interests of access seekers and ARTC's legitimate business interests, namely an ability for ARTC to plan for and make investment decisions, and therefore exert appropriate control over significant commercial decisions that will impact its business operations. The ACCC also notes ARTC's commitment to developing an opex efficiency mechanism, and its involvement and consultation with industry during this process, which will also serve to increase transparency (section 44ZZA(3)(a) and (c)).

The ACCC notes the concerns raised by Idemitsu regarding the role of the RCG in the application of section 9.2(a)(ii), and the suggestion that it may be appropriate for the ACCC to adjudicate on such proposals. The ACCC notes that ARTC has the ability to seek endorsement of project expenditure if not endorsed by the RCG under section 9.2(i)(i). The ACCC considers that section 9.2(i) should be expanded to additionally include a section providing that ARTC could seek ACCC endorsement of a proposal under section 9.2(a)(ii) of capital costs being treated as Fixed Costs rather than Incremental Capital Costs if not endorsed by the RCG.

The ACCC notes submissions from Asciano (now Pacific National) and Glencore in relation to amendments to the weighting for voting. The ACCC also notes HRATF's support for amendments to section 9.2(a)(ii), provided that the RCG voting process does not result in material unfairness as between producers in different Pricing Zones. The ACCC considers the interests of persons who might want access to the service and notes that voting rights weighted on Contracted Coal KM is appropriate given the impact of this change is likely to be considered minimal.

ARTC proposes to remove the requirement to hold monthly RCG meetings. While the ACCC considers that the removal of the monthly requirement may create efficiencies, the ACCC is of the view that a minimum number of monthly meetings per year should be set in order to provide certainty for members of the RCG that the removal of the requirement for monthly meetings would increase the desired efficiencies.

Lastly, the ACCC notes that the provisions set out in section 9.2 for the reporting to RCG on efficiency measures and general operational outcomes may be subject to change as a result of the proposed opex efficiency mechanism. The ACCC would need to further assess any such changes.

User funding option

19.7. ARTC proposal

The proposed user funding option is set out at section 10 of the 2017 HVAU. The objective of the user funding provision is to provide a flexible mechanism whereby industry can fund

projects where ARTC elects not to do so. If ARTC ceases or refuses development of a project, a user funding agreement may be negotiated between ARTC and a contributor.⁸¹⁷ The user funding option in the 2017 HVAU does not include a detailed framework to govern user funded investments, rather Section 10.2 of the 2017 HVAU sets out the principles that will apply to the negotiation of a user funding agreement between ARTC and a contributor. The dispute resolution mechanism set out in section 3.15 of the 2017 HVAU provides a path to ACCC arbitration in the event of a dispute as to the terms of a user funding agreement.

19.7.1. Comparison to 2011 HVAU

For the 2017 HVAU, ARTC does not propose any material changes to the user funding provisions from the 2011 HVAU.

19.7.2. Comparison to 2016 HVAU

ARTC proposed no material changes to user funding compared to that in the proposed 2016 HVAU.

19.8. Stakeholder submissions

19.8.1. 2017 HVAU

Stakeholders did not comment on the user funding provisions in their submissions on the 2017 HVAU.

19.8.2. 2016 HVAU

HRATF submitted that the user funding framework is an important part of the 2016 HVAU. HRATF submits that given ARTC is not subject to any obligation to invest in new or expanded capacity, Access Holders and access seekers are therefore exposed to the 'hold up' risk associated with monopoly control of the Hunter Valley rail network. HRATF noted that the value of the user funding framework is in establishing the principle that Access Holders and access seekers should not be exposed to the risk of 'capital strike' preventing access to market competitive rates of funding for investment in, and expansion of, the network.⁸¹⁸

HRATF submitted that in practice the user funding option in its current form is unlikely to be sufficient to mandate and support user funding of an expansion. Further, that as a result of the complexity and transaction costs associated with user funding, it is likely to be feasible only for large, high value expansions.⁸¹⁹ While HRATF noted that the user funding framework is currently insufficient, HRATF submitted that it is highly unlikely that there will be substantial demand for expansion over the next 5 years. Therefore, HRATF is of the view that the time and expense associated with developing a fit-for-purpose user funding framework is not justified at present. However, HRATF noted the user funding framework would be more of a concern in the event of the privatisation of ARTC.⁸²⁰

19.9. ACCC view

The ACCC considers the proposed user funding option to be appropriate. The ACCC notes HRATF's views on the user funding option in its submission on the 2016 HVAU, that the

⁸¹⁷ Section 10.1 of the 2017 HVAU.

⁸¹⁸ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 33.

⁸¹⁹ Ibid.

⁸²⁰ Ibid., p. 34.

provisions are unlikely to be sufficient to mandate and support user funding of an expansion. However, the ACCC notes recognition from ARTC and stakeholders that the Hunter Valley rail network is now entering a phase targeting efficiency and maintenance rather than the emphasis which was placed under the 2011 HVAU toward investment and expansion. Given that it is unlikely there will be substantial demand for expansion of the Hunter Valley rail network over the next 5 years, in the interests of ARTC and Access Holders, the ACCC supports HRATF's view that the time and expense associated with developing a fit for purpose user funding framework is likely not justified in the current environment (section 44ZZA(3)(a) and (c)). In addition, the ACCC notes that to date, there is no apparent history of underinvestment by ARTC. Accordingly, the ACCC considers the user funding option in the 2017 HVAU will continue to act as an incentive for ARTC to pursue projects that provide additional capacity, noting that ARTC will not earn a return on user funded contributions (section 44ZZA(3)(aa)).

20. Performance measures

This chapter discusses both the reporting requirements proposed in the 2017 HVAU that require ARTC to account for its performance, and the measures designed to incentivise ARTC to improve the efficiency of its below-rail network and encourage the development of innovations that benefit Access Holders. These include: the NKRA's, the opex efficiency mechanism proposal, and the Innovation Incentive Mechanism.

The ACCC considers that ARTC's proposed NKRA's are appropriate.

The ACCC cannot include an assessment of the appropriateness of the opex efficiency mechanism until the ACCC receives the full details in the revised and final 2017 HVAU. However the ACCC provides some preliminary comments in this Draft Decision based on what ARTC has submitted.

The ACCC considers that the Innovation Incentive Mechanism is not appropriate in its current form and would be unlikely to be appropriate unless it can be clearly shown that the operation of the mechanism is entirely separate from the opex efficiency mechanism.

Network Key Result Areas

20.1. ARTC proposal

Section 13(1) of the 2017 HVAU requires ARTC to report on its website, its performance against particular measures—NKRA's.

The proposed NKRA's and frequency with which ARTC will report the NKRA's, is outlined in Schedule D of the 2017 HVAU.⁸²¹ Section 1(c) of Schedule D allows ARTC to review and vary the NKRA's each calendar year by submitting an application for variation of the 2017 HVAU to the ACCC (under section 44ZZA(7) of the Act).

20.1.1. Comparison to 2011 HVAU

The NKRA's replace the Key Performance Indicators (**KPI's**) in Schedule D the 2011 HVAU . The changes are outlined in Table 26 below.

Table 26: Comparison of 2011 HVAU KPI's and 2017 HVAU NKRA's

2011 HVAU – KPI's	2017 HVAU – NKRA's
Availability	Availability
Transit Time – Infrastructure Configuration Capability	Planned versus Actual Availability
Transit Time – Infrastructure Practical Capability	Speed Capability versus Actual Travel Speed
Maximum Axle load	Planned Cycle Time versus Actual Travel Time
Maximum Speed	Network Path Capability measuring number of paths used versus paths removed
Train Length	
System Performance	Reliability (System Losses)
Transit Time – Schedule/Actual	Coal Chain Losses – ARTC cause
Infrastructure Maintenance Requirement (planned/actual)	Coal Chain Losses – non-ARTC cause

⁸²¹ Schedule D refers to NKRA's listed in 'item g'—this appears to be an error and should say 'item f' (section 1(f)).

2011 HVAU – KPIs	2017 HVAU – NKRAs
Coal Chain Losses – ARTC cause	
Coal Chain Losses – non-ARTC cause	
Workable Alignment	Network Performance
Coal Throughput (tonnes) – actual/planned	Paths per tonne (planned versus actual)
Rail Capacity Group	
Project Implementation Delay (not Prudent)	
Track Condition	
Track quality measured by index	
Unit Cost	
Infrastructure Maintenance per GTK	
Network Control Operations Cost per train km	
Operating Cost per GTK	
Capital Cost per GTK	

Source: Schedule D of the 2011 HVAU and 2017 HVAU.

20.1.2. Comparison to 2016 HVAU

ARTC removed the requirement to seek the RCG endorsement to vary any NKRAs (under the previously proposed minor variation process in the 2016 HVAU, which is discussed further in chapter 4 of this Draft Decision). However, ARTC has retained the option to make an application for variation of the 2017 HVAU to the ACCC (by amending section 1(c) of Schedule D). ARTC has made only minor changes to the titles of the NKRAs in Schedule D; however the descriptions remain the same.

20.2. Stakeholder submissions

20.2.1. 2017 HVAU

HRATF reiterated the views put forward in its submission on the 2016 HVAU. HRATF considers the NKRAs are an improvement on the KPIs included in the 2011 HVAU.

However, HRATF considers the NKRAs are of limited value because:

- performance of the overall supply chain is not addressed
- obligations on above-rail operators (via the OSA) is not addressed
- there do not appear to be any clear consequences for ARTC or above-rail operators for non-performance.⁸²²

HRATF additionally proposes that the NKRAs be included as part of any mandatory review under section 2.3 of the 2017 HVAU.⁸²³ The proposed mandatory review mechanism is discussed further in chapter 4 of this Draft Decision.

⁸²² HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 34.

⁸²³ *Ibid.*, p. 110.

Whitehaven considers the NKRA's go some way to ensuring efficient operation of the Network by all participants. However, Whitehaven considers that all participants should be required to meet the NKRA's and that ARTC act in the event that a participant does not meet a NKRA.⁸²⁴

AGL considers the following performance measures should be included to increase the transparency of ARTC's management:

- the rate of train cancellations for a service measured against the average rate of train cancellations for all users on the same section of track
- the average run time for a service measured against the average run time of all trains along the same section of track.

AGL additionally considers that ARTC should be required to report on the amount of spare (unused) capacity (see chapter 18 of this Draft Decision for further discussion).⁸²⁵

20.2.2. 2016 HVAU

HRATF considered the NKRA's had limited value in isolation and considered it more important to continue to facilitate coal chain reporting that is undertaken by the HVCCC.⁸²⁶

HVCCC considered the NKRA's were appropriate at a high level, and that the flexibility provided by the ability to modify or remove the NKRA's with RCG endorsement via the minor variation process was appropriate particularly given the proposed length of term.⁸²⁷

Asciano (now Pacific National) considered the NKRA's were broadly appropriate, however highlighted the desirability of consistency for above-rail operators, miners and Access Holders, and suggested the NKRA's align more closely with the performance measures of Aurizon's Queensland coal network. Asciano noted that consistency in performance measures could, over time, provide for performance in each jurisdiction to be compared. Asciano provided a non-exhaustive list of Aurizon's performance measures that were most relevant to the Hunter Valley rail network.⁸²⁸

Asciano supported the process by which NKRA's could be added to the 2016 HVAU with RCG endorsement via the minor variation. However Asciano considered that ACCC oversight, rather than RCG endorsement, be required for ARTC to modify or remove any existing NKRA's.⁸²⁹

PWCS noted its support for performance measures that are sufficiently agile to optimise coal chain performance at any given time, given the dynamic nature of the Hunter Valley export coal industry.⁸³⁰

⁸²⁴ Whitehaven, *Whitehaven Coal response to ACCC Consultation paper on ARTC's draft [2017] Hunter Valley Access Undertaking*, 3 February 2017, p. 3.

⁸²⁵ AGL, *ARTC 2017 HVAU – ACCC Consultation Paper*, 2 February 2017, pp. 3–4.

⁸²⁶ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 42.

⁸²⁷ HVCCC, *Submission – Australian Rail Track Corporation's 2016 Hunter Valley Access Undertaking*, 7 March 2016, pp. 6-7.

⁸²⁸ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, pp. 18-20.

⁸²⁹ *Ibid.*, pp. 20–21.

⁸³⁰ PWCS, *Australian Rail Track Corporation's 2016 HVAU – Consultation Paper*, 19 February 2016, p. 2.

20.3. ACCC view

Network Key Result Areas

The ACCC considers the proposed NKRAs are appropriate. The ACCC notes stakeholder submissions on the 2017 HVAU that, while the NKRAs improve upon the KPIs in the 2011 HVAU, the NKRAs remain deficient for a number of reasons. Stakeholder submissions argue that improvements could be made to the NKRAs to increase transparency, accountability and to promote overall efficiency of the Hunter Valley rail network. However, the ACCC agrees with the point HRATF made in its submission to the 2016 HVAU, that the coal chain reporting undertaken by the HVCCC plays a more important role than the NKRAs. The ACCC notes the commitment by ARTC to the principles guiding ARTC and HVCCC consultation under Schedule G of the 2017 HVAU and considers that this imposes a sufficient obligation on ARTC to facilitate the coal chain reporting undertaken by the HVCCC (sections 44ZZAA(3)(a) and (c))

The ACCC acknowledges that ARTC is currently focused on developing and delivering an opex efficiency mechanism for the 2017 HVAU, and considers that this is likely to go some way to address the concerns regarding performance measures in the 2017 HVAU as performance standards will form part of any appropriate opex mechanism. While these performance incentives are still in the process of development, it is difficult to address the appropriate scope for the NKRAs. However the ACCC notes that Schedule D provides for the review of the NKRAs each year, and the opportunity for stakeholders to raise any concerns with the operation of the NKRAs during the mandatory review process as per section 2.3 of the 2017 HVAU.

The ACCC acknowledges stakeholder concerns that the proposed NRKAs could be improved. However the ACCC considers that the 2017 HVAU contains other provisions that require and incentivise ARTC to improve performance. Examples of such provisions include the obligation on ARTC to facilitate coal chain reporting undertaken by the HVCCC⁸³¹ and the commitment to develop an opex efficiency mechanism by the commencement of the undertaking.⁸³²

Modifying or removing Network Key Result Areas

The ACCC notes that the HVCCC supported the requirement that ARTC obtain RCG endorsement, via the minor variation process, in order to modify or remove the NKRAs. In the 2017 HVAU, ARTC has removed the minor variation process provision, instead requiring a variation to the undertaking to be submitted to the ACCC for assessment in order to change, modify or remove the NKRAs. The ACCC notes Asciano (now Pacific National) proposed that ARTC be required to obtain ACCC approval before modifying or removing any NKRAs. No stakeholders submitted on this issue in response to the 2017 HVAU. Having regard to the legitimate business interests of ARTC (section 44ZZA(3)(a)) and the interests of persons who might want access to the Hunter Valley rail network (section 44ZZA(3)(c)), the ACCC considers ARTC's proposal to amend section 1(c) of Schedule D is appropriate.

Operating expenditure efficiency mechanism

20.4. ARTC proposal

ARTC proposes to submit the 2017 HVAU in two stages. The first, the focus of this Draft Decision, includes all matters except the proposed opex efficiency mechanism. ARTC

⁸³¹ Section 5, and Schedule D of the 2017 HVAU.

⁸³² Section 9.3 of the 2017 HVAU.

proposes to develop the opex efficiency mechanism in consultation with stakeholders in parallel to the ACCC's assessment of the current 2017 HVAU. ARTC intends to lodge a revised and final 2017 HVAU, which includes details of the opex efficiency mechanism, to the ACCC in April–May 2017.⁸³³ As a result, the ACCC cannot include an assessment of the appropriateness of the opex efficiency mechanism until the ACCC receives the full details in the revised and final 2017 HVAU. However in this Draft Decision, the ACCC includes the preliminary details of ARTC's proposal, an overview of stakeholder views, and preliminary comments based on what ARTC has submitted.

Under section 9.3(a), ARTC includes a commitment to, in consultation with Access Holders, develop and implement the opex efficiency mechanism by the proposed commencement date of the undertaking (1 July 2017).⁸³⁴ Under section 9.3(b), ARTC includes principles that the opex efficiency mechanism will be based on. These are:

- an ex-ante opex allowance established through a forecasting and benchmarking process
- an initial forecast period, and a reset of the opex allowance after the initial period
- an efficiency incentive for ARTC based on the right to retain the benefit of any underspend relative to the opex allowance and an obligation to bear the cost of any overspend relative to the opex allowance.

Under section 9.3(c), ARTC states that it will develop the opex efficiency mechanism in accordance with milestones that are set out in Annexure B. However, under section 9.3(f), ARTC states that it will not be in breach of the 2017 HVAU if, by the commencement of the undertaking, it has not met a milestone set out in Annexure B.

Under sections 9.3(d) and 9.3(e), ARTC commits to regularly consult with, update and consider feedback provided by Access Holders on the development of the opex efficiency mechanism.

The ACCC notes that ARTC has provided a list of provisions in the initial 2017 HVAU that are likely to change once the opex efficiency mechanism is finalised and incorporated into the final 2017 HVAU. ARTC acknowledge the list is not exhaustive and might change.⁸³⁵

20.4.1. Comparison to 2011 HVAU

Unlike the 2017 HVAU, the 2011 HVAU included only a commitment to develop a performance incentive scheme within 6 months of the commencement of the 2011 HVAU. Under section 13.3 of the 2011 HVAU, ARTC committed to develop non-TUT performance incentives intended to encourage ARTC, through financial reward, to improve operating, maintenance and capex efficiency, and achieve desirable safety performance.

In accordance with section 13.3(a) of the 2011 HVAU, ARTC submitted a proposed variation with a proposed performance incentive scheme to the ACCC for assessment in August 2012. In December 2012, ARTC withdrew this variation following consultation with stakeholders. Stakeholders generally supported the principle of having a non-TUT performance incentive scheme however considered it inappropriate to devote resources to the development of such a mechanism at that time. ARTC also proposed to reconsider non-TUT performance incentives at the time of the TUT review required by section 13.4 of the 2011 HVAU.⁸³⁶

⁸³³ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 6.

⁸³⁴ ARTC call this the 'Opex Regime'.

⁸³⁵ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide – Attachment 8 – Opex changes*, 9 December 2016, p. 1.

⁸³⁶ ARTC, *Variation of Hunter Valley coal network access undertaking (HVAU) to adopt a positive performance incentive scheme (PPIS) – withdrawal of variation application*, 24 December, 2012, pp. 1–2.

ARTC made no further applications for variations in relation to a performance incentive scheme during the term of the 2011 HVAU.

20.4.2. Comparison to 2016 HVAU

Like the 2011 HVAU, the 2016 HVAU included a commitment to develop a proposal for an opex incentive mechanism (the 'Efficiency Incentive Proposal'), within 18 months of the commencement of the undertaking (section 9.3). In its preliminary views letter, the ACCC noted that the proposal was unlikely to be appropriate, as it only required ARTC to engage in a process to develop an opex incentive mechanism.⁸³⁷ Given the experience of the 2011 HVAU, the ACCC noted its concern with the delay in implementing an opex incentive mechanism, and the lack of detail provided in the 2016 HVAU.

In contrast, in the 2017 HVAU, ARTC commits to implementing an opex efficiency mechanism by the commencement of the undertaking. Further, the current 2017 HVAU includes milestone dates that ARTC intends to meet in the development of the opex efficiency mechanism in the lead up to the commencement date (1 July 2017).

In the 2017 HVAU, ARTC has removed the requirement to consider submissions from non-Access Holders on its opex efficiency mechanism or proposed amendments to the mechanism (section 9.3(b) of the 2016 HVAU).

20.5. Stakeholder submissions

20.5.1. 2017 HVAU

HRATF is concerned that the opex efficiency mechanism will not be finalised in time to be included in the complete 2017 HVAU. Pending an appropriate and workable opex efficiency mechanism being accepted, HRATF want changes made to the drafting of the annual compliance provisions to increase transparency of the ex-post opex assessment process undertaken by the ACCC. Specifically, HRATF considers that ARTC should be required to provide cost and other information to the RCG that it currently provides to the ACCC—in equivalent timelines.⁸³⁸

Pacific National is concerned the 2017 HVAU does not include a requirement for ARTC to consider submissions from non-Access Holders on the development of its opex efficiency mechanism. Pacific National considers above-rail operators should be directly involved in the development of the mechanism because it is above-rail operators, not Access Holders, that will be directly impacted by changes in operations and maintenance as a result of changes to opex.⁸³⁹

Pacific National also reiterated the views put forward in its submission on the 2016 HVAU. Namely, its concern that the opex efficiency mechanism will incentivise ARTC to underspend on operating and maintenance functions at the expense of future track quality over the term of the 2017 HVAU.⁸⁴⁰ Pacific National noted that in recent years, ARTC has not spent on maintenance activities at the level required for efficient train operations. Pacific National is concerned that the opex efficiency mechanism may reduce track quality resulting in unplanned delays and increasing costs to above-rail operators and Access Holders.⁸⁴¹

⁸³⁷ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 9.

⁸³⁸ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 31.

⁸³⁹ Pacific National, *Pacific National Submission to the ACCC on the ARTC Proposed 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 8.

⁸⁴⁰ Ibid.

⁸⁴¹ Ibid., p. 9.

Pacific National considers that if the opex efficiency mechanism is implemented, then the operation of the mechanism should be reviewed as part of the mandatory review process, and this formalised by including it in section 2.3 of the 2017 HVAU. The scope of the review should include the impact of the opex efficiency mechanism on operating and maintenance activities and service standards and track quality.⁸⁴²

Like Pacific National, Aurizon is concerned that ARTC is not required to consult with above-rail operators in the development of the opex efficiency mechanism. Aurizon highlights that under current arrangements, ARTC's incentives are aligned with throughput because ARTC does not bear financial risks associated with maintaining the network towards that objective. However under an ex-ante opex efficiency mechanism, ARTC's incentives will be materially impacted. Aurizon notes that Access Holders may be immunised or even benefit from cost transfers that arise from this change in incentives.⁸⁴³

Idemitsu is concerned that there are sections of the 2017 HVAU that may change once the opex efficiency mechanism is finalised with no explanation from ARTC of these possible amendments.⁸⁴⁴

20.5.2. 2016 HVAU

Given the change in ARTC's proposal from the 2016 HVAU to the 2017 HVAU, some of HRATF's comments are not included as a part of the ACCC's assessment of the 2017 HVAU. HRATF's comments that the ACCC considers remain relevant are outlined below.

HRATF noted a number of concerns with the 2016 HVAU proposal and outlined the minimum requirements to deliver a basic and workable opex framework for the next 5 year period, including:

- introduce a requirement for ARTC to propose to the ACCC and the RCG a reasonable annual forecast for all expenditure components, linked to a "baseline" expenditure, for which RCG endorsement is required
- cap expenditure at the allowance, subject to a pass through of unforeseen costs
- lock in efficiency gains that are fully passed through to users after 2 years.

HRATF considered the existing ex-post opex assessment in Schedule H of the 2016 HVAU to be deficient in a number of ways⁸⁴⁵:

- It is unlikely that the ACCC has enough time and complete information that is required to identify and remove all inefficiencies through the annual ex-post review process. HRATF noted that the annual compliance indicative timetable in Schedule H of the 2016 HVAU anticipates a 6 month 'end to end' process.
- Schedule H does not identify the evidence, if any, that ARTC is required to provide the ACCC to establish the prudence of opex.
- ARTC has broad discretion to limit the ACCC publishing the information ARTC provides the ACCC as part of the annual compliance process.
- There is little or no incentive for ARTC to make opex efficiency improvements over time.

⁸⁴² Ibid.

⁸⁴³ Aurizon, *2017 ARTC Hunter Valley Access Undertaking*, 3 February 2017, p. 25.

⁸⁴⁴ Idemitsu, *Consultation Paper – ARTC's 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 3.

⁸⁴⁵ HRATF noted that the annual compliance assessment process in Schedule G of the 2011 HVAU is not materially different.

HRATF outlined the following required changes to the annual compliance process required to accompany an opex incentive mechanism:

- ARTC should be required to provide a comprehensive opex forecast (with supporting evidence) for each year to the RCG and this should be the same forecast provided to the ACCC.
- Claims for confidentiality should be limited, and if appropriate, a standing confidentiality mechanism put in place to manage this issue.⁸⁴⁶

Asciano (now Pacific National) noted its concern that ARTC would consult primarily with Access Holders in the development of the opex incentive mechanism proposal.⁸⁴⁷ Asciano highlighted the importance of involving other parties, including above-rail operators, noting that incentives to reduce opex may impact train operations rather than Access Rights. Asciano noted its support for section 9.3(b) of the 2016 HVAU, which required ARTC to consider submissions from other parties on the opex incentive mechanism. ARTC has removed this requirement in the 2017 HVAU.⁸⁴⁸

PWCS noted that it supports efficiency incentive proposals that are sufficiently agile to optimise coal chain performance at any time, in the context of a changing export coal industry.⁸⁴⁹

20.6. ACCC preliminary comments

As noted above, the ACCC cannot assess the appropriateness of the opex efficiency mechanism until it is submitted in full by ARTC in April–May 2017. Therefore in this section, the ACCC provides preliminary comments on ARTC’s proposal in its current form, taking into account stakeholder concerns relevant to ARTC’s high level approach. The ACCC notes that it will consider all stakeholder submissions on the substance of ARTC’s opex efficiency mechanism once the complete proposal is received.

The ACCC considers the opex efficiency mechanism in the 2017 HVAU substantially improves on the proposals to develop performance incentive schemes in the 2011 HVAU and 2016 HVAU, as it commits ARTC to developing an opex efficiency mechanism by the milestone dates and completing it by the proposed commencement date of the 2017 HVAU– 1 July 2017.

The ACCC considers the high level principles set out in the 2017 HVAU provide a useful basis to guide the development of the opex efficiency mechanism.

Consultation with non-Access Holders

The ACCC notes that the 2017 HVAU removes the requirement on ARTC to consider submissions from non-Access Holders on the opex efficiency mechanism (section 9.3(b) of the 2016 HVAU). Pacific National and Aurizon have made submissions noting their concern about the removal of this provision. Both stakeholders argue the opex efficiency mechanism may introduce perverse incentives on ARTC, resulting in underspending on operating and maintenance functions at the expense of track quality over time.

The ACCC acknowledges the concern that the opex efficiency mechanism may incentivise ARTC away from maintaining track quality standards. The ACCC considers the engagement

⁸⁴⁶ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, pp. 34–41.

⁸⁴⁷ Asciano noted the same concern about the Innovation Incentive Mechanism proposal.

⁸⁴⁸ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 21.

⁸⁴⁹ PWCS, *Australian Rail Track Corporation’s 2016 HVAU – Consultation Paper*, 19 February 2016, p. 2.

of above-rail operators in the development of the opex efficiency mechanism provides a check and balance on ARTC to ensure it maintains suitable service standards. The ACCC notes ARTC has since advised that it will involve above-rail operators in the development of the opex efficiency mechanism.

Annual compliance

The ACCC notes HRATF's concern that the opex efficiency mechanism may not be finalised by April–May 2017 for inclusion in the final 2017 HVAU. In light of this, HRATF wants changes made to increase the transparency of the existing ex-post opex assessment process. Namely, HRATF considers ARTC should be required to provide the cost and other information that it provides to the ACCC as part of the annual compliance process, to the RCG as well, in equivalent timelines.

As the initial 2017 HVAU includes a commitment to finalise the opex efficiency mechanism by the commencement of the undertaking, the ACCC is not proposing amendments to the annual compliance process at this stage. However the ACCC does recognise the tight timeframes for the assessment process on a revised undertaking to be finalised prior to the proposed commencement date (1 July 2017).

Next steps

The ACCC considers ARTC has demonstrated a genuine commitment to developing the opex efficiency mechanism. The ACCC understands, at the time of writing, that ARTC has met regularly with a 'Customer Working Group', consisting of a representation of Access Holders from each Pricing Zone in order to develop the opex efficiency mechanism. ARTC has procured two consultants to assist with the development of the mechanism—one to develop a maintenance and operations cost forecasting and benchmarking report, and the other to develop an overheads cost forecasting and benchmarking report. The ACCC also understands that ARTC is meeting regularly with the Customer Working Group to assess the preliminary forecasting and benchmarking reports, as a basis for developing the mechanism.

ARTC intends to submit the final 2017 HVAU, that includes a complete opex efficiency mechanism, to the ACCC for assessment in April–May 2017. However the ACCC notes the milestone date to complete the final forecasting and benchmarking reports has been delayed by a few weeks, which is likely to delay the subsequent milestone dates. The ACCC additionally notes that the opex efficiency mechanism is likely to affect or interact with a number of provisions in the initial 2017 HVAU. Given the delay and the tight timeframe prior to the expiry of the 2011 HVAU, the ACCC encourages ARTC to consider possible options in the event it is unable to finalise the mechanism to include in a HVAU that becomes operational on 1 July 2017.

The ACCC notes Idemitsu's proposal that ARTC provide a list and explanation of each provision in the initial 2017 HVAU that is likely to be affected by the introduction of the opex efficiency mechanism. The ACCC acknowledges ARTC has provided a preliminary list as an attachment to the initial 2017 HVAU, however considers ARTC should provide an updated list and explanation to stakeholders as the extent of the consequential amendments become apparent.

Innovation incentive mechanism

20.7. ARTC proposal

The 2017 HVAU includes an additional performance incentive mechanism—the Innovation Incentive Mechanism (section 14 of the 2017 HVAU). ARTC submits that the Innovation Incentive Mechanism rewards ARTC for innovations that benefit Access Holders, including

benefits that might manifest themselves in other parts of the coal chain.⁸⁵⁰ The objective of this mechanism is to provide an incentive to ARTC to identify, promote and implement projects, or change practices or technologies that provide benefits to Access Holders where ARTC would otherwise not have an incentive to do so (section 14.1(a)). Further, that such projects must be innovative and outside the course of ordinary business (section 14.1(a)(i)). ARTC provides the following examples under section 14.1(b):

- funding for research and development in network management projects or technology that have the potential to reduce long term operational costs (including Access Holder costs external to ARTC), increase the capability of the Network or create additional Coal Chain Capacity
- a project that increases the capability of the Network but in a way that defers or displaces Capital Expenditure which would ordinarily be required to provide that capacity and on which ARTC would otherwise earn a return
- a project where some or all of the benefits obtained are external to the Network such that the costs of the project may not, in the ordinary course, be considered Prudent or Efficient
- a project involving risks outside of those ordinarily assumed by an operator of a below-rail network.

ARTC proposes that projects under this mechanism will require RCG endorsement, and outlines the process and requirements for ARTC to get approval (section 14.2–14.6 of the 2017 HVAU). In particular, a project that benefits all Access Holders will be endorsed by the RCG if Access Holders with 70 per cent of contracted Train Km vote in favour of the project (section 14.6(c)). But in the case where the benefits of a proposal only apply to some Access Holders then all of those Access Holders identified as primarily receiving benefits, and being liable for payment, must endorse the project (section 14.6(d)).

Section 14.5 of the 2017 HVAU notes that ARTC may seek RCG endorsement to charge a lump sum or periodic payment from some or all Access Holders as the incentive for a project. These additional payments would not count as access revenue for the purposes of the Ceiling Limit. Further, ARTC proposes that any recovery of an Innovation Payment will be in accordance with the endorsed proposal.

20.7.1. Comparison to 2011 HVAU

The 2011 HVAU contained only the commitment to the development of non-TUT performance incentives.

20.7.2. Comparison to 2016 HVAU

ARTC has made no material changes to the Innovation Incentive Mechanism in the 2017 HVAU compared with the 2016 HVAU (section 14 in both).

20.8. Stakeholder submissions

20.8.1. 2017 HVAU

HRATF submits that given ARTC has not made significant changes to the proposed Innovation Incentive Mechanism in the 2017 HVAU, it reiterates the position in its submission on the 2016 HVAU. HRATF considers the Innovation Incentive Mechanism is too

⁸⁵⁰ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 17.

broad and uncertain, and overlaps with the opex efficiency mechanism. HRATF is concerned that ARTC may argue that:

*efficiency improvements that ought to be undertaken as part of ordinary efficiency management of its network are instead “innovation projects” warranting a return outside the regulated rate of return.*⁸⁵¹

HRATF considers the Innovation Incentive Mechanism unnecessary and likely to undermine the effectiveness of any opex efficiency mechanism.⁸⁵²

Aurizon has a number of concerns with the Innovation Incentive Mechanism. Like HRATF, Aurizon queries why innovation and incentives to improve efficiency are not consistent with good industry practice expected of an operator of a below-rail network:

*Aurizon notes that ARTC has not established the basis as to why it would be necessary to recover an incentive payment in addition to the return on the capital costs of an Innovation Project determined by reference to the Rate of Return and the life of the Innovation Project and where RCG endorsement effectively underwrites the costs of that project or initiative.*⁸⁵³

Aurizon notes the Innovation Incentive Mechanism would operate asymmetrically in that only ARTC may initiate a proposal. However, Aurizon suggests that this could be overcome by allowing any RCG member, including non-voting above-rail operators, to initiate a proposal for ARTC to consider.

Aurizon proposes that where ARTC submits a proposal outlining an incentive payment in excess of what it would earn if the costs of the project were added to the rate base, then the proposal should clearly identify the extent to which the project is contestable.

Aurizon is concerned that where a user, including a rail operator, pursues its own innovation project that ARTC may have an incentive to deny access for the purpose of maximising the value captured by that innovation project. Aurizon notes its intention to install an above-rail condition monitoring super site that is similar to an investment it has made on the Queensland coal network. Aurizon flags its concern that ARTC could deny access to the Network for Aurizon to install this facility in order to capture the value of the investment itself under the Innovation Incentive Mechanism. To resolve this concern, Aurizon submits that the HVAU should clarify that ARTC will not deny reasonable access to the Network and / or Associated Facilities under these circumstances.⁸⁵⁴

20.8.2. 2016 HVAU

HRATF noted it would not object to the inclusion of an Innovation Incentive Mechanism, provided it remains clear that ARTC’s primary obligation is to continually improve the efficiency of the Hunter Valley rail network.

HRATF noted it did not support the examples of an Innovation Project listed under section 14.1(b) and instead proposed the following definition:

⁸⁵¹ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 31.

⁸⁵² *Ibid.*

⁸⁵³ Aurizon, *2017 ARTC Hunter Valley Access Undertaking*, 3 February 2017, p. 24.

⁸⁵⁴ *Ibid.*, pp. 24–25.

*...a project where substantially all of the benefit obtained from the project is external to ARTC and the Network, such that the costs of undertaking the project would not ordinarily be considered Prudent or Efficient.*⁸⁵⁵

HRATF proposed that if an Access Holder considers a project to not fall into this definition, then the matter be referred to the ACCC for determination.

HRATF noted its concern that there is no audit or similar mechanism in place to measure whether an Innovation Project has been successful and delivered targeted benefits, prior to ARTC receiving payment.⁸⁵⁶

Aurizon was broadly supportive of the Innovation Incentive Mechanism, however wanted further clarification on how the costs and benefits of an Innovation Project would be distributed to producers and other stakeholders in the coal chain. Aurizon proposed that ARTC be required to consult with non-Access Holders where an Innovation Project has a direct impact on non-Access Holders.⁸⁵⁷

20.9. ACCC view

The ACCC agrees with HRATF's submission to the 2017 HVAU that the Innovation Incentive Mechanism is too broad, uncertain and is likely to undermine the effectiveness of the opex efficiency mechanism. In its preliminary views letter, the ACCC noted its concerns that the Innovation Incentive Mechanism has the potential to overlap and interact with the opex efficiency mechanism.⁸⁵⁸

The ACCC notes Aurizon's query as to why innovation and incentives to improve efficiency are not already part of good industry practice expected of a below-rail network.

The ACCC considers that the drafting of the Innovation Incentive Mechanism does not provide sufficient certainty and clarity in its terms, effect and operations. Clarity and certainty will enable Access Holders, access seekers, and above-rail operators to be sufficiently aware of their respective rights and obligations, in order to avoid unnecessary costs, monetary or otherwise, when utilising the processes set out in the HVAU (section 44ZZA(3)(e)).

The ACCC considers that ARTC needs to clarify how the Innovation Incentive Mechanism will work in practice alongside the opex efficiency mechanism. Specifically, to describe the circumstances where a project would be captured under the Innovation Incentive Mechanism as opposed to the opex efficiency mechanism.

In its submission to the 2017 HVAU, Aurizon raises the concern that under the Innovation Incentive Mechanism, ARTC may be incentivised to deny access to another user (Access Holder or rail operator) that is pursuing its own innovation project in order to capture the value of the innovation project themselves. Aurizon proposes that the 2017 HVAU include an obligation that ARTC will not deny reasonable access to the Network and / or Associated Facilities under these circumstances.

The ACCC agrees with Aurizon's proposal and considers it appropriate that the Innovation Incentive Mechanism include an obligation that ARTC will not deny an Access Holder,

⁸⁵⁵ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, pp. 41–42.

⁸⁵⁶ *Ibid.*, p. 42.

⁸⁵⁷ Aurizon proposed a similar consultation process to that described in section 2.4 of the 2016 HVAU – a section which has been removed from the 2017 HVAU; Aurizon, *Consultation Paper on 2016 Hunter Valley Access Undertaking*, 7 March 2016, pp. 2–3.

⁸⁵⁸ ACCC, *2016 Hunter Valley Access Undertaking – preliminary views*, 7 July 2016, p. 9.

access seeker or rail operator reasonable access to the Network and / or Associated Facilities for the purpose of investment in innovation or operational efficiencies (section 44ZZA(3)(c)).

Having regard to the interests of persons who might want access to the Hunter Valley rail network (section 44ZZA(c)) and the pricing principle that access pricing regimes should promote incentives to reduce costs or otherwise promote productivity (section 44ZZCA(3)(c)), the ACCC considers that the Innovation Incentive Mechanism is not appropriate in its current form. The Innovation Incentive mechanism is unlikely to be appropriate unless it can be clearly shown that its operation is entirely separate from the opex efficiency mechanism.

21. True-Up Test and liability regime

This chapter considers elements of the proposed 2017 HVAU and AHA that relate to ARTC's liability for performance under the TUT.

The ACCC considers that the TUT and liability regime in the 2017 HVAU is appropriate subject to clarification on how ARTC treats train paths that are Functional Coal Paths but are technically unavailable for use by coal trains on an ad hoc basis

21.1. ARTC proposal

ARTC proposes to retain the existing system-wide TUT in the 2017 HVAU, as set out in Schedule 2 of the indicative AHA.

The TUT determines whether there was sufficient capacity available on the Hunter Valley rail network in a given period to meet all contracted entitlements, taking into account reductions in capacity caused by maintenance, usage by non-coal trains and other factors. If the TUT finds that ARTC has provided insufficient capacity in a period, then ARTC is required to provide a rebate of TOP Charges to affected users. Box 4 provides a brief summary of the TUT.

Box 4: Summary of the TUT

Clause 2 of Schedule 2 of the indicative AHA provides that at the end of each Period (either monthly or quarterly), ARTC will carry out the system TUT for each Pricing Zone to determine the System Availability Shortfall (**SAS**) for all Access Holders with the relevant allocation period.

The SAS is determined by comparing the Network Path Capability (**NPC**) with the Total Path Usages Required (**TPR**) over the Period. The SAS is defined in section 2.2 of Schedule 2 of the indicative AHA as follows:

- Where the NPC is less than the TPR
 $SAS = TPR - NPC$
- Where the NPC is greater than or equal to the TPR
 $SAS = Zero$

The NPC is determined under section 2.3 of Schedule 2 of the indicative AHA. In particular, ARTC specifies the NPC as being the Functional Coal Paths capable of being made available during a Period. This also includes Functional Coal Paths made available as a result of Additional Capacity commissioned and available at the commencement of the Period subject to the TUT. Functional Coal Paths are defined under section 2.3(b) of Schedule 2 of the indicative AHA as being:

... one which is capable of being used by a Coal Train which complies with the track-related System Assumptions, which are elements (f) - (j) of the Relevant System Assumptions.

ARTC defines the TPR for a Pricing Zone for a Period as being the sum of:

- aggregate path usage consumption by Coal trains (contracted and ad hoc)
- the Tolerance Cap, which is Capacity available to Access Holders in that Pricing Zone
- aggregate path usages required by ARTC to meet maintenance requirements

- actual system losses arising from ARTC
- system losses caused by other parties (the lesser of actual and forecast losses)
- path usage consumption by non-coal traffic

Availability Exceptions are subtracted from this total. As outlined in section 3.6 of the indicative AHA, Availability Exceptions relate to events outside ARTC's control.

Where a SAS is found to exist for a Pricing Zone for a Period (that is where SAS is greater than zero), then an access holder will accrue a rebate for the Train Path TOP Charge paid for each Train Path within that Pricing Zone in that Period. The formula for calculating the rebate is set out in section 2.4 of Schedule 2 of the indicative AHA.

No rebates accrue where the TUT finds no shortfall for a Pricing Zone for that Period.

ARTC also proposes to retain the annual TUT audit. As outlined in section 4.11 of the 2017 HVAU ARTC is required, through an independent auditor, to complete an audit of the performance of the TUT for each Pricing Zone in that calendar year. Under section 4.11(k), the ACCC will review the Final Audit Report, and will determine and notify ARTC of any amounts of over or underpayment. TUT audits are submitted by ARTC to the ACCC as part of the annual compliance assessment process.

The 2017 HVAU also includes a limit on the use of the same TUT auditor. Under section 4.11(e), ARTC can appoint the same auditor to complete the annual TUT audit for 3 consecutive years. With the ACCC's agreement, an auditor can complete the annual TUT audit for a longer consecutive period.

As the 2011 HVAU is due to expire part way through the annual TUT audit period, the 2017 HVAU also contains provisions for the TUT audit between January and June 2017 (that is, the last 6 months of the 2011 HVAU). In particular, section 4.11(o) states that the TUT audit for the 2017 calendar year will be undertaken in accordance with the 2017 HVAU.

21.1.1. Comparison to 2011 HVAU

Under the 2011 HVAU, there was no limit on the number of consecutive years an auditor could perform the annual TUT audit. The process of ARTC informing the ACCC of the Proposed Auditor, and the ACCC notifying ARTC whether it does or does not object to the Proposed Auditor, remains unchanged from the 2011 HVAU.

The 2011 HVAU also included a provision for ARTC to perform a review of the operation and effectiveness of the TUT (section 13.4). ARTC completed this review in September 2014.⁸⁵⁹ Consequently, ARTC does not propose to include this review provision in the 2017 HVAU.

Sections 4.10(g)(v) and 4.10(h)(v) of the 2011 HVAU outlines the process for performing and submitting the TUT over the transition from the 2011 HVAU and 2017 HVAU. As noted above, section 4.11(o) of the 2017 HVAU states that the TUT audit for the 2017 calendar year will be undertaken in accordance with the 2017 HVAU, noting that the first half of the calendar year was governed under the 2011 HVAU. This is consistent with section 4.10(v) of the 2011 HVAU.

⁸⁵⁹ ARTC, *Review of System Wide True-Up Test – Hunter Valley Access Undertaking*, September 2014, available at: <https://www.artc.com.au/customers/access/access-hunter-valley/review-of-system-wide-tut/library/ARTC%202014%20TUT%20Review%20Report%20Final%20-%20website%20version%2011%20Sept%202014.pdf>.

21.1.2. Comparison to 2016 HVAU

ARTC proposes minor changes to the TUT in the 2017 HVAU from the 2016 HVAU application.

As in the 2011 HVAU, the 2016 HVAU application did not include a limit on the number of consecutive years an auditor could perform the TUT audit.

At the time of the submission of the 2016 HVAU, the 2011 HVAU had an expiry date of 31 December 2016. Accordingly, ARTC has updated the process for the TUT audit for the 2017 calendar year in the 2017 HVAU, and has removed references to the TUT audit for the 2016 calendar year.

21.2. Stakeholder submissions

21.2.1. 2017 HVAU

HRATF reiterates its concerns with the TUT as raised in its submission to the 2016 HVAU. HRATF submits that it recognises attention is currently being placed by ARTC on the development of an opex efficiency mechanism, which is supported by HRATF. However, HRATF states that there are improvements in relation to the operation of the TUT that need to be addressed and that this should be a matter that can be included as part of the review process at the mandatory review date.⁸⁶⁰

HRATF also submits that the approach to assessing NPC in Schedule 2 of the AHA does not currently appear to take into account non-coal use of the network. HRATF consider that the measure of capacity of the Network for coal trains should more accurately reflect the maximum capability of the network for coal producers, NPC (through Functional Coal Paths) should be based on the actual paths available to coal trains as specified in the Master Train Plan. HRATF submits that this better aligns with ARTC's obligations under the NSW Lease, including obligations to non-coal customers. HRATF also submits that it reflects that non-coal path usage is factored into the TUT, under paragraph (f) of the definition of TPR.⁸⁶¹ HRATF submits that fixing this inconsistency will reduce the NPC more in line with actual available train path capacity and therefore provide a more realistic hurdle for the TUT.⁸⁶²

21.2.2. 2016 HVAU

HRATF submitted that given that no TUT rebates have been paid since the scheme was introduced in 2011, this highlights that the TUT is complex, lacks transparency and does not function effectively.⁸⁶³ HRATF submits it is concerned that the TUT is designed to only operate in extreme circumstances and limits ARTC's liability as a consequence. HRATF submitted that inclusion of a review of the TUT mechanism is appropriate.⁸⁶⁴

Asciano (now Pacific National) submitted that the TUT is generally effective, but does not necessarily provide strong incentives for ARTC to address capacity availability. Asciano also submitted that a TUT review mechanism is not needed if the term of the HVAU is reduced to 5 years, but may be required for a term of 10 years.⁸⁶⁵

⁸⁶⁰ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 34.

⁸⁶¹ See clause 2.2(f) of Schedule 2 of the AHA.

⁸⁶² HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 110.

⁸⁶³ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, p. 42.

⁸⁶⁴ *Ibid.*, p. 43.

⁸⁶⁵ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 22.

21.3. ACCC view

The TUT is a mechanism by which ARTC is held accountable for its performance, specifically any failure to deliver contracted path usages. The ACCC considers that the provision of a system wide TUT promotes the efficient operation of the Hunter Valley rail network and alignment of the coal supply chain, and is in the interests of persons who might want access to the service. This is because the TUT is designed to incentivise ARTC to provide the path usages it has contracted to supply (sections 44ZZA(3)(aa) and (c)).

The ACCC notes concerns raised by HRATF in its submissions about the how the TUT mechanism functions, citing that no TUT rebates have been paid to date. Under the 2011 HVAU, the ACCC has considered ARTC's TUT results during its annual compliance assessments for the 2011, 2012, 2013 and 2014 calendar years. On the basis of auditor reports provided for these years, the ACCC determined that ARTC has not been liable for any rebates in any of these calendar years. While no TUT rebates have been paid, the ACCC considers that this does not necessarily indicate that the TUT is not appropriate. The ACCC notes that following ARTC's review of the TUT in 2014, ARTC remained of the view that the TUT provides appropriate incentives and is operating as designed.⁸⁶⁶ The ACCC also notes that it has not been provided with any evidence of any instances where contracted entitlements were not provided by ARTC and the TUT has resulted in rebates not being paid in circumstances where it is considered that they should have been.

HRATF also submits that the approach to assessing NPC in Schedule 2 of the AHA does not currently appear to take into account non-coal use of the network. The ACCC is concerned that any potential amendments to determination of NPC could have an effect on the TPR. Consequently, the ACCC seeks clarification from ARTC on how it deals with train paths that are Functional Coal Paths but are technically unavailable for use by coal trains on an ad hoc basis.

The ACCC notes the views of HRATF and Asciano (now Pacific National) that the TUT should be a matter included as part of the mandatory review process. The ACCC notes that HRATF considers this approach to be appropriate as it recognises attention is currently being placed by ARTC on the development of an opex efficiency mechanism. The ACCC refers to its views on the mandatory review process set out in chapter 4 of this Draft Decision. In particular, the ACCC considers that review of the TUT does not need to be included as part of the mandatory review process. The ACCC notes that the mandatory review provisions allow for stakeholders to provide submissions not only on those issues raised in ARTC's issues paper, but on any other issue as well⁸⁶⁷, with ARTC required to consider all submissions in good faith.⁸⁶⁸

The ACCC considers that proposed changes to the TUT auditor provisions which provide a limit on the number of consecutive years an auditor can perform the annual TUT audit, are consistent with a best practice regulatory approach, and will continue to ensure the integrity of the test and avoid perceptions of conflicts of interest on the part of ARTC (section 44ZZA(3)(c)).

The ACCC acknowledges that the TUT is a complex mechanism. To assist in the ACCC's greater understanding of the mechanism, the ACCC seeks the clarification from ARTC noted above, on how it treats train paths that are Functional Coal Paths but are technically unavailable for use by coal trains on an ad hoc basis. Subject to this clarification, the ACCC's view is that the proposed TUT continues to provide an incentive for ARTC to

⁸⁶⁶ ARTC, *Review of system-wide true up test – Hunter Valley access undertaking*, September 2014, p. 4.

⁸⁶⁷ Section 2.3(b)(ii) of the 2017 HVAU.

⁸⁶⁸ Section 2.3(c) of the 2017 HVAU.

provide the path usages it has contracted to supply and is appropriate having regard to the objects of Part IIIA (section 44ZZA(3)(aa)) and the interests of access seekers (section 44ZZA(3)(c)).

The ACCC notes that under clause 2.3(a)(ii) of the indicative AHA, ARTC continues to nominate Werris Creek as the point of the network which it considers broadly represents the capacity of PZ3. Given the expansion of PZ3 as a result of the ACCC's decision to consent to ARTC's application to vary the 2011 HVAU to extend coverage of the undertaking to include the segments from Gap to Turrawan, the ACCC requests that ARTC confirm whether this point continues to reflect an appropriate representative 'point' for the purposes of determining NPC.

22. Agreements – Indicative AHA and OSA

This chapter discusses matters in relation to the indicative AHA and OSA attached to the proposed 2017 HVAU.

ARTC proposes minor changes to the 2017 indicative AHA to increase clarity and reflect changes proposed in the 2017 HVAU, including the change to path based pricing and the incorporation of payments associated with the Innovation Incentive Mechanism. ARTC proposes no material changes to the 2017 OSA.

The ACCC considers that the 2017 indicative AHA and OSA are appropriate, subject to the following amendments:

- minor changes to the definition of the Target Monthly Tolerance Cap under clause 1.1, and the definition of actual gross tonnes under clause 2.1 of Schedule 3.
- a minor change to clause 3.5 to state that ARTC will not unreasonably refuse to grant an Access Holder a quarterly allocation period if that Access Holder meets particular criteria and having regard to particular capacity considerations.

The ACCC notes PWCS's concern that the structure of ad hoc pathing in the 2017 indicative AHA may cause short term planning issues. The ACCC welcomes further submissions from stakeholders outlining which particular provisions in the 2017 indicative AHA may present short term planning issues.

The ACCC notes it requires further information from ARTC regarding:

- train paths that are Functional Coal Paths but are not available for use by coal trains
- the proposed amendments resulting from the proposed change to path based pricing.

Indicative Access Holder Agreement

22.1. ARTC proposal

The indicative AHA sets out the terms and conditions on which ARTC will grant Access Holders rights of Access to the Hunter Valley rail network for the purposes of coal transport.

22.1.1. Comparison to 2011 indicative AHA

ARTC made minor changes to the 2017 indicative AHA compared with the 2011 indicative AHA, to increase clarity and to reflect changes made to the 2017 HVAU. The primary changes made to the 2017 HVAU that are reflected in the 2017 indicative AHA relate to the transition to path based pricing (see chapter 15 of this Draft Decision) and the incorporation of payments associated with the Innovation Incentive Mechanism (see chapter 20 of this Draft Decision).

These amendments are also reflected in the Tier 1 (mandatory) and Tier 2 (negotiable) provisions for all AHAs for Coal Access Rights (Schedule A:1 of the 2017 HVAU).

22.1.2. Comparison to 2016 indicative AHA

In its 2016 HVAU submission, ARTC proposed to amend its contractual approach to require Access Holders to specifically nominate a port terminal exit point (NCIG or PWCS). ARTC argued the change would greatly assist in planning by the coal terminals and the HVCCC.⁸⁶⁹ Consequently, ARTC made amendments to the 2016 indicative AHA to incorporate this

⁸⁶⁹ ARTC, *2016 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 23 December 2015, p. 22.

proposal. ARTC has since removed this amendment reinstating the drafting in the 2011 indicative AHA.

ARTC also included amendments in the 2016 indicative AHA to incorporate the proposed opex incentive mechanism in the 2016 HVAU. This has now been superseded by the opex efficiency mechanism in the 2017 HVAU. As such, references to the old mechanism have been removed in the 2017 indicative AHA however as ARTC is still developing the opex efficiency mechanism, references to the new regime have not yet been included in the 2017 indicative AHA.

22.1.3. Key changes from 2011 and 2016 indicative AHA

The key amendments proposed by ARTC to the 2017 indicative AHA are listed in Table 27 below. The ACCC notes that this list includes only material drafting changes, however ARTC has provided a complete list of proposed changes in its Explanatory Guide to the 2017 HVAU.⁸⁷⁰

Table 27: Key amendments to the 2017 indicative AHA

Impacts	Clause	Change
Path based pricing	1.1	'Indicative Access Charge', 'Indicative Services', 'Interim Indicative Access Charges' and 'Interim Indicatives Services' removed. 'Services Envelope' and 'Standard Access Charges' included.
	8.4	Clause removed as it addressed price discrimination under the Indicative Services model. ARTC notes this clause is not relevant under the path based pricing model. ⁸⁷¹
	11.5(b)	Clause amended to clarify that if ARTC consents to the use or operation of a Non-Compliant Service that is outside the Services Envelope, then ARTC may update the TOP Charges and Innovation Charges to reflect the characteristics of the Non-Compliant Services used or operated by the Access Holder.
	11.5(d)	Clause removed due to the change to path based pricing. ARTC notes reductions in TOP Charges will only occur if an Access Holder permanently changes its Services Assumptions from a train outside the Services Envelope to a train within the Services Envelope. ⁸⁷²
	Schedule 3: clause 1 and clause 3	References to GTK replaced with Train Km, and subsequent amendments to definitions and TOP charge structure due to change to path based pricing.
	Schedule 3, clause 5	References to 'Indicative Access Charges' and 'Indicative Services' replaced with references to 'Services Envelope', 'Standard Access Charges'.
	Schedule 3, clause 5	Additional requirement that Access Holders provide particular information to ARTC to assist it to determine the Non-TOP Price in each Pricing Zone.

⁸⁷⁰ See section 2, 'Amendments to the AHA' in ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, pp. 81–100.

⁸⁷¹ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 23.

⁸⁷² *Ibid.*, p. 92.

Impacts	Clause	Change
	Train Path Schedule, clause 3	Amendments to reflect change to path based pricing.
Innovation Incentive Mechanism	1.1	'Innovation Charge' included and Innovation Charge added to 'Charges'.
	3.14(b)	Amendment to clarify that Access Holders are required to pay any Innovation Charge, like a TOP Charge, in circumstances where ARTC does not make Path Usages available where the Access Holder has insufficient network exit capability.
	4.5(a)	Amendment to clarify that Access Holders are required to pay any Innovation Charge, like a TOP Charge, in circumstances where ARTC does not make Train Path or Path Usage available for the reasons stated in clause 4.5(a).
	5.4A	New clause that sets out Access Holders will be liable for an Innovation Charge if it has been endorsed by the RCG. Further, that any Innovation Charge will not be included in the Ceiling Limit for the purposes of annual compliance.
	11.1, 11.4, 11.5, 11.6, 12.3, 12.5, 12.7, 16.3, 16.4, 17.1,	References to Innovation Charge added.
	13.3	Reference to TOP Charges and Innovation Charge added.
	Schedule 3, clause 4	'Innovation Charge' included.
Capacity management	1.1, 3.2(b), 3.3(c), 3.14(a), 16.4,	All references to 'Port of Newcastle' changed to 'port of Newcastle' or 'an export terminal' and references to specific export terminals removed (as per 2011 indicative AHA) because ARTC is no longer pursuing destination specific train paths (a proposal in the 2016 HVAU). Similarly, references to specific export terminals included in the 2016 indicative AHA removed in the 2017 indicative AHA to reinstate drafting in the 2011 indicative AHA. And clarification that various discharge points will be considered the same destination, which was removed in the 2016 indicative AHA, reinstated in the 2017 indicative AHA to reflect the 2011 indicative AHA (clause 16.4(a)(iii) of the 2017 indicative AHA).
	3.5	Amendments made relating to the right of an Access Holder to elect a quarterly allocation period.
	3.3(e)	Clause removed because review of the level of Tolerance completed.

Impacts	Clause	Change
	16.4(d)(iii), 16.8	Reference to, and clause, removed because review of the time period for ARTC approval of trades completed.
Extension of the 2011 HVAU	1.1	'Interim RML', 'Interim ROR', 'Second 2016 Period' added. ⁸⁷³ 'New RML', 'Original 2016 Rebates', 'Revised 2016 Rebates' added.
	5.4	Amendments made to incorporate two part year reconciliations.
	5.4	Clauses 5.4(i)–5.4(k) in the 2017 indicative AHA replace clause 5.4(d) in the 2016 indicative AHA.
	Schedule 2: clause 2.4 and 2.8	Clauses in the 2016 indicative AHA amended to address the first year of the 2016 HVAU being a part-year. As this is not the case in the 2017 HVAU, drafting from the 2011 indicative AHA reinstated in the 2017 indicative AHA. The TUT audit for the 2017 calendar year will be undertaken in accordance with the 2017 HVAU
Other	1.1	'Access Undertaking' amended to include the NSW Rail Access Undertaking in circumstances where an undertaking accepted by the ACCC has expired.

22.2. Stakeholder submissions

22.2.1. 2017 indicative AHA

AGL is concerned with the length of term in the indicative AHA. AGL notes that longer term contracts are likely to be appropriate for the majority of Access Holders as they are coal exporters. However AGL argues that a rolling 10 year term is unlikely to be appropriate for electricity generators. AGL notes that being locked into contracts for rail access for a longer term than is necessary will have flow on effects to the prices that customers pay for electricity. AGL proposes that the 2017 HVAU and indicative AHA provide for a minimum 2 year term for non-exporters.⁸⁷⁴

AGL additionally considers the renewal and extension terms of the Train Path Schedule in the 2017 indicative AHA to be unnecessarily onerous (unchanged from the 2011 indicative AHA). AGL notes clause 2.4 allows an Access Holder to renew the Train Path Schedule 10 years in advance of the current contract year. However under clause 2.4(c), an Access Holder will forfeit the opportunity to extend the Train Path Schedule and obtain future paths if it does not submit a renewal notice in the allocated time. AGL argues that this can lead to a situation where the original Access Holder loses the right to future paths 10 years out and no other access seekers have sought those paths. AGL proposes that ARTC introduce a mechanism into the 2017 indicative AHA which allows any Access Seeker, including the original Access Holder, to apply for the relevant paths in this example. AGL notes that if its proposal for a shorter indicative AHA term for non-exporters is adopted, AGL's concern about the renewal and extension terms is likely to be resolved.⁸⁷⁵

⁸⁷³ The 2017 indicative AHA states the terms are defined under clause 5.4(j)(i). This appears to be an error and should state clause 5.4(i)(i).

⁸⁷⁴ AGL, *ARTC 2017 HVAU – ACCC Consultation Paper*, 2 February 2017, pp. 2–3.

⁸⁷⁵ *Ibid.*, p. 3.

Pacific National reiterated the following concerns it raised with provisions in the indicative AHA that were previously outlined in its 2016 submission (submitted under Asciano)⁸⁷⁶:

- Pacific National does not support the removal of clause 11.5(d) of the 2011 indicative AHA. Clause 11.5(c) of the 2017 indicative AHA (and 2011 indicative AHA) allows for a change in Service Assumptions only if it does not lead to a change in TOP Charges. However clause 11.5(d) of the 2011 indicative AHA clarified that ARTC would not unreasonably refuse a change in Service Assumptions leading to a reduction in TOP Charges if it resulted in a more efficient use of Capacity and Coal Chain Capacity. In forming this view, clause 11.5(d) of the 2011 indicative AHA required ARTC to consult with the HVCCC. Pacific National notes that this caveat allowed an Access Holder and rail operator to use a larger payload train (with a subsequent reduction in paths and reduction in TOP) if it made network capacity available. Pacific National argues that the deletion of this clause from the 2017 indicative AHA will act against network efficiency and operators using trains with a larger coal carrying capacity.
- Pacific National is concerned with clause 4.6(d) of the 2017 indicative AHA (unchanged from the 2011 indicative AHA), which states that the Access Holder will not incur liability for incidents caused by acts or omissions of the rail operator as a result of the operation of the AHA. Pacific National considers it inappropriate to include this liability in an agreement to which the rail operator is not a party.
- Pacific National is concerned with clause 19.1 of the 2017 indicative AHA (unchanged from the 2011 indicative AHA), which allows for changes to provisions arising from a new or varied HVAU to be automatically incorporated into the indicative AHA. Pacific National proposes that where changes are expected to impact above-rail operators, that above-rail operators are consulted and notified of any relevant changes to the 2017 indicative AHA.⁸⁷⁷

Both AGL and Pacific National propose that ARTC introduce a new mechanism into the indicative AHA to deal with the short term provision of spare capacity—this is discussed further in chapter 18 of this Draft Decision.

Like Pacific National, Aurizon is concerned about the impact on TOP Charges arising from a change in Service Assumptions. Clause 11.5(d) of the 2017 indicative AHA (previously 11.5(e) of the 2011 indicative AHA) states that if there has been a permanent change in the Service Assumptions under clause 11.5(c), then the TOP Charges will be amended to reflect the new Service Assumptions. Highlighting that the Service Assumptions include a rail operator's train length and gross tonnes per service, Aurizon argues that:

*... any efforts by a rail operator to respond to the pricing incentives to operate a longer or heavier train will be impaired if ARTC seeks to adjust the TOP charges to account for the change in those [S]ervice [A]ssumptions.*⁸⁷⁸

Where rail haulage agreements are shorter than the term of the indicative AHA, Aurizon argues it is highly likely that an Access Holder will contract with a rail operator on Service Assumptions which differ from those under the current haulage agreements. Under these circumstances, an Access Holder will face a financial penalty with an increase in above-rail productivity.⁸⁷⁹

⁸⁷⁶ Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, pp. 22-26.

⁸⁷⁷ Pacific National, *Pacific National Submission to the ACCC on the ARTC Proposed 2017 Hunter Valley Access Undertaking*, 3 February 2017, p. 10.

⁸⁷⁸ Aurizon, *2017 ARTC Hunter Valley Access Undertaking*, 3 February 2017, p. 23.

⁸⁷⁹ Ibid.

Aurizon further argues that the move to path based pricing will exacerbate this issue noting:

Under a [gross tonne kilometre] based price arrangement, an improvement in train payload would have a negligible impact on the TOP charges as the total [GTK] would remain relatively unchanged. However, under a [Train Km] based approach, the improvements would lead to a reduction in TOP charges as it would require less [Train Km] for the same tonnage requirement.⁸⁸⁰

Aurizon argues that such arrangements are incompatible with ARTC's rationale that path based pricing will improve efficiency.⁸⁸¹

Aurizon also notes its concern that while clause 11.1 of the indicative AHA states ARTC will not unreasonably refuse a request to permanently vary train paths, it is ARTC's discretion as to whether it will relieve the Access Holder from the obligation to pay TOP Charges. Additionally, Aurizon noted a similar concern with section 4.20 of the 2017 HVAU (a new provision in the 2017 HVAU), which states that where an Access Holder nominates Relinquished Capacity but is unable to assign or trade the capacity to a third party, then the Access Holder will be liable for the TOP Charges.⁸⁸² See chapter 18 for further discussion on section 4.20.

Aurizon proposes that the 2017 HVAU and indicative AHA be amended to allow an Access Holder to relinquish its unused capacity with no financial penalty when it is associated with improvements with above-rail capacity.⁸⁸³

HRATF proposes the following minor amendments to provisions in the 2017 indicative AHA, which is unchanged from the 2011 indicative AHA:

- Under clause 1.1, amending the definition of the 'TMTC' (Target Monthly Tolerance Cap) to be the 'greater', rather than 'lesser' of:
 - the percentage of overall Capacity which will be commissioned and available for use in the Pricing Zone in the relevant Contract Year and
 - 10 per cent of the overall Capacity to be commissioned and available for use in the Pricing Zone in the relevant Contract Year.
- Under Schedule 2, amending the definition of network path capability to take into account non-coal use of the Network.
- Under clause 2.1 of Schedule 3, amending the calculation of non-TOP Charges so that 'AGT' is defined as actual gross tonnes as 'recorded by the ARTC weighbridge or equivalent', or 'nominal train weights' where the ARTC weighbridge or equivalent is not operational.⁸⁸⁴

HRATF additionally noted its concern with ARTC's proposed amendments to clause 3.5 of the 2017 indicative AHA, which provides ARTC discretion to grant quarterly allocation periods. HRATF is concerned the change puts too much commercial risk onto Access Holders and proposes to reinstate the drafting in the 2011 indicative AHA.⁸⁸⁵

⁸⁸⁰ Ibid., p. 12.

⁸⁸¹ Ibid.

⁸⁸² Ibid.

⁸⁸³ Ibid., p. 23.

⁸⁸⁴ HRATF, *ARTC 2017 Hunter Valley Access Undertaking – Hunter Rail Task Force submission to the ACCC*, 6 February 2017, p. 100.

⁸⁸⁵ Ibid.

22.2.2. 2016 indicative AHA

Concerned about the potential for privatisation of the Hunter Valley rail network at the time of submitting, HRATF proposed that the indicative AHA be amended to incorporate the 2016 HVAU pricing provisions.⁸⁸⁶

Bloomfield submitted that it endorsed HRATF's position on the 2016 indicative AHA.⁸⁸⁷

HVEC noted it did not support ARTC's proposal to contractually bind producers to a Train Path Schedule that is path specific. Whereas Glencore and PWCS noted they did support the proposal.⁸⁸⁸ This proposal has since been removed from the 2017 indicative AHA.⁸⁸⁹

PWCS additionally highlighted its concern that provisions in the 2016 indicative AHA relating to ad hoc pathing may present short term planning issues, impacting stockpile planning and order vessel loading. PWCS proposed that these provisions be reviewed.⁸⁹⁰

22.3. ACCC view

The ACCC considers the 2017 indicative AHA is appropriate subject to minor amendments.

The ACCC notes Pacific Nationals' concern that any changes arising from a new or varied HVAU will be automatically incorporated into the 2017 indicative AHA, and request that where changes are to impact above-rail operators, that above-rail operators are consulted and notified of relevant changes. The ACCC is of the view that, having regard to ARTC's legitimate business interests (section 44ZZA(3)(a)) and the interests of persons who might want to access the Hunter Valley rail network (section 44ZZA(3)(c)), ARTC's proposal is appropriate, as it enables both ARTC and access seekers to be sufficiently aware of their respective rights and obligations, and thereby avoid unnecessary costs, monetary or otherwise, when utilising the processes set out by the HVAU and indicative AHA.

In addition, regarding any submission of a new undertaking, or application to vary the existing HVAU and indicative AHA under section 44ZZA(3) or (7) of the Act, the ACCC will consult with stakeholders as per its usual regulatory process. Accordingly, all stakeholders (including above-rail operators) will be afforded the opportunity to inform the ACCC of their views on any aspect of proposed changes to the HVAU, including the indicative AHA. The ACCC also notes that in considering whether or a not a variation to an undertaking is appropriate to accept, it must have regard to the relevant legislative criteria under section 44ZZA(3) of the Act. The ACCC also notes that the mandatory review process under section 2.3 of the 2017 HVAU provides an opportunity for consultation to take place prior to the acceptance of any changes to the 2017 HVAU that may be proposed by ARTC.

The ACCC also notes Pacific National's concern with clause 4.6(d) of the 2017 indicative AHA that states an Access Holder will not incur liability for incidents caused by acts or omissions of the rail operator. The ACCC considers that this provision clarifies the liability (or lack of) of an Access Holder under the indicative AHA and does not concern the rail operator. The ACCC notes that any potential liability of the above-rail operator is detailed in the OSA.

⁸⁸⁶ HRATF, *ARTC 2016 Hunter Valley Access Undertaking – Hunter Rail Access Task Force submission to the ACCC*, 9 March 2016, pp. 15–16.

⁸⁸⁷ Bloomfield, *Submission on 2016 HVAU*, 9 March 2016, p. 2.

⁸⁸⁸ Glencore, *Submissions to the Australian Competition and Consumer Commission Hunter Valley Coal Network Access Undertaking submitted by Australian Rail Track Corporation ("ARTC")*, 15 March 2016, pp. 6–7; PWCS, *Australian Rail Track Corporation's 2016 HVAU – Consultation Paper*, 19 February 2016, p. 2.

⁸⁸⁹ HVEC, *HVEC submission on ARTC Draft 2016 HVAU*, 10 March 2016, p. 5.

⁸⁹⁰ PWCS, *Australian Rail Track Corporation's 2016 HVAU – Consultation Paper*, 19 February 2016, p. 3.

The ACCC notes submissions by HRATF and Bloomfield to the 2016 HVAU proposing that a trigger be included in the indicative AHA to incorporate relevant pricing provisions should the HVAU expire or terminate under privatisation. The ACCC considers that at this stage, privatisation of ARTC is unlikely in the short to medium term and that in order to provide sufficient regulatory certainty, some form of external compulsion by a relevant government is required—mandating the appropriate regulatory arrangements to be implemented up-front prior to its privatisation. The ACCC’s position therefore is that there is no form of drafting that can be included in the HVAU / indicative AHA alone that will provide sufficient regulatory certainty for users of the Hunter Valley rail network.

The ACCC notes PWCS’s concern that provisions in the 2017 indicative AHA relating to the structure of ad hoc pathing may present short term planning issues. The ACCC considers PWCS’s proposal that ARTC review these provisions may reveal ways that efficiency and capacity management can be improved. The ACCC welcomes PWCS and other stakeholders making a submission outlining which particular provisions in the 2017 indicative AHA may present short term planning issues.

The ACCC notes HRATF’s proposed amendment to the definition of the Target Monthly Tolerance Cap under clause 1.1 of the 2017 indicative AHA. The ACCC agrees with HRATF that the Target Monthly Tolerance Cap is intended to operate as a floor and therefore the definition should be amended to state the ‘greater of’ rather than ‘lesser of’, the two alternatives. The ACCC considers this amendment will provide certainty and clarity in the terms, effect and operation of the 2017 HVAU and indicative AHA (section 44ZZA(3)(e)).

The ACCC also notes HRATF’s concern that ARTC’s approach to assessing network path capability in Schedule 2 of the indicative AHA appears to not take into account non-coal use of the Network. As discussed in chapter 21 of this Draft Decision, the ACCC requires clarification from ARTC on how it accounts for train paths that are functional coal paths but are technically unavailable for use by coal trains on an ad hoc basis.

Further, the ACCC notes the concern HRATF has raised with the definition of non-TOP Charges under clause 2 of Schedule 3 of the 2017 indicative AHA. The ACCC notes that non-TOP Charges are defined with reference to actual gross tonnes for the Service. The ACCC agrees with HRATF’s submission seeking that actual gross tonnes be defined as ‘recorded by the ARTC weighbridge or equivalent’ or ‘nominal train weights’ where the ARTC weighbridge or equivalent is not operational. The ACCC considers this amendment will provide certainty and clarity in the terms, effect and operation of the 2017 HVAU and indicative AHA (section 44ZZA(3)(e)).

Finally, HRATF submits that the amendments made to clause 3.5 of the 2017 indicative AHA gives ARTC too much discretion to grant quarterly allocation periods. ARTC states it has made these amendments to enable it to make an assessment of the impact of quarterly allocation on Capacity, Coal Chain Capacity and the capacity of other Access Holders prior to granting an Access Holder a quarterly allocation period. The ACCC agrees that ARTC should make an assessment of these impacts prior to granting an Access Holder a quarterly allocation period. However the ACCC considers that clause 3.5 should be amended to state that if an Access Holder qualifies to be issued a quarterly allocation period, that ARTC will not unreasonably refuse to grant that Access Holder a quarterly allocation period, having regard to the interests of persons who may want access to the Hunter Valley rail network (section 44ZZA(3)(c)). Additionally, the ACCC considers this drafting change will promote the economically efficient operation of, use of and investment in the Hunter Valley rail network (section 44AA(a)).

Term

The ACCC notes AGL’s concerns relating to the length of contract term in the 2017 indicative AHA. AGL argues that long term contracts are problematic for electricity

generators and may have flow on effects to the prices that customers pay for electricity. The ACCC understands that clause 2 of the indicative AHA, specifically clause 2.3(c) which specifies a 10 year initial term for Access, is not a Tier 1 (mandatory) provision in Schedule A:1 of the 2017 HVAU. As clause 2 is a Tier 2 (negotiable) provision, relevant Access Holders should be able to seek to negotiate with ARTC for a shorter or longer term than that set out in the indicative AHA. The ACCC notes AGL's position that a shorter indicative AHA term is likely to resolve its concerns regarding the renewal and extension terms in the Train Path Schedule of the 2017 indicative AHA.

Exit terminal

ARTC proposed in its 2016 HVAU submission to bind Access Holders to a Train Path Schedule that specifies a port terminal exit point. ARTC has removed this amendment in its 2017 HVAU submission, reinstating the drafting in the 2011 indicative AHA. The ACCC notes that while Glencore and PWCS supported ARTC's 2016 HVAU proposal, no stakeholders submitted on this issue in consultation on the 2017 HVAU. The ACCC agrees with HVEC's position that ARTC's 2016 HVAU proposal would have removed the flexibility for producers to mitigate unanticipated supply chain issues when trading paths. The ACCC considers that ARTC's proposal to reinstate the drafting of the 2011 indicative AHA is appropriate.

Impacts on TOP Charges

The ACCC notes Pacific National's concern that ARTC has removed clause 11.5(d) of the 2011 indicative AHA from the 2017 indicative AHA. This clause provided for an Access Holder to contract with an above-rail operator with different Service Assumptions to the existing haulage agreement without financial penalty, where it resulted in a more efficient use of Capacity and Coal Chain Capacity.

ARTC argues that it has deleted clause 11.5(d) of the 2011 indicative AHA as a result of implementing path based pricing. ARTC states that under path based pricing, reductions in TOP Charges will only occur if an Access Holder permanently changes its Services Assumptions from a train consisting outside the Services Envelope to a train consisting within the Services Envelope, where a train operating outside the Services Envelope will not provide for a more efficient use of Capacity and Coal Chain Capacity.⁸⁹¹

It is unclear to the ACCC how the proposed change to path based pricing necessitates the removal of clause 11.5(d) of the 2011 indicative AHA. Additionally, the ACCC considers that ARTC's proposal to remove this clause may disincentivise above-rail operators from seeking above-rail efficiency improvements where they result in a permanent change to Service Assumptions.

The ACCC notes that Aurizon submitted similar concerns about the impact on TOP Charges from a permanent change in Service Assumptions (clause 11.5 of the 2017 indicative AHA), a permanent variation to train paths (clause 11.1), and Relinquished Capacity (section 4.20 of the 2017 HVAU). As discussed in chapter 15 of this Draft Decision, the ACCC considers there may be a conflict between:

- the intended efficiency outcomes of path based pricing, namely to encourage maximising the volume of coal hauled per path and

⁸⁹¹ ARTC, *2017 Hunter Valley Coal Network Access Undertaking Explanatory Guide*, 9 December 2016, p. 92.

- the mechanisms to ensure ARTC can recover enough TOP revenue from Access Holders to ensure it recovers its Fixed and Incremental Capital Costs, such as the clauses discussed above—11.1 and 11.5 of the 2017 indicative AHA and section 4.20 of the 2017 HVAU.

As noted in chapter 15 of this Draft Decision, the ACCC has not formed a view on ARTC's proposed change to path based pricing as it does not have the necessary information in order to reach a view. Consequently, until the ACCC receives the information required to form a view on ARTC's proposed change to path based pricing, the ACCC is also unable to provide a view on these concerns. The ACCC welcomes further submissions on these issues from stakeholders.

Operator Sub-Agreement

22.4. ARTC proposal

The OSA is an agreement between ARTC and an accredited rail operator.

22.4.1. Comparison to 2011 OSA

ARTC proposes no material changes to the 2017 OSA compared with the 2011 OSA.

22.4.2. Comparison to 2016 OSA

ARTC proposes no material changes to the 2017 OSA compared with the 2016 OSA.

22.5. Stakeholder submissions

22.5.1. 2017 OSA

Stakeholders did not comment on the 2017 OSA provisions in their submissions on the 2017 HVAU.

22.5.2. 2016 HVAU

Asciano (now Pacific National) noted its concern with clause 22.1 of the OSA (unchanged in the 2011 and 2017 OSA), which states that any amendments to the standard OSA that are accepted by the ACCC as part of a new or varied HVAU will be automatically reflected in the OSA unless the provisions are specifically negotiated. In the event of a dispute, parties can resolve the dispute via the dispute resolution provision under clause 17 of the OSA. Asciano questioned what would occur if an amendment related to the dispute resolution provision itself. Asciano proposed instead that in the event of a dispute about the OSA, parties have the option of arbitration by the ACCC, or the dispute resolution clause in the OSA, as agreed by the parties.⁸⁹²

22.6. ACCC view

The ACCC considers the OSA is appropriate having regard to ARTC's legitimate business interests (section 44ZZA(3)(a)) and the interests of persons who might want access to the Hunter Valley rail network (section 44ZZA(3)(c)).

The ACCC notes that ARTC has not made any material changes to the OSA and that with the exception of Asciano (now Pacific National), no other stakeholders have provided any

⁸⁹² Asciano, *Submission to the ACCC – 2016 ARTC Hunter Valley Coal Network Access Undertaking*, 7 March 2016, p. 26.

views or concerns about the OSA. Regarding Asciano's concerns about the dispute resolution provisions, the ACCC notes that ARTC has not proposed any amendments to the dispute resolution provisions in the 2017 OSA. Clause 17 of the OSA provides for any dispute arising under the agreement to be resolved first by negotiation then mediation.

Additionally, in the event that ARTC submits a new HVAU, or applies to vary the existing HVAU under section 44ZZA(3) or (7) of the Act, the ACCC will consult with stakeholders on any concerns with the HVAU, and its attached schedules including the OSA, as per its usual regulatory process. Accordingly, all stakeholders will be afforded the opportunity to inform the ACCC of their views on any aspect of proposed changes to the HVAU that impact the OSA. The ACCC also notes that in considering whether or a not a variation to an undertaking is appropriate to accept, it must have regard to the relevant legislative criteria under section 44ZZA(3) of the Act. The ACCC also notes that the mandatory review process under section 2.3 of the 2017 HVAU provides an opportunity for consultation to take place prior to the acceptance of any changes to the 2017 HVAU that may be proposed by ARTC.

23. Conclusion

The ACCC considers that it would not be appropriate to accept the 2017 HVAU having regard to the matters in section 44ZZA(3) of the Act. As a result, the ACCC's draft decision is that it should not accept the 2017 HVAU in its current form.

The ACCC has provided throughout this document requests for further information and / or recommendations on possible revisions to the 2017 HVAU. The ACCC is of the view that such additional information or revisions are necessary in order for the 2017 HVAU to be considered appropriate to accept.

While the ACCC's statutory deadline for finalising the assessment of the 2017 HVAU is 21 August 2017, the expiry date of the 2011 HVAU is 30 June 2017. The ACCC understands that it is ARTC's intention for the 2017 HVAU to commence upon expiry of the 2011 HVAU.

The ACCC notes that in order for this to be achieved, there are a significant number of steps that are required to be completed in order to finalise the 2017 HVAU by 30 June 2017. Specifically:

- ARTC to consider and submit a revised 2017 HVAU in light of the ACCC's views as set out in this Draft Decision, including consideration of any submissions received in response to the Draft Decision, which may also impact on the proposed opex efficiency framework.
- ARTC to finalise its proposed opex efficiency mechanism, and incorporate it and any amendments to the 2017 HVAU flowing from the introduction of the opex efficiency mechanism (for example, changes to annual compliance).
- ACCC to consult on revised undertaking prior to issuing a final decision in relation to the 2017 HVAU.

An indicative timeline for this assessment is provided in chapter 1 of this Draft Decision.

The ACCC recognises that this is a reasonably tight timeframe. However, the ACCC has provided its views and has proposed revisions throughout this Draft Decision to assist in finalising the 2017 HVAU in a timely manner. The ACCC notes that the ability to meet this timeframe depends largely on ARTC. The ACCC considers that ARTC should continue to engage with the ACCC and stakeholders on its proposed next steps in order to finalise the 2017 HVAU.

Lastly, the ACCC recognises the extensive work that has been undertaken by ARTC to date in developing the 2017 HVAU and the parallel efforts to develop an opex efficiency mechanism by the commencement of the 2017 HVAU. The ACCC also recognises the ongoing contribution of stakeholders in consulting with, providing submissions to, and working with ARTC and the ACCC throughout this process.

Appendix A: Debt risk premium method

This appendix states the method used by the ACCC to estimate debt risk premium. The purpose of this appendix is to provide transparency in the calculation of debt risk premium.

Debt risk premium equals a representative bond yield less the risk-free rate.

$$DRP_t = y_t - Rf_t$$

The ACCC calculates the risk-free rate and bond yield based on a 20 day averaging period ending as close as feasible to the start of the undertaking as is feasible. For the purposes of this Draft Decision, this averaging period ends 30 June 2016.

The ACCC converts semi-annual compounding risk-free rates and bond yields into effective annual rates using the following formula.

$$y_t^{ea} = \left[\left(1 + \frac{y_t}{2} \right)^2 - 1 \right] \times 100$$

Where y_t^{ea} is the effective annual yield for day t and y_t is the daily 10 year bond yield for day t . It should be noted that conversion to effective annual rates occurs prior to the 20 day averaging.

Risk-free rate

The ACCC's approach for calculating risk-free rate is as follows:

1. Download Table F2 'Capital market yields – Government bond' from the RBA⁸⁹³
2. Select all dates between and including 31 May 2016 and 30 June 2016 for the 'Australian Government 10 year bond' yield
3. Converted these daily yields for the Australian Government 10 year bond into effective annual rates
4. Calculate a 20 day average ending on 30 June 2016. This results in a risk-free rate of 2.12 per cent.

Bond yield

Broadly, the ACCC method for calculation of bond yield is to calculate two bond yield estimates based on RBA and Bloomberg and then take an average of the two for the final bond yield estimate. The steps for the ACCC's method are:

1. Selecting the benchmark bond to represent ARTC
2. Calculating the adjusted RBA bond yield estimate
3. Calculating the adjusted Bloomberg bond yield estimate
4. Calculating the average of the RBA and Bloomberg yield estimates.

Each of these steps in discussed in further detail below.

⁸⁹³ RBA, *Capital market yields – Government bonds – Daily – F2*, 2016, viewed 28 October 2016, www.rba.gov.au/statistics/tables/xls/f02d.xls

Benchmark bond

Selecting a benchmark bond representing ARTC depends on the credit rating and bond yield tenor. However, the final benchmark bond is subject to data availability (see chapter 14 of this Draft Decision for a discussion on this).

Given this data availability, the ACCC selects a BBB-rated bond with 10 year tenor to represent ARTC (see chapter 14 of this Draft Decision for further information).

Adjusted RBA bond yield estimate

The ACCC's method for calculating an adjusted RBA bond yield estimate requires:

- first, extrapolating the end-of-month bond yields estimates from an effective tenor⁸⁹⁴ less than 10 years to a benchmark tenor of 10 years
- second, deriving interpolated daily bond yield estimates between end-of-month bond yields with benchmark tenors of 10 years.

The steps for extrapolating the end-of-month bond yield estimates are as follows.

1. Download Table F3 'Aggregate measures of Australian corporate bond yields' from the RBA⁸⁹⁵ and select entries for 31 May 2016 and 30 June 2016 for the 7 and 10 year 'Non-financial corporate BBB-rates bonds—yields'.
2. Using the selected entries from Table F3, linearly extrapolate the published RBA 10 year bond yield from its published tenor to an effective tenor of 10 years using the following formula.

$$y_{10}^* = y_{10} + \frac{CS_{10} - CS_7}{L_{10} - L_7} \times (10 - L_{10})$$

Where y_{10}^* is the extrapolated 10 year bond yield, y_{10} is the published 10 year bond yield, CS_{10} is the published credit spread of the 10 year bond yield, CS_7 is the published credit spread of the 7 year bond yield, L_{10} is the effective tenor length for a 10 year bond and L_7 is the effective tenor length of a 7 year bond.

3. This results in an extrapolated 10 year bond yield of 4.93 per cent for 31 May 2016 and 4.85 per cent for 30 June 2016.

The steps for deriving interpolated daily bond yields between end-of-month bond yields are as follows.

1. Download Table F16 'Indicative Mid Rates of Commonwealth Government Securities – 2013 to current' from the RBA⁸⁹⁶ and select all dates between and including 31 May 2016 and 30 June 2016.
2. Using Table F16, select CGS bonds that have maturity dates straddling 31 May 2016 and 30 June 2016. With these two bonds for both 31 May 2016 and 30 June 2016, linearly interpolate the CGS yields using the following formula to calculate a yield for 31 May 2016 and 30 June 2016.

$$y_t = y_{initial} + (D_t - D_{initial}) \frac{(y_{end} - y_{initial})}{(D_{end} - D_{initial})}$$

⁸⁹⁴ While a bond may have a tenor of 10 years, the actual length of its ten can be less than 10 years.

⁸⁹⁵ RBA, *Aggregate measures of Australian corporate bond spreads and yields – F3*, 2016, viewed 28 October 2016, www.rba.gov.au/statistics/tables/xls/f03hist.xls

⁸⁹⁶ RBA, *Indicative mid rates of Australian Government securities – F16*, 2016, viewed 28 October 2016, www.rba.gov.au/statistics/tables/xls/f16.xls

Where y_t is the interpolated yield for day t , D_t is the date for day t , $D_{initial}$ is the initial date, D_{end} is the end data, $y_{initial}$ is the initial yield corresponding to $D_{initial}$ and y_{end} is the end yield corresponding D_{end} .

This results in interpolated CSG yields of 2.31 per cent for 31 May 2016 and 1.99 per cent for 30 June 2016.

3. Subtract from the extrapolated ten-year RBA bond yield the interpolated CSG yield for 31 May 2016 and 30 June 2016. This resulted in adjusted 10 year bond yield spreads of 2.62 per cent for 31 May 2016 and 2.86 per cent for 30 June 2016.
4. Obtain daily adjusted 10 year bond yield spreads by linear interpolating the adjusted 10 year bond yield spreads for 31 May 2016 and 30 June 2016 with the following formula.

$$S_t = S_{initial} + (D_t - D_{initial}) \frac{(S_{end} - S_{initial})}{(D_{end} - D_{initial})}$$

Where S_t is the interpolated spread for day t , D_t is the date for day t , $D_{initial}$ is the initial date, D_{end} is the end data, $S_{initial}$ is the initial spread corresponding to $D_{initial}$ and S_{end} is the end spread corresponding D_{end} .

5. Add to these daily adjusted 10 year bond yield spreads the daily CSG yields (following the approach outlined in step 2) to produce daily ten-year bond yield estimates.
6. Convert these daily 10 year bond yield estimates to effective annual rates (see above).
7. Using the effective annual yield estimates, apply a 20 day average to calculate the RBA adjusted bond yield estimate to 30 June 2016. This results in an adjusted RBA bond yield estimate of 4.93 per cent.

Adjusted Bloomberg bond yield estimate

The ACCC's method for calculating an adjusted Bloomberg bond yield estimate is as follows.

1. Download the 10 year corporate BBB rated Australian BVAL curve (BVCAB10) from Bloomberg.
2. Convert these daily 10 year bond yield estimates to effective annual rates (see above).
3. Using the effective annual yield estimates, apply a 20 day average to calculate the Bloomberg adjusted bond yield estimate to 30 June 2016. This results in an adjusted Bloomberg bond yield estimate of 4.81 per cent.

Final bond yield estimate

An average of the adjusted RBA and Bloomberg bond yield estimates (4.93 per cent and 4.81 per cent respectively) results in a final bond yield estimate of 4.87 per cent.

Subtracting the risk-free rate of 2.12 per cent from the final bond yield estimate of 4.87 per cent results in a debt risk premium of 2.75 per cent.

Appendix B: Minor drafting errors

The ACCC notes that the 2017 HVAU and AHA appear to contain some minor drafting errors. These are set out in Table 28 and Table 29 below rather than set out in detail within the relevant sections of this Draft Decision. The ACCC expects that ARTC will address these minor drafting errors in any revised version of the HVAU submitted to the ACCC.

Table 28: Drafting errors in the 2017 HVAU

HVAU section	Drafting error (red)	Comment
2.2(b)(i)	<p>2.2 Grant and Duration of Undertaking</p> <p>b) The Undertaking will continue until the earlier to occur of:</p> <p>(i) 31 December 2026 (Initial Term) as may be extended for Further Terms in accordance with section 2.3(g) (End Date);</p> <p>Or</p> <p>(ii) the withdrawal of this Undertaking in accordance with the CCA or section 2.2(c),</p> <p>being, the Term of the Undertaking.</p>	<p>This reference appears to still refer to section 2.2(c) of the draft 2016 HVAU which has since been removed.</p> <p>Section 2.2(c) of the draft 2016 HVAU set out a process for the continuation of the HVAU in the event of the transfer or grant of the lease to a non-ARTC entity. It was originally inserted as the request of ARTC's stakeholders.</p>
4.2(a)	<p>4.2 Floor Revenue Limits</p> <p>Access revenue:</p> <p>a) in the case of each Access Holder must at least meet the Incremental Maintenance imposed by that Access Holder; and</p>	Missing word – 'Cost'
4.5	<p>4.5 Depreciation_{t-1} is Depreciation applicable to the RAB Floor Limit in the calendar year (t-1). Economic Cost</p>	The end of section 4.4 runs into the heading of section 4.5.
4.10(h)(ii)	<p>4.10 Annual ACCC compliance assessment</p> <p>h) The ACCC will determine whether ARTC has incurred Efficient costs and Efficient operating expenditure in accordance with section 4.5(b):</p> <p>(i) the total unders and overs amount or allocation; and</p> <p>(ii) closing RAB in section 4.5(a), that results from Economic Cost under section 4.5(a) only including Efficient costs and Efficient operating expenditure determine din accordance with section 4.5(b).</p> <p>being, the Term of the Undertaking.</p>	4.10(h)(ii) should cross refer to section 4.4(a), not section 4.5(a).

HVAU section	Drafting error (red)	Comment
4.18(d)(i)	<p>4.18 Process for finalising Standard Access Charges</p> <p>d) subject to sub-section(e), ARTC will notify by 30 September of each calendar year for the following calendar year:</p> <p>(i) the aggregate coal volumes and KMs which will include reasonable expected volumes and Contracted Coal KM, ARTC's annual forecast costs as determined under sub-section (b) to those Access Holders holding Coal Access Rights in each Pricing Zone; and</p>	Missing an 's' from Access Holders.
14.1(b)(ii)	A project that increases the capability of the Network but in way that defers or displaces Capital Expenditure which would ordinarily be required to provide that capacity and on which ARTC would otherwise earn a return.	Missing word-'a'
Schedule D: 1(a), 1(b)(iii) and 1(d)	...Network Key Result Areas set out in item g ...	Each section refers to 'item g'—but each should refer to 'item f'.

Table 29: Drafting errors in the 2017 AHA

Indicative AHA section	Drafting error (red)	Comment
1.1	Interim RML has the meaning given in clause 5.4(j)(i);	Meaning is given in clause 5.4(i)(i).
1.1	Interim ROR has the meaning given in clause 5.4(j)(i);	Meaning is given in clause 5.4(i)(i).
1.1	Second 2016 Period has the meaning given in clause 5.4(j);	Meaning is given in clause 5.4(i)(i)
1.1	Extension Period has the meaning given in the Access Undertaking;	'Extension Period' removed from section 15.1 of the Access Undertaking.
5.4(d)	Within 20 Business Days of performing the Annual Reconciliation ARTC will make a payment to the Access Holder of the TOP Rebate determined under clause 5.4(c) or clause 5.4(d)(ii) and the Ad Hoc Charge Rebate determined under clause 5.4(b) or clause 5.4(d)(i).	Clauses 5.4(d)(i) and 5.4(d)(ii) do not exist.
11.4(e)	... obligation to pay the Innovation Charges, may subject to the methodology for calculating such a Charge...	Missing word: ... obligation to pay the Innovation Charges, may [be] subject to the methodology for calculating such a Charge...
Schedule 2, 2.8	If, as a result of the annual audit of ARTC's compliance with its obligations under this Schedule in relation to the performance of the system true up test conducted in accordance with section 4.10(f) of the current Access Undertaking, the ACCC determines that the TOP rebates for the Access Holder have not been calculated correctly, then ARTC will pay any underpayment and is entitled to recover any overpayment as determined by the ACCC and in accordance with the procedures set out in section 4.10(f) of the Access Undertaking.	Reference to section 4.10(f) should be section 4.11.

Appendix C: Submissions received

Table 30: Submissions received on 2017 HVAU

Stakeholder	Submission date
AGL	2 February 2017
Anglo American	8 February 2017
Aurizon	3 February 2017
Bloomfield	3 February 2017
Centennial Coal	3 February 2017
HRATF	6 February 2017
HVEC	3 February 2017
HVCCC	10 February 2017
Idemitsu	3 February 2017
IPART	25 January 2017
Pacific National	3 February 2017
Shenhua Watermark	13 February 2017
Whitehaven	3 February 2017
Supplementary submissions	
ARTC (RML Equation)	17 February 2017
ARTC (RML methodology)	20 February 2017
ARTC (WACC response)	22 February 2017
ARTC (RML investigations)	7 March 2017
Anglo American (Incremental Cost)	27 February 2017
HRATF (Incremental Cost and TOP)	20 February 2017
HRATF (response to ARTC on RML)	22 March 2017

Table 31: Submissions received on 2016 HVAU

Stakeholder	Submission date
Asciano (now Pacific National)	7 March 2016
Aurizon	7 March 2016
Bloomfield	10 March 2016
Centennial Coal	29 February 2016
Glencore	15 March 2016
HRATF	9 March 2016

Stakeholder	Submission date
HRATF (Castalia Report—Effect of single commodity risk on ARTC)	12 April 2016
HVEC	10 March 2016
HVCCC	7 March 2016
Idemitsu	9 March 2016
IPART	18 February 2016
PWCS	19 February 2016
Whitehaven	8 March 2016

Appendix D: Geoscience Australia advice