



Australian
Competition &
Consumer
Commission

Determination

Australian Rail Track Corporation's
compliance with pricing principles
in the Hunter Valley Rail Network
Access Undertaking for July -
December 2011

5 April 2013



Australian Competition and Consumer Commission
23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601

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Summary

The Australian Competition and Consumer Commission (**ACCC**) has carried out a compliance assessment pursuant to clause 4.10 of the Hunter Valley Access Undertaking¹ (**HVAU**) and determined that the Australian Rail Track Corporation (**ARTC**) has complied with pricing principles in clause 4 of the HVAU for the period 1 July 2011 to 31 December 2011 (**the 2011 Compliance Period**).

ACCC compliance assessment

The compliance assessment under clause 4.10 relates to ARTC's compliance with the HVAU financial model, which sets a revenue cap based on the economic cost of providing services (**the Ceiling Limit**). The economic cost includes a return earned on assets, return of assets (depreciation) and efficient operating expenditure. Determination of economic cost therefore also requires a regulatory valuation of the assets. This value is rolled forward each year to account for depreciation and new capital expenditure, and forms the Regulated Asset Base (**RAB**) Floor Limit. For assets in Pricing Zone 3, the HVAU financial model allows 'loss capitalisation', whereby if access revenues are less than economic cost for a particular period the shortfall may be capitalised into the RAB for recovery in later periods.²

The compliance assessment process in the HVAU is stipulated to be conducted in respect of a calendar year. However, the ACCC considers it appropriate that the 2011 Compliance Period is a half year given that the HVAU took effect on 1 July 2011.

ACCC determination

The ACCC has determined that ARTC has rolled forward the RAB Floor Limit³ in accordance with the HVAU for the 2011 Compliance Period. Accordingly, the closing RAB Floor Limit for the total Hunter Valley rail network as at 31 December 2011 is \$1 073 587 301.

The ACCC also accepts ARTC's reconciliation of access revenue with the applicable Ceiling Limit in Pricing Zones 1 and 2 for the 2011 Compliance Period. ARTC's access revenue is greater than full economic cost, and the total amount of the 'over-recovery' for Pricing Zones 1 and 2 is \$0.73 million.

In accordance with the 'unders and overs' accounting framework under the HVAU, this over-recovery is to be distributed to access holders based on the proportion of total access revenue paid by each access holder. In the absence of any executed Access Holder Agreements under the HVAU during the 2011 Compliance Period, ARTC has proposed to allocate the over-recovery to the above-rail operators. The ACCC considers this is appropriate as an interim measure, and anticipates that the 'unders and overs' amounts will be reconciled with coal producers in future years given that access holder agreements have since been executed.

If the RAB is above the RAB Floor Limit in Pricing Zone 3, ARTC is not required to reconcile access revenue with the Ceiling Limit for Pricing Zone 3 as ARTC has not recovered full economic cost, and therefore 'loss capitalisation' applies. The ACCC has determined that the closing RAB for Pricing Zone 3 is \$192 214 184, which is higher than the closing Pricing Zone 3 RAB Floor Limit of \$186 996 217.

Conclusion

The ACCC has determined that ARTC has complied with the relevant provisions listed in clause 4.10 of the HVAU for the 2011 Compliance Period. Accordingly, ARTC's over-recovery of \$0.73 million for the 2011 Compliance Period is to be refunded to above-rail operators in accordance with clause 4.9 of the HVAU.

¹ The HVAU was accepted by the ACCC on 29 June 2011 and varied on 17 October 2012 – details of the variation are available on the ACCC's website.

² 'Loss capitalisation' only applies in Pricing Zone 3 where the RAB is above the RAB Floor Limit.

³ The RAB Floor Limit represents the asset base on which ARTC will earn a rate of return under the HVAU for the 'constrained' network (that is, Pricing Zones 1 and 2).

1 Introduction

The HVAU was given to the ACCC pursuant to section 44ZZA(1) of the *Competition and Consumer Act 2010*. Section 44ZZA(6A) of the *Competition and Consumer Act 2010* provides that the ACCC may perform functions or exercise powers in relation to an undertaking that the undertaking provides for the ACCC to perform or exercise.

Clause 4.10 of the HVAU provides for the ACCC to conduct a compliance assessment to determine whether ARTC has complied with access pricing principles in the HVAU relating to its financial model and the allocation of 'unders and overs' amounts to access holders.

On 1 June 2012 ARTC made its initial submission to the ACCC in order to demonstrate its compliance with the requirements in clause 4.10 of the HVAU for the 2011 Compliance Period. On 13 July 2012 ARTC provided the ACCC with a revised version of its submission and capital consultation document after identifying errors in the 1 June 2012 documentation.

Subsequent to this, the ACCC raised a number of concerns with ARTC about the approach in its submission. ARTC provided draft revised submissions responding to the ACCC's concerns in September 2012 and January 2013.

On 8 March 2013 ARTC provided the ACCC with a further revised version of its submission which addressed the concerns raised by the ACCC (**the Revised Compliance Submission**). The ACCC's determination set out in this document is based on the Revised Compliance Submission provided on 8 March 2013.

These submissions are available on the ACCC's website.

1.1 Industry context

ARTC is a Commonwealth Government-owned corporation established in 1998 for the purpose of managing and providing access to its national interstate rail network. ARTC is vertically separated, providing 'below-rail' track access services and not 'above rail' services such as haulage. The Interstate Rail Network is subject to an access undertaking accepted by the ACCC on 30 July 2008.⁴

The HVAU provides for the negotiation of access to the Hunter Valley Rail Network (**the network**) operated by ARTC in New South Wales. ARTC leases the network from the New South Wales government under a 60 year lease granted on 5 September 2004.

The network is predominantly used to transport coal from mines in the Hunter Valley region to the Port of Newcastle for export. The network is also used by non-coal traffic, including general and bulk freight services (such as grain) and passenger services. It is also used to ship coal from the region's mines to domestic customers, such as power stations.

The network was previously subject to the New South Wales Rail Access Undertaking (**NSWRAU**) administered by the NSW Independent Pricing and Regulatory Tribunal (**IPART**). As a consequence of the decision to accept the HVAU, access regulation of the network is now governed by the ACCC and the HVAU.

1.2 ACCC Compliance Assessment

Clause 4 of the HVAU regulates ARTC's access revenue for the Hunter Valley rail network. The HVAU implements a revenue cap based on the economic cost of providing services, which constrains the maximum access revenues (that is, revenues received from access charges) ARTC may earn over the term of the HVAU. The economic cost includes a return earned on assets, return of assets (depreciation) and efficient operating expenditure.

⁴ See the ACCC website at <http://www.accc.gov.au/content/index.phtml/itemId/789738> for further details.

Determination of economic cost therefore also requires a regulatory valuation of the assets. This value is rolled forward each year to account for depreciation and new capital expenditure and forms the Regulated Asset Base (**RAB**) Floor Limit.

The HVAU also includes a 'loss capitalisation' component for Pricing Zone 3, where there is currently lower demand for rail access services and where ARTC is likely to under-recover full economic cost in the short term.

The compliance assessment includes determination of whether:

- ARTC has rolled forward its asset valuation for the constrained part of the network⁵ (the RAB Floor Limit) and for Pricing Zone 3 (the RAB) in accordance with the HVAU;
- loss capitalisation applies in Pricing Zone 3, which is determined by comparing the RAB and the RAB Floor Limit; and
- ARTC has reconciled access revenue with the applicable Ceiling Limit and determined any allocation of the total under- or over-recovery.

The relevant provisions of the HVAU relating to the annual compliance assessment are outlined in Appendix A to this determination.

1.2.1 Consultation

The ACCC published a Consultation Paper on 9 August 2012 and invited submissions on the annual compliance documentation provided by ARTC on 13 July 2012.

The ACCC received one submission from Asciano Limited (Asciano). Asciano submitted that it has no particular comment on ARTC's DORC valuation for the Port Waratah Coal Loop assets, but that where possible there should be consistency between the valuation methodologies and related regulatory processes used in the NSWRAU and those used in the HVAU.⁶

Asciano also submitted that it generally supports the type and level of ARTC's capital expenditure undertaken, although Asciano expressed concern that there should be a stronger focus on capital expenditure in the immediate future to reduce track congestion.⁷

Asciano noted that in the 2011 Compliance Period access rights were still held by operators, but that from January 2012 onwards access rights have been transferred to the relevant miners or end users. Asciano submitted that more detail should be provided in relation to the 2012 calendar year to ensure transparency in how this transition is managed, in particular how under recovery or over-recovery adjustments are allocated to different parties.⁸

Asciano's submission is available on the ACCC's website at:

<http://www.accc.gov.au/content/index.phtml/itemId/1057511>

⁵ The combination of mines that is closest to, or exceeds, the economic cost for the relevant segments is called the 'Constrained Group of Mines' and the segments comprise the 'Constrained Network'.

⁶ Asciano, ARTC Hunter Valley Access Undertaking Annual Compliance Assessment (Submission), 7 September 2012, p. 1.

⁷ Ibid., pp. 1-2.

⁸ Ibid., p. 2.

1.2.2 Information request

The ACCC requested additional information from ARTC as provided for under clause 4.10(c) of the HVAU. This information related to the efficiency of ARTC's operating expenditure and was provided confidentially to the ACCC.

2 Key issues for the 2011 assessment

This section sets out the ACCC's views on the following key issues relating to its compliance assessment for the 2011 Compliance Period:

- the prudence of ARTC's capital expenditure;
- approval of ARTC's DORC valuation for the Port Waratah Coal Loop assets;
- the efficiency of ARTC's operating expenditure; and
- the appropriateness of ARTC receiving a direct return on working capital.

In undertaking its assessment the ACCC has had regard to the terms of the HVAU – in particular clause 4 relating to access pricing principles.

2.1 Prudence of capital expenditure

Clauses 4.4(a) and (b) of the HVAU require that for capital expenditure to be included in the RAB and the RAB Floor Limit (respectively), it must be incurred on a 'prudent' basis.

Capital expenditure on new and existing assets to be included in the RAB and RAB Floor Limit for the 2011 Compliance Period is set out in Appendix B of ARTC's Revised Compliance Submission.

Clauses 7 to 11 of the HVAU set out a framework in respect of capital expenditure, including ARTC's compliance obligations with respect to initiation of, industry consultation on, and funding of capital expenditure in relation to the network. Specifically, these clauses provide a framework for industry endorsement of capital expenditure through the Rail Capacity Group (**RCG**) for inclusion in the RAB.

If capital expenditure has been endorsed by the RCG in accordance with clause 9 of the HVAU, the ACCC is not required to consider whether that capital expenditure is prudent (clause 4.10(d)(iii)). That is, such capital expenditure is assumed to be prudent.

ARTC has informed the ACCC that the RCG was not formally convened during the 2011 Compliance Period because no Access Holder Agreements had been executed. The Rail Infrastructure Group (**RIG**), which operated to ensure that ARTC complied with the consultation requirements under the NSWRAU, was continued during the 2011 Compliance Period as an interim substitute mechanism for the RCG until the RCG was convened. ARTC has submitted that the RIG consisted of similar industry representation and the basis on which consultation was carried out during the 2011 Compliance Period was similar to that contemplated for the RCG under the HVAU.

ARTC's Revised Compliance Submission states that:

ARTC has spent considerable time in communicating each project with the RIG, and have been purposeful in advising the coal industry producers at Industry Communication Sessions and at senior executive level through the HVCCC board. As is required by the HVAU, ARTC has provided comprehensive detail of each project explaining the input to and outcomes expected for the forthcoming year(s).⁹

The ACCC considers that for the purposes of this compliance assessment the RIG is an appropriate substitute for the RCG.

⁹ ARTC, *2011 Capital Consultation: Hunter Valley Coal Network*, April 2012, p. 13.

As required under Schedule G, ARTC submitted evidence of access seekers' endorsement (through the RIG) of capital expenditure to the ACCC on a confidential basis. Further, during the ACCC's August 2012 consultation process no stakeholders expressed concerns regarding the capital projects and capital spend undertaken by ARTC during the 2011 Compliance Period. Asciano submitted that it 'generally supports the type and level of the ARTC's capital expenditure that has been undertaken'.¹⁰

Accordingly, the ACCC deems the capital expenditure undertaken by ARTC during the 2011 Compliance Period (as outlined in Appendix B of ARTC's Revised Compliance Submission) to have been incurred on a prudent basis for the purposes of calculating the RAB and RAB Floor Limit as required under clause 4.4 of the HVAU.

This assessment is relevant to the ACCC's determination regarding ARTC's roll forward of the RAB and the RAB Floor Limit (see sections 3.1 and 3.2 of this document).

2.2 Port Waratah Coal Loop assets

Clause 4.4(a) sets out how the initial value of ARTC's RAB for a segment or group of segments will be determined. For segments not ascribed a value under the NSWRAU, subclause 4.4(a)(ii) provides that an initial valuation will be determined using the depreciated optimised replacement cost (**DORC**) methodology, and approved by the ACCC. The clause states that:

Optimised replacement cost means the cost of replacing by commercially efficient application of best known currently available technology based on existing capacity and performance characteristics of the asset.

As part of its Revised Compliance Submission (Attachment 3 – ARTC Standard Gauge Rail Network DORC – Leased Port Waratah Coal Loop Assets) ARTC seeks to include in the initial value of the RAB (**Initial RAB**) the value of certain parts of the Port Waratah Coal Services coal loop (**the Port Waratah Coal Loop Assets**) that came under ARTC maintenance and management in late 2006. The Port Waratah Coal Loop Assets were not previously ascribed a value under the NSWRAU as these assets were not covered by the regulated coal network defined by that undertaking.

As the Port Waratah Coal Loop Assets are now covered under the HVAU, ARTC is required to include a regulatory asset value for these assets to ensure that ARTC does not breach Floor and Ceiling Limits for Segments covered by the HVAU.

As part of its Revised Compliance Submission, ARTC has proposed a DORC value for ACCC approval for the Port Waratah Coal Loop Assets as at 1 July 2010, which is rolled forward in accordance with the asset valuation roll forward principles under the NSWRAU to 1 July 2011. This approach is similar to that accepted by the ACCC in relation to other assets that did not have a RAB value ascribed under the NSWRAU during the assessment of the HVAU.

ARTC stated that it has carried out a DORC assessment for the Port Waratah Coal Loop Assets on largely the same basis to that used in relation to its submission made to IPART as part of the 2010-11 annual compliance under the NSWRAU.¹¹ This valuation was prepared internally by ARTC. ARTC submits that it has been subject to regulatory consultation by IPART and has received stakeholder support. ARTC submitted that it is important to maintain consistency in approach and regulatory assessment across its network.

The ACCC considers that while ARTC has undertaken comprehensive analysis of the replacement costs of the Port Waratah Coal Loop Assets, a comparable analysis has not been undertaken for the cost savings arising from the optimisation of the assets. The ACCC considers that optimisation should include:

¹⁰ Asciano, *ARTC Hunter Valley Access Undertaking Annual Compliance Assessment (Submission)*, 7 September 2012, pp. 1-2.

¹¹ ARTC, *ARTC Standard Gauge Rail Network DORC: Leased Port Waratah Coal Loop Assets*, p. 6.

- optimisation of the configuration of the network to remove stranded, redundant and excess assets (such as rail sidings, loops, turnouts or spur lines that are no longer used); and
- optimisation to reflect the modern engineering equivalent of assets, including recognition of cost savings and productivity gains due to technological advancement.

Accordingly, the ACCC has some reservations about the approach to DORC valuation taken by ARTC, and considers that the cost savings and productivity gains arising from installing the modern engineering equivalent have not have been fully reflected in the optimisation of the Port Waratah Coal Loop Assets.

However, the ACCC is also aware that the total value of the Port Waratah Coal Loop Assets is relatively small and that adjustments to the valuation methodology would be unlikely to have a significant impact on the overall below-rail costs faced by producers. The ACCC also notes that no stakeholders expressed concerns regarding ARTC's valuation of the Port Waratah Coal Loop Assets during the ACCC's August 2012 consultation process.¹² Further, stakeholders appear to have supported the DORC assessment ARTC proposed to IPART as part of the 2010-11 annual compliance assessment under the NSWRAU, and the current valuation was prepared on largely the same basis.¹³ In light of these practical considerations, the ACCC has formed the view that the benefits of requiring ARTC to undertake a more comprehensive DORC assessment in these circumstances would be unlikely to outweigh the costs of doing so in the case of the Port Waratah Coal Loop Assets.

Accordingly, the ACCC approves the valuation proposed by ARTC for the Port Waratah Coal Loop Assets of \$1 388 683¹⁴ as at 1 July 2011 for inclusion in the Initial RAB. The Initial RAB is the baseline figure for rolling forward the RAB and RAB Floor Limit, and as such is relevant to the ACCC's determination (see sections 3.1 and 3.2 of this document).

For future valuations, in particular where network segments of a higher economic value are sought to be included in the HVAU, the ACCC considers that ARTC ought to undertake a comprehensive DORC assessment, including taking into account cost savings and productivity gains arising from optimisation of the assets.

2.3 Efficiency of operating expenditure

Clause 4.10(e) of the HVAU provides that the ACCC will determine whether ARTC has incurred 'efficient' costs and that only efficient operating expenditure will be included in the RAB and the calculation of 'unders and overs' amounts. The ACCC has the ability to disallow any operating expenditure that is not considered to be efficient.

In order to assess whether ARTC's operating expenditure has been efficient, the ACCC requested further information from ARTC to allow the ACCC to compare expenditure over time on a gross tonne kilometre (**gtkm**) or train kilometre basis from year to year. ARTC provided confidential spreadsheets to the ACCC detailing unit cost information, as well as some historical volume information, over the period July 2006 to December 2011.

The ACCC did not receive any submissions raising concerns in relation to ARTC's operating expenditure for the 2011 Compliance Period.

ARTC's operating expenditure for Pricing Zones 1 and 2 for financial years 2006-07 to 2011-12 was approved by IPART in accordance with the NSWRAU. The ACCC considers it reasonable to use operating expenditure incurred under the NSWRAU as a starting point for analysis for the 2011 assessment period.

¹² Asciano, *Submission*, 7 September 2012, p. 1.

¹³ IPART, *Statement of reasons for decision on the compliance of Australian Rail Track Corporation with the New South Wales Rail Access Undertaking for the 2010/11 financial year*, 4 May 2012; ARTC, *ARTC Standard Gauge Rail Network DORC: Leased Port Waratah Coal Loop Assets*, p. 6.

¹⁴ ARTC, *Submission*, 8 March 2013, p. 10.

The ACCC's assessment for the 2011 Compliance Period has focused on trends in ARTC's operating expenditure over time, but not the level of operating expenditure incurred. In particular, where ARTC's real operating expenditure per gtkm or per train kilometre has remained relatively stable or has fallen compared to operating expenditure under the NSWRAU, the ACCC considers that it is reasonable to assume that ARTC's operating expenditure for the 2011 Compliance Period is unlikely to have been inefficient.

The ACCC assessment is that ARTC's operating expenditure for the 2011 Compliance Period may be deemed 'efficient' for the purposes of satisfying clause 4.5(b) of the HVAU. Accordingly, the ACCC has not determined any change based on disallowed operating expenditure to the closing RAB or the total unders and overs amount for the 2011 Compliance Period (see sections 3.1 and 3.4 of this document).

The ACCC notes that IPART engaged CRA International to conduct a review of ARTC's maintenance costs and overhead allocations for the financial year 2004-05. The report included some limited consideration of benchmarking, and found that some overhead costs were incorrectly allocated to the constrained segments. The report did not recommend any amendment to the overall level of costs.¹⁵ The ACCC may conduct a similarly detailed audit to assess the efficiency of ARTC's operating expenditure in future annual compliance assessments under the HVAU.

2.4 Return on working capital

In its initial compliance submission, ARTC sought to include a direct return on this working capital in the calculation of its economic cost. This cost was allocated to the unconstrained network and formed part of the closing RAB.

ARTC has informed the ACCC that as part of its normal business operations it purchases and holds capital spares (working capital) which are held over the longer term to facilitate a more efficient and timely outcome for industry in terms of increased network availability by reducing network outage in the event of breakdown of capital assets, derailments and floods.

The ACCC acknowledges that IPART allowed ARTC to claim a return on its inventory under the NSWRAU.

The IPART regulatory model assumes that cash flows are received evenly throughout the regulatory year rather than at the end of the year. In its financial model, IPART permits a regulated business a half year return on its asset base and inventory. The annual depreciation amount is also discounted by the half-year regulated rate of return. The lower return on capital and lower return of capital accounts for the return a regulated business earns on cash flows it receives throughout the year.¹⁶

The HVAU financial model, on the other hand, allows ARTC a full year return on its asset base and does not discount ARTC's annual depreciation amount. However, to account for the return on cash flows received throughout the year, the HVAU financial model does not permit ARTC a direct return on its inventory. The ACCC considers that the indirect return earned on cash flows received throughout the year is, at the least, sufficient to meet the costs of holding inventory.

ARTC had retained a direct return on its inventory, despite migrating to the HVAU financial model. The ACCC considered that ARTC should remove its direct return on inventory to avoid double counting of this return.

The ACCC recognises that holding working capital is a 'real' cost to ARTC and that it is important to hold an efficient level of working capital to support the efficient operation of the

¹⁵ CRA International, *Review of compliance of ARTC with NSW Rail Access Undertaking ceiling test for 2004-05*, 9 February 2007.

¹⁶ IPART, *Comparison of financial models – IPART and Australian Energy Regulator – Research Paper*, November 2009, pp. 4, 8.

network. The ACCC is also not opposed to ARTC receiving a return on its working capital. However, allowing ARTC to earn a direct return on working capital, in addition to the return from the timing assumptions contained in the HVAU, would over-compensate ARTC.

If ARTC considered that it was necessary to hold capital spares in excess of what it is currently compensated for under the HVAU, ARTC could seek to have such capital spares declared 'prudent' by the RCG and incorporated into the RAB and thereby receive a direct return on those assets.

In its Revised Compliance Submission ARTC has removed the return on working capital from its calculation of the closing RAB in Pricing Zone 3.

3 Determination

This section sets out the ACCC's determination in relation to the annual compliance assessment under ARTC's HVAU for the 2011 Compliance Period. ARTC provided the ACCC with confidential spreadsheets showing the calculations underpinning figures in the Revised Compliance Submission.

3.1 RAB roll forward

Clause 4.10(d)(i) of the HVAU provides for the ACCC to determine whether ARTC has undertaken the roll-forward of the RAB in accordance with the HVAU. The RAB is rolled forward in Pricing Zone 3 (the unconstrained part of the network) for the purpose of comparison with the RAB Floor Limit to determine if 'loss capitalisation' applies.

In relation to the Segments identified in Schedule E of the HVAU as forming part of Pricing Zone 3, the RAB will be rolled forward annually in accordance with the following methodology under clause 4.4(a) of the HVAU:

$$RAB_{t \text{ start}} = RAB_{t-1 \text{ end}} =$$

$$(1 + RoR) \times RAB_{t-1 \text{ start}} - \text{Out-turn Revenue}_{t-1} + \text{Out-turn Opex}_{t-1} + \text{Net Capex}_{t-1} \times (1 + 0.5 \times RoR)$$

where:

$RAB_{t \text{ start}}$ is RAB at the start of the relevant calendar year (t) (which, for the first year following the Commencement Date, would be the Initial RAB)

$RAB_{t-1 \text{ end}}$ is the RAB at the end of the preceding calendar year (t-1)

$RAB_{t-1 \text{ start}}$ is the RAB at the start of the preceding calendar year (t-1)

RoR is the nominal pre-tax Rate of Return

Out-turn Revenue_{t-1} is the total Access revenue earned by ARTC in the preceding calendar year (t-1) but will not include:

- i) a Capital Contribution received from an Applicant or an Access Holder; or
- ii) Access revenue returned to a Contributor as a result of the operation of a user funding agreement between the Contributor and ARTC

Out-turn Opex_{t-1} is the total operating expenditure incurred by ARTC in the preceding calendar year (t-1) on an Efficient basis, determined in accordance with sections 4.5(a)(i), (iv) and (vii) and 4.5(b)

Net Capex_{t-1} is the net additions to the RAB in the preceding calendar year (t-1), that is out turn Capital Expenditure by ARTC less the written down value of any disposals during the preceding calendar year (t-1) on a Prudent basis, including interest cost incurred during construction up to 1 July in the calendar year the asset was commissioned, capitalised in the year the asset was commissioned and determined by reference to the relevant form of the Rate of Return (to the extent that Capital Expenditure is incurred on a Prudent basis, including interest cost), but will not include Capital Contributions.

3.1.1 The Initial RAB

The HVAU provides that the RAB at the commencement date of the HVAU (the **Initial RAB**) is based on the closing value of the relevant 2010/11 values approved by IPART, or as

determined through a separate roll-forward of DORC asset values approved by the ACCC. The Initial RAB for Pricing Zone 3 assets is determined as follows:

- **Assets ascribed a value by IPART:** Segments from Muswellbrook to Dartbrook Junction were ascribed a value by IPART under the NSWRAU. IPART determined that the value of these assets was rolled forward in accordance with the NSWRAU asset valuation roll forward principles to 1 July 2011 and had a closing 2010/11 RAB value of \$7 600 128.¹⁷
- **Assets ascribed a DORC value:** The segments from Dartbrook to the Gap were not ascribed a value under the NSWRAU. The ACCC approved a DORC value as at 1 July 2008 for these segments when it accepted the HVAU in June 2011. This value has been rolled forward in accordance with the asset valuation roll-forward principles under the NSWRAU to 1 July 2011. The Initial RAB for Dartbrook to Gap is \$161 141 627.¹⁸

The total Pricing Zone 3 opening regulatory asset value is \$168 741 755.¹⁹

3.1.2 ARTC Revised Compliance Submission

Applying the RAB roll forward formula outlined above, ARTC has determined the closing value of the RAB in Pricing Zone 3 for the 2011 Compliance Period to be as follows:

Table 1 – Pricing Zone 3 RAB roll forward

Value		Unconstrained
Opening RAB	$RAB_{t-1 \text{ start}}$	168 741 755
Return on Opening RAB	$(1 + \text{RoR}) \times RAB_{t-1 \text{ start}}$	9 981 075
Less Revenue	$\text{Out-turn Revenue}_{t-1}$	-11 107 743
Plus Opex	$\text{Out-turn Opex}_{t-1}$	4 532 782
Plus Net Capex	Net Capex_{t-1}	19 489 902
Plus Return on Capex	$\text{Net Capex}_{t-1} \times (1 + 0.5 \times \text{RoR})$	576 414
Closing RAB	$RAB_{t-1 \text{ end}}$	192 214 184

Source: ARTC, *Submission*, 8 March 2013, p. 12.

3.1.3 ACCC determination

The ACCC has determined that ARTC has undertaken the roll-forward of the RAB for Pricing Zone 3 in accordance with the HVAU. In making this determination the ACCC has had regard to the formula in clause 4.4(a) the HVAU and the inclusion of efficient costs and prudent capital expenditure, as discussed in section 2 of this document. Accordingly, the closing RAB for those segments in Pricing Zone 3 as at 31 December 2011 is **\$192 214 184**.

3.2 RAB Floor Limit roll forward

Clause 4.10(d)(i) provides for the ACCC to determine whether ARTC has undertaken the roll-forward of the RAB Floor Limit in accordance with the HVAU. The RAB Floor Limit is rolled forward for the entire network for the following purposes:

- in Pricing Zones 1 and 2, for calculating components of full economic cost; and
- in Pricing Zone 3, for comparison with the RAB to determine if 'loss capitalisation' applies.

¹⁷ ARTC, *Submission*, 8 March 2013, p. 36.

¹⁸ *Ibid.*, p. 10.

¹⁹ *Ibid.*

In accordance with clause 4.4(b) of the HVAU, the RAB Floor Limit for a Segment or group of Segments will be rolled forward annually in accordance with the following methodology under clause 4.4(b) of the HVAU:

$$\text{RAB Floor Limit}_{t \text{ start}} = \text{RAB Floor Limit}_{t-1 \text{ end}} = \\ (1 + \text{CPI}_{t-1}) \times \text{RAB Floor Limit}_{t-1 \text{ start}} + \text{Net Capex}_{t-1} - \text{Depreciation}_{t-1}$$

where:

RAB Floor Limit_{t start} is the RAB Floor Limit at the start of the relevant calendar year (t) (which, for the first year following the Commencement Date, would be the Initial RAB).

RAB Floor Limit_{t-1 end} is the RAB Floor Limit at the end of the preceding calendar year (t-1).

RAB Floor Limit_{t-1 start} is the RAB Floor Limit at the start of the preceding calendar year (t-1).

CPI_{t-1} is the inflation rate for the preceding calendar year (t-1), determined by reference to the CPI for the September quarter of that year.

Net Capex_{t-1} is the net additions to the RAB Floor Limit in the preceding calendar year (t-1) that is out-turn Capital Expenditure by ARTC less the written down value of any disposals during the preceding calendar year (t-1) on a Prudent basis, including interest cost incurred during construction up until 1 July in the calendar year the asset was commissioned, capitalised in the year the asset was commissioned and determined by reference to the relevant form of the Rate of Return (to the extent that Capital Expenditure is incurred on a Prudent basis, including interest cost), but will not include Capital Contributions.

Depreciation_{t-1} is Depreciation applicable to the RAB Floor Limit in the preceding calendar year (t-1).

3.2.1 Initial RAB Floor Limit

On the commencement date of the HVAU the RAB Floor Limit for a Segment or group of Segments will be the Initial RAB. As discussed above, the HVAU provides that the Initial RAB is based on the closing value of the relevant 2010/11 values approved by IPART, or as determined through a separate roll-forward of DORC asset values approved by the ACCC. The Initial RAB for the constrained network (Pricing Zones 1 and 2) assets is determined as follows:

- **Assets ascribed a value by IPART:** IPART determined that the constrained network (Pricing Zones 1 and 2) assets are ascribed a regulatory asset value under the NSWRAU and had a closing value as at 30 June 2011 of \$844 600 015.²⁰
- **Assets ascribed a DORC value:** As discussed in section 2.2, assets forming part of the Port Waratah Coal Loop were not ascribed a regulatory asset value under the NSWRAU. ARTC has proposed a DORC valuation for these assets of \$1 388 683 as at 1 July 2011.²¹ The ACCC approves ARTC's valuation of these assets for inclusion in the Initial RAB.

The total Pricing Zones 1 and 2 opening regulatory asset value is \$845 988 698.²²

²⁰ ARTC, *Submission*, 8 March 2013, p. 10.

²¹ *Ibid.*

²² *Ibid.*, p. 34.

Based on the closing regulatory asset values determined under the NSWRAU and the proposed DORC valuations for both Dartbrook to Gap and the Port Waratah Coal Loop Assets, ARTC submits that the initial valuation of the whole network is \$1 019 186 434.²³

3.2.2 ARTC Revised Compliance Submission

Applying the RAB Floor Limit roll forward formula outlined above, ARTC has determined the RAB Floor Limit closing value for the total network for the 2011 Compliance Period as follows:

Table 2 – Network RAB Floor Limit roll forward

Value		Network
Opening value	RAB Floor Limit _{t-1 start}	1 019 186 434
CPI	CPI _{t-1} x RAB Floor Limit _{t-1 start}	18 611 231
Capex	Net Capex _{t-1}	62 623 603
Depreciation	Depreciation _{t-1}	-25 421 354
Loss on disposal	Net Capex _{t-1}	-1 412 613
Closing Value	RAB Floor Limit _{t-1 end}	1 073 587 301

Source: ARTC, *Submission*, 8 March 2013, p. 16.

ARTC has also determined the RAB Floor Limit closing value for those segments in Pricing Zone 3 during the 2011 Compliance Period for the purpose of comparing it to the RAB, as follows:

Table 3 – Pricing Zone 3 RAB Floor Limit roll forward

Value		Pricing Zone 3
Opening value	RAB Floor Limit _{t-1 start}	168 741 755
CPI	CPI _{t-1} x RAB Floor Limit _{t-1 start}	3 081 371
Capex	Net Capex _{t-1}	19 489 902
Depreciation	Depreciation _{t-1}	-4 316 811
Closing Value	RAB Floor Limit _{t-1 end}	186 996 217

Source: ARTC, *Submission*, 8 March 2013, p. 16.

3.2.3 ACCC determination

The ACCC has determined that ARTC has undertaken the roll-forward of the RAB Floor Limit for the network in accordance with the HVAU for the 2011 Compliance Period. In making this determination the ACCC has had regard to the formula in clause 4.4(b) of the HVAU and the inclusion of efficient costs and prudent capital expenditure, as discussed in section 2 of this document. Accordingly, the closing RAB Floor Limit for the total network at 31 December 2011 is **\$1 073 587 301** and the closing RAB Floor Limit for Pricing Zone 3 is **\$186 996 217**.

3.3 Comparison of RAB and RAB Floor Limit for Pricing Zone 3

As outlined in sections 3.1 and 3.2 above, the ACCC has determined that the closing RAB value for Pricing Zone 3 assets for the 2011 Compliance Period is \$192 214 184 and the closing RAB Floor Limit for Pricing Zone 3 assets is \$186 996 217.

Given that the RAB is greater than the RAB Floor Limit in Pricing Zone 3, 'loss capitalisation' applies and ARTC is not required to detail calculations relevant to reconciliation of access

²³ Ibid., p. 16.

revenue with the applicable Ceiling Limit and calculation of any allocation of the total unders and overs amount for Pricing Zone 3 (see clause 4.3(b) of the HVAU).

3.4 Ceiling test

Clause 4.10(d)(ii) of the HVAU provides for the ACCC to determine whether ARTC has undertaken the calculations relevant to reconciliation of access revenue with the applicable Ceiling Limit in accordance with the HVAU.

The Ceiling Limit for segments in Pricing Zones 1 and 2 requires that access revenue from any Access Holder or group of Access Holders must not exceed the Economic Cost of those segments which are required on a standalone basis for the Access Holder or group of Access Holders (see clause 4.3(a) of the HVAU).

ARTC's ceiling test model calculates the amount of access revenue and the Economic Cost across the segments utilised by a mine or combination of mines. The combination of mines that is closest to, or exceeds, the economic cost for the relevant segments is called the 'Constrained Group of Mines' and the segments comprise the 'Constrained Network'.

Given that the RAB is greater than the RAB Floor Limit in Pricing Zone 3, ARTC is not required to reconcile access revenue with the Ceiling Limit for Pricing Zone 3.

3.4.1 Access revenue

ARTC's Revised Compliance Submission states that access revenue collected and used as the basis for determining allocations of the total 'unders and overs' amount for the 2011 Compliance Period amounts to \$95.56 million.²⁴

3.4.2 Economic Cost

Economic cost is defined under clause 4.5 of the HVAU, and includes both segment specific and non-segment specific costs. ARTC's total economic cost for the Constrained Network during the 2011 Compliance Period was \$94.83 million.²⁵

This cost comprises the following components:

- depreciation of \$21 million;
- net loss on disposal of \$0.89 million;
- return on assets of \$39.36 million;
- total maintenance costs of \$24.55 million;
- network control costs of \$3.4 million; and
- corporate overheads of \$5.65 million.

The return on assets reflects the 9.10 per cent real pre-tax rate of return ARTC is permitted to earn on its regulated asset base, as specified in clause 4.8 of the HVAU.

As discussed in section 2.3, the ACCC considers that ARTC's operating costs for the period are efficient for the purposes of this assessment.

The ACCC considers that ARTC has undertaken the calculations relevant to reconciliation of access revenue with the applicable Ceiling Limit in accordance with the HVAU. In making this

²⁴ ARTC, *Submission*, 8 March 2013, p. 22.

²⁵ *Ibid.*

determination the ACCC has had regard to the components of economic cost in clause 4.5(a) of the HVAU and the inclusion of efficient operating expenditure (as discussed in section 2.3 of this document). This reconciliation has determined an over-recovery of **\$0.73 million** for the 2011 Compliance Period.

3.5 Unders and Overs

Clause 4.10(d)(ii) of the HVAU requires the ACCC to determine whether ARTC has undertaken calculation of any allocation of the total 'unders and overs' amount in accordance with the HVAU. Unders and overs accounting is the outcome of the reconciliation of access revenue with applicable Ceiling Limits undertaken by ARTC.

ARTC's total over-recovery for the 2011 Compliance Period was \$0.73 million. This over-recovery is to be distributed to access holders in accordance with the unders and overs accounting framework in clause 4.9 of the HVAU. The allocation for each Constrained Coal Customer is to be based on:

the proportion of revenue paid for access rights over the Constrained Network by each Constrained Coal Customer, net of any rebate of the take or pay component of the Charges paid to that Constrained Coal Customer.²⁶

No access holder agreements were executed with coal producers during the 2011 Compliance Period. Accordingly, access revenue was collected from above-rail operators under existing access arrangements (i.e. in accordance with the NSWRAU regime). Consequently, ARTC has established Constrained Coal Customer Accounts for rail operators.

As required by clause 4.9(b)(ii), ARTC provided a spreadsheet to the ACCC (on a confidential basis) that determines allocations of the total unders and overs amount for the 2011 Compliance Period. The ACCC has determined that the allocation of the over-recovery to rail operators proposed by ARTC has been calculated in accordance with the HVAU. Accordingly, ARTC's over-recovery of \$0.73 million for the 2011 Compliance Period is to be refunded to above-rail operators.

The ACCC anticipates that the 'unders and overs' amounts will be reconciled with coal producers in future years, given that contractual arrangements were transitioned across from above-rail operators to producers during 2012.

3.6 System True-Up Test audit

The HVAU incorporates liability arrangements in the Indicative Access Holder Agreement (**the True-Up Test**). The True-Up Test is used to determine ARTC's liability for failure to make train path usages available, by determining whether sufficient capacity was available on the network in a given period to meet all contracted entitlements. If not, a rebate of take-or-pay charges may accrue to affected users.

Clause 4.10(f) of the HVAU requires an independent audit of ARTC's compliance with the True-Up Test, to ensure the integrity of the test and avoid perceptions of conflicts of interest on the part of ARTC. ARTC engaged BDO (SA) Pty Ltd (**BDO**) as auditor for the True-Up Test. The ACCC approved BDO as the auditor in accordance with clause 4.10(f)(ii). BDO prepared a final audit report regarding the status of the annual True-Up Test requirement for 2011 which was submitted to the ACCC on 30 April 2012.

BDO concluded that ARTC was not required to perform a System True-Up Test during the 2011 Compliance Period. The report noted that a review of access holder documentation did not identify any access holders with both an Access Holder Agreement²⁷ and an Operator

²⁶ Clause 4.9(b)(iii) of the HVAU.

²⁷ The Access Holder Agreement is an agreement entered into between ARTC and an applicant for coal access rights. The HVAU sets out an indicative Access Holder Agreement at Annexure A.

Sub-Agreement²⁸ executed prior to 31 December 2011, which together comprise the basis on which ARTC grants access to the network. As such, there were no operational agreements in place for the assessment period supporting ARTC's performance with regard to the annual True-Up Test.

The ACCC considers it is appropriate that the annual True-Up Test was not performed for the 2011 Compliance Period, as there were no operational Access Holder Agreements in place. Accordingly, there is no rebate payable by ARTC to access holders for the 2011 Compliance Period. The ACCC anticipates that the True-Up Test will be performed for the 2012 calendar year and BDO remains engaged to undertake the audit.

²⁸ The Operator Sub-Agreement is an agreement entered into between ARTC and an above-rail operator, the standard terms and conditions of which are included as a schedule to the Indicative Access Holder Agreement at Annexure A to the HVAU.

Appendix A – Annual ACCC compliance assessment provisions in the HVAU

Clause 4.10 of the HVAU provides for the ACCC to conduct an annual compliance assessment to determine whether ARTC has complied with access pricing principles under the HVAU. These provisions are set out below (capitalised terms are defined under clause 14 of the HVAU).

- a) *ARTC will submit to the ACCC by 30 April each year in respect of the previous calendar year:*

 - i) *documentation detailing roll-forward of the RAB and the RAB Floor Limit, and comparisons between RAB and RAB Floor Limit;*
 - ii) *where documentation in (i) above demonstrates that RAB is at or below RAB Floor Limit, documentation detailing calculations relevant to reconciliation of Access revenue with the applicable Ceiling Limit and calculation of any allocation of the total unders and overs amount; and*
 - iii) *where documentation in (i) above demonstrates that RAB is above RAB Floor Limit in Pricing Zone 3, documentation demonstrating that Indicative Access Charges, or Interim Indicative Access Charges, as applicable, satisfies the requirements in section 4.3(b).*

- b) *The documentation submitted by ARTC to the ACCC will, unless otherwise agreed with the ACCC and having regard to the relevant circumstances applicable at the time, meet the information provision guidelines and the timeframes set out in Schedule G.*
- c) *If the ACCC reasonably considers that it requires additional information, other than that provided by ARTC in accordance with Schedule G, in order to carry out its assessment under section 4.10(d), it may request this information from ARTC in accordance with section 3 of Schedule G and upon receipt of such a request ARTC will use reasonable endeavours to provide the information to the ACCC as soon as reasonably practicable.*
- d) *The ACCC will determine whether ARTC has undertaken:*

 - i) *roll-forward of the RAB and RAB Floor Limit in accordance with the Undertaking and, where the roll forward is not in accordance with the Undertaking, determine what closing RAB or RAB Floor Limit would be in accordance with the Undertaking;*
 - ii) *when required, the calculations relevant to reconciliation of Access revenue with the applicable Ceiling Limit and calculation of any allocation of the total unders and overs amount in accordance with the Undertaking, and where the calculations are not in accordance with the Undertaking, determine what total unders and overs amount or allocation would be in accordance with the Undertaking having regard to the operation of its unders and overs account;*
 - iii) *in determining whether ARTC has complied with the provisions of section 4.4 in rolling forward the RAB or the RAB Floor Limit, the ACCC may have regard to the submissions of relevant industry participants but 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;*
 - iv) *the ACCC will publish its findings on its website and/or circulate to Access Holders in relation to the matters for its determination; and*

- v) *ARTC will revise the closing RAB and manage Constrained Coal Customer Accounts in accordance with any determination by the ACCC.*
- e) *The ACCC will determine whether ARTC has incurred Efficient costs and Efficient operating expenditure in accordance with section 4.5(b), and determine the change (if any) to:*
 - i) *the total unders and overs amount or allocation; and*
 - ii) *closing RAB in section 4.4(a),*

that results from Economic Cost under subsection 4.5(b) only including Efficient costs and Efficient operating expenditure determined in accordance with section 4.5(b).

Clause 4.10(f)(x) of the HVAU also provides that ARTC will provide the final written report of the True-Up Test, as prepared by the independent auditor, to the ACCC to review as part of the annual compliance assessment process under the HVAU.