



# Final Determination

Australian Rail Track Corporation's  
compliance with the Hunter Valley  
Coal Access Undertaking financial  
model for calendar year 2017

September 2020

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## Executive summary

The Australian Competition and Consumer Commission (**ACCC**) has conducted an assessment of the Australian Rail Track Corporation's (**ARTC's**) compliance with the financial model in the Hunter Valley Coal Network Access Undertaking (**HVAU**) for the period 1 January 2017 to 31 December 2017.

The ACCC's Final Determination is that ARTC has undertaken prudent capital expenditure and incurred efficient operating expenditure in accordance with the requirements set out in the HVAU.

The ACCC's Final Determination is that:

- the amount of over-recovery that ARTC must refund to Constrained Coal Customers is \$10.7 million
- Pricing Zone 3 remains unconstrained, with the loss capitalisation balance decreasing to \$63.6 million at the end of 2017 (including a \$3.5 million rebate to Zone 3 customers).

The Hunter Valley is the largest export coal supply chain in the world. ARTC has a natural monopoly over the below-rail infrastructure used to transport coal from the Hunter Valley to the Port of Newcastle for export. ARTC's position provides it with the ability to charge monopoly prices, which can lead to inefficiency.

Access to ARTC's Hunter Valley rail network is regulated through the HVAU, which includes an annual (calendar year) compliance process. The purpose of the annual compliance assessment is to ensure that ARTC does not abuse its market power. Its aim is to promote an environment of efficient investment and expenditure for both coal producers and related industries.

### Prudency of capital expenditure

The ACCC's Final Determination is that ARTC has demonstrated prudency of its total net capital expenditure of \$41.2 million of which \$16.5 million related to the Constrained Network and \$24.7 million related to Zone 3.

### Efficiency of operating expenditure

The ACCC's assessment of ARTC's efficiency of operating expenditure has had regard to the relevant factors in the definition of 'efficient' in the HVAU.<sup>1</sup>

The ACCC considers that ARTC's submitted operating expenditure of \$169.3 million was efficient.

### 2017 Outcomes

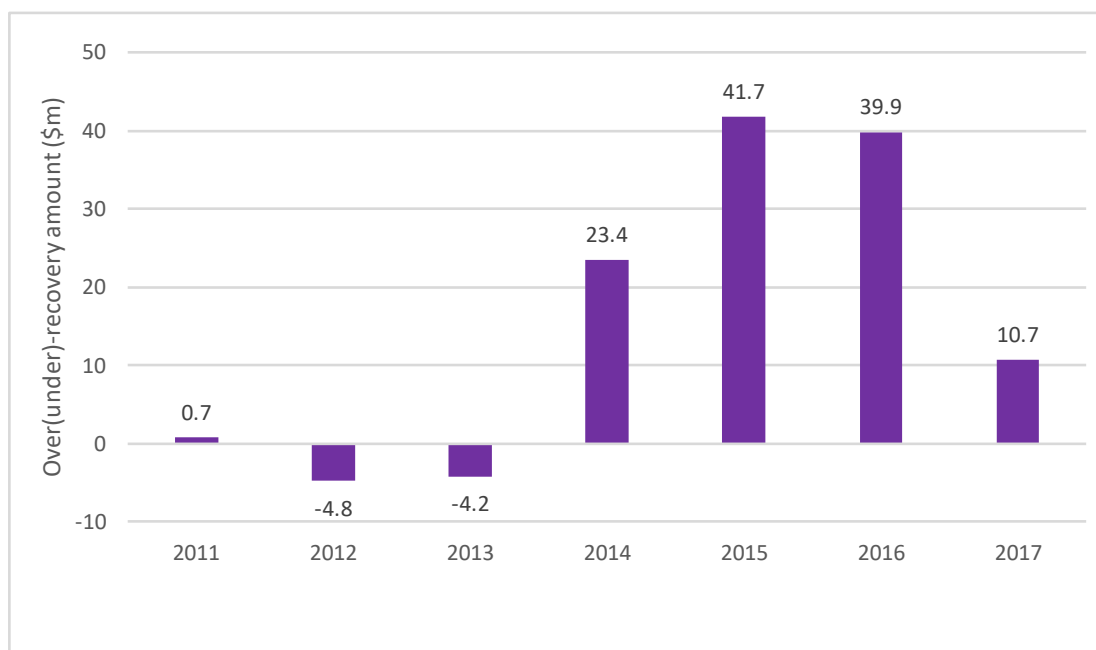
The ACCC's Final Determination for 2017 is that ARTC has over-recovered \$10.7 million from Constrained Coal Customers, which should be refunded to those customers. This is derived from Revenue of \$245.1 million minus Ceiling Limit (Economic Costs) of \$234.4 million.

Figure 1 sets out the unders and overs amount for the constrained network from 2011 to 2017.

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<sup>1</sup> 'Efficient' is defined under section 14.1 of the HVAU.

**Figure 1: Unders and overs amounts for Constrained Network, 2011-2017 (\$ million)**

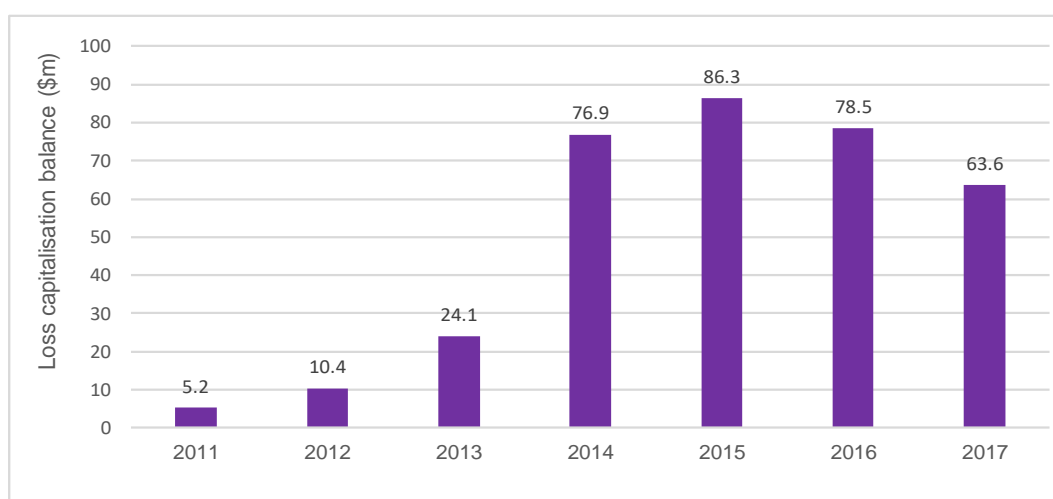


As indicated in Figure 1, over the last four years, ARTC has over-recovered a total of \$115.7 million from users in the Constrained Network.

With regard to the loss capitalisation for Pricing Zone 3 (**Zone 3**), the balance of the capitalised losses is the difference between the Regulatory Asset Base (**RAB**) and RAB Floor Limit for Zone 3.

Figure 2 shows the loss capitalisation balance for Zone 3 from 2011 to 2017.

**Figure 2: Loss capitalisation balance for Zone 3, 2011-2017 (\$ million)**



The ACCC has determined that the balance of capitalised losses at the end of 2017 is \$63.6 million, after taking into account ARTC's proposed adjustment to the closing 2016 RAB value of \$7.4 million (based on cash rebates provided to Zone 3 customers relating to 2016), and after seeking additional information, ARTC's proposed rebate to Zone 3 customers of \$3.5 million for 2017.

This is a reduction from \$78.5 million at the end of 2016, as shown in Figure 2.

The capitalisation balance increased each year from 2011 to 2015. 2016 is the first year which saw the loss capitalisation balance decrease.

### True-Up Test Audit

The ACCC's Final Determination is that ARTC has fulfilled its obligations relating to the True-Up Test (**TUT**) set out in the HVAU and, on the basis of the TUT conducted by RSM Australia, ARTC is not liable for any rebates for 2017.

# 1. Introduction

## 1.1. Background

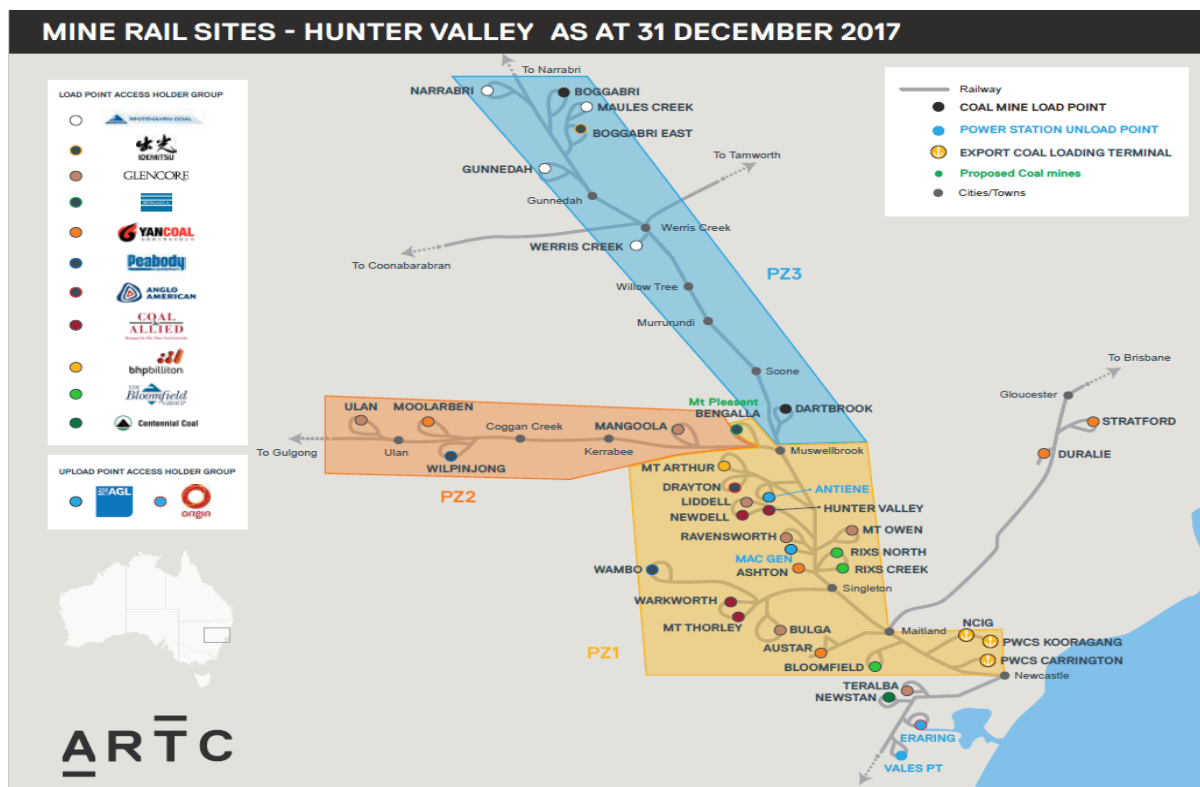
ARTC is an Australian Government-owned corporation established in 1998 to be the single point of contact for parties seeking to run trains on the Australian Interstate network and the Hunter Valley network in New South Wales. ARTC only provides below-rail services, such as rail track infrastructure.

The Hunter Valley is the largest export coal supply chain in the world and is predominantly used to transport coal from mines in the Hunter Valley region to the Port of Newcastle for export to international customers and to domestic consumers, such as power stations. It is also used by non-coal traffic, including general and bulk freight services (such as grain) and passenger services. ARTC has a natural monopoly over the below-rail infrastructure used to transport coal from the Hunter Valley to the Port of Newcastle.

As illustrated in Figure 3, the Hunter Valley network is divided into Pricing Zones (**Zones**)<sup>2</sup>, where:

- Zone 1, which contains the oldest mines, extends from the Port of Newcastle to Muswellbrook. Traffic from the other zones must traverse Zone 1 to reach the port.
- Zone 2 extends east from Muswellbrook to Ulan.
- Zone 3, which includes the newest mines, extends from Muswellbrook north to Narrabri.

**Figure 3: Hunter Valley rail network – Pricing Zones**



Source: ARTC.

<sup>2</sup> As defined in schedule E of the HVAU, Zone 1 comprises 24 individual segments, Zone 2 has 4 segments, and Zone 3 has 8 segments. Zone 1 does not include Islington Junction (Newcastle) south to Vales Point, nor Telarah (Maitland) to Stratford.

## 1.2. HVAU Objectives

The objectives of the HVAU and the annual compliance process are to:

- provide a framework to manage negotiations between ARTC and access seekers
- establish a workable, open, non-discriminatory, efficient and inclusive process for access seeker applications
- promote transparency
- balance ARTC's legitimate business interests, the interest of the public and the interests of access seekers
- provide an efficient and effective dispute resolution process
- ensure consistency with Part IIIA of the *Competition and Consumer Act 2010* (CCA) and the Competition Principles Agreement.

## 1.3. Annual Compliance Assessment

The HVAU allows ARTC to recover revenue equivalent to its efficient costs in each calendar year for its Constrained Network (comprising rail segments in Zones 1 and 2). The model also allows ARTC to capitalise revenue shortfalls for Zone 3 into the regulatory value of its assets in that Zone, which can then be recovered in future Compliance Periods when that Zone becomes profitable.<sup>3</sup>

The annual compliance process assesses whether:

- ARTC has undertaken prudent capital expenditure and incurred efficient operating expenditure
- ARTC has rolled forward the regulatory value of its assets in accordance with the HVAU
- Zone 3 forms part of the Constrained Network, or whether 'loss capitalisation' continues to apply for that Zone
- ARTC has reconciled revenues with the applicable revenue floor and Ceiling Limits and correctly determined the allocation of any under or over-recovery of revenue to Constrained Coal Customers.

Appendix A outlines the relevant annual compliance assessment provisions of the HVAU.

## 1.4. ARTC's 2017 Compliance Submission

On 23 April 2020, ARTC submitted its annual compliance documentation for the 2017 calendar year. The ACCC subsequently published it on 30 April 2020. ARTC's public submission is available on the ACCC's website: <https://www.accc.gov.au/regulated-infrastructure/rail/annual-compliance-assessment-2017>

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<sup>3</sup> The Constrained Network is defined in section 14.1 of the HVAU as the group of Segments within the Network bounded by the mine loading points and the Newcastle port where access revenue on those Segments is likely to reach or exceed Economic Cost for those Segments on a stand-alone basis. The Constrained Network currently comprises the Network in Pricing Zones 1 and 2, where ARTC is expected to be able to recover its full Economic Cost. This excludes three unconstrained Segments in Pricing Zone 1.

Pricing Zone 3 is the part of the Network where the mines are newest. During the development of the HVAU, ARTC proposed the loss capitalisation model as a way to encourage investment in new assets where there was limited initial demand due to the start-up phase of the mines in that part of the Network.

The documentation included ARTC’s financial model (provided to the ACCC on a confidential basis), which details the allocation of the ‘unders and overs’ amount to each Constrained Coal Customer for 2017.

## 1.5. Consultation Paper

On 14 May 2020, the ACCC published a Consultation Paper inviting comments from interested parties on ARTC’s 2017 Annual Compliance documentation. The ACCC received submissions from Pacific National and AGL Energy Ltd. Details from the submissions are set out in the relevant chapters of this document. Additionally, ARTC has provided a supplementary submission, responding to AGL and Pacific National’s submissions.

The Consultation Paper and submissions are available on the ACCC’s website at: <https://www.accc.gov.au/regulated-infrastructure/rail/annual-compliance-assessment-2017>.

## 1.6. 2017 Compliance Assessment Timeline

**Table 1: Timeline of assessment process**

Date	Event
23 December 2019	ACCC published 2016 Annual Compliance Determination. ARTC had four months from this date to provide a submission to ACCC for the next compliance period (i.e. 2017).
23 April 2020	ARTC submitted its documentation to the ACCC for 2017 Annual Compliance Determination
14 May 2020	The ACCC began the consultation process and released a <a href="#">consultation paper</a> regarding ARTC’s 2017 documentation
26 June 2020	Submissions from stakeholders were received
17 July 2020	ACCC sent an information request to ARTC, informed by queries raised in industry submissions
24 July 2020	ACCC received ARTC’s response to the ACCC’s information request
25 September 2020	Publication of the 2017 Final Determination

## 1.7. Acceleration of compliance process

There is currently a large time lag between the compliance year being assessed and when the ACCC’s final determination for that year is published. For example, in 2020 the ACCC assessed ARTC’s compliance for the 2017 calendar year. This is due to extended assessments for 2013 and 2015.

ARTC is committed to hiring additional resources to assist with this acceleration and will be aiming to provide the 2018 submission before 31 January 2021. ARTC has also committed to providing 2019 and 2020 compliance submissions together. A joint assessment should provide some economies of scale, and would make a significant difference to the approximate two year time lag between the compliance year and ACCC assessment.



## 1.8. Structure of Final Determination

This determination includes the following sections:

- HVAU financial model (chapter 2)
- prudence of capital expenditure (chapter 3)
- efficiency of operating expenditure (chapter 4)
- the ACCC's Determination regarding compliance and revenue reconciliation for the Constrained network (chapter 5) and unconstrained network (chapter 6)
- True-Up Test audit (chapter 7).

## 1.9. Further information

If you have any queries about any matters raised in this document, please contact:

Mr Justin Martyn  
Infrastructure & Transport—Access & Pricing Branch  
Infrastructure Regulation Division  
Phone: 08 8456 3536  
Email: [justin.martyn@accc.gov.au](mailto:justin.martyn@accc.gov.au)

## 2. HVAU Financial Model

### 2.1. Introduction

Section 4 of the HVAU regulates the amount of revenue that ARTC is entitled to recover from Access Holders for the Hunter Valley Rail Network by implementing revenue floor and Ceiling Limits:

- The floor limit is the minimum revenue that ARTC is to receive from Access Holders, which is referenced in section 4.2 of the HVAU, and relates to the 'direct costs' and 'incremental costs' of providing services.<sup>4</sup>
- The Ceiling Limit is the maximum amount of revenue that ARTC is entitled to receive from Access Holders, defined in section 4.3 of the HVAU as the Economic Cost of providing services.
  - The Economic Cost of providing services is calculated using a 'building block model' and incorporates allowances for return on assets, return of assets (depreciation) and efficient operating expenditure.
- The calculation of the Economic Cost, therefore, also requires a regulatory valuation of assets. Two concepts of asset value are defined in section 4.4 of the HVAU:
  - The RAB Floor Limit is the value of ARTC's fixed assets<sup>5</sup>
  - The RAB, which applies only to Zone 3, is essentially the sum of the value of fixed assets and the accumulated losses incurred in Zone 3.

The reconciliation of revenue and costs is applied differently for different zones in the Hunter Valley network:

- Zones 1 and 2 form the Constrained Network, which has an 'unders and overs' framework that enables ARTC to recover just the Economic Cost of providing services.
- Zone 3 is currently unconstrained – its losses have been accumulated into a loss capitalisation account, which is to be paid down overtime.

These concepts are explained further below.

### 2.2. RAB Floor Limit

The RAB Floor Limit is used to:

- calculate the return on and return of assets which are components of Economic Cost for the Constrained Group of Mines<sup>6</sup>
- determine if 'loss capitalisation' continues to apply in Zone 3.

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<sup>4</sup> The HVAU (section 14.1) defines:

'direct costs' to mean efficient maintenance expenditure and other costs that vary with the usage of the network but excluding depreciation;

'incremental costs' as all costs that could be avoided in the medium term if a segment was removed from the network.

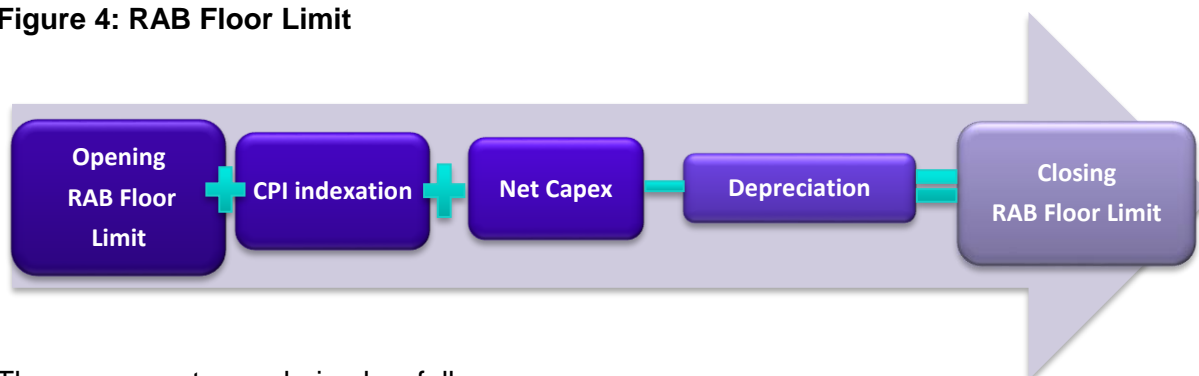
<sup>5</sup> The RAB Floor Limit is the more traditional type of asset base used in building block models for other industries where it is known just as the RAB.

<sup>6</sup> The Constrained Group of Mines and Constrained Coal Customers, corresponding to the Constrained Network, are defined in section 14.1 of the HVAU. "Constrained Group of Mines" means the group of mines and unloading points that are serviced by Coal Trains where the operation of those Coal Trains is entirely within the Constrained Network, and where access revenue on those Segments forming the Constrained Network is: (a) closest to if less than; or (b) exceeds by the largest amount; the Economic Cost for the Constrained Network.

Any customer who starts or finishes their route outside of the constrained network cannot be considered a constrained customer, and thus is not included within this over and under assessment.

Figure 4 illustrates the components of the RAB Floor Limit roll-forward, as set out in Section 4.4(b) of the HVAU.

**Figure 4: RAB Floor Limit**



The components are derived as follows:

- The Consumer Price Index (CPI), as published by the Australian Bureau of Statistics, is used to maintain the real (underlying) value of the assets. The CPI indexation for 2017 is based on the percentage increase in CPI for Sydney from the September quarter 2016 to September quarter 2017.
- Net Capital Expenditure is the sum of ARTC’s capital expenditure commissioned during the year, plus interest incurred during construction of capital projects (up until 1 July), less the written down value of disposed assets.
- Depreciation, also referred to as return of assets, is the decline in value of assets. Section 4.7 of the HVAU sets out that depreciation will be calculated for each year on a straight-line basis – that is, annual depreciation equals the asset value (RAB Floor Limit) divided by the remaining number of years of its useful life. The useful life of HVAU assets has been based on the average remaining mine life (**RML**), deemed to be 23 years commencing 1 July 2016, and therefore 22.5 years at the beginning of 2017.<sup>7</sup>

The closing value of the RAB Floor Limit for the year becomes the opening value for the following year.

## 2.3. Economic Cost

The key component of the Ceiling Limit Test is the Economic Cost. Figure 5 graphically illustrates the components (or building blocks) of Economic Cost for the Constrained Group of Mines.

**Figure 5: Components of Economic Cost**



### Operating Costs

Total operating costs comprise primarily ARTC’s infrastructure maintenance, network control, business unit management and corporate overhead costs. Operating costs can be split between direct and indirect costs. Direct costs are attributable to particular segments, while indirect costs are allocated across segments and pricing zones on the basis of cost allocators.

<sup>7</sup> HVAU variation accepted 29 June 2017, s.4.7(c).

## Depreciation

Depreciation, or return of assets, is the decline in value of assets, as outlined above for the calculation of the RAB Floor Limit.

## Return on Assets

The return on assets is calculated by multiplying the real pre-tax rate of return (RoR) by the average RAB Floor Limit. The average RAB Floor Limit is the average of the opening and closing asset values for the year. The value of the RoR is set in section 4.8 of the HVAU. The real pre-tax RoR is 5.38 per cent per annum from July 2016.

## Incremental costs

Costs under the HVAU are further divided into incremental and non-incremental costs. Incremental costs are defined as all costs that could be avoided in the medium term if a segment was removed from the network. Incremental costs are used in defining the Floor Limit for revenue, and also to ensure that Zone 3 producers are charged with the additional costs they are responsible for in traversing Zone 1.<sup>8</sup>

The incremental costs for Zone 3 producers incurred in Zone 1 are removed from the Economic Cost and Ceiling Limit for Constrained Coal Customers and effectively charged to Zone 3 by deducting them from revenue paid by Zone 3 producers.

## 2.4. Ceiling Limit Test

For the Constrained Group of Mines, the HVAU applies the Ceiling Limit Test which compares access revenue with the Economic Cost, as illustrated in Figure 6. If revenue exceeds the Economic Cost (being the Ceiling Limit) in a compliance period, there is an over-recovery and ARTC is required to refund the amount to customers. If revenue is less than Economic Cost, ARTC is entitled to recover the 'under' from customers.

**Figure 6: Ceiling Limit Test**



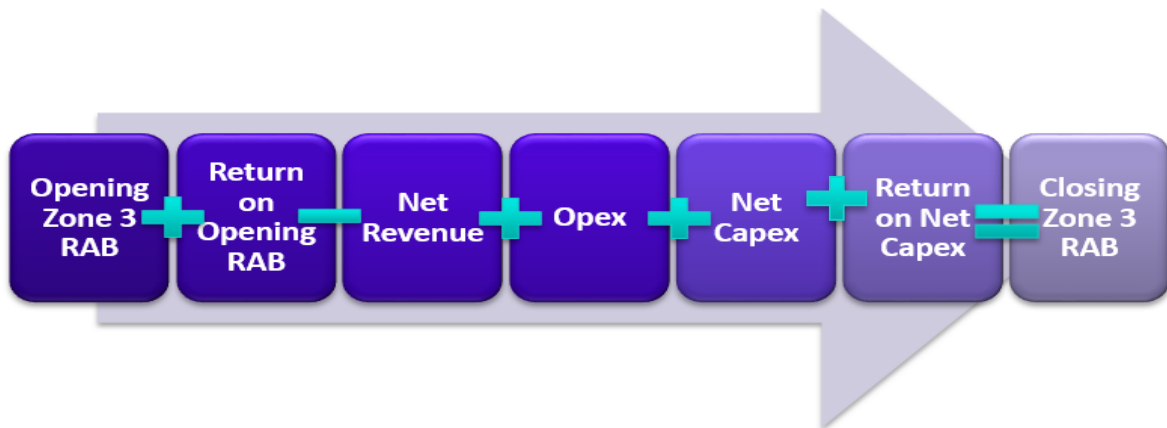
Section 4.9 of the HVAU details the method by which ARTC calculates the overs or unders amounts to be refunded or charged to individual Constrained Network Access Holders. Each 'Constrained Coal Customer' is given a Constrained Coal Customer Account. An allocation of the total under or over amount is then calculated and assigned to each Customer, based on the proportion of Access Revenue paid by that Customer.

<sup>8</sup> Prior to 2013 incremental costs had been equated with variable maintenance costs. Following a review by WIK-Consult for the ACCC's 2013 annual compliance assessment, the incremental cost methodology was amended for Zone 3 producers' use of Zone 1, to include capacity-enhancing capital projects as well as maintenance. For incremental capital costs, the ACCC determined that these were to be allocated on actual rather than contracted usage.

## 2.5. RAB and Loss Capitalisation for Zone 3

Zone 3 contains the newer mines which were unable to pay full Economic Cost in the earlier years of the HVAU. ARTC therefore incurred losses on Zone 3 but was allowed to capitalise losses into the Zone 3 regulatory value of assets so that they can be recovered in future periods. This requires the calculation of the Regulatory Asset Base (**RAB**) which is defined in section 4.4(a) of the HVAU and illustrated in .

**Figure 7: RAB Model**



- The opening and closing RABs for Zone 3 function in the same way as those in the RAB Floor Limit. That is, the opening value at the start of a year is equal to the closing value at the end of the previous year.
- The return on opening RAB is the product of the nominal pre-tax RoR and the opening RAB. The nominal pre-tax RoR was set at 7.91 per cent in section 4.8 of the June 2017 variation of the HVAU, backdated to 1 July 2016.
- Revenue refers to access revenue paid by Access Holders originating in Zone 3 for all segments they use – both in Zone 1 and Zone 3. However, the net revenue included in the RAB is the gross revenue paid, less the incremental costs attributed to Zone 3 Access Holders for their use of Zone 1.
- The operating expenditure is consistent with the operating expenditure used within the Economic Cost calculation, but relates to that incurred in Zone 3.
- Net Capital expenditure is the same as the net capital expenditure in the RAB Floor Limit.
- The return on Net Capex is the nominal RoR applied to half of the net capital expenditure. A half year return is based on the assumption that the capital expenditure occurs evenly across the year.

Zone 3's loss capitalisation balance is equal to the RAB less the RAB Floor Limit. Since 2016, ARTC has been earning sufficient revenue in Zone 3 to reduce the loss capitalisation balance. When the loss capitalisation balance returns to zero, Zone 3 will become constrained with its revenue subject to the Ceiling Limit.

### 3. Prudence of capital expenditure

Sections 4.4(a) and (b) of the HVAU define net capital expenditure as capital expenditure plus interest costs incurred during construction, less the written down value of any disposals. The HVAU requires that for any capital expenditure to be included in the regulatory value of assets, it must be incurred on a 'prudent' basis.

Section 4.10(d)(iii) of the HVAU provides that if capital expenditure has been endorsed by the Rail Capacity Group (**RCG**) in accordance with the consultation obligations set out in section 9 of the HVAU, then the ACCC will accept that capital expenditure as prudent. Additionally, the ACCC's assessment of ARTC's capital expenditure has had regard to the relevant factors in the definition of prudent in the HVAU.<sup>9</sup>

The RCG is a representative group made up of a range of stakeholders, including Access Holders, above-rail operators and the Hunter Valley Coal Chain Coordinator (**HVCCC**) (in a non-voting capacity).

The HVAU also allows ARTC to recover interest costs incurred during construction, up until 1 July in the calendar year that the asset was commissioned (and determined by reference to the appropriate rate of return).<sup>10</sup>

In 2017, ARTC has sought to roll-forward into its regulatory value of assets total net capital expenditure of \$41.2 million, as set out in Table 2. This was 54 per cent lower than the 2016 net capital expenditure of \$89.9 million.

**Table 2: Net capital expenditure, ARTC submission, 2017 (\$)<sup>11</sup>**

Category	Constrained Network	Zone 3	Total
Major capital expenditure	2 092 243	(5 000)	2 087 243
Minor capital expenditure (Corridor Capital)	19 766 553	27 524 352	47 290 905
Interest during construction	-	-	-
Disposal value	(5 366 019)	(2 772 413)	(8 138 432)
<b>Net capital expenditure</b>	<b>16 492 778</b>	<b>24 746 939</b>	<b>41 239 717</b>

Note: Totals may not add due to rounding.

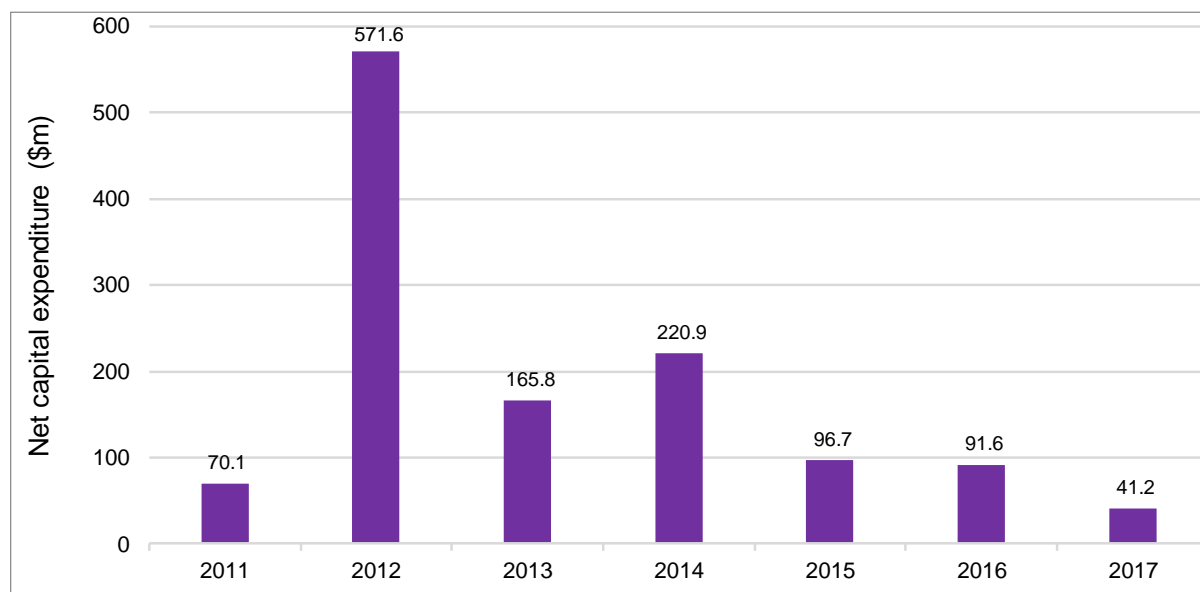
Figure 8 sets out net capital expenditure from 2011 to 2017 and illustrates that net capital expenditure in 2017 was the lowest amount since the beginning of the HVAU.

<sup>9</sup> 'Prudent' is defined under section 14.1 of the HVAU.

<sup>10</sup> See section 4.4 of the HVAU.

<sup>11</sup> ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission*, 23 April 2020, p. 14, Appendix A – pp. 33-34.

**Figure 8: Net Capital Expenditure, 2011-2017 (\$million, real \$2017)**



### 3.1. Major Capital Expenditure

ARTC submitted major capital expenditure of \$2.1 million in 2017, all of which related to the Constrained Network. All the expenditure was minor work related to projects commissioned in earlier years. The largest expenditure was \$1.8m on Kooragang Arrival Roads Stage 2. All major capital expenditure was approved by the RCG.

### 3.2. Minor (Corridor) Capital Expenditure

Minor capital expenditure (also known as 'corridor capital') relates to projects that are minor in scope or cost. A project would typically be considered minor in scope or cost if it relates to ongoing annual programs for asset replacement rather than additional capacity.

ARTC submitted minor capital expenditure of \$47.3 million in 2017, of which \$19.8 million related to the Constrained Network and \$27.5 million related to Zone 3.

For minor projects, section 9.1(e)(ii) of the HVAU provides that ARTC will consult on the program of minor projects rather than individual projects. ARTC has demonstrated that the minor projects included in 2017 expenditure were part of programs endorsed by RCG in recent years, and that total expenditure on each program has been within the endorsed amount.

### 3.3. Disposals

ARTC submitted that capital works resulted in asset disposals with a total written down value of \$8.1 million in 2017. Rerailing accounted for 73 per cent of the value of disposals, while turnout renewal, track strengthening and resleepering were minor sources of disposals.

ARTC recovered \$0.5 million in sales proceeds from the disposed assets, resulting in a loss of \$7.6 million on disposal which is included as a cost in operating expenditure.

### **3.4. Capital expenditure conclusion**

The ACCC's Final Determination is that ARTC has demonstrated prudence of its capital expenditure. It is therefore appropriate for ARTC to roll forward total net capital expenditure of \$41.2 million into the RAB Floor Limit and RAB, of which \$16.5 million related to the Constrained Network and \$24.7 million related to Zone 3.



## 4. Efficiency of operating expenditure

Section 4.10(e) of the HVAU provides for the ACCC to assess the efficiency of ARTC's operating expenditure. Efficient operating expenditure is one component of Economic Cost which determines the maximum amount of revenue that ARTC is entitled to receive.

### 4.1. Introduction

ARTC submitted that it incurred operating expenditure in 2017 of \$108.8 million for the Constrained Network and \$60.5 million for Zone 3 (as shown in Table 3).

**Table 3: Operating expenditure: ARTC submission, 2017 (\$) <sup>12</sup>**

Operating expenditure	Constrained Network	Zone 3	Total
Infrastructure maintenance	58 160 256	41 534 104	99 694 360
Business unit management	21 705 664	8 075 446	29 781 110
Corporate overheads	13 871 374	4 419 252	18 290 626
Network control	10 425 918	3 723 542	14 149 460
Net loss on disposals	4 657 970	2 730 149	7 388 119
Expensed project costs	-	-	-
<b>Total operating expenditure</b>	<b>108 821 183</b>	<b>60 482 493</b>	<b>169 303 675</b>

*Note: Totals may not add due to rounding. The Total column refers to the sum of the two columns – not the whole network.*

Overall, ARTC's operating expenditure in the Hunter Valley coal network for 2017 was 3.2 per cent higher than in 2016. The majority of the expenditure relates to infrastructure maintenance, followed by business unit management. Discussion on individual categories is below.

For its 2017 compliance assessment, the ACCC undertook an in-house assessment of ARTC's operating expenditure on the Hunter Valley network. This was done to expedite the overall compliance assessment process as was done in 2016. WIK-Consult undertook a detailed review of operating expenditure for the 2015 assessment. WIK's assessment found that ARTC was operating efficiently and remains valid.<sup>13</sup>

The assessment has taken into account the findings from the 2016 Final Determination and submissions received from Pacific National and AGL Energy, and has sought additional information from ARTC where required.

<sup>12</sup> ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission*, 23 April 2020 – Constrained Network – p. 25, Zone 3 – p. 14.

The sum of maintenance expenditures for these two groups (\$99.7m) is lower than the total maintenance of \$111.8m for the whole Hunter Valley network shown in table 2 of ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs*, 23 April 2020, p. 4.

The difference comprises non-coal traffic (\$5.2m), unconstrained segments in Zone 1 (\$0.6m) and PZ3 incremental costs incurred in PZ1 (\$6.0m).

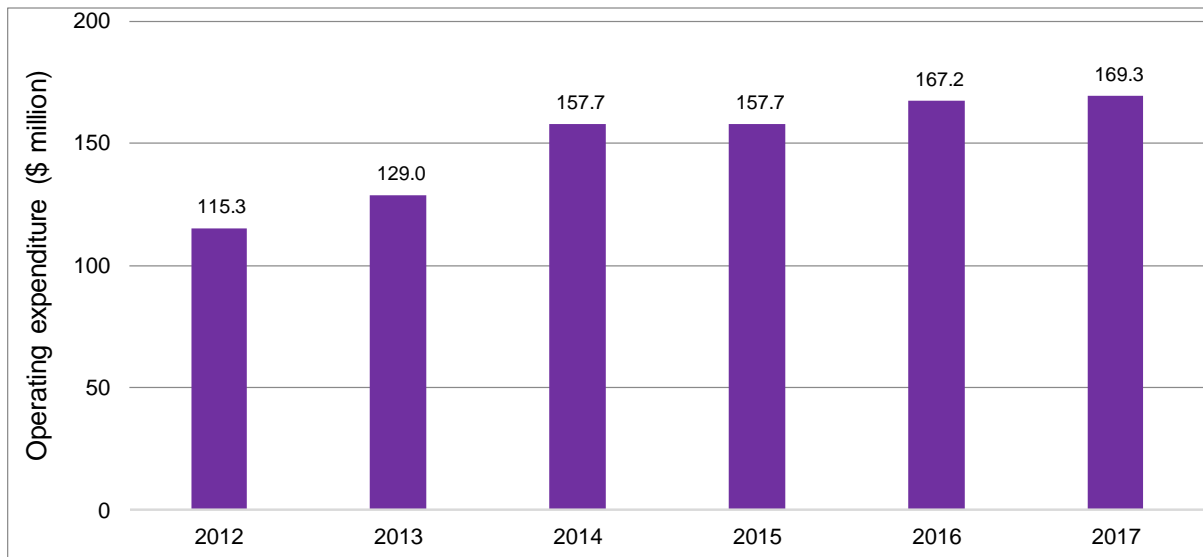
<sup>13</sup> WIK-Consult, *Assessing the Efficiency of Australia Rail Track Corporation Operating Expenditures for the 2015 Calendar Year*, 20 December 2018, pp. I-IV.

The ACCC's assessment of ARTC's operating expenditure comprises an analysis of ARTC's change in operating expenditure over time, taking into account inflation, change in volumes, environmental factors (such as extreme heat and flooding) and annual variations to expenditure.

## 4.2. Total operating expenditure

Figure 9 shows that ARTC's operating expenditure in the Hunter Valley network has increased in real terms each year since 2013.

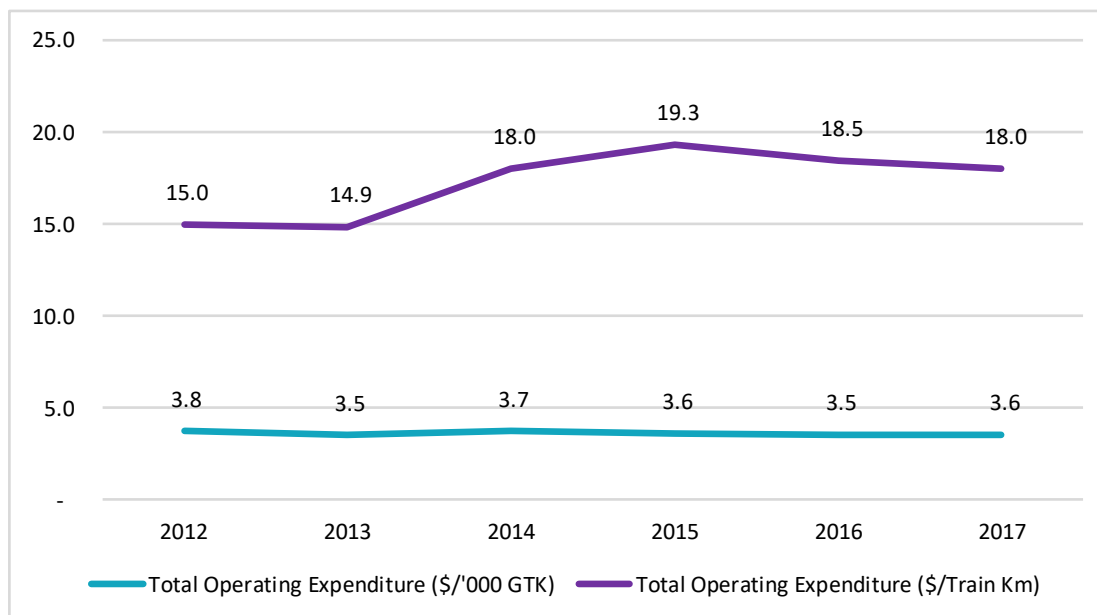
**Figure 9: Operating expenditure, 2012-2017, (\$million, real \$2017)**



The ACCC has also undertaken analysis based on costs per Gross Tonne Kilometre (**GTK**) and Train Kilometre (**Train Km**) which are commonly seen as cost drivers. Figure 10 shows that total operating costs on a per GTK basis have been fairly stable since 2012, as expenditures have risen at a slower rate than volumes in GTK.

Operating costs per Train Km have also fallen since 2015, after rising from 2012. This reflects the fact that GTKs increased faster than Train Km due to heavier loads.

**Figure 10: Total operating costs per unit, 2012 to 2017 (real \$2017)**



The main categories of operating expenditure are considered below.

### 4.3. Infrastructure maintenance

Infrastructure maintenance comprise major periodic maintenance and routine corrective and reactive maintenance work programs. ARTC submitted that its infrastructure maintenance expenditure was \$99.7 million, of which \$58.2 million was for the Constrained Network and \$41.5 million for Zone 3, a decrease of 5.1 per cent and an increase of around 9.7 per cent from 2016, respectively.

Figure 11 shows that real infrastructure maintenance expenditure per GTK has remained stable.<sup>14</sup> Unit costs have been higher in Zones 2 and 3 than in Zone 1 due to the environmental conditions.<sup>15</sup>

<sup>14</sup> Maintenance requirements tend to be more related to GTKs than to Train Kms.

<sup>15</sup> Zones 2 and 3 have been combined here to retain confidentiality of Zone 3 volumes.

**Figure 11: Infrastructure maintenance expenditure, 2015-2017, \$2017 per '000 GTK**



ARTC provided details on the top ten infrastructure maintenance activities by value for the network and for each of the Zones. The two top infrastructure maintenance activities for 2017 were ballast cleaning and rail grinding. Ballast cleaning was the largest maintenance activity in 2017, and it decreased by 35.3 per cent.<sup>16</sup> ARTC noted that in 2017 ballast cleaning was undertaken only in Zone 3.

Rail grinding was the second largest infrastructure maintenance activity in 2017. Rail grinding expenditure in 2017 increased by 19.3 per cent. ARTC noted the increase in rail grinding was due to an increase in the scope of rail grinding delivered.<sup>17</sup>

Pacific National’s submission raised concerns about the changes in forecasts of particular infrastructure maintenance activities through the year, with resulting budget over-runs<sup>18</sup> and the mix of maintenance resurfacing and ballast undercutting. PN suggested that ARTC’s approach to maintenance was not efficient and it would help if ARTC provided more information on track defects and financial information on repairs in the interests of transparency for users and the ACCC.

More broadly, PN was concerned that ARTC does not adopt a holistic approach to its maintenance and operating expenditure and, given its synergies with corridor capital; for example, it may be more efficient to combine track resurfacing (MPM) with rail break rerailling activities. ARTC’s supplementary submission provides a detailed response to Pacific National’s concerns, including highlighting WIK’s findings from the 2015 assessment that ARTC’s infrastructure maintenance activities were efficient, and that undertaking a holistic approach requires a contextualised response.<sup>19</sup>

The ACCC notes that maintenance costs per unit have declined. The ACCC accepts ARTC’s explanations for the changes in focus for 2017. However, the ACCC’s considers that ARTC could provide greater transparency of track defects, maintenance plans and cost trade-offs, given these areas have important implications for reliability and costs for stakeholders.

<sup>16</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, pp. 5-9.

<sup>17</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, pp. 5-10.

<sup>18</sup> Pacific National, HVAU Annual Compliance 2017 (submission to ACCC), 1 July 2020, p. 4.

<sup>19</sup> ARTC, Hunter Valley Coal Network Access Undertaking – Further submission for ACTC’s 2017 Compliance Assessment, July 2020, pp 3-4

#### 4.4. Loss on disposals

ARTC reported a net loss on asset disposals of \$7.6 million, resulting from disposals with a written down value of \$8.1 million, and proceeds from sale of \$0.5 million.

The recovery rate (defined as proceeds as a percentage of written down value) fell from 8.8 per cent in 2016 to 6.5 per cent in 2017. Rerailing was the only activity with significant proceeds from disposal. In regards to the lower asset recovery rate for 2017, ARTC noted<sup>20</sup> that:

*This was largely due to the nature of the capital projects and activities undertaken during the year, with corridor capital expenditure on rerailing activities decreasing by \$20m against 2016. While arm's length market scrap steel price per tonne increased from an average of \$156.94 in 2016 to \$249.58 in 2017, the quantity of scrap steel disposed decreased from approximately 5,267 tonnes in 2016 to 3,058 tonnes in 2017. During 2017 there were also instances where assets were removed from the network but not replaced with like for like assets, for example removal of a turnout replaced with rail only. The cost of removing these redundant assets is reflected in the loss on disposal.*

#### 4.5. Overhead cost allocators

The other major categories of operating expenditure – business unit management, corporate overheads and network control, are generally not directly attributable to particular Segments in the network. The HVAU requires that, where such Non-Segment Specific Costs cannot be directly attributed to a Segment, they should be allocated to Segments in line with the cost allocation methodology prescribed in the HVAU.<sup>21</sup>

For 2017, there are two different methodologies to allocate Non-Segment Specific Costs:

- i) For the period from 1 January to 30 June 2017:
  - where the costs are associated with track maintenance, they are allocated to Segments in proportion to GTK
  - where the costs are not associated with track maintenance, they are allocated to Segments in proportion to Train Km<sup>22</sup>
- ii) For the period from 1 July 2017 to 31 December 2017:
  - the allocation methodology is based on section 4.6 and Schedule I of the HVAU (introduced in the June 2017 variation to the HVAU).

Schedule I delineates the allocation methodology that ARTC is required to apply to its Non-Segment Specific Costs and the return on and depreciation of its Non-Segment Specific Assets. Where costs are not able to be directly attributable to Hunter Valley corridors, they must be allocated according to the allocation method set out in Table 4.

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<sup>20</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, p. 14.

<sup>21</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission, 23 April 2020, p. 7.

<sup>22</sup> Ibid.

**Table 4: Cost Allocation Methodology by Schedule I<sup>23</sup>**

<b>Cost category</b>	<b>Allocation method</b>
<b>Executive</b>	Direct Stay-in-Business Costs
<b>Finance</b>	Direct Stay-in-Business Costs
<b>Strategy and corporate development</b>	Train Km
<b>People</b>	FTE
<b>Insurance</b>	Premium based
<b>Safety accreditation</b>	Track Km
<b>Property</b>	Track Km
<b>Communications</b>	Train Km
<b>IT infrastructure and systems</b>	FTE
<b>Management of enterprise services</b>	Direct Stay-in-Business Costs
<b>Environment</b>	Train Km
<b>Engineering services</b>	GTK
<b>Corporate safety</b>	GTK
<b>Workplace health &amp; safety</b>	FTE
<b>Risk</b>	GTK
<b>Allowance for efficiency projects</b>	Direct Stay-in-Business Costs

Abbreviations: Train Kilometres (Train Km); Full Time Equivalent (FTE); Track Kilometres (Track Km); Gross Tonne Kilometres (GTK).

Source: Schedule I of the HVAU.

Below is a breakdown of the Non-Segment Specific categories of operating costs.

#### **4.6. Business unit management**

ARTC indicated that business unit management costs comprise Hunter Valley direct costs and encompasses four functions:

- *Hunter Valley Customer Service and Operations;*
- *Hunter Valley Asset Delivery, including the Provisioning Centres;*
- *Hunter Valley Asset Development; and,*
- *Hunter Valley Management and Support.*<sup>24</sup>

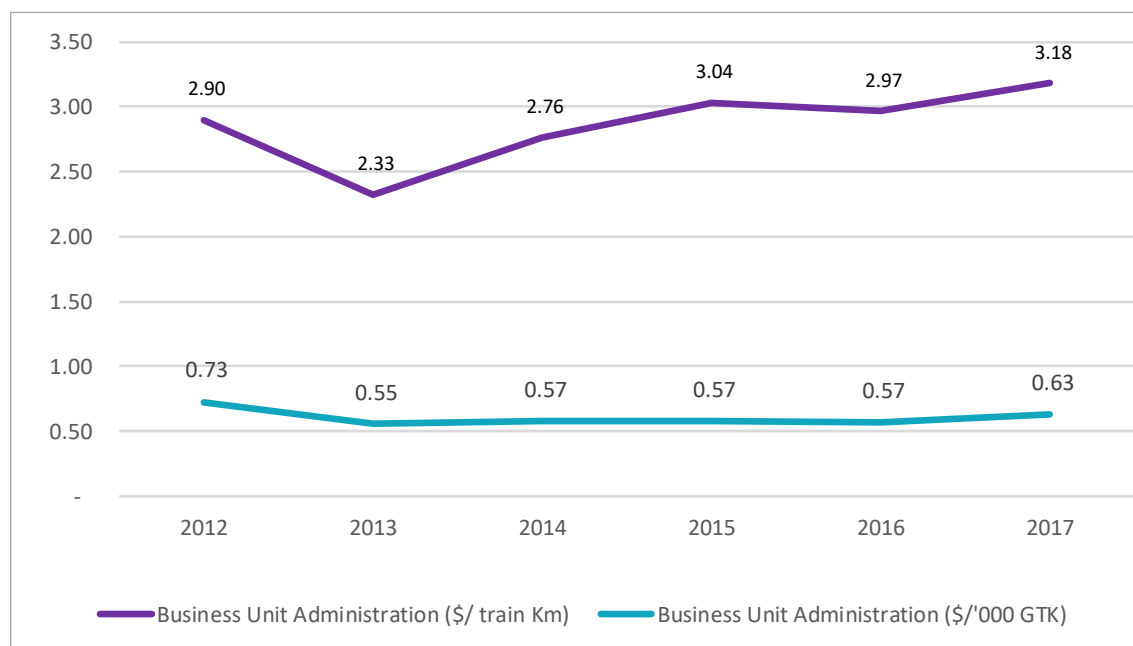
<sup>23</sup> ARTC, *Hunter Valley Coal Network Access Undertaking*, 16 June 2017, pp. 142-143.

<sup>24</sup> ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs*, 23 April 2020, p. 17.

ARTC submitted business unit management expenditure totalling \$29.8 million, of which \$21.7 million related to the Constrained Network and \$8.1 million for Zone 3, an overall increase of 15.5 per cent from 2016.

Figure 12 shows that business unit management expenditure on a GTK basis, after being flat for 3 years, increased from 2016 to 2017. On a Train Km basis, business unit management expenditure has been trending upwards for the last few years.

**Figure 12: Business unit management expenditure per unit, 2012 to 2017 (real \$2017)**



ARTC stated the major drivers for the costs changes between 2016 and 2017 included:

- *\$1.4 million of costs were incurred in 2017 for the development of an operating cost efficiency mechanism. This was a key element for both the ACCC and Customers for the renewal of the 2017 HVAU at the time. ARTC worked closely with a working group of Customers in developing the proposed mechanism and shared considerable information with those Customers on ARTC’s cost base and drivers.*
- *\$0.6 million for the Asset Management Improvement Project which has the objective to transform the way asset related work is planned and executed. The work includes streamlined data and workflows to identify and manage known conditions and defects on the Network and improved ability to plan, schedule, monitor and record the repairs. This project will roll out across multiple years and contribute to improved reliability outcomes over time.*
- *\$0.5 million for the continued investment in improved reliability data tools and the capture and analysis of reliability data to understand potential areas at risk of a failure*
- *\$0.4 million increase in costs to support ARTC’s continued focus on improving safety and environmental performance in the Hunter Valley. During 2017, the business unit launched the fatal and severe risk program to target behaviours to mitigate the highest risk activities, embedded a systemic incident investigation process,*

*established a 24/7 Enviroline community enquiry service and improved the community notification guidelines and tools for Hunter Valley closedown works. These activities go to ARTC's no harm value and our licence to operate in the Hunter Valley, and by extension, our Customers.*

- *\$0.2 million increase in costs to enhance contractual and tender management and the packaging of scope for asset related works to secure resources and achieve value for money for Customers.*
- *\$0.3 million decrease due to the impact of higher Hunter Valley non-coal GTK and Train Km allocators which had the effect of decreasing the share of costs being allocated to the Network. This was predominantly related to the 2017 H1 period.*<sup>25</sup>

AGL Energy's submission noted the large increase in business unit management expenditure but stated that it is difficult to comment on the efficiency or otherwise of these costs.<sup>26</sup> AGL suggested that the objective or subjective nature of the definition of efficiency is worth clarifying in the next iteration of the HVAU.

PN noted the \$3.4 million increase in business unit management expenditure, and in particular questioned the costs submitted by ARTC for the development of an operating cost efficiency mechanism. PN accepts that ARTC, the ACCC and some Access Holders supported the mechanism, although ultimately it did not progress.<sup>27</sup>

ARTC's supplementary submission states that the cost mechanism was a requirement of both the ACCC and stakeholders, and ARTC rejects any assertion that these costs would be repackaged.<sup>28</sup>

The ACCC accepts that the increases in business unit management expenditure largely related to customer-focused programs such as asset management improvement, reliability data tools and safety and environmental performance.

The ACCC considers that the creation of the business unit has improved the efficiency and customer focus of ARTC in the Hunter Valley, and that its discussions on its service focus areas and reports for customers are beneficial. However, a greater emphasis on discussing the costs of proposed improvements with stakeholders and the trade-offs involved between service levels and costs would enhance confidence for users and the ACCC in the efficiency of ARTC's expenditures.

## 4.7. Corporate overhead

Corporate overheads are general costs shared across the organisation and include the following:

- Executive
- Finance
- People
- Corporate Services and Safety

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<sup>25</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, p. 17-18.

<sup>26</sup> AGL Energy Ltd, Submission to ACCC, ARTC 2017 compliance assessment for the HVAU, 25 June 2020, p. 2.

<sup>27</sup> Pacific National, Pacific National – HVAU Annual Compliance 2017, 1 July 2020, p .6-7.

<sup>28</sup> ARTC, Hunter Valley Coal Network Access Undertaking – Further submission for ACTC's 2017 Compliance Assessment, July 2020, pp 5



- Strategy.<sup>29</sup>

ARTC submitted that its corporate overhead expenditure for 2017 was \$18.3 million, of which \$13.9 million was for the Constrained Network and \$4.4 million was for Zone 3, an increase of 1.7 per cent overall from 2016.

Figure 13 shows corporate overhead expenditure from 2012 to 2017, on a per unit basis.

**Figure 13: Corporate overhead expenditure per unit, 2012 to 2017 (real \$ 2017)**

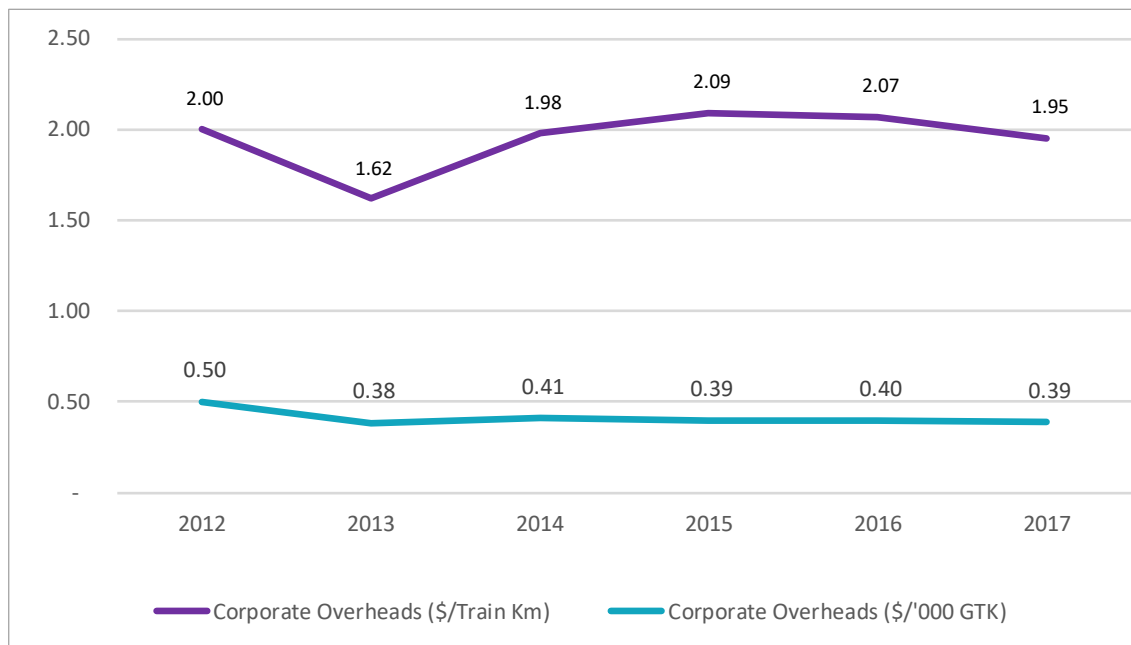


Figure 13 shows corporate overhead expenditure on a GTK basis has tended to decrease from 2012 to 2017. On a Train Km basis corporate overhead expenditure trended upwards from 2013 to 2015 and has since decreased.

ARTC stated the major drivers for the cost changes between 2016 and 2017 included:

- *\$1.0 million decrease in Hunter Valley insurance costs due to favourable insurance market conditions at the time of reassessment and renegotiation of insurance.*
- *\$0.4 million decrease in Plant Charges due to a timing different between financial and calendar year plant recoveries. This offsets part of the increase in Plant Charges reported in the 2016 Compliance Assessment that arose due to timing.*
- *\$1.0 million decrease due to the impact of higher non-Hunter Valley allocator values which has the effect of decreasing the share of costs being allocated to the Network.<sup>30</sup>*

ARTC indicated that the change in allocation methodology due to the introduction of Schedule I has increased the proportion of overhead expenditure now allocated to the Hunter Valley network. Specifically, ARTC stated that:

<sup>29</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, p. 18.

<sup>30</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, p. 18-19.

*The revised allocators for the corporate activities approved in Schedule I provide a closer alignment to the drivers for the underlying costs and therefore a more accurate reflection of the true share of costs for the Network.*<sup>31</sup>

Pacific National's submission restated the concerns expressed in its 2016 submission about flood damage costs and whether ARTC held an appropriate level of insurance.<sup>32</sup>

In response, ARTC provided further details of its approach to insurance coverage and recent reviews. In particular, it noted that a review by KPMG in 2018 found that ARTC has a mature process to identify the risks that need to be managed by insurance policies and the manner in which these insurance policies are procured, monitored and renewed.<sup>33</sup>

In line with ARTC's strategy to insure for catastrophic events, and taking into account claims and incident history, a relatively high policy deductible applies. Due to the anticipated impacts of climate change and ARTC claims for flooding and bushfires, ARTC expects deductibles and premiums will continue to increase for these types of events.

## 4.8. Network Control

Network control expenditure includes those associated with ARTC's Network Control Centre North (located at Broadmeadow). The control centre controls the train movements for the entire Hunter Valley business unit, including the coal network and non-coal segments that adjoin the coal network. The network is controlled by a series of 'Network Control Boards' (NC Boards) which manage defined areas.

ARTC noted network control expenditure include:

*...labour and materials associated with the delivery of the following functions:*

- *train control and signalling both on the main line and within the coal terminals;*
- *train planning and programming;*
- *operations and operational customer interface;*
- *incident management; and,*
- *communication costs.*<sup>34</sup>

For 2017 ARTC submitted that its Network Control expenditure was \$14.1 million, of which \$10.4 million was for the Constrained Network and \$3.7 million was for Zone 3, an increase of 13 per cent overall from 2016.

Figure 14 shows network control expenditure on a GTK basis declined up to 2016 before increasing in 2017. On a Train Km basis, network control expenditure has fluctuated but is currently below the 2014 and 2015 outcomes.

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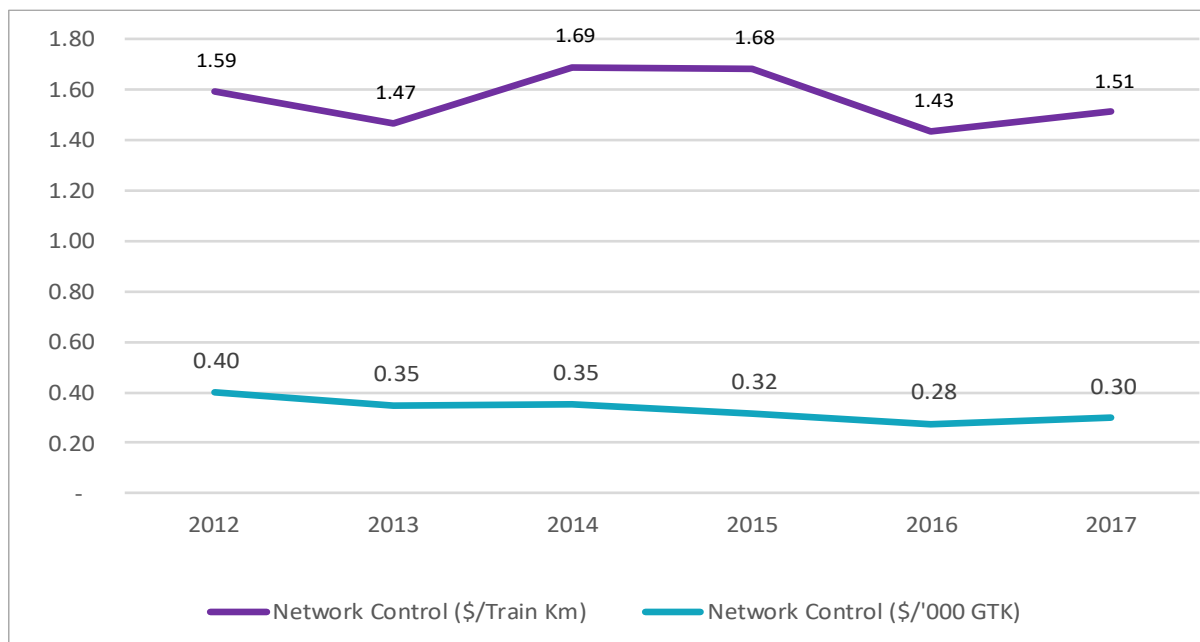
<sup>31</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, p. 19.

<sup>32</sup> Pacific National, Pacific National – HVAU Annual Compliance 2017, 1 July 2020, pp. 2,7.

<sup>33</sup> ARTC response to ACCC request for information, Q.9-14, 'Operating costs', 24 July 2020

<sup>34</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, p. 16.

**Figure 14: Network control expenditure per unit, 2012 to 2017 (real \$2017)**



ARTC stated that the movement in Network Control expenditure is primarily driven by:

- *New operating costs of \$1.1 million, which were incurred in 2017 relating to ARTC's Network Control Optimisation (ANCO) project. The operating costs relate to software licence costs associated with the transition to digital tools and increased dynamic capability for the coal network. ARTC has previously highlighted that new operating cost elements would be introduced on an ongoing basis as a result of the ANCO project.*
- *Labour costs increased by \$0.5 million. This is due to the combination of annual salary increases under ARTC's Enterprise Agreement and costs associated with new trainee Train Controllers and roster changes for live run and supervisory roles.<sup>35</sup>*

ARTC also stated with respect to the introduction of Schedule I:

*Network Control is a specialised critical business function and the trainees and roster changes will support business continuity and operational assurance for Customers during periods of unplanned absences or role vacancies within the Network Control team. As Network Control costs are directly attributed to the Network based on the control boards, there has been no impact from the application of Schedule I other than to report office depreciation of \$0.04 million relating to Network Control items directly against Network Control costs for the half year period (rather than as Corporate Overheads).<sup>36</sup>*

<sup>35</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, p. 16.

<sup>36</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Annual Compliance Assessment – Attachment 1: Hunter Valley Network Operating Costs, 23 April 2020, p. 16.

## 4.9. Procurement

In the Final Determination for 2015 the ACCC stated that it required assurance from ARTC that its procurement policies were satisfied; and if not, justification on why such procurements should be considered efficient.<sup>37</sup>

Pacific National's submission restated its concern from its 2016 submission as to whether ARTC had explored contractual avenues to mitigate against cost overruns in procurement and whether ARTC's practices ensure an appropriate allocation of risk between suppliers and itself.<sup>38</sup>

In its 2017 annual compliance submission, ARTC stated that there were no changes made to ARTC's procurement procedure, but development had started on a new ARTC-wide procurement framework.<sup>39</sup> ARTC noted that a new procurement manual was implemented in early 2018, along with enhancements to ARTC's procurement and contracting processes.<sup>40</sup>

Consistent with its 2016 compliance submission, ARTC provided the ACCC with a confidential outline of the procurement processes that it applied to a cross section of contracts relating to 2017 costs to demonstrate the efficiency of ARTC's procurement.<sup>41</sup>

The ACCC notes that the selected projects showed satisfactory procurement processes with a range of experienced contractors being invited and selection based on value for money with a combination of price and non-price criteria. The ACCC welcomes ARTC's continuing focus on strengthening its procurement policies.

## 4.10. Operating expenditure conclusion

The ACCC's assessment of ARTC's efficiency of operating expenditure has had regard to the relevant factors in the definition of efficient in the HVAU.<sup>42</sup>

The ACCC considers that ARTC's submitted operating expenditure in 2017 of \$169.3 million (\$108.8 million for the Constrained Network and \$60.5 million for Zone 3) was efficient.

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<sup>37</sup> ACCC, Final Determination – Australian Rail Track Corporation's compliance with the Hunter Valley Coal Network Access Undertaking financial model for the 2015 calendar year, 5 April 2019, p. 37.

<sup>38</sup> Pacific National, HVAU Annual Compliance 2017 (submission to ACCC), 1 July 2020, p. 3.

<sup>39</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission, 23 April 2020, p. 10.

<sup>40</sup> Ibid.

<sup>41</sup> ARTC, Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission, 23 April 2020, p. 11.

<sup>42</sup> 'Efficient' is defined under section 14.1 of the HVAU.

## 5. ACCC's Final Determination for the Constrained Network

Section 4.10(d)(ii) of the HVAU requires the ACCC to determine whether ARTC has reconciled access revenue with the applicable Ceiling Limit. The Ceiling Limit is derived from the Economic Cost which includes both operating costs and capital charges. Capital charges comprise depreciation and return on assets which in turn require calculation of the RAB Floor Limit which is outlined first.

### 5.1. RAB Floor Limit roll-forward

Table 5 shows that the closing RAB Floor Limit for the Constrained Network in 2017 was \$1.4 billion, a decrease of 1.5 per cent from the start of the year.

**Table 5: RAB Floor Limit roll-forward for Constrained Network, 2017 (\$)**

	ARTC Submission <sup>43</sup>	ACCC Final Determination
<b>Opening RAB Floor Limit</b>	1,455,077,719	1,455,077,719
<b>add CPI indexation</b>	27,678,109	27,678,109
<b>add Net Capital Expenditure</b>	16,492,778	16,492,778
<b>less Depreciation</b>	(66,163,745)	(66,163,745)
<b>Closing RAB Floor Limit</b>	1,433,084,861	1,433,084,861

*Note: Totals may not add due to rounding.*

While inflation and new capital expenditure resulted in increases to the RAB Floor Limit, these were more than offset by depreciation. Capital expenditure was significantly lower than depreciation, indicating limited expansion in the network.

The individual components of the RAB Floor Limit roll-forward are discussed in Chapter 2. The values applied for CPI and depreciation are outlined below.

#### CPI

ARTC applied a CPI indexation factor of 1.90 per cent. This was calculated as the percentage increase in CPI (All Sydney) from 110.4 in September quarter 2016 (All Sydney) to 112.5 for September 2017. The ACCC considers that ARTC has applied the appropriate inflation rate in accordance with section 4.4(b) of the HVAU.

#### Depreciation

Depreciation is charged on the inflation-adjusted RAB Floor Limit Opening Value and on half of Net Capital Expenditure incurred during 2017. It is calculated by dividing the value of assets by their remaining useful life, deemed to be the average remaining mine life.

<sup>43</sup> ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission*, pp. 33-34.

The remaining life for existing assets on 1 July 2011 was set at 21 years in the original HVAU, so that by 1 July 2016 the remaining life for those assets had decreased to 16 years. The HVAU variation accepted by the ACCC on 29 June 2017 incorporated a new RML of 23 years as at 1 July 2016 (back-dated), based on a revised estimate of the RML. As the RML was increased, the annual depreciation rate was reduced. The remaining useful life of assets at the mid-point of 2017 is 22 years, yielding an annual depreciation rate of 4.55 per cent.

The ACCC's view is that ARTC has undertaken the roll-forward of the RAB Floor Limit in accordance with the HVAU.

## 5.2. Ceiling Limit Test

Table 6 shows the Ceiling Limit Test for the Constrained Network for 2017.

**Table 6: Ceiling Limit Test for the Constrained Network, 2017 (\$)**

	ARTC Submission <sup>44</sup>	ACCC Final Determination
<b>Operating Expenditure</b>	108,821,183	108,821,183
<b>add Depreciation<sup>45</sup></b>	57,772,718	57,772,718
<b>add Return on assets</b>	67,849,670	67,849,670
<b>Ceiling Limit (Economic Cost)</b>	234,443,571	234,443,571
<b>Access Revenue</b>	245,106,746	245,106,746
<b>Difference (over-recovery)</b>	10,663,176	10,663,176

Note: Totals may not add due to rounding.

The return on assets was based on the real pre-tax RoR of 5.38 per cent per annum, as set in the June 2017 variation of the HVAU. The other components of Economic Cost were outlined in section 2.3.

The cost components for the Constrained Network in Table 6 reflect the removal of \$24.5 million of incremental costs incurred in Zone 1 but attributable to Zone 3 producers. This comprises operating expenditure of \$6.3 million, return on assets of \$9.8 million, and depreciation of \$8.4 million. These costs have instead been charged against the revenue paid by Zone 3 producers. The ACCC considers that ARTC has reallocated these incremental costs in accordance with the agreed methodology.

ARTC's calculations showed an over-recovery of \$10.7 million from the Constrained Network in 2017. This is derived from revenue of \$245.1 million, less the Ceiling Limit of \$234.4 million.

<sup>44</sup> ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission (public)*, p. 25, and confidential financial model.

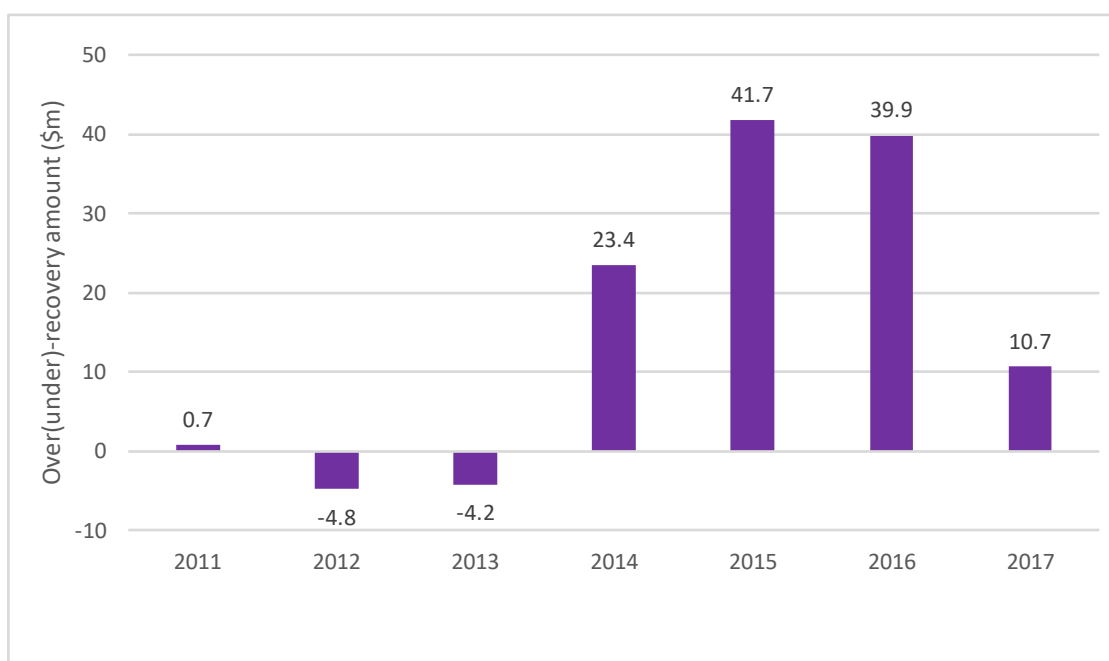
<sup>45</sup> Depreciation for purposes of the Ceiling Limit (shown in Table 6) is about \$8.4m lower than the depreciation shown in Table 5 for the RAB FL roll-forward, because the former is net of incremental costs incurred in Zone 1 attributable to producers in Zone 3.

### 5.3. Unders and overs

To comply with section 4.9(b) of the HVAU, ARTC has calculated the allocation of the total 'unders and overs' amount between individual Constrained Coal Customers for 2017, and provided the information to the ACCC in a confidential spreadsheet. The proportion allocated to each Constrained Coal Customer is based on the proportion of revenue paid for access rights over the Constrained Network by each. As ARTC over-recovered by \$10.7 million in 2017, ARTC must arrange for reimbursement of each customer's share of this amount.

Figure 15 displays the historical unders and overs amounts for the Constrained Network since 2011, with a marked decrease in the over-recovery between 2016 and 2017.

**Figure 15: Unders and overs amounts for Constrained Network, 2011-2017 (\$ million)**



The main reason for over-recoveries in 2016 and 2017 has been the backdating of cost parameters in the HVAU. Variations to the HVAU in 2016 and 2017 reduced the rate of return and increased depreciation lives, thereby reducing the economic cost and the Ceiling Limit, while access prices had been set on the basis of the earlier parameters.

### 5.4. Conclusion

The ACCC's Final Determination is that ARTC has correctly undertaken the roll-forward of the RAB Floor Limit and calculation of the unders and overs amounts for the Constrained Network, based on efficient operating expenditures and prudent capital expenditures approved by the RCG.

## 6. ACCC's Final Determination for Zone 3

As discussed in Chapter 2, Zone 3 does not form part of the Constrained Network and access revenue recovered from this Zone has not yet fully paid for its accumulated operating and capital costs. Instead, the annual losses incurred in earlier years were aggregated into a loss capitalisation balance, which is being paid down by Access Holders since 2015. Loss capitalisation continues to apply to Zone 3 as long as its RAB exceeds its RAB Floor Limit.

The roll-forward of the RAB Floor Limit is shown below, followed by the roll-forward of the RAB.

### 6.1. RAB Floor Limit roll-forward for Zone 3

Table 7 shows that the RAB Floor Limit for Zone 3 at the end of 2017 was \$719.2 million, an increase of 0.8 per cent over the year.

**Table 7: RAB Floor Limit roll-forward for Zone 3, 2017 (\$)**

	ARTC Submission <sup>46</sup>	ACCC Final Determination
<b>Opening RAB Floor Limit</b>	713,743,395	713,743,395
<b>add CPI indexation</b>	13,576,641	13,576,641
<b>add Net Capital Expenditure</b>	24,746,939	24,746,939
<b>less Depreciation</b>	(32,830,235)	(32,830,235)
<b>Closing RAB Floor Limit</b>	719,236,740	719,236,740

*Note: Totals may not add due to rounding.*

The additions due to CPI indexation and capital expenditure slightly outweighed the negative effect of depreciation.

The ACCC's Final Determination is that ARTC has undertaken the roll-forward of the RAB Floor Limit for Zone 3 correctly.

### 6.2. RAB roll-forward for Zone 3

The opening RAB for any year is the closing RAB for the previous year. However, ARTC has sought an adjustment to the closing RAB for 2016 of \$7.4 million. Further, the ACCC has updated the 2017 closing RAB value submitted by ARTC (by \$3.5 million) to take into account additional information provided by ARTC.

These adjustments to the RAB account for cash rebates to Zone 3 customers for the 12 month period of 1 July 2016 to 30 June 2017 - i.e. to the second half (**H2**) of 2016 and first half (**H1**) of 2017. This is the period impacted by the backdating of RoR and RML in the June 2017 variation to the HVAU.

<sup>46</sup> ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission (Public version)*, p. 19.



## Adjustments for backdated parameters

ARTC set 2016 and 2017 prices based on parameters in the HVAU prior to the June 2017 variations to the HVAU.<sup>47</sup> Subsequently to setting the 2016 and 2017 prices, a variation to the HVAU was approved by the ACCC in June 2017. This variation not only changed the RoR and RML parameters after June 2017, but also backdated the changes to 1 July 2016.

Table 8 sets out the change in parameter values.

**Table 8: Backdating of parameters**

	Interim	Backdated to 1 July 2016
Rate of return (real pre-tax)	6.74%	5.38%
Rate of return (nominal pre-tax)	8.50%	7.91%
Remaining mine life (as at 30 June 2016)	16 years	23 years

This backdating of parameters resulted in lower capital charges and therefore reduced ARTC's required revenue for 2016 and 2017, resulting in a large over-recovery of revenue from the Constrained Group of Mines.

The over-recovered amount for the Constrained Group of Mines was automatically refunded as part of the overs and unders process. In the absence of such a process for Zone 3, ARTC agreed to rebate Zone 3 customers for this additional revenue. The June 2017 variation of the HVAU (s.4.4(a)) includes the following:

Any one off adjustment to the revenue for Pricing Zone 3 Access Holders in respect of the backdating period 1 July 2016 to 30 June 2017 will be offset against Out-turn Revenue in the relevant calendar year for the purposes of this clause.

ARTC did not include the value of the rebate relating to 2016 as part of its 2016 submission. Subsequently to the ACCC publishing its 2016 compliance determination, ARTC reached agreement with Zone 3 customers to provide a rebate of \$7.4 million for 2016.<sup>48</sup> In its 2017 submission ARTC has proposed to adjust the closing RAB for 2016 by adding back this rebate, as outlined in Table 9.

Additionally, ARTC's 2017 submission did not set out the proposed rebate for the 2017 period. However, upon request ARTC has provided a proposed rebate (and additional modelling) for 2017. ARTC has estimated that the backdating adjustment for 2017 is \$3.5 million which it expects to rebate to Zone 3 producers after the finalisation of the 2017 determination.<sup>49</sup> Table 9 takes into account the proposed rebate by adjusting Net Revenue by \$3.5 million and consequently adjusting the closing RAB for 2017 upward from \$779.3 million to \$782.8 million.

<sup>47</sup> The parameters for 2016 H2 were set in the June 2016 variation of the HVAU and were extended to 2017 H1 by the November 2016 variation.

<sup>48</sup> ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission (Public version)*, p. 13.

<sup>49</sup> ARTC, response to ACCC request for information, Q.1 'Loss capitalisation', 24 July 2020.

## Adjusted RAB roll-forward

Table 9 shows that the original closing RAB value for 2016 was \$784.8 million, and the proposed adjustment of \$7.4 million results in an opening RAB for 2017 of \$792.2 million. Taking into account the proposed rebate for 2017 of \$3.5 million, the closing RAB for 2017 is \$782.8 million.

**Table 9: RAB roll-forward for Zone 3, 2017 (\$)**

	ARTC Submission <sup>50</sup>	ACCC Final Determination	Variation
<b>Closing RAB for 2016 as in ACCC 2016 final determination</b>	784,792,988	784,792,988	0
<b>add back Backdating adjustment for 2016 H2</b>	7,437,885	7,437,885	0
<b>Adjusted Opening RAB 2017</b>	792,230,873	792,230,873	0
<b>add Return on Opening RAB</b>	62,665,462	62,665,462	0
<b>less Net Revenue*</b>	(161,806,145)	(158,306,145)	3,500,000
<b>add Operating Expenditure</b>	60,482,493	60,482,493	0
<b>add Net Capital Expenditure</b>	24,746,939	24,746,939	0
<b>add Return on Net Capital Expenditure</b>	978,741	978,741	0
<b>Closing RAB</b>	779,298,363	782,798,363	3,500,000

Note: Totals may not add due to rounding.

\* Net Revenue is the total access revenue paid by Pricing Zone 3 producers (for their use of both Pricing Zone 1 and Pricing Zone 3) less the Incremental Cost of Pricing Zone 3 Access Holders' use of Pricing Zone 1.

\* ARTC's submission of 23 April 2020 reported net revenue of \$161,806,145 in 2017. ARTC subsequently reported a revised net revenue of \$158,306,145 after deducting the expected cash rebate of \$3,500,000 due to the backdating of commercial parameters.<sup>51</sup>

The RAB decreased by 0.3 per cent over the year, as revenue marginally exceeded the sum of operating costs, capital expenditure and return on the RAB. This is the first time the RAB has decreased since the beginning of the HVAU in 2011.

The return on the opening RAB and capital expenditure was based on a nominal pre-tax RoR of 7.91 per cent per annum, as set in the June 2017 variation of the HVAU.

The ACCC's Final Determination is that ARTC has undertaken the roll-forward of the RAB for Zone 3 correctly, after taking into account the proposed rebate of \$3.5 million, resulting in a closing value of \$782.8 million.

<sup>50</sup> ARTC, *Hunter Valley Coal Network Access Undertaking – 2017 Compliance Assessment Submission (Public version)*, p. 15, and ARTC response to ACCC request for information, Q.1 'Loss capitalisation', 24 July 2020.

<sup>51</sup> ARTC confidential model 'Ceiling Test Model.xlsx', provided 24 July 2020.

### 6.3. Loss capitalisation balance for Zone 3

The 'loss capitalisation balance' is the difference between the RAB and the RAB Floor Limit for Zone 3. This balance can be viewed broadly as the accumulated sum of ARTC's operating losses and return on capital invested.

The ACCC has determined that the closing RAB value is \$782.8 million, and the closing RAB Floor Limit is \$719.2 million, as shown in Table 10.

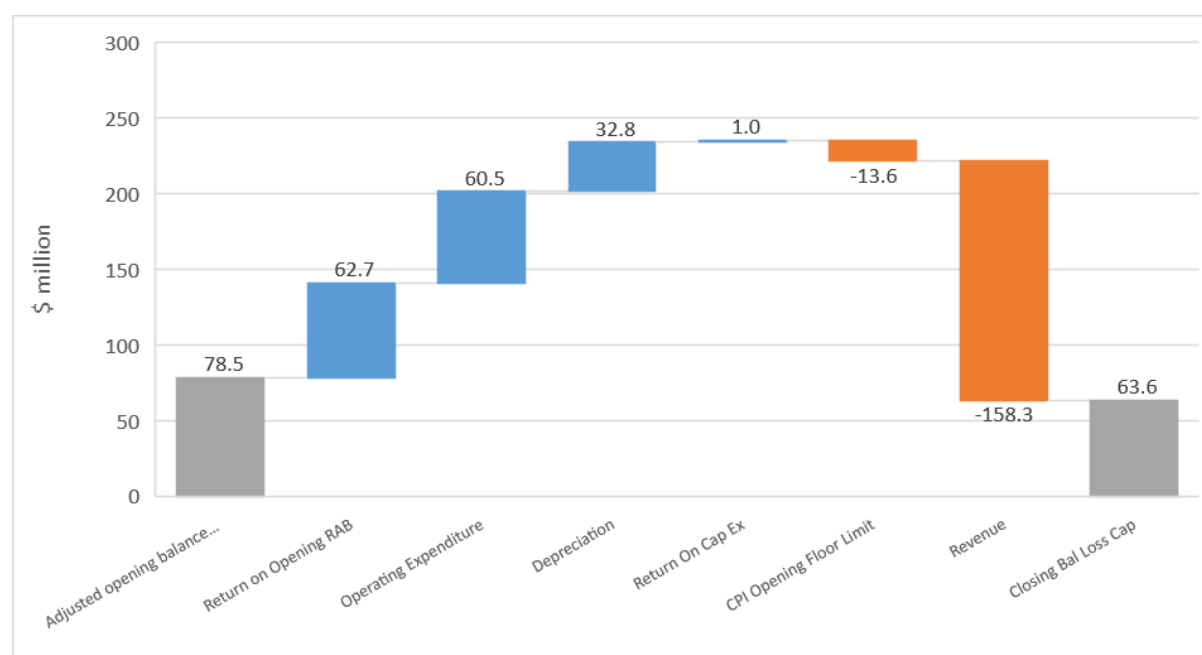
**Table 10: Comparison of RAB and RAB Floor Limit for Zone 3, 2017 (\$)**

	ARTC Submission	ACCC Final Determination
<b>Closing RAB</b>	782,798,363	782,798,363
<b>Closing RAB Floor Limit</b>	719,236,740	719,236,740
<b>Difference (RAB minus RAB FL)</b>	63,561,623	63,561,623

As the RAB exceeds the RAB Floor Limit by \$63.6 million, loss capitalisation still applies, and ARTC is not required to reconcile access revenue with the applicable Ceiling Limit for Pricing Zone 3.

The components making up the change in the loss capitalisation balance over 2017 are shown in Figure 16.

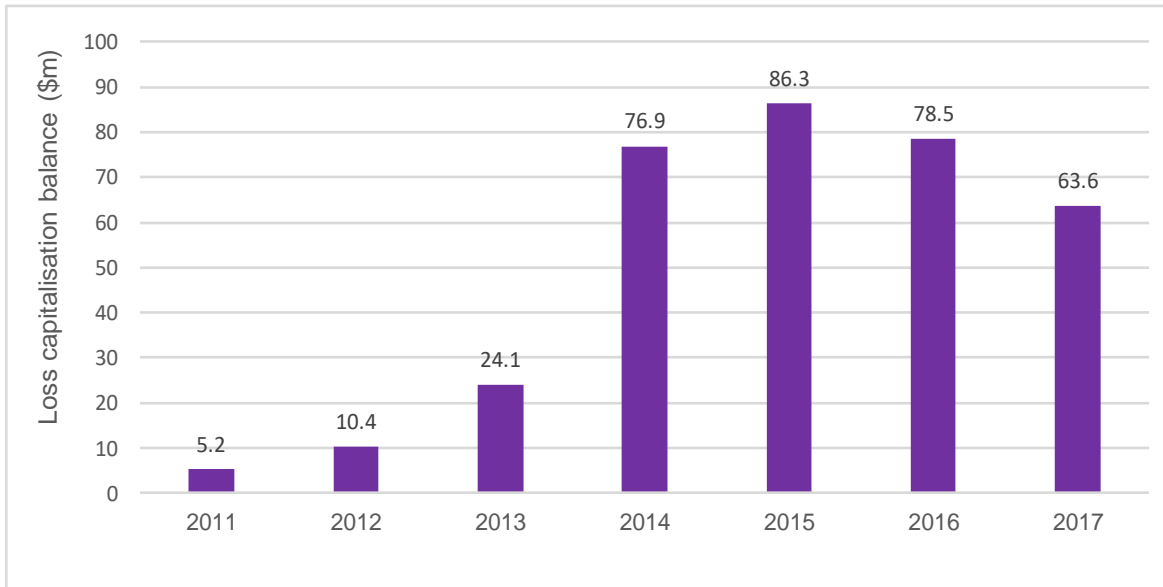
**Figure 16: Loss capitalisation components for Zone 3, 2017 (\$ million)**



The opening balance includes the \$7.4 million added as a result of the backdating adjustment for 2016 outlined above.

Figure 17 illustrates the changes in Zone 3's loss capitalisation balance since 2011.

**Figure 17: Loss Capitalisation balance, Zone 3, 2011-2017 (\$ million)**



The loss capitalisation balance increased each year from 2011 to 2015, but declined in 2016 and 2017.

The ACCC's Final Determination is that ARTC's loss capitalisation balance for Zone 3, after taking into account the proposed rebate of \$3.5 million, is \$63.6 million.

## 7. True-Up Test audit

The HVAU incorporates liability arrangements in the Indicative Access Holder Agreement (IAHA) that provide for the payment of rebates to users where ARTC fails to deliver contracted path capacity. The payment of these rebates occurs following the completion of an annual reconciliation process, which is informed by the True-Up Test (TUT).

The TUT determines whether there was sufficient capacity available on ARTC's 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.

Section 4.10(f) of the HVAU requires an independent audit of ARTC's compliance with the TUT, to ensure the integrity of the test and avoid potential conflicts of interest.

### 7.1. ARTC's compliance submission

RSM Australia (RSM) has audited ARTC's TUT obligations under Schedule 2 of the IAHA, annexed to the HVAU.

RSM's audit report concluded that ARTC had complied, in all material respects, with the TUT obligations for 2017.<sup>52</sup> ARTC therefore submitted that, based on the audit report, it is not liable for any rebates under the TUT for 2017 due to a System Availability Shortfall.

RSM identified two low-risk compliance issues with respect to the timeframe for publishing TUT reports and a discrepancy noted in the calculation of system losses. In its submission ARTC responds to RSM's audit findings and does not propose to re-publish updated results of the TUT to account for non-material issues.

In particular, RSM found that:

- *the monthly TUT reports for February, March, April and July 2017 and the quarterly TUT report for March 2017 were not published on ARTC's website within three weeks of the end of the TUT period, as required by Clause 2.7(a), Schedule 2 of the AHAs and;*
- *The incorrect percentage loss rate was applied for the Discrepancy in percentage loss rate applied for the calculation of forecasted system losses. RSM re-calculated the "Lesser of actual v forecast system losses – other parties" values for each TUT report in each Pricing Zone using a forecast loss rate of 6.2 per cent and confirmed that the updated figures would not result in a System Availability Shortfall within the audit period. ARTC had a calculation of 6.4 per cent, where RSM calculated 6.2 per cent.<sup>53</sup>*

Despite the two discrepancies mentioned above RSM found that:

*In aggregate, the compliance matters noted above are not deemed material in amount (quantitatively) and nature (qualitatively), and therefore we have not modified our reasonable assurance conclusion.<sup>54</sup>*

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<sup>52</sup> RSM Australia, Australian Rail Track Corporation – Hunter Valley Access Undertaking – System Wide True Up Test Audit – Reasonable Assurance Engagement Report, April 2018, p. 6.

<sup>53</sup> RSM Australia, Australian Rail Track Corporation – Hunter Valley Access Undertaking – System Wide True Up Test Audit – Reasonable Assurance Engagement Report, April 2018, p. 6.

<sup>54</sup> RSM Australia, Australian Rail Track Corporation – Hunter Valley Access Undertaking – System Wide True Up Test Audit – Reasonable Assurance Engagement Report, April 2018, p. 6.

RSM's Final Audit Report concludes that:

*In our opinion, the Australian Rail Track Corporation Limited has complied, in all material respects, to the Hunter Valley Access Undertaking in relation to its obligations under Schedule 2 of the Access Holder Agreements for the 2017 True Up Tests.*<sup>55</sup>

No stakeholders commented on the outcome of the True-Up Test.

## **7.2. ACCC's Determination**

The ACCC's Final Determination is that ARTC has fulfilled its obligations relating to the TUT set out in the HVAU and, on the basis of the TUT conducted by RSM, ARTC is not liable for any rebates for 2017.

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<sup>55</sup> RSM Australia, *Australian Rail Track Corporation – Hunter Valley Access Undertaking – System Wide True Up Test Audit – Reasonable Assurance Engagement Report*, April 2018, p. 10.

## Abbreviations, acronyms and definitions

ACCC	Australian Competition and Consumer Commission
Access Holder	An Applicant who has been granted Access Rights to the Network
ARTC	Australian Rail Track Corporation
Capitalised losses	In relation to Pricing Zone 3, the extent to which the RAB exceeds the RAB Floor Limit for Segments in Pricing Zone 3
CCA	Competition and Consumer Act 2010
Ceiling Limit	Has the meaning given in section 4.3(a) of the HVAU
Compliance Period	The relevant calendar year under assessment
Constrained Coal Customer	An Access Holder: (a) who holds Coal Access Rights under a current Access Agreement with ARTC; and (b) who paid Charges to ARTC, in addition to Charges for their Floor Contribution, for access to the relevant Constrained Network and such Charges formed part of the annual coal Access revenue for the Constrained Group of Mines; and, to avoid doubt, an Access Holder for a Train Path that does not originate in the Network, or terminates outside the Network, cannot be a Constrained Coal Customer
Constrained Group of Mines	The group of mines and unloading points that are serviced by Coal Trains where the operation of those Coal Trains: (a) for the PZ1/2 Constrained Network, is entirely within Pricing Zones 1 and 2; and (b) for the PZ3 Constrained Network, originates in Pricing Zone 3 even if the unloading point is outside that Pricing Zone, and where Access revenue on those Segments forming the Constrained Network is: (c) closest to if less than; or (d) exceeds by the largest amount, the Economic Cost for that Constrained Network
Constrained Network	The Zone 1/2 Constrained Network or Zone 3 Constrained Network as applicable
Economic Cost	The cost described in section 4.5 of the HVAU
GTK	Gross tonnes multiplied by kilometres
2017 H1	1 January 2017 and 30 June 2017
2016 H2	1 July 2016 and 31 December 2016
Hunter Valley network	The standard gauge below-rail network subject to the HVAU
HVAU	Hunter Valley Coal Access Undertaking
HVCCC	Hunter Valley Coal Chain Coordinator

HVCN	Hunter Valley Coal Network
IAHA	Indicative Access Holder Agreement, which means the access holder agreement at Annexure A of the HVAU
RAB	Regulatory Asset Base
RCG	Rail Capacity Group
RML	Remaining mine life
RoR	Rate of Return
Train KM	Train kilometres
TUT	True-Up Test
Zone	Pricing Zone, which means a grouping of Segments as prescribed in Schedule E and a reference to Pricing Zone 1, Pricing Zone 2 or Pricing Zone 3 is a reference to the group of Segments prescribed to that Pricing Zone in Schedule E (of the HVAU)
Zone 1	Pricing Zone 1
Zone 2	Pricing Zone 2
Zone 3	Pricing Zone 3



## Appendix A: Annual compliance assessment provisions in the HVAU

The provisions applying to the 2017 annual compliance are set out in the HVAU as varied and extended on 23 November 2016, and as varied in two subsequent variations.<sup>56</sup> The variation accepted on 29 June 2017 amended the rate of return (s.4.8) and remaining mine life (s.4.7), backdated to apply from 1 July 2016. Further, the variation accepted 29 November 2018 amended s.4.10 to provide that the ARTC must submit the documentation for the 2016 and 2017 Compliance Assessments by 4 months after the ACCC's final determination of the previous year's Compliance Assessment.

Section 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 section 14 of the HVAU).

- a) ARTC will submit to the ACCC by the relevant date (for the 2017 Compliance Assessment, this is 4 months after the ACCC's final determination of the previous year's Compliance Assessment) 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;

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<sup>56</sup> The successive variations of the HVAU can be found at <https://www.accc.gov.au/public-registers/access-to-services-registers/s44zcc2-register>

- 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 section 4.5(b) only including Efficient costs and Efficient operating expenditure determined in accordance with section 4.5(b).

Section 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.

The definition of "Efficient" in section 4.11 of the HVAU is as follows:

*...in respect to costs and operating expenditure, 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:*

- a) *to the Hunter Valley Coal Chain where a key objective in maintenance planning is to maximise coal chain throughout and reliability;*
- b) *ARTC's obligations to maintain the Network having regard to the terms of applicable Access Agreements and Access Holder Agreements existing at the time; and*
- c) *ARTC's obligations under the law, applicable legislation (including regulations) or the NSW Lease.*