

**1 JULY TO DECEMBER 31 2011
SUBMISSION**

to

**AUSTRALIAN COMPETITION & CONSUMER
COMMISSION**

in respect of

HUNTER VALLEY ACCESS UNDERTAKING

**ROLL FORWARD ASSET BASE
CEILING TEST
UNDERS AND OVERS ACCOUNT**



CONTENTS

1.	INTRODUCTION & BACKGROUND.....	4
1.1.	2011 HUNTER VALLEY COAL NETWORK ACCESS UNDERTAKING REQUIREMENTS.....	4
1.2.	SECOND HALF 2011 COMPLIANCE ASSESSMENT.....	5
1.3.	FORM OF THIS SUBMISSION	6
2.	RAB ROLL FORWARD.....	8
2.1.	COMPONENT CALCULATION	8
2.2.	COMPONENT VALUES	9
2.2.1.	Initial RAB (RAB_{t-1} start)	9
2.2.2.	Rate of Return (RoR).....	10
2.2.3.	Revenue [Out-turn Revenue $_{t-1}$].....	11
2.2.4.	Operating Expenditure [Out-turn Opex $_{t-1}$].....	11
2.2.5.	Net Capital Expenditure [Net Capex $_{t-1}$].....	11
2.3.	OUTCOME AND CLOSING VALUES	12
3.	RAB FLOOR LIMIT ROLL FORWARD	13
3.1.	COMPONENT CALCULATION	13
3.2.	COMPONENT VALUES	14
3.2.1.	RAB Floor Limit Opening Value [$RAB\ Floor\ Limit_{t-1}$ start].....	14
3.2.2.	Consumer Price Index [CPI_{t-1}].....	14
3.2.3.	Net Capital Expenditure [Net Capex $_{t-1}$]	14
3.2.4.	Depreciation [$Depreciation_{t-1}$].....	15
3.3.	OUTCOME AND CLOSING VALUES	16
3.4.	PRICING ZONE 3 RAB AND RAB FLOOR LIMIT COMPARISON.....	16
4.	CAPITAL EXPENDITURE	18
5.	DISPOSALS.....	19
6.	CONTACT DETAILS - STAKEHOLDERS.....	20
7.	CEILING TEST.....	21
7.1.	COMPLIANCE SCOPE.....	21
7.2.	ACCESS REVENUE	23
7.3.	FULL ECONOMIC COST	24
7.3.1.	Maintenance costs.....	24
7.3.2.	Network Control.....	24
7.3.3.	Corporate Overheads.....	25
8.	UNDERS & OVERS ACCOUNTING	26
8.1.	1 JULY TO 31 DECEMBER 2011 UNDERS & OVERS BALANCE	26
8.2.	OPERATION OF THE UNDERS AND OVERS ACCOUNT	27
9.	PRICING ZONE 3 - INTERIM INDICATIVE ACCESS CHARGES	28
10.	SYSTEM WIDE TRUE UP TEST AUDIT.....	29
11.	CONTACT DETAILS (ARTC).....	30
	APPENDIX A - HVAU SCHEDULE E	31
	APPENDIX B - 1 JULY TO 31 DECEMBER 2011 CAPITAL EXPENDITURE INCLUDED IN THE RAB/RAB FLOOR LIMIT.....	32
	APPENDIX C - 1 JULY TO 31 DECEMBER 2011 DISPOSALS.....	33

APPENDIX D - 1 JULY TO 31 DECEMBER 2011 RAB FLOOR LIMIT ROLL FORWARD SUMMARY	34
APPENDIX F - INTEREST DURING CONSTRUCTION - 1 JULY TO 31 DECEMBER 2011.....	37
APPENDIX G - ASSET VALUATION ROLL FORWARD DARTBROOK TO THE GAP	39
APPENDIX H - DISPOSALS - PREVIOUS ASSET DISPOSALS RECOGNISED FOR FIRST TIME IN 1 JULY TO 31 DECEMBER 2011	42
APPENDIX I - STAKEHOLDER LISTING	45
APPENDIX J - PREVIOUS CAPITAL EXPENDITURE RECOGNISED FOR FIRST TIME 1 JULY 2011 - 31 DECEMBER 2011	45

1.Introduction & Background

Terms used in this submission are as per the 2011 Hunter Valley Coal Network Access Undertaking (“2011 HVAU”) unless otherwise obvious from the context.

1.1.2011 Hunter Valley Coal Network Access Undertaking requirements

In accordance with the 2011 HVAU, ARTC must submit to the Australian Competition and Consumer Commission (“ACCC”) each calendar year¹:

- documentation detailing roll-forward of the RAB (with respect to Pricing Zone 3) and the RAB Floor Limit, and comparisons between RAB and RAB Floor Limit with respect to Pricing Zone 3;
- documentation detailing calculations relevant to reconciliation of Access revenue with the applicable Ceiling Limit and any allocation of the total unders and overs amount including in Pricing Zone 3, where RAB is at or below RAB Floor Limit; and
- a copy of the Final Audit Report.

Documentation requirements are set out in detail at Schedule G of the 2011 HVAU.

The purpose of this submission is to demonstrate ARTC’s compliance with the requirements of Section 4.10 of the 2011 HVAU. This submission is intended by ARTC to meet the information requirements detailed in clause 2 of Schedule G of the 2011 HVAU provided at Attachment 1.

Under Section 4.10 of the 2011 HVAU, the ACCC is required to determine whether ARTC has undertaken:

- roll-forward of the RAB and RAB Floor Limit in accordance with the 2011 HVAU and, where the roll forward is not in accordance with the 2011 HVAU, determine what closing RAB or RAB Floor Limit would be in accordance with the 2011 HVAU;
- 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 2011 HVAU, and where the calculations are not in accordance with the 2011 HVAU, determine what total unders and overs amount or allocation would be in accordance with the 2011 HVAU having regard to the operation of its unders and overs account;

In determining whether ARTC has undertaken roll-forward of the RAB and RAB Floor Limit in accordance with the 2011 HVAU, 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 of the 2011 HVAU, the ACCC will not consider whether that Capital Expenditure is Prudent.

¹ Section 4.10 of the 2011 HVAU

The ACCC will publish its findings on its website and/or circulate to Access Holders in relation to the matters for its determination.

ARTC will revise the closing RAB and manage Constrained Coal Customer Accounts in accordance with any determination by the ACCC.

The ACCC will determine whether ARTC has incurred Efficient costs and Efficient operating expenditure in accordance with Section 4.5(b) of the 2011 HVAU, and determine the change (if any) to the total unders and overs amount or allocation and the closing RAB that results from Economic Cost only including Efficient costs and Efficient operating expenditure.

The ACCC will review the Final Audit Report and will decide, and will notify ARTC of, any amounts of underpayment of rebates that are owing to Access Holders or amounts of overpayment of rebates ARTC is entitled to recover.

1.2. Second half 2011 compliance assessment

The 2011 HVAU commenced on 1 July 2011. Before this date, the Network was covered by the NSW Rail Access Undertaking (“NSWRAU”) administered by the NSW Independent Pricing and Regulatory Tribunal (“IPART”). The NSWRAU provided for IPART to undertake an annual compliance assessment similar to that required under the 2011 HVAU but which related to each financial year. IPART finalised its assessment in relation to the 2010-11 financial year on 4 May 2012, resulting in a closing regulatory asset value for relevant assets under the NSWRAU as at 30 June 2011, and closing unders and overs account balances for relevant network users as at 30 June 2011. ARTC intends to bring these unders and overs account balances to zero.

Due to the timing of commencement of the 2011 HVAU, ARTC and the ACCC has agreed that conducting an annual compliance assessment in accordance with the 2011 HVAU for the second half of the 2011 calendar year (1 July 2011 to 31 December 2011) represents an efficient means of managing ARTC’s obligations under the 2011 HVAU during transition from the NSWRAU.

The 2011 HVAU provides for an annual compliance assessment and the design of the Ceiling Limit, unders and overs account, and RAB and RAB Floor Limit roll forward, under the 2011 HVAU is intended to align to a full calendar year. As such, it has been necessary for ARTC and the ACCC to agree minor adjustments to the design of these elements of the HVAU, on a transitional basis to apply to this assessment only, in order for these elements to operate effectively over a half year period. The design of these elements, as agreed between ARTC and the ACCC, is set out at Attachment 2.

Key adjustments to the design of these elements under the 2011 HVAU have been agreed as follows:

- Access revenue and operating expenditure is that arising during the period 1 July 2011 to 31 December 2011 (“Compliance Period”).
- Depreciation is determined for the Compliance Period on a pro-rated basis (50%).
- Assets commissioned during the Compliance Period are ‘deemed’ to have been commissioned at the mid-point of the Compliance Period (1 October 2011) for the purposes of determining depreciation. Financing costs and return are also determined on a consistent basis.
- Return is determined for the Compliance Period on a pro-rated basis (50%).
- CPI is determined for the Compliance Period on a pro-rated basis (50%).
- For those relevant assets not ascribed a regulatory asset value under the NSWRAU as at 30 June 2011, a depreciated optimised replacement cost (“DORC”) valuation for those assets approved by the ACCC is rolled forward from the date of DORC valuation to 30 June 2011 in accordance with the roll-forward methodology prescribed in the NSWRAU in order to determine Initial RAB in relation to these assets.
- Capital Expenditure and disposals is that arising during the Compliance Period.
- Total unders and overs amount is determined by reconciliation of Access revenue arising in the Compliance Period. Allocation of the total unders and overs amount to each relevant Constrained Coal Customer is determined for the Compliance Period.
- The starting balance (as at 1 July 2011) of each Constrained Coal Customer Account will be zero, unless an amount accruing from the 2010-11 compliance assessment under the NSWRAU is agreed by ARTC and the Constrained Coal Customer to act as the relevant starting balance.

1.3. Form of this submission

In order to ensure compliance with the information requirements set out at Schedule G of the 2011 HVAU, ARTC has sought to prepare this submission broadly in line with the prescribed order at clause 2 of Schedule G. Table 1 below sets out the sections in this submission together with the relevant information requirement under Schedule G of the 2011 HVAU.

Table 1 Submission Layout

Section	Title	Relevant requirement at clause 2 of Schedule G of the 2011 HVAU
1	Introduction	
2	RAB Roll Forward <ul style="list-style-type: none"> • Component calculation • Component values • Outcome and closing values • Spreadsheet model (confidential) 	2(b)(i) 2(b)(ii) 2(b)(iii) 2(b)(v)
3	RAB Floor Limit Roll Forward <ul style="list-style-type: none"> • Component calculation • Component values • Outcome and closing values • Spreadsheet model (confidential) • Pricing Zone 3 RAB/RAB Floor Limit comparison 	2(b)(i) 2(b)(ii) 2(b)(iii) 2(b)(v) As required under Section 4.10 (a) of the 2011 HVAU
4	Capital Expenditure <ul style="list-style-type: none"> • RCG endorsement 	2(b)(iv)
5	Disposals <ul style="list-style-type: none"> • RCG endorsement • References • Determining current value 	2(b)(v) 2(b)(v) 2(b)(v)
6	Contact Details (stakeholders) <ul style="list-style-type: none"> • Industry stakeholders 	2(b)(vii)
7	Ceiling Test <ul style="list-style-type: none"> • Access revenue • Full Economic Cost by item • Total unders & overs amount • 2010-11 comparison • Assumptions & methodology • Spreadsheet model (confidential) • Access Holder endorsement 	2(c)(i)(A) 2(c)(i)(B) 2(c)(i)(C) 2(c)(i)(D) 2(c)(ii) 2(c)(iii) 2(c)(iv)
8	Unders & Overs Allocation <ul style="list-style-type: none"> • Assumptions & methodology • Unders & overs allocation (confidential) • Spreadsheet model (confidential) 	2(c)(ii) 2(c)(i)(C) 2(c)(iii)
9	Pricing Zone 3 Interim Indicative Access Charge <ul style="list-style-type: none"> • 2011 Interim Indicative Access Charge • 2010-11 prices 	2(d) 2(d)
10	System wide true up test audit <ul style="list-style-type: none"> • Final Audit Report 	2(e)
11	Contact Details (ARTC) ARTC authorised person	2(f)

2. RAB Roll Forward

2.1. Component Calculation

Initial RAB

The initial valuation of the Hunter Valley Coal Network was carried out by IPART in 2001. In December 2001, based on IPART's report, the Minister of Transport advised the infrastructure manager at the time, Rail Infrastructure Corporation (RIC), of the opening asset values to be used effective from 1 July 1999². As part of annual compliance reviews conducted by IPART in accordance with the NSWRAU between 2000 and 2004, the 1999 opening values were rolled forward to determine the closing values for 2003-04, ahead of ARTC's commencement of its lease of the Hunter Valley Coal Network in 2004-05.

Since that time, asset values have been rolled forward as part of subsequent annual compliance assessments conducted by IPART in accordance with the NSWRAU to ultimately determine closing asset values as at 30 June 2011 as described earlier in this submission.

Upon commencement of the 2011 HVAU, Section 4.4(a)(i) provides for applicable parts of the regulatory asset base to be ascribed a regulatory asset value in accordance with the NSW Rail Access Undertaking in force at the time immediately preceding the commencement date. These values have been set in accordance with the NSW Rail Access Undertaking as at the commencement date of the 2011 HVAU (1 July 2011). For those assets not ascribed a value for regulatory purposes under the NSWRAU, a valuation determined using the depreciated optimised replacement cost (DORC) methodology has been either approved by the ACCC as part of the 2011 HVAU or has been proposed for approval by the ACCC as part of this submission. Where the valuation date for these assets is earlier than the 1 July 2011, the approved asset values are rolled forward to the 1 July 2011 in accordance with the asset valuation roll forward principles under the NSWRAU to determine an Initial RAB under the 2011 HVAU, as agreed with the ACCC (refer section 1.2).

RAB Roll Forward Calculation

For Segments forming part of Pricing Zone 3 in Schedule E of the 2011 HVAU, RAB will be rolled forward annually according to the following methodology:

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

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

where:

² http://www.railcorp.info/_data/assets/file/0015/672/Correspondence_from_Minister_to_RAC.pdf

RAB_t start:	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} end:	the RAB at the end of the preceding calendar year (t-1).
RAB_{t-1} start:	the RAB at the start of the preceding calendar year (t-1).
RoR:	the nominal pre tax Rate of Return.
Out-turn Revenue $_{t-1}$:	the total Access revenue earned by ARTC in the preceding calendar year (t-1) but will not include: <ul style="list-style-type: none"> (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 $_{t-1}$:	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 $_{t-1}$:	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 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.

2.2. Component Values

2.2.1. Initial RAB (RAB_{t-1} start)

The Initial RAB is based on the closing value of the relevant 2010/11 values approved by IPART, or as determined through separate roll forward of asset values approved by the ACCC.

IPART has made a determination in relation to ARTC's compliance with the asset valuation roll forward principles under the NSWRAU and has determined

the closing asset values for assets ascribed a regulatory asset value under the NSWRAU as at 30 June 2011 as shown in Table 2:

Table 2 Relevant asset values for assets ascribed a regulatory asset value under the NSWRAU as at 30 June 2011 (\$ nominal)

	2010/11
Constrained Network assets	\$844,600,015
All assets covered under the 2011 HVAU	\$856,656,124

For assets not ascribed a regulatory asset value under the NSWRAU as follows, the following is proposed:

- For Leased Port Waratah Coal Loop Assets, ARTC has proposed a DORC value for ACCC approval as part of this submission 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. Refer supporting documentation at Attachment 3. The Initial RAB for the Leased Port Waratah Coal Loop Assets is \$1,388,683.
- For Dartbrook to Gap, the ACCC has approved a DORC value as part of the 2011 HVAU as at 1 July 2008, which is rolled forward in accordance with the asset valuation roll forward principles under the NSWRAU to 1 July 2011, as shown at Appendix G. The Initial RAB for Dartbrook to Gap is \$161,141,627.

The above treatments are as agreed with the ACCC (refer section 1.2).

Combined, these form the Initial RAB as defined in the 2011 HVAU. Refer to Appendix E for summary of RAB Values by Segment.

Those segments that form Pricing Zone 3 have a roll forward value of \$168,741,755.

2.2.2. Rate of Return (RoR)

In accordance with Section 4.4(a) of the 2011 HVAU, a nominal pre-tax rate of return is applied to the RAB. As prescribed in clause 4.8, this rate is 11.83%. For the half year 1 July to 31 December 2011 compliance assessment, it is applied at half this rate 5.915%, as agreed with the ACCC (refer section 1.2).

New assets commissioned during the Compliance Period have a deemed commissioning date of 1 October 2011, as agreed with the ACCC (refer section 1.2). The rate of return for these assets has been applied at 50% of 5.915%.

Return determined in Pricing Zone 3 for the RAB is \$10,557,489. This consists of the return earned on existing assets [$\text{RoR} \times \text{RAB}_{t-1} \text{ start}$], \$9,981,075 with a further \$576,414 on assets commissioned during the compliance period [$\text{Net Capex}_{t-1} \times (1 + 0.5 \times \text{RoR})$].

2.2.3. Revenue [Out-turn Revenue_{t-1}]

For the period of assessment 1 July to 31 December 2011 the Out-turn revenue is \$11,107,743.

2.2.4. Operating Expenditure [Out-turn Opex_{t-1}]

Operating expenditure in Pricing Zone 3 for the Compliance Period is \$5,107,112. This expenditure is made up of the following:

- Variable Track Maintenance \$1,245,771
- Fixed Track Maintenance \$1,920,034
- Asset Management Overheads \$ 796,677
- Network Control \$ 280,611
- Corporate Overheads \$ 864,019

2.2.5. Net Capital Expenditure [Net Capex_{t-1}]

Net Capital expenditure in Pricing Zone 3 for the Compliance Period amounts to \$19,489,902.

Major capital expenditure of \$17,184,394 was attributed to the RAB with an additional \$2,829,546 in Minor Capital also added to the RAB during the Compliance Period.

Interest during construction of \$1,115,005 has been included in the cost of major capital for Pricing Zone 3.

Disposals for the Compliance Period amount to \$524,038.

Refer to Section 4 for details of Major and Minor Capital commissioned during the Compliance Period.

2.3.Outcome and Closing Values

Applying the roll forward formula as ascribed at Section 4.4(a) of the 2011 HVAU and the relevant values for the Compliance Period, the closing values for the RAB in Pricing Zone 3 (unconstrained network) can be determined.

The results are summarised in Table 3 below.

Table 3 Pricing Zone 3 RAB roll forward

Value		Unconstrained	Constrained
Opening RAB	<i>RAB t-1 start</i>	168,741,755	-
Return On Opening RAB	<i>RoR x RABt-1 start</i>	9,981,075	-
Less Revenue	<i>Out-turn Revenue t-1</i>	-11,107,743	-
Plus Opex	<i>Out-turn Opex t-1</i>	5,107,112	-
Plus Net Capex	<i>Net Capex t-1</i>	19,489,902	-
Plus Return On Capex	<i>Net Capex t-1 x (1 + 0.5 x RoR)</i>	576,414	-
Closing RAB	<i>RAB t-1 end</i>	192,788,515	-

Appendix E presents the opening, average and closing RAB values for each Segment in Pricing Zone 3.

An electronic copy of the spread sheet underpinning the calculations for the roll forward of the RAB in Pricing Zone 3 is provided to ACCC on a confidential basis as part of this submission.

It is ARTC's view that the roll forward of the RAB has been calculated in accordance with Section 4.4(a) of the 2011 HVAU.

3.RAB Floor Limit Roll Forward

3.1.Component Calculation

In accordance with Section 4.4(b) of the 2011 HVAU, the RAB Floor Limit for a Segment or group of Segments will be:

- (i) as at the Commencement Date, the Initial RAB;
- (ii) rolled forward annually according to the following methodology

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

where:

RAB Floor Limit _t start:	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:	the RAB Floor Limit at the end of the preceding calendar year (t-1).
RAB Floor Limit _{t-1} start:	the RAB Floor Limit at the start of the preceding calendar year (t-1).
CPI _{t-1} :	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} :	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} :	Depreciation applicable to the RAB Floor Limit in the preceding calendar year (t-1).

3.2.Component Values

3.2.1. RAB Floor Limit Opening Value [RAB Floor Limit_{t-1} start]

As prescribed at clause 4.4 (a) of 2011 HVAU RAB Floor Opening Value is equal to the Initial RAB. Determination of the Initial RAB has been described in section 2.1 of this submission. Initial RAB values are provided at section 2.2.1 of this submission.

3.2.2. Consumer Price Index [CPI_{t-1}]

In accordance with clause 4.4(b) of the 2011 HVAU, CPI has been calculated to be 3.65%. The rate has been determined based on the variation in CPI from September 2010 (All Sydney) of 172.5 and September 2011 (All Sydney) of 178.8³.

For the Compliance Period CPI has been applied at 50% (1.825%) as agreed with the ACCC (refer section 1.2) to the RAB Floor Limit Opening Value increasing the RAB Floor Limit by \$18,611,231.

3.2.3. Net Capital Expenditure [Net Capex_{t-1}]

Major and minor capital additions for the compliance period have added a net value (including interest during construction) of \$62,623,603 to the RAB Floor Limit.

Major capital additions total \$55,635,967 including interest during construction of \$2,886,227.91 (as per Table 4 below) and minor capital of \$6,987,636 has been included.

Disposals amount to \$1,412,613. Appendix C provides a listing of disposals.

As agreed with the ACCC (refer section 1.2) capital additions commissioned during the Compliance Period are 'deemed' to have been commissioned at the mid-point of the Compliance Period (1 October 2011) for the purposes of determining Depreciation. Financing costs and return are also determined on a consistent basis.

³ CPI numbers have been sourced from the Australian Bureau of Statistics website - <http://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/6401.0Main%20Features5Sep%202011?opendocument&tabname=Summary&prodno=6401.0&issue=Sep%202011&num=&view=>

Table 4

Project Name	Interest During Construction
Bengalla Loop	\$1,224,149.18
Wilpinjong Loop	\$547,073.98
Koolbury Loop	\$1,115,004.75
Total Interest During Construction H2 2011	\$2,886,227.91

Refer to Section 4 of this document for supporting data and Appendix B for a detailed list of the capital additions by Segment.

3.2.4. Depreciation [$\text{Depreciation}_{t-1}$]

Section 4.7 of the 2011 HVAU provides that depreciation is calculated each year using a straight line methodology with respect to the remaining useful life of the assets. The remaining useful life approved as part of the 2011 HVAU has been determined to be the average remaining mine life of 22 years as at 2010⁴.

Depreciation is charged on the inflation adjusted RAB Floor Limit Opening Value and Net Capital Expenditure incurred during the Compliance Period.

For assets existing as at 1 July 2011 (Initial RAB), Depreciation will be determined for the half year Compliance Period, with CPI pro-rata applied (50%) as agreed with the ACCC (refer Section 1.2).

Assets commissioned during the Compliance Period are 'deemed' to have been commissioned at the mid-point of the Compliance Period (1 October 2011) for the purposes of determining Depreciation as agreed with the ACCC (refer section 1.2).

Total depreciation charged is \$25,421,354, split between \$24,675,835 for Initial RAB assets and \$745,519 for assets commissioned during the Compliance Period.

⁴ ARTC Explanatory Guide 2010 HVAU

<http://www.accc.gov.au/content/item.phtml?itemId=945868&nodeId=448dc2b8312573865544cea706ac4bfd&fn=ARTC%202010%20Hunter%20Valley%20Access%20Undertaking%20Explanatory%20Guide%20-%20Appendix%202.pdf>

3.3.Outcome and Closing Values

Applying the roll forward formula and the relevant values for the half year 1 July to 31 December 2011, the closing values for the ARTC Hunter Valley Coal Network can be determined for the total network and for the constrained network.

The results are summarised in Table 5 below.

Table 5 RAB Floor Limit roll forward

Values	Network	
Opening Value	<i>RAB Floor Limit_{t-1} start</i>	1,019,186,434
CPI	<i>CPI_{t-1}</i>	18,611,231
Cap Ex	<i>Net Capex_{t-1}</i>	62,623,603
Depreciation	<i>Depreciation_{t-1}</i>	-25,421,354
Loss on Disposal		-1,412,613
Closing Value		1,073,587,301

Appendix E presents the opening, average and closing RAB Floor Limit values for each Segment for the 2011 HVAU Compliance Period, clearly specifying which Segments form the Constrained Network.

An electronic copy of the spread sheet underpinning the calculations for the roll forward of the RAB Floor Limit is provided to ACCC on a confidential basis as part of this submission. A summary of the RAB Floor Limit roll forward is shown in Appendix D.

It is ARTC's view that the roll forward of the RAB Floor Limit has been calculated in accordance with the Section 4.4(b) of the 2011 HVAU.

3.4.Pricing Zone 3 RAB and RAB Floor Limit Comparison

Table 6

Values	PZ 3	
Opening Value	<i>RAB Floor Limit_{t-1} start</i>	168,741,755
CPI	<i>CPI_{t-1}</i>	3,081,371
Cap Ex	<i>Net Capex_{t-1}</i>	19,489,902
Depreciation	<i>Depreciation_{t-1}</i>	-4,316,811
Closing Value		186,996,217

Table 3 above shows a closing RAB value for Pricing Zone 3 assets for the Compliance Period of \$192,788,515. Table 6 above shows a closing RAB Floor Limit value for Pricing Zone 3 assets for the Compliance Period \$186,996,217.

This demonstrates that for Pricing Zone 3, RAB is higher than RAB Floor Limit. This confirms that Pricing Zone 3 is an unconstrained part of the Network. In accordance with Section 4.10(a)(ii) ARTC is not required to detail calculations relevant to reconciliation of Access revenue with the applicable Ceiling Limit and calculations of any allocation of the total unders and overs amount.

4. Capital Expenditure

Sections 7 to 11 of the 2011 HVAU set out compliance activities with regard to; initiation of, industry consultation on, and funding of Capital Expenditure in relation to the Network. Specifically, these sections provide a framework for industry endorsement of Capital Expenditure through the Rail Capacity Group (RCG) for inclusion in the RAB. The Capital Consultation Document (Attachment 4) describes ARTC's relevant compliance activities, and industry endorsement, with regard to the half year 1 July 2011 to 31 December 2011 Compliance Period. It should be noted that the RCG was not formally convened during the Compliance Period. Instead, the Rail Infrastructure Group (RIG) which operates to ensure ARTC complies with the consultation requirements under the NSWRAU was continued during the Compliance Period as an interim substitute mechanism for the RCG. Nevertheless, the RIG consisted of similar industry representation and consultation was carried out during the Compliance Period on a basis similar to that contemplated for the RCG under the 2011 HVAU.

Capital Expenditure on new and existing assets to be included in the RAB and RAB Floor Limit for the half year 1 July to 31 December 2011 Compliance Period is set out in Appendix B. This appendix details Capital Expenditure for each project commissioned during the Compliance Period including minor capital, together with the Segment that the Capital Expenditure relates to.

Evidence of Access Seekers endorsement of Capital Expenditure as required under Schedule G of the 2011 HVAU is provided in Attachment 5 (not for publication).

In relation to the historical roll forward of DORC asset values for assets not ascribed a regulatory asset value under the NSWRAU, as described in section 2.2.1 of this submission, evidence of prior year industry endorsement through RIG of Capital Expenditure relevant to the assets is provided at Attachment 6 (not for publication). Appendix J sets out detail of Capital Expenditure included in the historical roll forward.

5. Disposals

Capital works resulted in asset disposals for the Compliance Period amounting to \$1,412,613. In relation to assets ascribed a regulatory asset value under the NSWRAU, ARTC has calculated:

- disposal values, based on the written down RAB values (with reference to the Booz Allen Hamilton DORC database determined under the NSWRAU in 2001); and
- ARTC's net loss on disposal, calculated as the written down RAB value less any recovery on disposal (either through an adjustment to inventory or recovery as scrap sales).

The 'net' loss on disposals is therefore included in the 'cost items' for this submission (as detailed in Table 7 of Section 7.1). An electronic copy of the spread sheet calculating the RAB disposal values and net loss on disposals referenced, where possible, to the Booz Allen DORC database is confidentially provided to the ACCC as part of this submission.

Appendix C provides a summary of the disposals and net loss on disposals for the relevant assets.

In relation to the historical roll forward of DORC asset values for assets not ascribed a regulatory asset value under the NSWRAU, as described in section 2.2.1 of this submission, net loss on disposals has been determined where applicable using asset valuation data supporting the DORC valuation already approved by the ACCC as part of the 2011 HVAU, or the asset valuation data supporting the DORC valuation proposed in the submission. An electronic copy of the spreadsheet calculating the RAB disposal values and net loss on disposals referenced to the relevant asset valuation data is confidentially provided to the ACCC as part of this submission. Appendix H provides a summary of the disposals and net loss on disposals for the relevant assets.

6. Contact Details - Stakeholders

In accordance with Schedule G, Section 2(b)(vii) of the 2011 HVAU, a list of stakeholders has been confidentially provided for use by the ACCC at Appendix I.

The name, address and contact details (including email address) of stakeholders considered by ARTC to be relevant Applicants and Access Holders and other parties consulted regarding compliance matters. This is to include a contact at CEO/Executive level for the purpose of an ACCC letter and a regular operational contact for email notification.

Where a stakeholder identified by ARTC is not a relevant Applicant or Access Holder, ARTC will indicate their relationship with ARTC and/or their interest in ARTC's compliance, for instance: end user, industry advocate, etc.

7.Ceiling Test

7.1.Compliance Scope

The Ceiling Test Model (provided to ACCC as part of this submission on a confidential basis) is used to test Access revenue for mines or a combination of mines against the applicable Ceiling Limit to determine the Constrained Network and Constrained Group of Mines as contemplated under the 2011 HVAU.

The Ceiling Test Model calculates the amount of Access Revenue and the Economic Cost across the Network Segments utilised by mine or a combination of mines. This allows for testing combinations of mines, including those combinations that could potentially fail the Ceiling Test (i.e. where Access revenue for that combination of mines exceeds Economic Cost for the Segments used by that mine or combination of mines).

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

Table 7 below summarises the results of the Ceiling Test Model result for the Constrained Network. A comparison with revenue and costs associated with the constrained network as determined by IPART in relation to 2010-11 has been included. This is intended as a proxy, in the absence of better information, for information required under Schedule G, Section 2(c)(i)(D) of the 2011 HVAU.

CEILING TEST DEC 2011

TABLE 7

		ARTC Total	ARTC Total
		June 2011	December 2011
	<i>millions</i>	Actuals	Actuals
GTKs		Net Tonne billed	GTK
	<i>Export</i>	96.09	10.70
	<i>Domestic</i>	5.28	0.66
	Total	101.37	11.35
Revenue			
	Total Revenue	150.07	95.56
Costs			
	<i>Variable</i>	17.00	9.15
	<i>Fixed</i>	16.69	7.54
	<i>Shared Maintenance</i>	15.78	7.86
	<i>Total Maintenance Costs</i>	49.47	24.55
	<i>Expensed Project Costs</i>	6.66	
	<i>Project Development Costs</i>	0.00	
		0.00	
		1.78	
	<i>Network Control</i>	6.26	3.40
	<i>Corporate Overheads</i>	11.11	5.65
	Total Operating Cost	75.29	33.59
	Depreciation	28.58	21.00
	Net Loss on Disposal	1.80	0.89
	Total Cost	105.67	55.48
	Profit/Loss	44.40	40.08
	Total ROA	65.34	39.32
	Full Economic Costs	171.01	94.79
	Revenue - Costs	-20.93	0.77
	Average Asset Base	816.70	864.08

7.2. Access Revenue

Clause 4.3(a) of 2011 HVAU requires that the Access revenue from any Access Holders or group of Access Holders must not exceed the Economic Cost of those Segments, on a stand alone basis, identified as forming part of Pricing Zone 1 and 2 in Schedule E (refer Appendix A). This is defined in the 2011 HVAU as the Ceiling Limit.

In relation to Pricing Zone 3, 4.3(b) requires that Access revenue from any Access Holder or group of Access Holders must not exceed the Ceiling Limit where the RAB for those Segments is equal to or falls below the RAB Floor Limit for those Segments at the end of the calendar year (t-1).

For the Compliance Period 1 July 2011 to 31 December 2011 Access Holder Agreements under the 2011 HVAU were not in operation. A period and process of transition to Access Holder Agreements was agreed with industry and endorsed by the ACCC as part of finalising the 2011 HVAU. During the Compliance Period, Access revenue was collected from Rail Operators under existing Access Agreements, based on 2011 Interim Indicative Access Charges and other Charges as contemplated under the 2011 HVAU. From 1 February 2012 Access Holders transitioned to executed and operational Access Holder Agreements and subsequent compliance submissions will recognise the Access Holders.

The total Access revenue received and net tonnes transported from each mine within the Hunter Valley Network were obtained from ARTC's billing systems.

Access revenue collected and used as the basis for determining allocations of the total unders and overs amount to Constrained Coal Customer Accounts for the Compliance Period amounts to \$95.56 million.

Coal volumes for the Compliance Period of 56.3 mT (compared to that occurring in the 2010-11 IPART review, based on 50% for a half year comparison, of 50.5mT, supports the increase in Access revenue reported in the Compliance Period. The increase in Access Revenue for the Constrained Group of Mines also reflects the increase in Economic Cost for the Constrained Network as shown in Table 7, as well as a significant reduction in the 'under' arising as part of the IPART review in 2010-11.

7.3.Full Economic Cost

7.3.1.Maintenance costs

Maintenance costs include major periodic maintenance (“MPM”) and reactive corrective routine maintenance (“RCRM”). As in previous years under the NSWRAU actual MPM costs have been used (rather than an ‘average’ level of MPM; an approach that was approved as being acceptable by IPART as part of the 2005-06 compliance review. Both RCRM and MPM costs are reported for each Segment and split between fixed and variable based upon an engineering assessment of the extent to which the activity varies in proportion with volume.

Total variable costs for each Segment are divided by total GTK’s (including non-coal and unconstrained GTKs) to derive a variable cost per GTK for each Segment.

All fixed maintenance costs for each Segment forming part of the Constrained Network is included in the Ceiling Limit in accordance with the 2011 HVAU.

In addition, ‘maintenance overhead’ costs (maintenance expenditure that is not directly identifiable with a Segment and includes management, project staff, office and support staff costs etc.) are allocated to Segments on a GTK basis in the Ceiling Limit in accordance with Section 4.6 of the 2011 HVAU.

A return on inventory is also included in maintenance overheads at 50% of rate of return for the half year Compliance Period.

The overall cost of maintenance work performed by ARTC for the Compliance Period is largely in alignment with the costs incurred during 2010/2011, when considered on a half year basis.

The average unit maintenance cost of \$2.16/’000 GTK for the Constrained Network, represents a real reduction in unit maintenance cost of 2.65%, when compared to \$2.14/000 GTK approved by IPART in the 2010/2011 compliance review having regard to applicable CPI of 3.65%.

7.3.2. Network Control

Network control includes labour and materials associated with the delivery of the following functions:

- train control and signalling
- train planning and programming
- operations and customer management

Network control costs are apportioned to the Hunter Valley on the basis of area of coverage of the train control and signalling function and where this is

not relevant, on a train kilometre basis in accordance with Section 4.6 of the 2011 HVAU.

Network control also includes the terminal management costs associated with the delivery of:

- yard control
- signalling
- incident management

Network control costs for the Compliance Period, \$3.4M, have increased by 6.8% (net of CPI) based on a half year comparison with network control costs approved by IPART in the 2010/2011 compliance review. This aligns to the increased Constrained Network train km (compared to trends on other parts of the ARTC network) used to allocate network control costs.

7.3.3. Corporate Overheads

Corporate overhead includes labour and materials associated with the following functions:

- human resources
- property
- legal
- information technology
- finance
- procurement
- risk and safety
- CEO office

Corporate overheads are allocated to the Hunter Valley Network by train km, on the same basis to that used in 2010/2011 year, and in accordance with Section 4.6 of the 2011 HVAU.

Total overhead costs have increased by only \$0.1M (refer Table 7) over that approved by IPART in the 2010-11 compliance review, based on a half year split of 2010-11 compared to the Compliance Period. This is, despite there being an increase in Constrained Network train km (relative to trends on other parts of the ARTC network) used to allocation overhead costs. This suggest an overall corporate unit costs have reduced in the Compliance Period.

8. Unders & Overs Accounting

8.1. 1 July to 31 December 2011 Unders & Overs Balance

Total Access revenue earned by ARTC from the Constrained Group of Mines was compared to the Economic Cost of the Constrained Network, including the operating costs described in section 7 of this submission Depreciation, net loss on disposal and half of the real Return of 9.10% based on the average RAB Floor Limit for the 1 July to 31 December 2011 Compliance Period, as detailed in Section 2.

The difference between Access revenue for the Constrained Group of Mines and Economic Cost of the Constrained Network (Ceiling Limit) results in a total unders and overs amount for the 1 July to 31 December 2011 Compliance Period as contemplated as Section 4.9 of the 2011 HVAU and as otherwise agreed with the ACCC (refer section 2.1 of this submission), as shown in the Table 8 below.

Table 8

	ARTC TOTAL	
	June 2011	December 2011
	Actuals	Actuals
ARTC Unders/Overs		
<i>Opening Value</i>	1.27	-20.93
<i>Refunds/Payments</i>	-1.27	20.93
<i>Yearly adjustment</i>	-20.93	0.77
<i>Closing Value</i>	-20.93	0.77

The unders and overs amount for 2010-11 reflects IPART's determination with respect to its compliance review in 2010-11 in accordance with the NSWRAU. It is ARTC's intention to bring this amount to zero as at 1 July 2011, by collecting \$20,932,948.79 from relevant rail operators in June 2012.

ARTC's 2011 Interim Indicative Access Charges and other Charges that applied for the 1 July to 31 December 2011 Compliance Period was based on a forecast volume of 55M nett tonnes for constrained export coal and 2.8M nett tonnes for constrained domestic coal for the 2011 calendar year. These forecasts were obtained directly from coal producers and adjusted by ARTC to align to coal chain capacity declared by the Hunter Valley Coal Chain Coordinator (HVCCC) for that period. Actual volumes during Compliance Period were in alignment with the forecast. This is the principal reason for the relatively small magnitude of the over recovery of revenue for the Compliance Period.

It is ARTC's view that the Ceiling Test and determination of the Unders and Overs amount has been carried out on an Efficient cost basis, and in accordance with the Section 4 of the 2011 HVAU. The relatively small over recovery demonstrates the

robustness of the modelling used to determine 2011 Interim Indicative Access Charges and other Charges, and ARTC's control of efficient costs.

8.2. Operation of the Unders and Overs Account

As indicated in section 8.1 of this submission, ARTC is in the process of reconciling the 2010-11 total unders and overs amount and unders and overs account balances with relevant Access Seekers in accordance with the NSWRAU.

As part of this submission ARTC has provided the allocation spreadsheet to the ACCC on a confidential basis that determines allocations of the total unders and overs amount for the 1 July to 31 December 2011 Compliance Period to Constrained Coal Customers in accordance with the requirements set out in clause 4.9(b)(iii).

As Access revenue has been earned during the Compliance Period under Access Agreements with rail operators only, Constrained Coal Customer Accounts have been established for rail operators only for the Compliance Period. As contractual arrangements transition across to Access Holder Agreements held by producers during 2012, ARTC expects that Constrained Coal Customer Accounts will be established for producers in due course.

9.Pricing Zone 3 - Interim Indicative Access Charges

In accordance with Schedule G, Section 2(d), and as RAB for Pricing Zone 3 is greater than the RAB Floor Limit for Pricing Zone 3, ARTC is required to provide Interim Indicative Access Charges for Pricing Zone 3 applicable during the Compliance Period, and for the previous calendar year. This requirement arose in order to enable the ACCC to determine compliance with a section of an earlier version of the 2011 HVAU (Section 4.2(d) of a version submitted to the ACCC on 7 September 2010). This section was not retained in the 2011 HVAU and, as such the provision of information under Section 2(d) of Schedule G of the 2011 HVAU, is no longer relevant to this compliance review.

Nevertheless, ARTC has provided in Table 9 below, 2011 Interim Indicative Access Charges for Pricing Zone 3, applicable during the Compliance Period, and 2010 Interim Indicative Access Charges for Pricing Zone 3 proposed to the ACCC as part of the earlier version of the 2011 HVAU submitted to the ACCC on 7 September 2011 at Table 10 below.

Table 9 - 2011 Pricing Zone 3 Interim Indicative Access Charges

Pricing Zone 3 - 2011			
	Non-TOP \$/kgtkm	TOP \$/kgtkm	
Indicative Service 1	0.769	5.575	25 tonne maximum axle load
			80kph maximum speed (loaded)
			80kph maximum speed (empty)
			72 wagon train length
			section run times as per applicable Hunter Valley standard working timetable

Table 10 - 2010 Pricing Zone 3 Interim Indicative Access Charges (proposed to the ACCC as part of ARTC's submission of an earlier version of the 2011 HVAU on 7 September 2010)

Pricing Zone 3 - 2010			
	Non-TOP \$/kgtkm	TOP \$/kgtkm	
Indicative Service 1	1.563	4.781	25 tonne maximum axle load
			80kph maximum speed (loaded)
			80kph maximum speed (empty)
			72 wagon train length
			section run times as per applicable Hunter Valley standard working timetable

10. System Wide True Up Test Audit

In accordance with clause 4.10(f) ARTC has engaged BDO (SA) Pty. Ltd. (BDO) as auditor for the Annual True Up Test Audit to be conducted under Section 4.10(f) of the 2010 HVAU. BDO prepared an Audit Report with regard to the status of the Annual True Up Test requirement.

An Annual True Up Test was not performed for the period 1 July to 31 July 2011 as there were no operational Access Holder Agreements in place.

BDO reviewed the executed Access Holder Agreements and Operator Sub Agreements confirming that there were no operational agreements in place for the assessment period supporting ARTC's performance with regard to the Annual True Up Test.

The Audit Report was submitted to the ACCC on 30 April 2012. A copy of the report has also been provided at Attachment 7 to this submission for completeness.

11. Contact Details (ARTC)

In relation to this compliance submission, in accordance with Schedule G, Section 2(f), further information in relation to this submission can be arranged through:

Glenn Edwards
Manager Economic Regulation
Telephone: 08 8217 4292
Email: gedwards@artc.com.au

APPENDIX A - HVAU Schedule E

SCHEDULE E - Segments

Pricing Zone	Segment	Description	Length
3	0401	Dartbrook - Werris Creek	114.3
3	0402	Werris Creek - Gap	5.2
1	0915	Islington Jct - Scholey St Jct	0.7
1	0916	Scholey St Jct - Port Waratah	3.0
1	0917	Scholey St Jct - Waratah (Via Coal)	0.9
1	0925	Waratah - Hanbury Jct (Via Coal)	1.7
1	0926	Hanbury Jct - Sandgate (Via Coal)	2.9
1	0927	Hanbury Jct - Kooragang East Jct	2.4
1	0929	Kooragang East Jct - NCIG Jct	0.8
1	0930	NCIG Jct To Kooragang Island	5.9
1	0931	Kooragang East Jct To Sandgate	0.5
1	0936*	Sandgate To Thornton (Via Coal)	11.7
1	0937	Thornton To Maitland (Via Coal)	10.4
1	0944	Telarah To Farley	0.8
1	0946	Maitland To Farley	1.4
1	0947	Farley To Branxton	21.7
1	0948	Branxton To Whittingham	18.4
1	0951	Whittingham To Saxonvale Jct	8.3
1	0952	Saxonvale Jct To Mount Thorley	2.8
1	0955	Whittingham To Camberwell Jct	12.9
1	0956	Camberwell Jct To Glennies Creek	6.9
1	0957	Glennies Creek To Newdell Jct	8.4
1	0958	Newdell Jct To Draytons Jct	9.7
1	0959	Newdell Branch	2.7
1	0961	Draytons Jct To Muswellbrook	16.8
3	0962	Muswellbrook To Dartbrook Jct	7.8
1	0970	Muswellbrook To Bengalla Jct	5.4
2	0971	Bengalla Jct To Anvill Hill	12.8
2	0972	Anvill Hill to Sandy Hollow Junction	22.6
2	0973	Sandy Hollow Jct To Wilpinjong	95.1
2	0974	Wilpinjong To Ulan Colliery Jct	9.7

* Includes Sandgate Flyover (for the purposes of **section 4** Pricing Principles only) which forms part of ARTC Sector 938 Sandgate - Maitland (via Main)

APPENDIX B - 1 July to 31 December 2011 Capital Expenditure included in the RAB/RAB Floor Limit

Sector / Segment #	Line Segment	Activity		Project	Capital Expenditure \$M	Written Down Value \$M	Constrained Network (Yes / No)
973	Sandy Hollow Jct To Wilpinjong	Aerosol (Murrumbidgee) Valley Loop - 370km Phase 6	551860	Major Capital Works Project-551860	0.030		Yes
		Willpinjong Loop - Phase 6	575560	Major Capital Works Project-575560	16.831		Yes
		Interest During Construction			0.547		Yes
		2009/10 Murrumbidgee Maintenance Siding	0973E1	Minor Capital Works Project-0973E1	0.001		Yes
		Axle counter transmission mode replacement	09739	Minor Capital Works Project-09739	0.011		Yes
		Upgrade LX incl signals 395.904km	0973J3	Minor Capital Works Project-0973J3	0.139		Yes
		Replace Axle counter evaluator boards	0973K9	Minor Capital Works Project-0973K9	0.048		Yes
		Retail Kerabee & Wollar (3900m)	0973L5	Minor Capital Works Project-0973L5	0.828		Yes
972	Anall Hill to Sandy Hollow Jct	Radio Hut (Yarrawa) Loop - 319km Phase 6	567760	Major Capital Works Project-567760	-0.001		Yes
		Retail Denman 2 Sites (2900m)	0972J4	Minor Capital Works Project-0972J4	0.576		Yes
970	Muswellbrook To Bengalla Jct	Bengalla Crossing Loop Phase 6	524160	Major Capital Works Project-524160	17.578		Yes
		Interest During Construction			1.224		Yes
		Replace stringers Muscle Ck No. 4 and Hu	0970J3	Minor Capital Works Project-0970J3	0.108		Yes
961	Draytons Jct To Muswellbrook	St Holliers to Muswellbrook Duplication	388401	Major Capital Works Project-388401	0.261		Yes
		Replace 2D cpts Muswellbrook	0961H5	Minor Capital Works Project-0961H5	0.062		Yes
		896 pbs Design and part procurement	0961K1	Minor Capital Works Project-0961K1	0.096		Yes
958	Newdell Jct To Draytons Jct	Newdell Junction Upgrade	346801	Major Capital Works Project-346801	0.032		Yes
948	Branxton To Whittingham	Maitland to Minimbah Third Road - Stage 1 - Phase 6	358560	Major Capital Works Project-358560	1.896		Yes
946	Maitland To Farley	Maitland Junction/CBI	615660	Major Capital Works Project-615660	0.091		Yes
937	Thornton To Maitland (Via Coal)	Maitland Junction/CBI	615660	Major Capital Works Project-615660	0.091		Yes
		Devonshire St footbridge renewal	0937I7	Minor Capital Works Project-0937I7	0.013		Yes
		Cess Drain inc cable relocate Turf Farm	0937I8	Minor Capital Works Project-0937I8	0.006		Yes
		Retail Maitland UC - 2 Sites (4080m)	0937K9	Minor Capital Works Project-0937K9	0.700		Yes
936	Sandgate To Thornton (Via Coal)	Re-instatement of 104 Points Hexham - Phase 5	657450	Major Capital Works Project-657450	-0.029		Yes
		Post Commissioning Costs Sandgate	318406	Major Capital Works Project-318406	-0.098		Yes
		Cess Drain Upgrade DC Sandgate-Thornton	0936J1	Minor Capital Works Project-0936J1	0.002		Yes
964	Murulla To Werri Creek	Braefield Passing Loop 386km Phase 6	568060	Major Capital Works Project-568060	-0.001		No
		Earthing upgrades and surge protection	0964J6	Minor Capital Works Project-0964J6	-0.015		No
		Repair & extend 2x culverts - 343-344km	0964J8	Minor Capital Works Project-0964J8	0.196		No
		Track & Drainage Murrumbidgee-Willow Tree	0964K1	Minor Capital Works Project-0964K1	0.058		No
		Replace 2Fpts & 2Gpts Quirindi	0964K3	Minor Capital Works Project-0964K3	0.002		No
		Retail Murulla-Quirindi 5 Sites (10600m)	0964M2	Minor Capital Works Project-0964M2	1.964		No
963	Darbrook Jct To Murulla	Koolbary Passing Loop 293km Phase 6	524260	Major Capital Works Project-524260	16.043		No
		Interest During Construction			1.115		No
		Parkville Loop Extension 322km Phase 6	567960	Major Capital Works Project-567960	0.028		No
		Install UPS and Bypass Switches	0963I4	Minor Capital Works Project-0963I4	-0.005		No
		Sleeve & extend 5x culvert 298km-321km	0963I7	Minor Capital Works Project-0963I7	0.669		No
		324.737km Parkville Renewal	0963I8	Minor Capital Works Project-0963I8	-0.039		No
957	Glennies Creek To Newdell Jct	Sleeve & extend culvert - 256.429km	0957H4	Minor Capital Works Project-0957H4	0.028		Yes
955	Whittingham To Camberwell Jct	240.011km Renew Up Main approach spans	0955I2	Minor Capital Works Project-0955I2	0.039		Yes
947	Farley To Branxton	Renewal 209.989	0947I3	Minor Capital Works Project-0947I3	0.634		Yes
		Retail Lochmar UM - 3 Sites (5350m)	0947J8	Minor Capital Works Project-0947J8	0.869		Yes
931	Kooragang East Jct To Sandgate	North Fork lower access rd install cause	0931G4	Minor Capital Works Project-0931G4	0.000		Yes
930	NOIG To Kooragang Island	Lamp Upgrades to LED	0930H9	Minor Capital Works Project-0930H9	0.000		Yes
					62.624	0.000	
					42.610	0.000	

APPENDIX C - 1 July to 31 December 2011 Disposals

Sector / Segment #	Line Segment	Activity	PROJECT	2011 H2 RAB Value \$M	Net Loss on Disposal \$M	Constrained Network (Yes / No)
449 / 972	0972	Rerailing	Rerailing	0.129	0.129	Yes
449 / 972	0972	Rerailing	Rerailing	0.129	0.129	Yes
441 / 973	0973	Rerailing	Rerailing	0.204	0.204	Yes
510 / 937	0937	Rerailing	Rerailing	0.155	0.155	Yes
416 / 947	0947	Rerailing	Rerailing	0.109	0.109	Yes
416 / 947	0947	Rerailing	Rerailing	0.050	0.050	Yes
448 / 970	0970	Rerailing	Rerailing	0.043	0.043	Yes
449 / 971	0971	Rerailing	Rerailing	0.048	0.048	Yes
441 / 973	0973	Rerailing	Rerailing	0.007	0.007	Yes
441 / 974	0974	Rerailing	Rerailing	0.015	0.015	Yes
0963L5	0963	Rerailing	Rerailing	0.041	0.041	No
0964M2	0964	Rerailing	Rerailing	0.293	0.293	No
524260	0962	Signalling	Signalling	0.190	0.190	No
			TOTAL NETWORK	1.413	1.413	
			TOTAL CONSTRAINED	0.889	0.889	

APPENDIX D - 1 July to 31 December 2011 RAB Floor Limit roll forward Summary

RAB Floor Limit roll forward

1 July 2011 - 31 December 2011

	Total	Constrained
CPI	1.83%	1.83%
Depreciation 2011 H2	4.7619%	4.7619%
Opening Total RAB Floor Limit (IPART Closing Value)	1,019,186,434	845,988,698
Existing assets as at 1 July 2011		
Gross assets:		
Opening Balance	1,019,186,434	845,988,698
Additions / Deletions - Line Segments	0	0
CPI	18,611,231	15,448,489
Original Balance plus CPI	1,037,797,665	861,437,187
Less Disposals	-1,412,613	-888,575
Adjusted Net Balance	1,036,385,052	860,548,612
Depreciation:		
% of year	50.0%	50.0%
Depreciation CY	-24,675,835	-20,489,253
CPI on Depreciation PY	0	0
Less Disposal Acc Depn	0	0
Accumulated Depreciation	-24,675,835	-20,489,253
Closing Balance	1,011,709,217	840,059,360
New assets 1 July 2011 to 31 December 2011		
Gross assets:		
Opening Balance	62,623,603	42,609,663
Additions / Deletions - Line Segments	0	0
CPI	0	0
Original Balance plus CPI	62,623,603	42,609,663
Less Disposals	0	0
Adjusted Net Balance	62,623,603	42,609,663
Depreciation:		
% of year	50.0%	50.0%
Depreciation CY	-1,491,038	-1,014,516
CPI on Depreciation PY	0	0
Less Disposal Acc Depn	0	0
Accumulated Depreciation	-745,519	-507,258
Closing Balance	61,878,084	42,102,405
Total Closing RAB Floor Limit	1,073,587,301	882,161,764
Average RAB Floor Limit	1,046,386,868	864,075,231

Depreciation	-25,421,354	-20,996,511
RABsys	1,073,587,301	882,161,764
Net CPI Increase	18,611,231	15,448,489

APPENDIX E - 1 July to 31 December 2011 RAB FLOOR LIMIT VALUES BY SEGMENT

DORC Segment Code	Schedule E Code	Description	Constrained 1 July to 31 December 2011	CLOSING 2010-11 RAB Value (\$)	Constrained Jul to Dec 2011	OPENING Jul 2011 RAB and RAB FL Value (\$)	CLOSING Jul to Dec 2011 RAB Value (\$)	Average Jul to Dec 2011 Closing RAB Value (\$)	CLOSING Jul to Dec 2011 RAB FL Value (\$)	Average Jul to Dec 2011 Closing RAB FL Value (\$)
974	974	Wilpinjong To Ulan Colliery Jct	Yes	13,312,653	Yes	13,312,653	0	6,656,327	13,217,941	13,265,297
973	973	Sandy Hollow Jct To Wilpinjong	Yes	120,072,379	Yes	120,072,379	0	60,036,190	137,363,868	128,718,124
972	972	Anvill Hill to Sandy Hollow Jct	Yes	39,326,372	Yes	39,326,372	0	19,663,186	39,407,041	39,366,706
971	971	Bengalla Jct To Anvill Hill	Yes	19,975,300	Yes	19,975,300	0	9,987,650	19,809,126	19,892,213
0	0	Spare	No	0	No	0	0	0	0	0
970	970	Muswellbrook To Bengalla Jct	Yes	6,717,792	Yes	6,717,792	0	3,358,896	25,320,902	16,019,347
961	961	Draytons Jct To Muswellbrook	Yes	100,569,041	Yes	100,569,041	0	50,284,521	100,380,269	100,474,655
958	958	Newdell Jct To Draytons Jct	Yes	28,664,561	Yes	28,664,561	0	14,332,280	28,524,231	28,594,396
957	957	Glennies Creek To Newdell Jct	Yes	12,610,319	Yes	12,610,319	0	6,305,160	12,562,560	12,586,440
956	956	Camberwell Jct To Glennies Creek	Yes	10,748,477	Yes	10,748,477	0	5,374,239	10,684,164	10,716,321
955	955	Whittingham To Camberwell Jct	Yes	29,250,620	Yes	29,250,620	0	14,625,310	29,113,924	29,182,272
948	948	Branxton To Whittingham	Yes	99,098,221	Yes	99,098,221	0	49,549,110	100,378,476	99,738,348
947	947	Farley To Branxton	Yes	165,502,647	Yes	165,502,647	0	82,751,324	165,841,602	165,672,124
946	946	Maitland To Farley	Yes	15,312,494	Yes	15,312,494	0	7,656,247	15,310,902	15,311,698
0	0	Spare	No	0	No	0	0	0	0	0
0	0	Spare	No	0	No	0	0	0	0	0
0	0	Spare	No	0	No	0	0	0	0	0
937	937	Thornton To Maitland (Via Coal)	Yes	32,052,814	Yes	32,052,814	0	16,026,407	32,509,076	32,280,945
936	936	Sandgate To Thornton (Via Coal)	Yes	98,679,916	Yes	98,679,916	0	49,339,958	97,965,973	98,322,944
926	926	Hanbury Jct To Sandgate (Via Coal)	Yes	2,683,194	Yes	2,683,194	0	1,341,597	2,667,140	2,675,167
925	925	Waratah To Hanbury Jct (Via Coal)	Yes	3,979,627	Yes	3,979,627	0	1,989,813	3,955,815	3,967,721
917	917	Scholey St Jct To Waratah (Via Coal)	Yes	2,995,575	Yes	2,995,575	0	1,497,788	2,977,652	2,986,614
0	0	Spare	No	0	No	0	0	0	0	0
0	0	Spare	No	0	No	0	0	0	0	0
0	0	Spare	No	0	No	0	0	0	0	0
0	0	Spare	No	0	No	0	0	0	0	0
0	0	Spare	No	0	No	0	0	0	0	0
915	915	Islington Jct To Scholey St Jct	No	1,668,599	No	1,668,599	0	834,299	1,658,615	1,663,607
916	916	Scholey St Jct To Port Waratah	Yes	11,013,815	Yes	11,013,815	0	5,506,907	10,947,914	10,980,865
0	0	Spare	No	0	No	0	0	0	0	0
931	931	Kooragang East Jct To Sandgate	Yes	800,582	Yes	800,582	0	400,291	795,900	798,241
927	927	Hanbury Jct To Kooragang East Jct	No	1,663,084	No	1,663,084	0	831,542	1,653,133	1,658,109
929	929	Kooragang East Jct To NCIG	Yes	1,596,417	Yes	1,596,417	0	798,208	1,586,865	1,591,641
930	930	NCIG To Kooragang Island	Yes	19,055,228	Yes	19,055,228	0	9,527,614	18,941,398	18,998,313
0	0	Spare	No	0	No	0	0	0	0	0
951	951	Whittingham To Saxonvale Jct	Yes	5,748,383	Yes	5,748,383	0	2,874,191	5,713,988	5,731,185
952	952	Saxonvale Jct To Mount Thorley	Yes	2,190,395	Yes	2,190,395	0	1,095,198	2,177,289	2,183,842
959	959	Newdell Branch	Yes	4,031,875	Yes	4,031,875	0	2,015,937	4,007,750	4,019,813
944	944	Telarah To Farley	No	1,124,299	No	1,124,299	0	562,149	1,117,572	1,120,935
0	0	Spare	No	0	No	0	0	0	0	0
0	0	Spare	No	0	No	0	0	0	0	0
968	968	Boggabri Jct to Turravan Jct	No	0	No	0	0	0	0	0
967	967	Gunnedah Jct to Boggabri Jct	No	0	No	0	0	0	0	0
966	966	The Gap To Gunnedah Jct	No	0	No	0	0	0	0	0
965	965	Werris Creek To The Gap	No	4,903,859	No	4,903,859	5,099,572	5,001,716	4,874,517	4,889,188
964	401	Murulla To Werris Creek	No	97,640,058	No	97,640,058	102,003,231	99,821,645	98,947,072	98,293,565
963	401	Dartbrook Jct To Murulla	No	58,597,710	No	58,597,710	78,323,585	68,460,648	75,805,804	67,201,757
962	962	Muswellbrook To Dartbrook Jct	No	7,600,128	No	7,600,128	7,362,125	7,481,127	7,368,824	7,484,476
0	0	Spare	No	0	No	0	0	0	0	0
TOTAL ARTC				1,019,186,434		1,019,186,434	192,788,515	605,987,474	1,073,587,301	1,046,386,868
Constrained				845,988,698		845,988,698	0	422,994,349	882,161,764	864,075,231

APPENDIX F - Interest During Construction - 1 July to 31 December 2011

<u>Rate of Return - IPART</u>	<u>10.92%</u>				
<u>Rate of Return</u>	<u>11.83%</u>				
	<u>10/11</u>	<u>H2 2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
<u>Bengalla Loop</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
<u>Capital Spend (\$'000)</u>	<u>14,269</u>	<u>3,309</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Year 1</u>	<u>779.1</u>	<u>422.0</u>	-	-	-
<u>Year 2</u>	-	-	-	-	-
<u>Year 3</u>	-	-	-	-	-
<u>Year 4</u>	-	-	-	-	-
<u>Year 5</u>	-	-	-	-	-
<u>Previous Years Interest Capitalisation</u>	-	<u>23.0</u>	-	-	-
<u>Total Capitalised Interest</u>	<u>779.1</u>	<u>445.1</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Commissioning Month/Year</u>	<u>Aug-11</u>				
<u>Proportion of final year for IDC (to 1 October)</u>	<u>0.50</u>				
<u>Interest During Construction</u>	<u>1,224,149</u>				

<u>Rate of Return - IPART</u>	<u>10.92%</u>				
<u>Rate of Return</u>	<u>11.83%</u>				
	<u>10/11</u>	<u>H2 2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
<u>Wilpinjong Loop</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
<u>Capital Spend (\$'000)</u>	<u>6,377</u>	<u>10,454</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Year 1</u>	<u>348.2</u>	<u>188.6</u>	-	-	-
<u>Year 2</u>	-	-	-	-	-
<u>Year 3</u>	-	-	-	-	-
<u>Year 4</u>	-	-	-	-	-
<u>Year 5</u>	-	-	-	-	-
<u>Previous Years Interest Capitalisation</u>	-	<u>10.3</u>	-	-	-
<u>Total Capitalised Interest</u>	<u>348.2</u>	<u>198.9</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Commissioning Month/Year</u>	<u>Oct-11</u>				
<u>Proportion of final year for IDC (to 1 October)</u>	<u>0.50</u>				
<u>Interest During Construction</u>	<u>547,074</u>				

<u>Rate of Return - IPART</u>	<u>10.92%</u>				
<u>Rate of Return</u>	<u>11.83%</u>				
	<u>10/11</u>	<u>H2 2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
<u>Koolbury Loop</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
<u>Capital Spend (\$'000)</u>	<u>12,997</u>	<u>3,046</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Year 1</u>	<u>709.6</u>	<u>384.4</u>	-	-	-
<u>Year 2</u>	-	-	-	-	-
<u>Year 3</u>	-	-	-	-	-
<u>Year 4</u>	-	-	-	-	-
<u>Year 5</u>	-	-	-	-	-
<u>Previous Years Interest Capitalisation</u>	-	<u>21.0</u>	-	-	-
<u>Total Capitalised Interest</u>	<u>709.6</u>	<u>405.4</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>Commissioning Month/Year</u>	<u>Aug-11</u>				
<u>Proportion of final year for IDC (to 1 October)</u>	<u>0.50</u>				
<u>Interest During Construction</u>	<u>1,115,005</u>				

APPENDIX G - Asset valuation roll forward Dartbrook to The Gap

Asset value roll forward - Dartbrook to GAP

RAB Roll Forward 1 July 2011 - 31 December 2011

	Total
CPI	1.83%
Depreciation - '2008/09'	3.2258%
Depreciation - '2009/10'	3.3333%
Depreciation 2010/11	3.4483%
Depreciation 2011 H2	4.7619%
Opening asset value Dartbrook to Gap	147,887,261
Existing assets 2008-09	
Gross assets:	
Opening Balance	147,887,261
Additions / Deletions - Line Segments	0
CPI	3,445,773
Original Balance plus CPI	151,333,034
Less Disposals	0
Adjusted Net Balance	151,333,034
Depreciation:	
% of year	50.0%
Depreciation CY	-4,881,711
CPI on Depreciation PY	-222,308
Less Disposal Acc Depn	0
Accumulated Depreciation	-14,645,132
Closing Balance	136,687,902
New assets 2008-2009	
Gross assets:	
Opening Balance	1,547,513
Additions / Deletions - Line Segments	0
CPI	36,057
Original Balance plus CPI	1,583,570
Less Disposals	0
Adjusted Net Balance	1,583,570
Depreciation:	
% of year	100.0%
Depreciation CY	-51,083
CPI on Depreciation PY	-1,745
Less Disposal Acc Depn	0
Accumulated Depreciation	-127,707
Closing Balance	1,455,862
New assets 2009-2010	

Gross assets:	
Opening Balance	15,538,340
Additions / Deletions - Line Segments	0
CPI	362,043
Original Balance plus CPI	15,900,383
Less Disposals	0
Adjusted Net Balance	15,900,383
Depreciation:	
% of year	100.0%
Depreciation CY	-530,013
CPI on Depreciation PY	-6,034
Less Disposal Acc Depn	0
Accumulated Depreciation	-795,019
Closing Balance	15,105,364

New assets 2010-2011

Gross assets:	
Opening Balance	16,476,901
Additions / Deletions - Line Segments	0
CPI	0
Original Balance plus CPI	16,476,901
Less Disposals	-8,445,938
Adjusted Net Balance	8,030,963
Depreciation:	
% of year	100.0%
Depreciation CY	-276,930
CPI on Depreciation PY	0
Less Disposal Acc Depn	0
Accumulated Depreciation	-138,465
Closing Balance	7,892,498

Existing assets as at 1 July 2011 (Intial RAB)

Gross assets:	
Opening Balance	161,141,627
Additions / Deletions - Line Segments	0
CPI	2,942,586
Original Balance plus CPI	164,084,213
Less Disposals	-333,677
Adjusted Net Balance	163,750,536
Depreciation:	
% of year	50.0%
Depreciation CY	-3,898,822
CPI on Depreciation PY	0
Less Disposal Acc Depn	0
Accumulated Depreciation	-3,898,822
Closing Balance	159,851,714

New assets 1 July 2011 - 31 December 2011

Gross assets:	
Opening Balance	3,943,286

Additions / Deletions - Segments	0
CPI	0
Original Balance plus CPI	3,943,286
Less Disposals	0
Adjusted Net Balance	3,943,286
Depreciation:	
% of year	25.0%
Depreciation CY	-46,944
CPI on Depreciation PY	0
Less Disposal Acc Depn	0
Accumulated Depreciation	-46,944
Closing Balance	3,896,342
Total Closing RAB Floor Limit	163,748,056
Average RAB Floor Limit	162,444,841
Depreciation	-9,685,502
RABsys	163,748,056
Net CPI Increase	2,942,586

APPENDIX H - Disposals - Previous asset disposals recognised for first time in 1 July to 31 December 2011

Previous asset disposals recognised for first time in 1 July 2011 to 31 December 2011

Sector / Segment #	Line Segment	Activity	PROJECT	RAB Value \$M	Net Loss on Disposal \$M	Constrained Network (Yes / No)
2008-09						
963	Dartbrook - Murulla	Replace 3000 rail clips	0963B3	0.005	0.005	No
964	Murulla - Werris Creek	Replace 5333 rail clips	0964A9	0.009	0.009	No
964	Murulla - Werris Creek	Replace 60 tuning units and capacitors	0964A8	0.034	0.034	No
964	Murulla - Werris Creek	Install 1.118kms of Concrete Sleepers	0964B2	0.122	0.122	No
964	Murulla - Werris Creek	Replace 1.512 of 60kgHH rail	0964B3	0.122	0.122	No
2009-10						
963	Dartbrook - Murulla	Replace Tuning Units/Capacitors	0963E5	0.029	0.029	No
963	Dartbrook - Murulla	Replace Turnout Points - 2F pts Scone	0963E4	0.034	0.034	No
963	Dartbrook - Murulla	Replace Turnout points at - 52 pts	0963E1	0.034	0.034	No

964	Murulla - Werris Creek	Install 403 metres of Concrete Sleepers	0964B2	0.382	0.382	No
964	Murulla - Werris Creek	Replace 60 Tuning Units/Capacitors	0964A8	0.034	0.034	No
964	Murulla - Werris Creek	Replace 11kv power supply at Werris Creek	0964E6	0.048	0.048	No
964	Murulla - Werris Creek	Turnout Renewal - various pts and turnouts	0964E2	0.348	0.348	No
964	Murulla - Werris Creek	Replace points at Level Xings	0964E5	0.156	0.156	No
964	Murulla - Werris Creek	Replace 5.5kms of 60kgHH rail	0964E1	0.443	0.443	No
965	Werris Creek - Gap	Replace 893 metres 60kgHH rail	0965E1	0.078	0.078	No
2010-11						
963	Dartbrook - Murulla	Wingen Rerailing - Replace signals	963	0.028	0.028	No
963	Dartbrook - Murulla	Scone Rerailing - Replace signals	963	0.015	0.015	No
963	Dartbrook - Murulla	Replace 2.06kms of Timber Sleepers	0963A2	0.225	0.225	No
963	Dartbrook - Murulla	Replace Parkville underbridge sleepers	0963I8	0.418	0.418	No
963	Dartbrook - Murulla	Replace 1.56kms of 60kgHH rail	0963I9	0.117	0.117	No

964	Murulla - Werris Creek	Replace 11.83kms 60kgHH rail	0964K4	0.921	0.921	No
964	Murulla - Werris Creek	Install 56.5kms of Concrete Sleepers	0964K2	6.127	6.127	No
964	Murulla - Werris Creek	Replace Turnout Points - 2F/2G pts	0964K3	0.067	0.067	No
964	Murulla - Werris Creek	Install 1.95kms of Timber Sleepers	0964A3	0.213	0.213	No
964	Murulla - Werris Creek	Track circuits, points and signals	0964/5680	0.164	0.164	No
964	Murulla - Werris Creek	Points and signals	0964/358304	0.070	0.070	No
965	Werris Creek - Gap	Replace 920 metres of 60kgHH rail	0965G4Install 60kgHH rail	0.080	0.080	No
916	916	Rerailing	Rerailing	0.115	0.115	Yes
			TOTAL NETWORK	10.439	10.439	
			TOTAL CONSTRAINED	0.115	0.115	

APPENDIX I - Stakeholder Listing

Deleted for privacy reasons

APPENDIX J - Previous Capital Expenditure recognised for first time 1 July 2011 - 31 December 2011

Appendix

J: Previous Capital Expenditure recognised for first time 1 July 2011 - 31 December 2011

Sector / Segment #	Line Segment	Activity	Capital Expenditure \$M	Written Down Value \$M	Constrained Network (Yes / No)
2008/09					
963	Dartbrook to Murulla	229 - Track Strengthening / Upgrading	0.041		No
964	Murulla to Werris Creek	170 - Rerailing Upgrading(CAP)	0.578		No
		186 - Turnout Renewal(CAP)	0.304		No
		223 - Resleepering (CAP)	0.466		No
		229 - Track Strengthening / Upgrading(CAP)	0.404		No
		815 - Power Supply Upgrade(CAP)	0.002		No
2009/10					
963	Dartbrook to Murulla	186 - Turnout Renewal(CAP)	0.155		No
		253 - Bridge Replacement or Modification(CAP)	0.025		No
		254 - Culvert Replacement or Modification(CAP)	0.311		No
		262 - Level Crossing Upgrade (Civil)(CAP)	0.032		No
		331 - Redundant Civil Infrast Removal(CAP)	0.069		No
		760 - Track Circuit Replacement(CAP)	0.018		No

964	Murulla to Werris Creek	772 - Signalling System Upgrades(CAP)	0.190	No
		178 - Rerailing (CAP)	2.582	No
		186 - Turnout Renewal(CAP)	0.402	No
		223 - Resleepering (CAP)	11.415	No
		229 - Track Strengthening / Upgrading(CAP)	0.733	No
		262 - Level Crossing Upgrade (Civil)(CAP)	0.144	No
		331 - Redundant Civil Infrast Removal(CAP)	0.054	No
		760 - Track Circuit Replacement(CAP)	0.091	No
		772 - Signalling System Upgrades(CAP)	0.266	No
		815 - Power Supply Upgrade(CAP)	0.066	No
965	Werris Creek to Gap	178 - Rerailing (CAP)	0.406	No
		223 - Resleepering (CAP)	0.163	No
2010/11 963	Dartbrook to Murulla	178 - Rerailing (CAP)	0.474	No
		186 - Turnout Renewal(CAP)	0.000	No
		253 - Bridge Replacement or Modification(CAP)	0.897	No
		254 - Culvert Replacement or Modification(CAP)	0.432	No
		262 - Level Crossing Upgrade (Civil)(CAP)	0.020	No
		760 - Track Circuit Replacement(CAP)	0.052	No
		772 - Signalling System Upgrades(CAP)	0.068	No
		262 - Level Crossing Upgrade (Civil)(CAP)	0.155	No
		815 - Power Supply Upgrade(CAP)	0.136	No
964	Murulla to Werris Creek	178 - Rerailing (CAP)	2.337	No
		186 - Turnout Renewal(CAP)	0.635	No
		223 - Resleepering (CAP)	9.770	No
		229 - Track Strengthening / Upgrading(CAP)	0.828	No
		254 - Culvert Replacement or Modification(CAP)	0.124	No
		262 - Level Crossing Upgrade (Civil)(CAP)	0.050	No
		331 - Redundant Civil Infrast Removal(CAP)	0.089	No
		760 - Track Circuit Replacement(CAP)	0.038	No

965	Werris Creek to Gap	815 - Power Supply Upgrade(CAP)	0.026		No
		178 - Rerailing (CAP)	0.344		No
		223 - Resleepering (CAP)	0.001		No
916	Scholey Street Junction to Port Waratah	Complete and Commission Level crossing	0.026		Yes
		PTW No1 Departure (re-rail)	0.422		Yes
		Total Network	35.843	0.000	
		Total Constrained	0.448	0.000	