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# **Operation of the Unders and Overs Account**

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# **Operation of the Unders and Overs Account**

## **1.0 Purpose and scope**

Under the NSW Rail Access Undertaking<sup>1</sup> (“Undertaking”), ARTC is required to operate an Unders and Overs Account to manage the deviations around the maximum rate of return by keeping account of the differences between the actual rate of return achieved in any given year and the rate of return permitted under the Ceiling Test. The purpose of this document is to outline the method used by ARTC to operate the ‘Unders and Overs Account’ for the Access revenue it receives for granting Access to access seekers or a group of access seekers where that revenue approaches (or exceeds) Full Economic Cost.

The methodology outlined in this policy is to be applied by ARTC in the financial years commencing in 2005 - 06 and until such time as an ARTC access undertaking applicable to the Hunter Valley Coal Network is approved by the Australian Competition and Consumer Commission.

Currently the Hunter Valley Coal Network is the only portion of the NSW rail infrastructure in which revenue is at or near the ceiling and for which a Regulatory Asset Base (RAB) has been established.

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<sup>1</sup> Refer to clause 4 in Schedule 3 of the Undertaking.

## **2.0 Definitions**

Words that are defined in the Undertaking have the same meaning in this Policy, except for the following:

**Ceiling Test** means the test specified in clause 1(b)<sup>2</sup> of Schedule 3 to the Undertaking.

**Full Economic Costs** are Sector specific costs including, Routine Maintenance (RM), Major Periodic Maintenance (MPM), a permitted Rate of Return and Depreciation and an allocation of non-Sector specific costs such as train control, terminal management and overheads including a Rate of Return and Depreciation on non-Sector specific assets. All included items are to be assessed on a stand alone basis.

**Constrained Group of Mines** means the group of mines and unloading points that are serviced by coal train services where the operation of those coal train services on that part of the NSW Rail Network in respect of which ARTC is Rail Infrastructure Owner is entirely within the Constrained Network, and where access revenue on those Sectors forming the Constrained Network is:

- closest to if less than; or
- exceeds by the largest amount;

Full Economic Cost for those Sectors on a stand alone basis.

**Constrained Network** refers to the group of Sectors within the Hunter Valley Coal Network bounded by the mine loading points and the Newcastle port where access revenue on those Sectors is likely to reach or exceed Full Economic Cost for those Sectors on a stand alone basis.

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<sup>2</sup> Incorrectly numbered as clause 1(l) of Schedule 3 to the Undertaking.

**Overs** is the amount of over recovery of revenue compared to Full Economic Costs for the Constrained Group of Mines.

**Unders** is the amount of under recovery of revenue compared to Full Economic Costs for the Constrained Group of Mines.

**Unders and Overs Account Details** means of the Unders and Overs account opening balance details, allocations and closing balances for the relevant financial year.

### **3.0 Hunter Valley Coal Network Procedure/Instruction**

Under clause 5 of Schedule 3 of the Undertaking, ARTC is required to submit to IPART details demonstrating compliance with the Ceiling Test, including the operation of its Unders and Overs Account, by 31 October each year in respect of the financial year completed on 30 June of that year. The first financial year for which ARTC will submit such details to IPART is the financial year commencing on 1 July 2005.

#### **3.1 Occurrence of Unders and Overs Amounts**

Access Charges for the Hunter Valley Coal network in any financial year are determined using forecast assumptions for tonnage, costs and changes to the Regulatory Asset Base (RAB) that are based on achieving an access revenue that complies with the Ceiling Test.

However, over the year, forecast and actual revenue may vary due to:

- a difference between forecast and actual tonnage transported on the network;
- a difference between forecast and actual service level requirements;
- a difference between the forecast and actual changes to the RAB; and/or
- a difference between estimated and actual costs.

As a result, actual revenues over the year may be higher or lower than the ceiling revenue derived by the Ceiling Test. To manage the average deviations around the maximum rate of return an Unders and Overs account will need to be established.

### **3.2 Access Seeker Accounts**

In accordance with the Undertaking, ARTC can only grant access to the network by written agreement.<sup>3</sup> The Undertaking also requires ARTC to keep an account and an annual reconciliation for applicable Access Seekers and groups of Access Seekers whose Access revenue could potentially breach the Ceiling Test<sup>4</sup>.

For the purpose of this policy ARTC will establish an account (“Access Holder Account”) for each Access Seeker:

- who holds a current written access agreement with ARTC for the purpose of conducting coal train services within the Hunter Valley Coal Network; and
- who paid ARTC for access to that part of the Hunter Valley Coal Network known as the Constrained Network and such payments, other than for Direct Costs, formed part of the annual coal access revenue for the Constrained Group of Mines.

For any year, ARTC will only maintain an Access Holder Account for each Access Seeker as defined above to record the balance of their unders or overs amount at the end of each financial year.

### **3.3 Determining the Unders and Overs Amounts**

The total unders or overs calculation is the outcome of Hunter Valley Coal Network Ceiling Test calculations for that year. ARTC will calculate the total unders or overs amount as part of its submission to IPART in accordance with clause 5(a) of Schedule 3 to the Undertaking. That amount may need to be adjusted in accordance with a determination from IPART under clause 5(e) of Schedule 3 to the Undertaking.

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<sup>3</sup> Clause 4.2. The only exception is compliance with the law see clause 4.1

<sup>4</sup> Schedule 3 - Clause 4(b) and (c) of the Undertaking

For each Access Seeker for whom ARTC has established an Access Holder Account under clause 3.2 of this Policy, the annual allocation of the total unders or overs amount will be determined in accordance with the methodology specified at Annexure A. An example of such calculation is set out in Table 1 of Annexure A. The annual allocation for the financial year will be added to or subtracted from any opening balance in each of such Access Holder Accounts in determining the closing balance of the Access Holder Accounts for that financial year.

ARTC's calculation of the annual allocations will be submitted to IPART as part of its submission under clause 5(a) of Schedule 3 to the Undertaking.

Upon IPART confirming that ARTC has undertaken its calculation of the annual allocations in accordance with this Policy, ARTC will advise each applicable Access Seeker for whom ARTC has established an Access Holder Account under clause 3.2 of this Policy, with its Unders and Overs Account Details.

### **3.4 Reconciliation of the Unders and Overs Account**

3.4.1 In accordance with the Undertaking, ARTC will reconcile the Access Holder Accounts established under clause 3.2 of this Policy by one of two methods, being:

- mutual agreement between the parties, which must result in an outcome that is equitable for all Access Seekers; or
- ARTC bringing the balance of each of such accounts back to zero by refunding or collecting the applicable amount to or from, respectively, each Access Seeker for whom ARTC has established an Access Holder Account under clause 3.2 of this Policy.



## **4.0 Responsibility**

The responsibility for implementing this procedure lies with the General Manager Commercial. The Manager Research & Planning is responsible for updating this procedure when necessary.

## **5.0 Document History**

The Chief Executive Officer of ARTC must approve changes to this document.

| <i>Version</i> | <i>Date of Approval</i> | <i>Summary of change</i>                     |
|----------------|-------------------------|--|
| 1.0            | 8 May 2006              | Draft for Access Seeker Consultation         |
| 2.0            | 25 July 2006            | Draft for IPART Review & Approval            |
| 3.0            | 4 September 2007        | Further Draft for Access Seeker Consultation |
| 4.0            | 12 October 2007         | Final Draft for IPART Review and Approval    |
| 5.0            | 24 October 2008         | Final approved by IPART                      |

## Annexure A

### **Methodology for the annual allocation of the total under or over amount to applicable Access Seekers**

1. This methodology seeks to equitably allocate the total unders and overs amount determined by application of the Ceiling Test as described in Clause 3.3.
2. In broad terms, the methodology seeks to allocate the total unders and overs amount to applicable Access Seekers, represented by applicable Rail Operators, applicable network loading points and applicable mines, on the basis of the respective proportion of revenue included in the Ceiling Test. A network loading point is a location on the rail network at which coal traffic from one or more mines forming part of the Constrained Group of Mines originates. Coal entering the rail network at a network loading point would operate on the Constrained Network. Figure 1 illustrates network loading points and mines on an illustrative Constrained Network.
3. The methodology recognises that annual revenue is based on the application of pre-cusp and post-cusp tonnage to pre-cusp and post-cusp access prices. This application of access prices can distort the equitable allocation of an unders and overs amount where different applicable Rail Operators, network loading points or mines have different tonnage spreads over a year. For example an applicable Rail Operator can haul coal under lower post-cusp pricing only, but a simple split by revenue of an over amount would result in that Rail Operator receiving a refund that would not be equitable.

4. The methodology determines the proportion of coal tonnage occurring during the post-cusp period compared to coal tonnage occurring over the whole of the applicable financial year. Coal tonnages are those that generate revenue included in the Ceiling Test.
5. This proportion is then applied to all applicable Rail Operators so that 'notional' revenue and an unders and overs allocation (based on the respective proportion of revenue included in the Ceiling Test) can be determined on the basis that all applicable Operators hauled coal in the proportion determined under paragraph 4 of this Annexure. Effectively notional revenues and unders and overs allocations are determined equitably and without the distortion which can arise from timing of haulage.
6. For each Rail Operator, the shortfall or surplus of actual revenue compared to notional revenue is then applied to the notional unders and overs allocation to determine the under or over for that Rail Operator.
7. The under or over for each applicable Rail Operator determined under paragraphs 5 and 6 of this Annexure will then be allocated to each network loading point applicable to that Rail Operator using the same methodology. Pre-cusp and post-cusp coal tonnage and access prices for that Rail Operator at each network loading point are used to determine allocations and an under or over for each network loading point applicable to that Rail Operator.
8. The under or over amount for each network loading point used by an applicable Rail Operator determined under paragraph 7 of this Annexure will then be determined for any mine that is owned or operated by an Access Seeker for whom ARTC has established an Access Holder Account under clause 3.2 of this Policy with respect to that mine using the same methodology. Pre-cusp and post-cusp tonnage and access

prices for that Access Seeker at that mine are used to determine allocations and an under or over for that mine.

9. Table 1 below is provided to illustrate the methodology described above. Tonnage and pricing have been selected to demonstrate the distortion that pre-cusp and post-cusp pricing can have and how it is remedied. Table 1 below also displays the formulae used so that the underlying calculations can be confirmed.

Table 1

|    | A  | B  | C                      | D  |  |
|----|--|--|------------------------|--|--|
| 1  | <b>T</b><br><b>o</b><br><b>t</b><br><b>a</b><br><b>i</b>   | <b>Constrained Group of Mines</b>  |                        | <b>SPREADSHEET FORMULA</b>                   |  |
| 2  |  |  |                        |  |  |
| 3  |  | PreCusp Tonnes   | 50,000,000             |  |  |
| 4  |  | PreCusp Revenue  | \$70,000,000           |  |  |
| 5  |  | Average PreCusp Price  | \$1.40                 |  | =B4/B3                                       |
| 6  |  | PostCusp Tonnes  | 25,000,000             |  |  |
| 7  |  | PostCusp Revenue   | \$10,000,000           |  |  |
| 8  |  | Average PostCusp Price   | \$0.40                 |  | =B7/B6                                       |
| 9  |  |  |                        |  |  |
| 10 |  | % PostCusp/Total Tonnage (4.)  | 33.33%                 |  | =B6/(B6+B3)                                  |
| 11 |  |  |                        |  |  |
| 12 |  | Full Economic Cost   | \$75,000,000           |  |  |
| 13 |  | total (under) or over amount   | \$5,000,000            |  | =B4+B7-B12                                   |
| 14 |  | Net Constrained Mine Revenue   | \$75,000,000           |  | =B4+B7-B13                                   |
| 15 |  |  |                        |  |  |
| 16 | <b>R</b><br><b>a</b><br><b>i</b><br><b>l</b><br><b>O</b><br><b>p</b><br><b>e</b><br><b>r</b><br><b>a</b><br><b>t</b><br><b>o</b><br><b>r</b> | <b>Rail Operator A</b>   |                        |  |  |
| 17 |  |  |                        |  |  |
| 18 |  | PreCusp Tonnes   | 30,000,000             |  |  |
| 19 |  | PreCusp Revenue  | \$48,000,000           |  |  |
| 20 |  | Average PreCusp Price  | \$2                    |  | =B19/B18                                     |
| 21 |  | PostCusp Tonnes  | 20,000,000             |  |  |
| 22 |  | PostCusp Revenue   | \$9,000,000            |  |  |
| 23 |  | Average PostCusp Price   | \$0                    |  | =B22/B21                                     |
| 24 |  |  |                        |  |  |
| 25 |  | % of actual revenue paid   | 71.3%                  |  | =(B19+B22)/(B4+B7)                           |
| 26 |  | notional revenue (5.)  | \$60,833,333           |  | =(B18+B21)*(1-B\$10)*B20+(B18+B21)*B\$10*B23 |
| 27 |  | % of notional revenue  | 75.3%                  |  | =B26/(B26+B42)                               |
| 28 |  | (shortfall)/surplus of actual revenue compared to notional revenue (6.)    | -\$3,206,186           |  | =(B19+B22)-(B27*(B\$4+B\$7))                 |
| 29 |  | Rail Operator notional allocation of the total (under) or over amount (5.) | \$3,762,887            |  | =B27*B\$13                                   |
| 30 |  | Rail Operator (under) or over  | \$556,701              |  | =B29+B28                                     |
| 31 |  |  |                        |  |  |
| 32 |  |  | <b>Rail Operator B</b> |  |  |
| 33 |  |  |                        |  |  |
| 34 | PreCusp Tonnes   | 20,000,000   |                        |  |  |
| 35 | PreCusp Revenue  | \$22,000,000   |                        |  |  |
| 36 | Average PreCusp Price  | \$1  |                        | =B35/B34                                     |  |
| 37 | PostCusp Tonnes  | 5,000,000  |                        |  |  |
| 38 | PostCusp Revenue   | \$1,000,000  |                        |  |  |
| 39 | Average PostCusp Price   | \$0  |                        | =B38/B37                                     |  |
| 40 |  |  |                        |  |  |
| 41 | % of actual revenue paid   | 28.8%  |                        | =(B35+B38)/(B4+B7)                           |  |
| 42 | notional revenue (5.)  | \$20,000,000   |                        | =(B34+B37)*(1-B\$10)*B36+(B34+B37)*B\$10*B39 |  |
| 43 | % of notional revenue  | 24.7%  |                        | =B42/(B26+B42)                               |  |
| 44 | (shortfall)/surplus of actual revenue compared to notional revenue (6.)  | \$3,206,186  |                        | =(B35+B38)-(B43*(B\$4+B\$7))                 |  |
| 45 | Rail Operator notional allocation of the total (under) or over amount (5.)   | \$1,237,113  |                        | =B43*B\$13                                   |  |
| 46 | Rail Operator (under) or over  | \$4,443,299  |                        | =B45+B44                                     |  |
| 47 |  |  |                        |  |  |

CONTINUED NEXT PAGE

|     | A  | B  | C  | D  |
|-----|--|--|--|--|
| 48  |  | <b>For Operator B</b>  |  |  |
| 49  |  |  |  |  |
| 50  | <b>network loading point C</b>   | <b>network loading point C</b>   |  |  |
| 51  |  |  |  |  |
| 52  |  | PreCusp Tonnes   | 12,000,000   |  |
| 53  |  | PreCusp Revenue  | \$14,400,000                                       |  |
| 54  |  | Average PreCusp Price  | \$1.20   | =C53/C52                                     |
| 55  |  | PostCusp Tonnes  | 2,000,000  |  |
| 56  |  | PostCusp Revenue   | \$600,000  |  |
| 57  |  | Average PostCusp Price   | \$0.30   | =C56/C55                                     |
| 58  |  |  |  |  |
| 59  |  | % of actual revenue paid   | 65.2%  | =(C53+C56)/(C35+C38)                         |
| 60  |  | notional revenue (5.)  | \$12,600,000                                       | =(C52+C55)*(1-C\$10)*C54+(C52+C55)*C\$10*C57 |
| 61  |  | % of notional revenue  | 62.8%  | =C60/(C60+C76)                               |
| 62  |  | (shortfall)/surplus of actual revenue compared to notional revenue (6.)                    | \$550,139  | =(C53+C56)-(C61*(C\$35+C\$38))               |
| 63  |  | network loading point notional allocation of the Rail Operator (under) or over amount (5.) | \$2,791,524  | =C61*C\$46                                   |
| 64  | network loading point (under) or over  | \$3,341,663  | =C63+C62   |  |
| 65  |  |  |  |  |
| 66  |  | <b>network loading point D</b>   |  |  |
| 67  |  |  |  |  |
| 68  | PreCusp Tonnes   | 8,000,000  |  |  |
| 69  | PreCusp Revenue  | \$7,600,000  |  |  |
| 70  | Average PreCusp Price  | \$0.95   | =C69/C68   |  |
| 71  | PostCusp Tonnes  | 3,000,000  |  |  |
| 72  | PostCusp Revenue   | \$400,000  |  |  |
| 73  | Average PostCusp Price   | \$0.13   | =C72/C71   |  |
| 74  |  |  |  |  |
| 75  | % of actual revenue paid   | 34.8%  | =(C69+C72)/(C35+C38)                               |  |
| 76  | notional revenue (5.)  | \$7,455,556  | =(C68+C71)*(1-C\$10)*C70+(C68+C71)*C\$10*C73       |  |
| 77  | % of notional revenue  | 37.2%  | =C76/(C60+C76)                                     |  |
| 78  | (shortfall)/surplus of actual revenue compared to notional revenue (6.)                    | -\$550,139   | =(C69+C72)-(C77*(C\$35+C\$38))                     |  |
| 79  | network loading point notional allocation of the Rail Operator (under) or over amount (5.) | \$1,651,775  | =C77*C\$46   |  |
| 80  | network loading point (under) or over  | \$1,101,636  | =C79+C78   |  |
| 81  |  |  |  |  |
| 82  |  | <b>For network loading point D</b>   |  |  |
| 83  |  |  |  |  |
| 84  | <b>mine X</b>  | <b>mine X</b>  |  |  |
| 85  |  |  |  |  |
| 86  |  | PreCusp Tonnes   | 7,000,000  |  |
| 87  |  | PreCusp Revenue  | \$6,650,000  | =C86*C88                                     |
| 88  |  | Average PreCusp Price  | \$0.95   | =C70   |
| 89  |  | PostCusp Tonnes  | 1,000,000  |  |
| 90  |  | PostCusp Revenue   | \$133,333  | =C89*C91                                     |
| 91  |  | Average PostCusp Price   | \$0.13   | =C73   |
| 92  |  |  |  |  |
| 93  |  | % of actual revenue paid   | 84.8%  | =(C87+C90)/(C69+C72)                         |
| 94  |  | notional revenue (5.)  | \$5,422,222  | =(C86+C89)*(1-C\$10)*C88+(C86+C89)*C\$10*C91 |
| 95  |  | % of notional revenue  | 72.7%  | =C94/(C94+C110)                              |
| 96  |  | (shortfall)/surplus of actual revenue compared to notional revenue (6.)                    | \$965,152  | =(C87+C90)-(C95*(C\$69+C\$72))               |
| 97  |  | mine notional allocation of the network loading point (under) or over amount (5.)          | \$801,190  | =C95*C\$80                                   |
| 98  | mine (under) or over   | \$1,766,342  | =C97+C96   |  |
| 99  |  |  |  |  |
| 100 |  | <b>mine Y</b>  |  |  |
| 101 |  |  |  |  |
| 102 | PreCusp Tonnes   | 1,000,000  |  |  |
| 103 | PreCusp Revenue  | \$950,000  | =C102*C104   |  |
| 104 | Average PreCusp Price  | \$0.95   | =C70   |  |
| 105 | PostCusp Tonnes  | 2,000,000  |  |  |
| 106 | PostCusp Revenue   | \$266,667  | =C105*C107   |  |
| 107 | Average PostCusp Price   | \$0.13   | =C73   |  |
| 108 |  |  |  |  |
| 109 | % of actual revenue paid   | 15.2%  | =(C103+C106)/(C69+C72)                             |  |
| 110 | notional revenue (5.)  | \$2,033,333  | =(C102+C105)*(1-C\$10)*C104+(C102+C105)*C\$10*C107 |  |
| 111 | % of notional revenue  | 27.3%  | =C110/(C94+C110)                                   |  |
| 112 | (shortfall)/surplus of actual revenue compared to notional revenue (6.)                    | -\$965,152   | =(C103+C106)-(C111*(C\$69+C\$72))                  |  |
| 113 | mine notional allocation of the network loading point (under) or over amount (5.)          | \$300,446  | =C111*C\$80  |  |
| 114 | mine (under) or over   | -\$664,705   | =C113+C112   |  |

Figure 1

### CONSTRAINED GROUP OF MINES

