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Economic Regulation Authority
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By Email: russell.dumas@era.wa.gov.au

Attention: Jeremy Threlfall

22 October 2008

Dear Russell,

**Review of WestNet Rail's Regulatory Financial Model – Summary of Findings**

The Economic Regulation Authority (ERA) has retained PricewaterhouseCoopers (PwC) under our Panel Contract (7905R, 17 November 2005) and subsequent engagement letter (20 March 2008) to assist with a review of the accuracy and WA Rail Access Regime compliance of a new access costing model for the WestNet Rail (WNR) network.

**Limitation of Liability**

Pursuant to the extension provided under the PwC Panel Contract (7905R), our liability under this engagement is limited to the lesser of 10 times our fees or $20 million.

**Scope of work**

In summary, the ERA engaged PwC to review, on a negative assurance basis, the new WNR access pricing model (APM), to assess whether the model template was properly formulated for its role to calculate floor and ceiling costs under the WA Rail Access Regime.

WNR elected to develop a new APM using a pure Microsoft Excel based format. The former APM used a series of mirroring macro process on a dual Microsoft Access and MS Excel platform. The new APM is intended to improve the ease of operation by WNR and the ERA, reduce the risks of inadvertently omitting assets during the data export process and to facilitate providing stakeholders with a simplified public version of the APM for them to interrogate.

The APM is currently focused on calculating ceiling and floor cost for seven routes being the:

1. South West Main (SWM);
2. Terminal Ends of SWM (SWM term);
3. Eastern Goldfields Railway (EGR);
4. Kalgoorlie to Esperance (SGE);
5. Kalgoorlie to Leonora (SGL);
6. Collie Line (WOR);
7. Grain Lines (GRN)

The lines were agreed with the ERA as being those more likely to be of interest to 3rd parties and other lines can be added to the model over time.

Specific tasks for this review are summarised in the table below:

| Task | Activity |
|---|---|
| **Task 1** | Review the WNR draft regulatory financial model using sample testing, to assess the integrity of the model including assessing the mathematical accuracy of the calculations used in the model, the results provided by the outputs from the model and the input data within the model. This work should include verification that the results from the previous floor and ceiling determination can be reproduced from this model based on the same input data. |
| **Task 2**: | Provide a report to the Authority outlining the results from Task 1. Prepare an appropriate version of the above report which can be provided by the Authority to WNR to allow WNR to rectify any problems identified in the PwC review. |
| **Task 3** | Following WNR's rectification of its model, review the revised model to check that the problems identified by PwC have been satisfactorily rectified. If any problems remain, identify these problems to the Authority so that WNR can rectify these. |
| **Task 4** | Once PwC is satisfied that WNR's model works appropriately, provide a final report to the Authority confirming the integrity of this model. |

As our review does not constitute either an audit in accordance with Australian Auditing Standards or a review in accordance with Australian Auditing Standards applicable to review engagements, we do not express any assurance or opinion on the calculated access ceiling price. We do not accept any responsibility for losses occasioned to WNR or to any party other than the Regulator as a result of this model review.

The specific models reviewed by PwC in Tasks 1/2 and then in Tasks 3/4 (post revisions by WNR) are detailed below.

| Review Task | Model File Names | Size | Created |
|---|---|---|---|
| Task 1 & 2 | WestNet Rail Access Pricing Model_Submission.xls | 4,811 KB | 29 May 2008, 11:18 AM |
| Task 3 & 4 | WestNet Rail Access Pricing Model_Submission_Final COL.xls | 4,840 KB | Friday, 12 September 2008 11:12:00 AM |

WNR also provided PwC and the ERA with a report on the factors driving changes in the floor and ceiling costs between the old and new models ("WestNet Rail Access Pricing Model Reconciliation" dated 22 August 2008). This report provided a useful basis for understanding 14 key factors driving different results between the new and the old APM. Ceiling costs for some lines rose by between 10% and 16% as a consequence of issues identified in the course of the transition from the old to the new APM. The factors identified by WNR were:

| **WNR's Identified Reconciliation Issues** | |
|---|---|
| 1. | Wall component of culverts capital cost |
| 2. | Timber sleeper capital cost on parts of the SWM & WOR lines included only transport & not materials |
| 3. | GTK and Train number totals between the 7 routes vis-à-vis the total network |
| 4. | Level crossing capital cost with 7 crossing being pedestrian grade and higher cost |
| 5. | Omission of $2.52m of Infrastructure Management Costs during export from Access to Excel |
| 6. | Unit rates for Maintenance costs on the WOR and GRN lines |
| 7. | Manual adjustments for the Burekup & Venn loops and Floor cost calculation issues relating to the old APM. |
| 8. | APM using individual function maintenance costs rather than the agreed simplified unit rate |
| 9. | Allocation of communications backbone assets between the EGR and SWM |
| 10. | Grain line distances from material supply points (e.g. Midland, Kalgoorlie) |
| 11. | Omission of $13.7m in communications capital cost for the Merredin Yard to Kalgoorlie segment |
| 12. | Lower economic life for turnouts with timber bearers |
| 13. | Signal capital cost with $1.74m on SWM being allocated twice |
| 14. | Inadvertent exclusion of small line segments on the EGR (4), the SWM (1) and the SGE (2) |

## Key Findings

We report our key findings by task in the table below:

| Task | Activities | Findings |
|---|---|---|
| **Task 1 & 2** | Review the WNR draft model & use sample testing to assess the mathematical accuracy of the calculations including reconciling to previous floor and ceiling determination. Provide WNR a report with feedback to rectify problems identified in the PwC review. | PwC Provided WNR & the ERA an Issues report (13 June 2008) which identified 65 Issues which were categorised into four types being : PE = Potential Error, Q = Query, UA = Undocumented Assumption, DI = Design Issue.<br><br>The majority of the 65 issues were graded as minor (eg consistency in labelling/heading, inoperative sum checks, redundant data etc). Other issues were readily explained & justified by WNR (eg the Grain lines had no communications assets listed in the GRV sheet because these lines currently have no WNR owned communications service).<br><br>PwC also provided WNR with a separate Range Names Report (relating to issue #45) which listed the range names with reference errors for WNR to remove to improve model accuracy.<br><br>Aside from the matter listed in the Issues report, other sample testing did not identify any material mathematical errors.<br><br>WNR provided a response to each issue (30 June 2008). WNR agreed to 15 changes to the model to resolve issues and for the remaining issues they provided an explanation on logic which negated the need for model changes. |
| **Task 3 & 4** | Following WNR's rectification of its model, review the revised model to check that the problems identified by PwC have been satisfactorily rectified. If any problems remain, identify these problems with WNR and then provide a final report to the ERA. | WNR processed the 15 adjustments to the model it proposed in its 30 June response to the Issues Report.<br><br>PwC reviewed these adjustments & found the adjustments were satisfactory and they were processed as per the WNR proposal. WNR also corrected the range names with reference errors.<br><br>In relation to reconciling the previous and current ceiling costs, of the 14 issues identified in the WNR Rail Access Pricing Model Reconciliation Report, the two major issues are:<br>- the inclusion of further communications backbone assets in the EGR.<br>- the timber sleeper GRV calculation for parts of the WOR and SWM lines.<br><br>These have both resulted in an increase in the GRV with a subsequent impact on the ceiling calculation (depending of the life of the assets in the annuity calculation). Both of these are due to a failure to export all source data in the process of exporting from Access to Excel.<br><br>Sample testing of the mathematical accuracy of key calculations did not identify any material errors.<br><br>The calculation method and key assumptions used in the model were sample checked against the WNR's Approved Costing Principles. This testing included sampling to check that:<br>- the annuity formula is set at the start of the period by inputting "1".<br>- the current WNR WACC was utilised.<br>- an annual working capital charge is calculated by multiplying ½ of the WACC by the annuity.<br>- Overhead costs are allocated with a 50:50 mix of GTK and train numbers.<br>- Economic lives applied in the annuity formula are consistent with those in Table 7.1 (Economic Life of Assets) of the approved Costing Principles.<br><br>This sample testing did not identify any material inconsistencies with the approved costing principles. |

**Economic Regulation Authority**

23 October 2008

## Overall Summary

After a series of review processes, the new WNR APM with a pure Microsoft Excel based format, should provide a more robust and reliable template compared to the previous APM. The dual Microsoft Access and MS Excel platform of the former APM complicated updates and increased the risk of omissions.

The sample testing and review processes conducted on the new APM did not identify any material errors or any material inconsistencies with the approved costing principles. Similarly, the review of the model logic and calculations as well as model design indicates that modelling better practices have generally been followed. Consequently, the new APM appears properly formulated for its purpose of calculating floor and ceiling costs under the WA Rail Access Code.

Please do not hesitate to contact myself on (02) 8266 2765 if you have any questions about this review.

Yours sincerely,

Scott Lennon
Partner, PwC Economics