POWERLINK QUEENSLAND

COMMENTS ON ACCC POST TAX REVENUE MODEL

30 April 2004

1 Introduction

Following the publication by the ACCC of their post tax revenue model and their request for comments, Powerlink has reviewed the model by substituting various input parameters with known desired outcomes to test the assumptions in the model.

This review identified a number of issues that require amendments to the model, and we identify these issues below together with comments on the necessary amendments to the model to correct the anomalies or improve the applicability of the model.

Together with this overview, we have included a marked up version of the model with our comments on the specific areas identified in this response. We believe it would be beneficial to meet to discuss the issues raised and how the model may be amended to correct the inaccuracies.

2 General Issues and Data Input

The number of asset classes in the original model, as made available on the web site, is insufficient to model a TNSP asset base accurately. Following discussions, the ACCC made available to us an alternative model with 17 asset classes. We found that 17 asset classes was sufficient this allowed us to model more accurately the asset base and therefore depreciation rates, etc. We believe that this expanded version should form the basis of TNSP revenue calculations.

The data input sheet is unclear as to the price base required, elsewhere in the model a mixture of real and nominal pricing is used, which further exacerbates the confusion of data entry. Specifically, the input sheet calls for the annual capital investment by asset class and the opening RAB to be input in a real price base, but the actual base year is not clear. In general, it would be useful to use clear indications of the price base required for the various cost inputs, i.e. whether the values are required in nominal or real values, and if real values, which price base.

3   Model Functionality

The most important aspect of the model, assuming data is entered correctly and in the correct price base, is its accuracy in calculating the returns due for any investment, as this is fundamental in calculating the returns a TNSP can recover in its revenue. The model as provided to us incorrectly calculates returns on investment and this is discussed below.

Also, the tax calculations are important in ensuring that the TNSP is able to recover sufficient revenue to cover ongoing business costs as well as the necessary returns for the investments made. However, we have been unable to test the tax assumptions at this time. We would welcome the opportunity to meet with the ACCC to discuss these matters in further detail to be able to evaluate the accuracy of this aspect of the model.

3.1   Return on investment

If returns are calculated correctly, the present value of all returns on and returns of capital over the life of an asset should equal the original investment when discounted using the vanilla WACC.

The key issue identified with the model is that it does not return sufficient funds to cover the cost of the investment on a present value basis. As an example, consider a $1000 asset with an economic life of 4 years, with a vanilla WACC of 9.62% and CPI assumed to be 3% per annum.

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Year			2003/2004	2004/2005	2005/2006	2006/2007	2007/2008
Inflation assumption (CPI increase)				3.00%	3.00%	3.00%	3.00%
CPI Index (end period)			100.0%	103.0%	106.1%	109.3%	112.6%
RAB (start period)		Nominal value		-	810	556	286
- Equity	40.00%			-	323.9	222.4	114.5
- Debt	60.00%			-	485.8	333.6	171.8
Revenue Building Blocks							
Nominal Vanilla WACC	9.62%						
Return on Asset		NPV		-	77.9	53.5	27.5
- Return on Equity	11.80%	$49.80		-	31.2	21.4	11.0
- Return on Debt	6.85%	$74.70		-	46.7	32.1	16.5
Depreciation		$860.31		269.9	253.7	269.6	286.3
		$984.80					

Note that while the present value should be $1000, the model only delivers a present value of $984.80, as illustrated in the excerpt from the model above.

This is because the model rolls a half-year return into the regulatory asset base, whilst depreciating the asset a full year in the year of its installation. This means that the TNSP is deprived of half a year return on the asset over its lifetime.

To correct the error, we propose that the model continues to roll a half-year return into the asset base, and returns a full year's depreciation in the first year, i.e the year the asset is installed. However, an additional allowance for a half-year return on the investment should also be allowed in the first year. This ensures a present value equal to the value of the investment when discounted by the vanilla WACC. The following illustrates the returns in a simplified form.

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PQ Proposal					
Year	**1**	**2**	**3**	**4**	**NPV**
Asset Life	*4*	*3*	*2*	*1*	
Opening Asset Base	-	809.66	555.96	286.32	
Additions	1,048.10	-	-	-	
CPI Revaluation	31.44	24.29	16.68	8.59	
	1,079.54	833.95	572.64	294.91	
Depreciation	269.89	277.98	286.32	294.91	
Closing Asset Base	**809.66**	**555.96**	**286.32**	**-**	
Economic Depn	238.44	253.69	269.64	286.32	$831.63
Return on Capital	48.10	77.89	53.48	27.54	$168.37
					$1,000.00

In this example, the present value of the returns equals the investment of $1000.

3.2 Depreciation

Another area where the model errs is in the first year depreciation calculation, but this time the model over-states the returns received by the TNSP (although not sufficient to balance the error in the return on investment).

In the first year only of an investment, the model applies straight-line depreciation in calculating the closing asset base rather than economic depreciation. We believe this arises due to the methodology the model employs in order to calculate the economic depreciation. For this reason, the model may need to undergo a fairly substantial amendment to correct this error.

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The error in the depreciation allowance in the first year return has been corrected in the example shown above.

4   Summary of Issues

We welcome the opportunity to review the model and applaud the ACCC's openness in publishing the model on their web site.

The model is necessarily a complex spreadsheet, which requires data entered to be consistent and of a specific form. We accept that as familiarity with the model grows, data entry will become more accurate. However, we believe that the requirements for such data entry could be more clearly identified within the model, thereby removing the likelihood of data input errors.

Furthermore, we believe that it would be beneficial, in understanding the operation of the model for a meeting between the ACCC and ourselves to discuss the identified issues and specifically the methodologies used for calculating returns and depreciation.

We once again express our support for the development of a revenue model which is shared and worked on co-operatively between the Regulator and the TNSP during the revenue reset process. We strongly believe that doing this will remove many unnecessary sources of debate.

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