



Powerlink Post Final Decision Review

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1 INTRODUCTION

The Powerlink revenue reset was the first reset undertaken by the Australian Energy Regulator (AER) and involved a process that lasted more than a year. During this period Powerlink submitted two additional applications in addition to the original application. The second of the additional applications, which argued for an adjustment to the risk free rate used in the calculation of the market risk premium would have added a further \$30 million to Powerlink's revenue but was rejected by the AER as being received too late in the process.

The original application was subject to an extensive analysis by the AER's consultants. As a result of this examination in the draft decision the capex sought by Powerlink was reduced from \$2,449.2 million to \$2,032.2 million. Opex was reduced from \$787.3 million to \$712.6 million. Unfortunately in arriving at the final decision the AER moved significantly on their position with the result that Powerlink was able to claw back an additional \$216.6m in capex and \$18.7 million in Opex. In addition Powerlink received a further \$313 million capex under the supplementary application.

We are extremely disappointed with the AER's final determination as we believe it represented a substantial back-down from the position reached as the result of what had been an exhaustive review. End users, and in particular large end users will bear the cost of this decision. Based on a hypothetical customer with a 1 MW demand and a load factor of 60%, it is estimated that TUOS charges will increase by about 9.6% on average in 2007/08 a significantly greater impost than the average increase in transmission charges of 6% per annum mentioned in the regulatory decision. The result for Powerlink – a healthy return on equity of 11.68% for an entity that has a guaranteed revenue flow and return on the assets that they purchase.

The EUAA requested, McLennan Magasanik Associates (MMA) to review the final decision with respect to the following issues:

- The impact on large customer end users and how the decision will affect the different customer sectors;
- Differences between the final and draft decisions;
- The rate of return on equity in comparison with other businesses;
- The application of the cost accumulation factor;
- Input cost increases and any potential overlap with the cost accumulation factor; and
- Cost increases as a result of Powerlink's Supplementary application.

This report provides an analysis of these issues.

2 PRICES AND IMPACTS ON END USE CUSTOMERS

2.1 New Transmission Prices

Powerlink has published its 2007/08 TUOS which we understand was based on the Draft Decision (note that the Rules allow for any under recovery in revenue to be picked up in subsequent years). An analysis of the 2007/08 TUOS against the 2006/07 TUOS indicates that Powerlink is in the process of rebalancing its charges. The Customer Usage TUOS Price which is based on the location of the transmission connection point has been reduced by about 5.5% on average while Customer TUOS General Prices have increased by about 33% and Customer Common Service Prices have increased by about 13%. Both the General and Common Service prices are common to all customers and customers are charged either on the basis of energy usage or maximum demand.

Based on a hypothetical customer with a 1 MW demand and a load factor of 60%, it is estimated that TUOS charges increase by about 8.4% on average in 2007/08 a significantly greater impost than the average increase in transmission charges of 6% per annum mentioned in the regulatory decision. Table 2-1 provides an indicative TUOS increase of such a customer connected to various transmission connection points.

Table 2-1 Indicative increase in TUOS charges

TUOS	2006/07	2007/08	%change	\$ increase
Abermain	\$ 47,096.54	\$ 53,055.29	12.7%	\$ 5,958.74
Alan Sheriff	\$ 69,134.21	\$ 73,121.93	5.8%	\$ 3,987.72
Algerter	\$ 49,884.50	\$ 55,862.66	12.0%	\$ 5,978.16
Alligator Creek	\$ 61,700.50	\$ 66,762.43	8.2%	\$ 5,061.94
Ashgrove West	\$ 52,231.34	\$ 57,648.89	10.4%	\$ 5,417.54
Belmont	\$ 46,684.18	\$ 51,971.04	11.3%	\$ 5,286.86
Biloela	\$ 44,095.39	\$ 49,532.47	12.3%	\$ 5,437.08
Blackwater	\$ 55,952.69	\$ 61,687.03	10.2%	\$ 5,734.34
Bouldercombe	\$ 38,331.22	\$ 44,103.31	15.1%	\$ 5,772.10
Boyne smelter	\$ 35,736.36	\$ 41,879.90	17.2%	\$ 6,143.54
Bulli Creek	\$ 39,819.65	\$ 45,543.96	14.4%	\$ 5,724.31
Bundamba	\$ 47,096.54	\$ 52,690.70	11.9%	\$ 5,594.16
Burton Downs	\$ 54,443.93	\$ 59,245.56	8.8%	\$ 4,801.63
Cairns	\$111,940.75	\$ 115,918.97	3.6%	\$ 3,978.22
Callemondah	\$ 40,294.85	\$ 46,132.94	14.5%	\$ 5,838.10
Cardwell	\$ 91,868.83	\$ 97,038.74	5.6%	\$ 5,169.91
CBD East	\$ 47,996.78	\$ 51,971.04	8.3%	\$ 3,974.26
CBD South	\$ 47,996.78	\$ 54,052.94	12.6%	\$ 6,056.16
CBD West	\$ 47,996.78	\$ 54,052.94	12.6%	\$ 6,056.16
Clare	\$ 69,360.19	\$ 74,236.54	7.0%	\$ 4,876.34
Collinsville	\$ 61,084.32	\$ 65,491.27	7.2%	\$ 4,406.95
Coppabella	\$ 62,543.45	\$ 67,419.26	7.8%	\$ 4,875.82
Dan Gleeson	\$ 72,393.82	\$ 76,138.92	5.2%	\$ 3,745.10
Dingo	\$ 62,964.79	\$ 68,829.72	9.3%	\$ 5,864.93
Dysart	\$ 55,591.54	\$ 60,731.35	9.2%	\$ 5,139.82

TUOS	2006/07	2007/08	%change	\$ increase
Edmonton	\$110,427.77	\$ 115,191.65	4.3%	\$ 4,763.88
Gin Gin	\$ 44,999.59	\$ 50,360.64	11.9%	\$ 5,361.05
Gladstone	\$ 35,802.89	\$ 41,730.22	16.6%	\$ 5,927.33
Gladstone South	\$ 37,858.13	\$ 44,033.09	16.3%	\$ 6,174.96
Goodna	\$ 49,269.79	\$ 55,233.55	12.1%	\$ 5,963.76
Ingham	\$ 95,309.54	\$ 97,780.06	2.6%	\$ 2,470.51
Innisfail	\$104,247.00	\$ 106,174.46	1.8%	\$ 1,927.46
Invicta	\$ 68,053.66	\$ 72,438.17	6.4%	\$ 4,384.51
Kamerunga	\$131,668.68	\$ 131,797.25	0.1%	\$ 128.57
Kemmis	\$ 53,889.53	\$ 59,206.49	9.9%	\$ 5,316.96
Lilyvale	\$ 52,098.55	\$ 57,555.17	10.5%	\$ 5,456.62
Loganlea	\$ 55,874.81	\$ 60,467.21	8.2%	\$ 4,592.40
Mackay	\$ 65,280.86	\$ 70,904.59	8.6%	\$ 5,623.73
Middle Ridge	\$ 46,361.83	\$ 51,635.50	11.4%	\$ 5,273.66
Molendinar	\$ 49,555.97	\$ 55,031.33	11.0%	\$ 5,475.36
Moranbah	\$ 56,173.13	\$ 61,307.93	9.1%	\$ 5,134.80
Moura	\$ 49,708.03	\$ 54,791.88	10.2%	\$ 5,083.85
Mudgeeraba	\$ 49,978.37	\$ 55,928.93	11.9%	\$ 5,950.56
Nebo	\$ 59,757.46	\$ 64,339.18	7.7%	\$ 4,581.72
Newlands	\$ 60,145.54	\$ 65,033.23	8.1%	\$ 4,887.70
North Goonyella	\$ 59,081.62	\$ 64,227.77	8.7%	\$ 5,146.15
Norwich Park	\$ 72,240.43	\$ 77,595.14	7.4%	\$ 5,354.71
Palmwoods	\$ 44,857.82	\$ 50,255.30	12.0%	\$ 5,397.48
Peak Downs	\$ 77,896.63	\$ 81,617.98	4.8%	\$ 3,721.34
Pioneer Valley	\$ 58,182.17	\$ 64,083.10	10.1%	\$ 5,900.93
Proserpine	\$ 65,337.36	\$ 70,974.29	8.6%	\$ 5,636.93
Redbank Plains	\$ 49,269.79	\$ 55,233.55	12.1%	\$ 5,963.76
Richlands	\$ 50,473.37	\$ 56,450.33	11.8%	\$ 5,976.96
Rocklea	\$ 48,490.20	\$ 54,070.63	11.5%	\$ 5,580.43
Ross	\$ 64,705.61	\$ 68,866.78	6.4%	\$ 4,161.17
Runcorn	\$ 49,501.06	\$ 55,491.22	12.1%	\$ 5,990.16
South Pine	\$ 44,009.33	\$ 49,446.41	12.4%	\$ 5,437.08
Sumner	\$ 49,482.38	\$ 55,260.48	11.7%	\$ 5,778.10
Swanbank A	\$ 44,114.14	\$ 50,209.90	13.8%	\$ 6,095.76
Tangkam	\$ 55,737.26	\$ 60,423.26	8.4%	\$ 4,686.00
Tarong 132	\$ 39,819.65	\$ 45,530.76	14.3%	\$ 5,711.11
Tarong 110	\$ 40,861.66	\$ 46,501.75	13.8%	\$ 5,640.10
Tennyson	\$ 53,769.14	\$ 59,661.89	11.0%	\$ 5,892.74
Townsville GT	\$ 77,453.64	\$ 81,053.02	4.6%	\$ 3,599.38
Townsville South	\$ 69,946.54	\$ 73,802.26	5.5%	\$ 3,855.72
Tully	\$103,652.21	\$ 106,922.38	3.2%	\$ 3,270.17
Turkinjie	\$ 93,890.02	\$ 98,975.71	5.4%	\$ 5,085.70
Woolooga	\$ 43,408.46	\$ 48,858.74	12.6%	\$ 5,450.28
average	\$ 59,512.96	\$ 64,529.63	8.4%	\$ 5,016.66
max increase			17.2%	\$ 6,174.96
min increase			0.1%	\$ 128.57

As can be seen depending on the point of connection large end users may be facing substantial increases in TUOS charges. Coming on top of the high energy prices that have been experienced for most of this calendar year this is putting further cost pressures on industry.

2.2 Service Levels

The AER noted that the capex program could potentially affect Powerlink's service performance. However the recently commissioned works were unlikely to result in a significant change in Powerlink's performance indicators.

The AER's consultants stated that the works proposed by Powerlink were justified under the reliability limb of the regulatory test and were required to meet expected increases in electricity demand over the next regulatory period. These works were not intended to improve reliability or security of supply over and above the required levels and as such, overall service performance should remain the same.

3 DIFFERENCE BETWEEN THE FINAL AND DRAFT DECISIONS

3.1 Capex

The Final Decision provided an additional \$596M for capex over the next regulatory period. The Final Decision showed an increase of \$217M to the Draft Decision which was based on the original application with an additional \$313M that was provided due to the Supplementary application. There were also “other adjustments” made in the Final Decision amounting to a total of \$67M. These “other adjustments” are however not detailed in the Final Decision except that the AER indicates that:

“Powerlink also informed the AER that since the Supplementary proposal, a number of adjustments had been made for the timing of projects based on latest information. Powerlink has advised that these adjustments increase the *ex ante* allowance by \$67 million. The AER reviewed these adjustments and found them to be appropriate.” (Pg 93)

The differences between Powerlink’s original and Supplementary Capex proposal, and the AER’s Draft and Final Decisions on the *ex ante* capex are shown in Table 3-1.

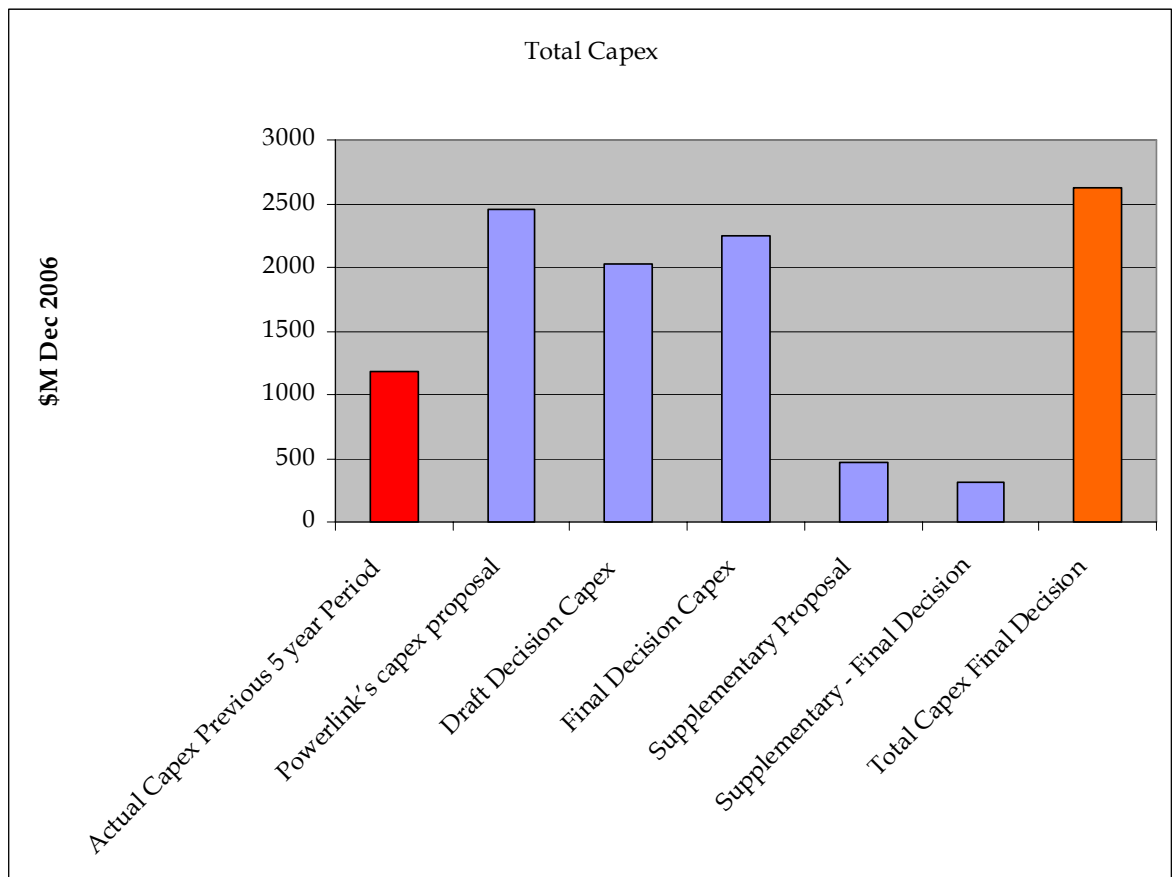
Table 3-1 Powerlink Capex

Difference in AER’s capex allowance (\$m, 2006–07)	2007–08	2008–09	2009–10	2010–11	2011–12	Total	% of Powerlink’s application
Powerlink’s capex proposal	546.31	543.02	456.1	466.49	437.32	2449.24	
Adjustments resulting from detailed project reviews							
Draft Decision	-27.82	-74.89	-5.98	-2.36	-33.43	-144.45	-5.9%
Final Decision	-21.65	-66.51	3.61	16.89	-13.23	-80.90	-3.3%
Adjustment to replacement expenditure							
Draft Decision	0	0	-53.1	-31.4	-26.1	-110.6	-4.5%
Final Decision	0	0	-0.19	-0.73	-2.01	-2.93	-0.1%
Adjustment to undergrounding costs							
Draft Decision	-5.47	-14.2	-13.46	-4.37	-49.38	-86.89	-3.5%
Final Decision	-10.36	-14.08	-13.46	-6.22	-69.76	-113.88	-4.6%
Transfer of M50 to contingent projects							
Draft Decision	-1.24	-13.53	-3.25	2.52	1.44	-14.05	-0.6%
Final Decision	-1.25	-13.66	-4.16	2.37	1.44	-15.26	-0.6%
Adjustments to cost accumulation factors							
Draft Decision	-9.66	-14.86	-11.76	-6.7	-18.11	-61.09	-2.5%
Final Decision	14.41	4.17	5.73	-24.13	12.34	12.52	12.52
AER’s total adjustments							
Draft Decision	-44.18	-117.48	-87.54	-42.3	-125.58	-417.07	-17.0%
Final Decision	-18.84	-90.08	-8.47	-11.82	-71.22	-200.44	-8.2%
AER’s forecast capex allowance							
Draft Decision	502.12	425.55	368.56	424.19	311.74	2032.16	83.0%
Final Decision	527.47	452.94	447.63	454.67	366.10	2248.80	91.8%

Difference in AER's forecast capex allowance based on original application	25.35	27.39	79.07	30.48	54.36	216.64	
Supplementary Application - Powerlink's proposal	153.68	145.04	16.05	101.21	53.24	469.23	
Assets under construction – input cost	-0.16					-0.16	
Future projects–input costs		-3.8	-24.57	-32.71	-27.06	-88.14	
PNG–revised probability	-2.88	-2.83	-3.17	-2.84	-1.21	-12.92	
Demand forecast	-7.94	2.53	3.45	-53.96	0.9	-55.02	
AER's total adjustments	-10.98	-4.1	-24.29	-89.51	-27.36	-156.24	
AER's conclusion	142.7	140.94	-8.24	11.7	25.87	312.99	66.7%
Other adjustments made by the AER	21.88	45.84	-17.76	6.15	10.64	66.74	
Total Difference in AER's forecast capex allowance	189.93	214.17	53.07	48.33	90.87	596.37	

Figure 3-1 shows the total ex ante capex for the next regulatory period. It also shows the actual capex for the previous five year period from 2002/03 to 2006/07. As can be seen the proposed capex program is more than double previously.

Figure 3-1 Total Capex 2007/08 to 2011/12



3.2 Opex

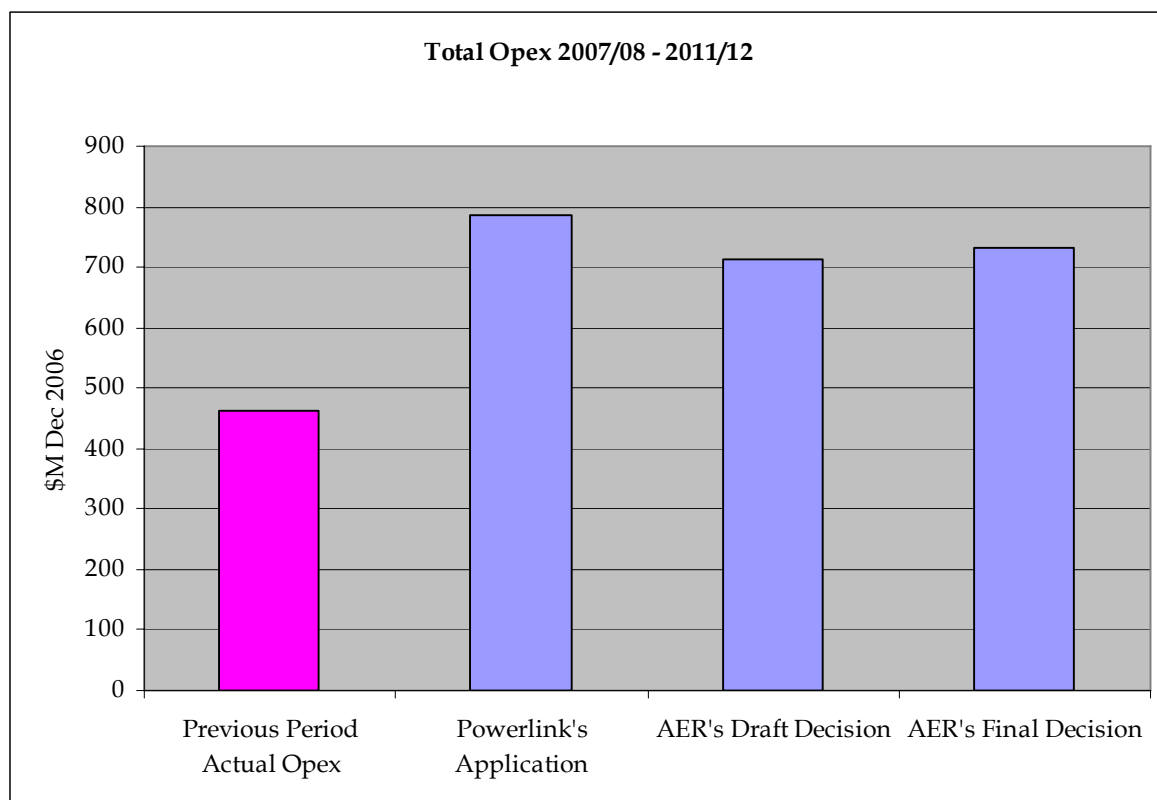
Powerlink applied for an opex of \$787M over the next regulatory period. The Draft Decision allowed for an opex of \$713M, about \$75M less than the amount sought. The Final Decision allowed an opex of \$731M. While this amount is about \$19M above the amount allowed in the Draft Decision, it is still some \$56M below the original application and has included an allowance for the revised capex provided for in the Final Decision as result of the Supplementary application. This is shown in Table 3-2.

Table 3-2 Powerlink Opex

Opex (\$M, 2006-07)	2007-08	2008-09	2009-10	2010-11	2011-12	Total	% reduction
Powerlink's Application							
Powerlink's controllable opex	113.11	119.48	126.52	135.61	140.12	634.85	
Capex efficiencies	7.7	7.7	7.7	7.7	7.7	38.5	
Debt management costs	4.89	4.2	4.28	4.4	3.79	21.56	
Equity raising costs	2.47	2.47	2.47	2.47	2.47	12.35	
Network support costs	24.03	17.34	22.15	8.22	8.3	80.04	
Powerlink's total opex	152.2	151.19	163.12	158.4	162.38	787.3	
AER's Draft Decision							
AER's controllable opex allowance	112.04	117.01	121.2	127.12	128.94	606.32	4.5%
Capex efficiencies	3.19	3.19	3.19	3.19	3.19	15.94	58.6%
Debt raising costs	1.78	1.95	2.08	2.17	2.29	10.27	52.4%
Equity raising costs	0	0	0	0	0	0	100.0%
Network support costs	24.03	17.34	22.15	8.22	8.3	80.04	0.0%
AER's total opex allowance	141.04	139.49	148.61	140.7	142.72	712.56	9.5%
AER's Final Decision							
AER's controllable opex allowance	112.5	119.44	124.73	131.79	135.84	624.31	1.7%
Capex efficiencies	3.19	3.19	3.19	3.19	3.19	15.94	58.6%
Debt raising costs	1.77	2.03	2.26	2.38	2.52	10.96	49.2%
Equity raising costs	0	0	0	0	0	0	100.0%
Network support costs	24.03	17.34	22.15	8.22	8.3	80.04	0.0%
AER's total opex allowance	141.49	142	152.33	145.58	149.85	731.25	7.1%
Difference between Draft and Final Decision	0.45	2.51	3.72	4.88	7.13	18.69	2.6%

Figure 3-2 shows the total opex for the next regulatory period. It also shows the actual opex for the previous five year period from 2002/03 to 206/07.

Figure 3-2 Total Opex 2007/08 to 2011/12



3.3 Revenue

The Final Decision allowed an additional \$181M over the revenue allowed in the Draft Decision. The breakdown of the various revenue components and the differences between the Draft and Final Decisions are shown in Table 3-3.

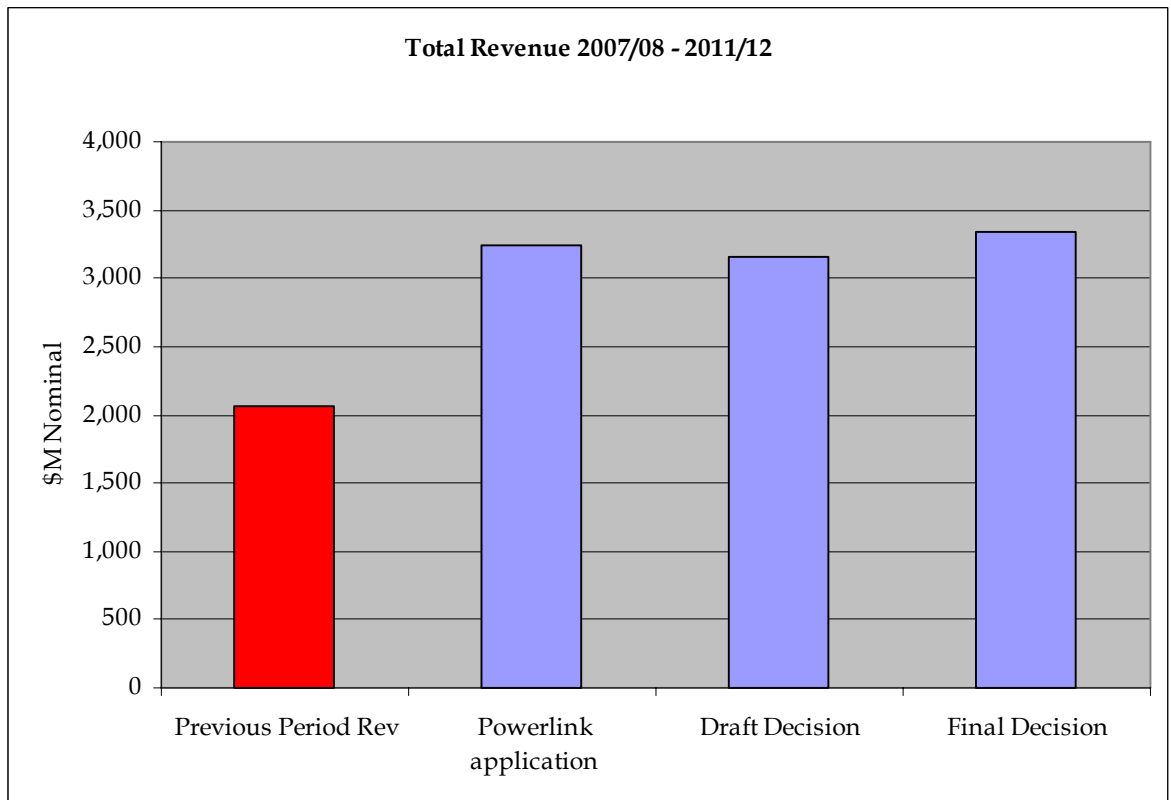
Table 3-3 Powerlink Revenue

	2007-08	2008-09	2009-10	2010-11	2011-12	Total	% change from DD
Draft Decision							
Return on capital	331.4	374.49	410.94	443.58	482.76	2043.17	
Return of capital	40.22	49.01	42.95	46.11	46.38	224.72	
Operational expenditure	145.46	148.33	162.93	158.99	166.21	781.93	
Net taxes payable	18.95	20.68	20.59	21.95	23.75	105.92	
Unsmoothed revenue	536.05	592.59	637.59	670.95	719.58	3156.77	
Smoothed revenue	536.05	580.33	628.27	680.17	736.35	3161.18	
Final Decision							
Return on capital	328.9	390.45	447.66	485.7	529.84	2182.54	
Return of capital	39.78	46.19	41.17	45.6	44.95	217.69	
Operational expenditure	147.63	156.76	169.18	166.99	177.3	817.86	
Net taxes payable	20.5	22.64	22.53	24.01	26.25	115.93	
Unsmoothed revenue	536.81	616.04	680.54	722.29	778.34	3334.01	

Smoothed revenue	536.81	595.79	661.26	733.91	814.55	3342.32	
Increase in Final from Draft							
Return on capital	-2.5	15.96	36.72	42.12	47.08	139.37	6.8%
Return of capital	-0.44	-2.82	-1.78	-0.51	-1.43	-7.03	-3.1%
Operational expenditure	2.17	8.43	6.25	8	11.09	35.93	4.6%
Net taxes payable	1.55	1.96	1.94	2.06	2.5	10.01	9.5%
Unsmoothed revenue	0.76	23.45	42.95	51.34	58.76	177.24	5.6%
Smoothed revenue	0.76	15.46	32.99	53.74	78.2	181.14	5.7%

Figure 3-3 shows the total Powerlink revenue for the next regulatory period. It also shows the actual revenue allowed for the previous five years from 2002/03 to 206/07.

Figure 3-3 Total Revenue 2007/08 to 2011/12



3.4 Impact of Supplementary Capex Application

The increase in capex allowed as a result of the Supplementary application amounts to about \$27M over the regulatory period by applying a WACC of 8.76%. The greatest impact of this increase may be seen in the first two years of the period when the estimated return on capital increases by about \$12.5M each year.

4 COST ACCUMULATION FACTOR

In its Draft Decision, the AER reduced Powerlink's capex forecast by a total of \$417M. Of this amount, \$61M was due to adjustments to the cost accumulation process¹ (Pg 83 of the Draft Decision).

In the Draft Decision, the reasons given by the AER for reducing the \$61M adjustment to the cost accumulation process was that:

- Adjustments to four S-curves² should be removed (10 S-curves were developed by Evens and Peck and 4 were adjusted by Powerlink)
- The application of a general 2.6 per cent cost estimation risk factor was not sufficiently justified
- The application of a generic locality factor to capacitor bank projects was unnecessary given that the final sites had been established.

In the Final Decision, the AER reversed its earlier Draft Decision. The AER accepted that:

- Powerlink is experiencing increased lead times for critical transmission plant as a result of tight supply conditions
- Powerlink's historical S-curves do not take into account these tight supply conditions
- Powerlink subsequently provided additional justification for the 2.6 per cent cost estimation risk factor.

The AER thus reversed its initial draft decision to reduce capex by \$61M.

In addition, the AER had requested additional analysis by Evans and Peck of adjustments to the S-curve and found the need for further adjustments to 2 of the historical S-curves for line and substation projects. The AER thus allowed an additional \$11M relative to its original capex proposal (Pg 49 of the Final Decision).

The AER also applied revised labour escalators developed by Access Economics to Powerlink's forecast capex allowance. Following a request from the AER, Powerlink advised that the revised labour escalators result in an increase to Powerlink's forecast capex of \$2.4 million, relative to its original capex proposal.

This resulted in a \$74M turn around from the Draft Decision.

¹ The cost accumulation process is used by the AER to estimate the impact of various factors on Powerlink's cost profile. These factors include labour cost escalators, estimation risk factors, capital expenditure profile and unit rates.

² S-curves are part of the Powerlink cost accumulation process. It provides an estimate of the capital expenditure profile for different types of capital expenditure over time. This enables Powerlink and the AER to estimate how much of a project costs is incurred during the project's construction eg if a project takes three years to be completed, the S curves provides an indication of how much is incurred within the first, second and third years.

5 SUPPLEMENTARY CAPEX APPLICATION - CHANGE IN INPUT COSTS

In the Supplementary application, Powerlink applied for an additional \$125.5M for future capex and an additional \$155.6M for assets under construction due to increases in input costs. While the AER substantially approved the increase for assets under construction, the application for the increase in input costs for future projects was reduced significantly by over \$88M.

The impact of the increased input costs on Powerlink's capex is shown in Table 5-1.

Table 5-1 Change in Total Capex - Increased Unit Rates (input costs)

\$m 06/07	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Supplementary Application						
Future projects	10.37	24.97	30.4	32.71	27.06	125.52
Assets Under construction	88.01	61.77	6.11	-0.22	-0.09	155.58
Final Decision						
Future projects		-3.80	-24.57	-32.71	-27.06	-88.14
Assets Under construction	-0.16					-0.16
Change in Total Capex Input Costs	98.22	82.94	11.94	-0.22	-0.09	192.80

The relationship between the increase granted in input costs and the adjustments to the S-curve is not entirely clear. The AER considered the adjustments to the S-curve and the cost accumulation process as part of the original application and changes to input costs as part of the supplementary submission. It appears that the adjustments to the S-curve relate to historical costs which have been used to assess the original project cost while the increases to input costs relate to potential future input costs increases. If this is the case, then both increases may be appropriate.

If however, the S-curves have already considered the likely effects of future cost increases, then there may be a significant element of double counting when the input costs increases under the Supplementary application was considered. We intend to address this issue further with the AER.

6 WEIGHTED AVERAGE COST OF CAPITAL

6.1 Risk Free Rate

In the SRP, the AER proposes to estimate the risk free rate with reference to the 10-year bond rate. This proposal however ignores the fact that refinancing of debt can readily be undertaken in a financially mature market like Australia. Given the five yearly regulatory cycle, it is more appropriate for 5 year bond rates to be used as refinancing can occur to coincide with the regulatory cycle. Using 5 year bond yields can be expected to lead to a slightly lower WACC. There is no reason why the bond yield period should be different from the regulatory period under consideration.

6.2 Market Risk Premium (MRP)

A 6% MRP is based on backward looking historical data, which tells us what the MRP was in the past but may have little relevance to how markets might behave in the future in the presence of significantly lower inflation and interest rates. We note that whilst other WACC parameters are forward looking, the estimation of the MRP remains the only WACC parameter that still relies on backward looking historical trends.

UK regulators have all adopted a forward-looking market views in estimating the MRP. UK regulators adopt substantially lower values for the market risk premium (of 3.5% - 4.0%) than do Australian regulators, who all adopt values around 6.0%. In its SRP Discussion Paper, the ACCC stated that it believed that this difference is due to segmented stock markets, and that investors require a higher risk premium to invest in the Australian market. We, however, see no evidence of this segmentation, neither of stock markets nor of investors requiring a higher risk premium in Australia. Indeed, while there is evidence that debt costs are different (and this is taken into account by the risk free rate and debt premiums) there is no evidence that Australia is not fully integrated into competitive international debt and equity markets. We thus do not see any evidence that financial markets see Australian utilities as being 'less efficient' or 'more costly' than their UK and US counterparts, particularly when other capital-intensive (but unregulated) Australian companies are able to be competitive internationally for capital and debt funding.

6.3 Equity Beta

Applying an equity beta of 1.0 for a regulated monopoly with guaranteed level of revenue implies that TNSPs are as risky as the market as a whole. This is simply preposterous when 99% of its revenue is guaranteed and total compensation for its costs of service assured by the regulatory arrangements. The Allen Consulting Group in a report to the ACCC, *Empirical Evidence on Proxy Beta Values for Regulated Gas Transmission Activities*, dated July 2002, suggested an equity beta of under 0.7 for Australian gas transmission companies based on Australian market data. Prior to handing over its responsibilities to the AER, ACCC had also suggested that it was willing to consider equity betas as low as

0.35, as in the discussions on the draft Statement of Regulatory Principles. In addition, the ACCC agreed in the GasNet case before the Australian Competition Tribunal that an equity beta of 1 was overly generous.

6.4 Debt Margin

As Table 6-1 shows, since October 2003 after the last Powerlink revenue determination, the ACCC had set debt margins at no more than 1%. This was based on the businesses credit rating of A or better. However, since the Directlink decision, the AER has agreed to rate all TNSPs at BBB+. As a result, Powerlink has been provided with a debt margin of 1.14%. As the credit ratings for the other TNSPs are comparable to Powerlink, there is no justification for Powerlink to have a debt margin greater than 0.9%.

Table 6-1 Comparative Debt Margins

ACCC's Decision	Credit Rating	Debt Margin	Date
ElectraNet	BBB+	1.22%	Dec-02
PowerNet	A+	1.20%	Dec-02
Powerlink	A-AA	1.20%	Dec-02
Murraylink	A	0.86%	Oct-03
Transend	A	0.91%	Dec-03
EnergyAustralia	AA	0.87%	Nov-05
TransGrid	A	0.90%	Nov-05
Directlink	A	1%	Mar-06

6.5 Return on Equity

The return on equity (ROE) allowed by the ACCC and AER for various electricity transmission businesses are shown in Table 6-2 below. Powerlink has been allowed a ROE of 11.68%. This is consistent with the general level of ROE that the regulators have allowed for electricity transmission businesses since 2001 as shown in Table 6-2.

Table 6-2 Nominal ROE

TNSP	Date Approved	ROE
Powerlink	Nov-01	11.65%
PowerNet	Dec-02	11.12%
ElectraNet	Dec-02	11.17%
MurrayLink	Oct-03	11.46%
Transend	Dec-03	11.86%
TransGrid	Apr-05	11.98%
EnergyAust	Apr-05	11.98%
DirectLink	Mar-06	11.32%
Powerlink	Jun-07	11.68%

Among the major infrastructure stocks listed on the ASX, Macquarie Infrastructure Group (MIG) has achieved a return on equity of around 11.5% while Babcock & Brown Infrastructure (BBI) has a return on equity of around 9%. The ACCC allowed Telstra to earn an equivalent return on equity of 10.3% on the ULLS (Unconditioned Local Loop Service). Estimates of the return on equity of other infrastructure businesses as reported in their respective annual reports are shown in Table 6-3.

Table 6-3 Market ROE

Company	ROE	Source
Ergon	5.6%	2005/06 AR p8
Energex	7.40%	2005/06 AR p85
EnergyAustralia	14.40%	2005/06 AR p29, 30
SP Ausnet	6.08%	2007 AR p7, 39
Transgrid	8.19%	2006 AR p46, 72
Aust Pipeline Trust	10.6%	2006 AR p44, 45
Alinta	4.5%	2006 AR p4, 5
Spark	4.3%	2006 AR p36, 43