grid australia
BACKBONE OF THE NEM

29 May 2012

Mr Tyson Self
Manager Projects, Access
Economic Regulation Authority of Western Australia
Level 4, Albert Facey House
469 Wellington Street
Perth WA 6000

Via email: publicsubmissions@erawa.com.au

Dear Mr Self

**Economic Regulation Authority (ERA) Draft Decision on the Western Power Network (March 2012)**

Grid Australia represents the owners of the electricity transmission networks across southern and eastern Australia (the region covered by the National Electricity Market (NEM)) and Western Australia.

Grid Australia welcomes the opportunity to make a submission on the Economic Regulation Authority's (Authority's) Draft Decision on Proposed Revisions to the Access Arrangement for the Western Power Network for the period from 1 July 2012 to 30 June 2017.

Overview

Grid Australia is making this submission because although the direct effects of the Authority's decisions on the weighted average cost of capital (WACC) are contained within Western Australia, they have potential negative implications across Australia. Given the ongoing debate about WACC calculation in the NEM, the Authority's low WACC estimate in its Draft Decision has the potential to reduce investor certainty in the southern and eastern states. The Authority's low WACC estimate assumes a cost of equity too low to generate the return required to encourage investment, and assumes a cost of debt below the rate at with a stand-alone business can borrow. This submission elaborates Grid Australia's position, and urges the Authority to review its decision on the WACC.

If this decision is adopted more generally it will not be long before all material investment in essential electricity infrastructure will need to be funded by governments directly or on the back of government subsidies.

WACC calculation debate in the NEM

There is currently extensive debate about WACC calculation, including proposals by the Australian Energy Regulator (AER) and some energy users to change the methodology for calculating the WACC. As a result, investors and their advisers are looking for guidance on where regulatory returns for network businesses may trend over the medium and long term. Equally, the Australian Energy Market Commission (AEMC), when deliberating on the proposals, has also looked to the decisions of state regulators – including the Authority – to provide a test of the reasonableness of the AER's past WACC decisions.

It is against this background that transmission businesses and their investors view with concern, bordering on alarm, the WACC that the Authority has proposed in its Draft Decision.

Grid Australia's concerns with the Authority's WACC estimate

In summary, the Authority's WACC estimate:

- assumes a substantial fall in the cost of equity during a period when the only reasonable observation is that investors require higher returns to hold long-lived risky assets, resulting in a return that is well below the rate required to encourage investment; and

- assumes a cost of debt that is substantially below the rate at which a stand-alone transmission business can borrow.

The result is a WACC estimate that is both materially lower than what was provided to Western Power in its last decision (6.52 per cent compared to 10.15 per cent, in nominal vanilla WACC terms) and substantially lower than WACC estimates for eastern states' transmission and distribution businesses, the most recent of which are already biased downwards by the current artificially low interest rates on Commonwealth Government bonds. Table 1 compares the Western Power draft decision with the WACC from its previous review, and compares these to returns being determined in the eastern states, while Figure 1 shows how these most recent returns compare to decisions made for electricity network decisions for businesses operating in the NEM during 2010 and 2011.

**Table 1 – WACC for Western Power Network compared to other decisions**

| | Western Power Draft March 2012 | Western Power 2009 | Powerlink Final April 2012 | Aurora Final April 2012 |
|---|---|---|---|---|
| Risk free rate (nominal) | 3.67% | 5.51% | 4.17% | 3.89% |
| Inflation rate | 2.55% | 2.47% | 2.60% | 2.60% |
| Risk free rate (real) | 1.09% | 2.97% | 1.53% | 1.26% |
| Market risk premium | 6.0% | 6.5% | 6.5% | 6.0% |
| Equity beta | 0.65 | 0.80 | 0.80 | 0.80 |
| Debt risk premium | 2.15% | 4.26% | 3.93% | 4.11% |
| **Cost of equity** | **7.57%** | **10.71%** | **9.37%** | **8.69%** |
| **Cost of debt** | **5.82%** | **9.77%** | **8.10%** | **8.00%** |
| D/V - gearing | 60% | 60% | 60% | 60% |
| **Vanilla WACC (nominal)** | **6.52%** | **10.15%** | **8.61%** | **8.28%** |
| **Vanilla WACC (real)** | **3.87%** | **7.49%** | **5.85%** | **5.53%** |

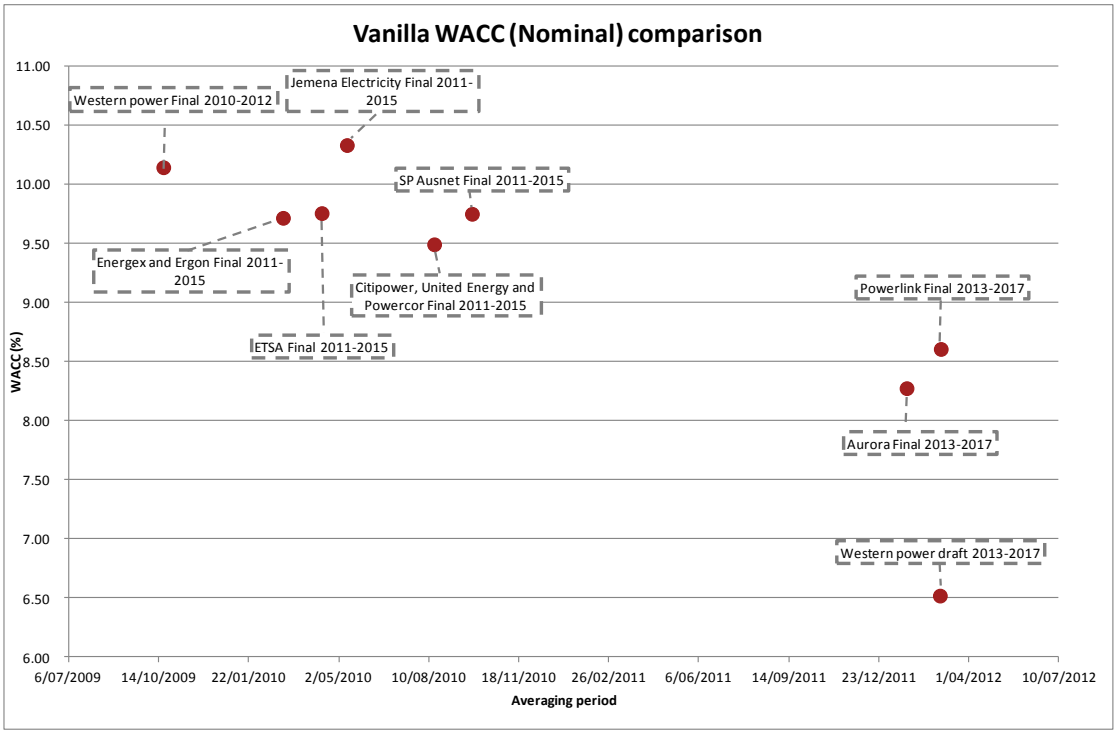


**Figure 1 – WACC's during 2010 and 2011**

This decision is so far at odds with sound expert assessments and the positions adopted by other regulators as to invite questions as to the real drivers underlying this decision.

It is clear that electricity prices have risen materially in recent times in Australia and that rising costs are creating pressure for further increases in prices. There is also an expectation that regulators will act to protect the interests of consumers.

However, it is in times where underlying costs are rising that it is most important for regulators to demonstrate their independence, and take care to properly balance the longer term needs of consumers with the immediate concerns over short term price movements. To do otherwise will only deter the capital investment in essential infrastructure required to avoid future service failures. As remarked by Professor Yarrow:[1]

> *Empirically, the under-investment problem arising from the potential for regulatory opportunism has tended to have been at its most intense in periods of rate-shock, when underlying, upward cost pressures are strong. It is in such periods that rate-setting tends to become more politicised, because of the impacts of rate shock on income distribution, and when the independence of regulators, entrusted with what are intended to be largely technical tasks, tends to come under most threat.*

Grid Australia's recommendation to the Authority

Grid Australia urges the Authority to review its decision on the WACC and provide a return on the regulated assets that is commensurate with reasonable expectation of investors. The Authority should bear in mind that a low regulatory rate of return will lead to underinvestment by

[1] George Yarrow, 2012, Preliminary Views for the AEMC, p.8.

government owned firms just as it will for privately owned firms, given the reasonable demand from owner-governments for a reasonable return on investment and the existence of multiple competing priorities for taxpayers' funds.

Grid Australia's specific comments on the estimation of the WACC – both the cost of equity assumption and the cost of debt assumption – are set out below.

Cost of equity assumption

Between the Authority's last review of prices for Western Power and the current draft decision, the Authority has reduced its estimate of the cost of equity for Western Power from 10.71 per cent to 7.57 per cent, which is a substantial reduction. There are four factors that account for this – three of which are changes effected by the Authority – namely:

- a decision to revise the equity beta downwards substantially
- a decision of the Authority to switch from using a risk free rate with a 10 year term to one with a five year term
- a decision to reduce the market risk premium to 6.0 per cent, and
- the use of the "spot" government bond rate as the rate risk free, which has fallen substantially over the intervening period.

These are discussed in turn below.

*Equity beta*

Addressing each of these in turn, in relation to the equity beta, the Authority's use of an equity beta that is drawn from the midpoint of the range of empirical estimates ignores the known weaknesses of the Capital Asset Pricing Model (CAPM), namely that it under-estimates the cost of capital for low beta assets and for "value" assets like regulated infrastructure. As the AER accepted during the 2009 WACC parameters review:[2]

> *the Sharpe CAPM is a reasonable predictor of equity returns, though at the same time the AER acknowledges that it is not without limitations … in determining the equity beta the AER has adopted a value higher than that suggested by empirical estimates using the Sharpe CAPM … meaning that any possible issue of bias is likely to have been negated.*

*Term of the risk free rate*

The ERA's choice of a 5 year term is inconsistent with the practice of the AER, and hence is inconsistent with the returns provided in the eastern states. In addition, using a risk free rate with a 5 year term is inconsistent with the standard practice of the finance community when using the CAPM, where a 10 year assumption is standard in Australia. Consistent with this, the use of a

[2] AER, 2009, WACC Parameters Review – Final Decision, p.343.

5 year risk free rate is also inconsistent with how the "standard" Australian market risk premium of 6 per cent has been derived.[3]

Furthermore, there is an even greater justification for using a long term bond as the risk free rate for infrastructure assets than for other sectors of the economy, namely that because infrastructure assets are long term investments, the alternative "risk free" investment to these investors is a very long term bond (for which a ten year bond is the best available proxy). Using a shorter term bond as the risk free rate will lead to the Authority materially underestimating the returns that infrastructure investors receive during times when there is a large difference between the interest rates on short term and long term bonds, which is the case at the present time.

*Market risk premium*

The Authority has followed the AER's recent decision to restore the market risk premium back to the level that it considered appropriate during "normal" financial market periods, implicitly assuming that the global financial crisis and subsequent European crisis are over. However, it is clear from events in financial markets (in turn, reflecting the real potential of default by sovereign borrowers in Europe) that high levels of uncertainty and risk aversion remain.

A key indicator of this uncertainty and risk aversion is the large fall in the interest rate on long term Australian Government bonds, which reflects global investors seeking a safe haven for funds (with Australia being one of the few AAA rated countries), which is discussed further below. In addition, Figure 2 shows how equity prices have moved over the period since January 2007 (a period of just under 5 and a half years). While Australian equities have recovered since the worst of the GFC (March 2009), prices remain well below the pre-GFC levels. Moreover, the equities market remains almost 8 per cent below the level of one year ago.[4]

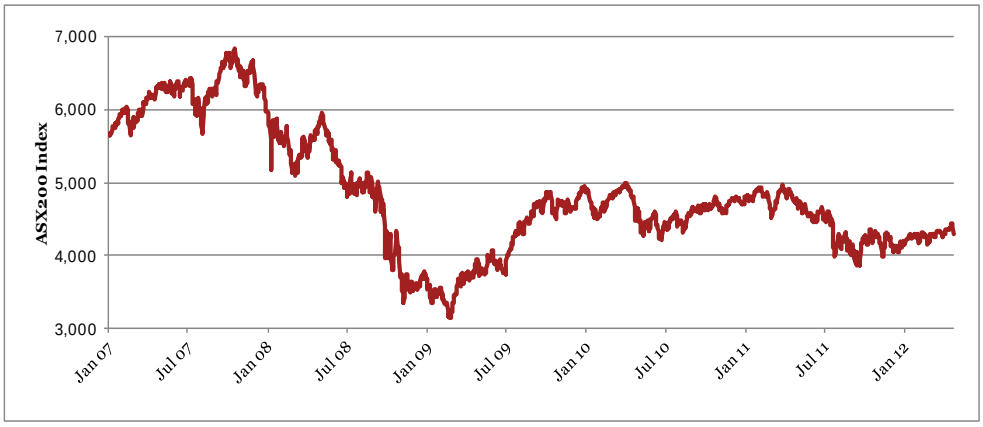


**Figure 2 – ASX 200 since January 2007**

*Risk free rate – spot vs. "normal" or long term measure*

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[3] The AER confirmed that the "normal period" market risk premium of 6 per cent is defined relative to a 10 year risk free rate (AER, Op. Cit, pp.235, 238), and its adviser, Associate Professor John C. Handley, confirmed that the market risk premium defined relative to a 5 year risk free rate would be higher than the premium defined against the 10 year risk free rate (John C. Handley, 2009, Further Comments on the Historical Equity Risk Premium, Report prepared for the Australian Energy Regulator, April, p.14).

[4] This was calculated using the closing value of the ASX 200 for 5 May 2011 (4,754) and 4 May 2012 (4,396).

In relation to the risk free rate, the ERA has applied the "spot" measure of the risk free rate, notwithstanding that the interest rates on Commonwealth bonds have fallen precipitously in the past year arising, in turn, from the current turmoil in international financial markets associated with the European crisis. Figure 3 shows how the Authority's estimate of the cost of equity would have changed since last time merely as a result of changes to the risk free rate, as well as the contribution of the change to the Authority's approach.

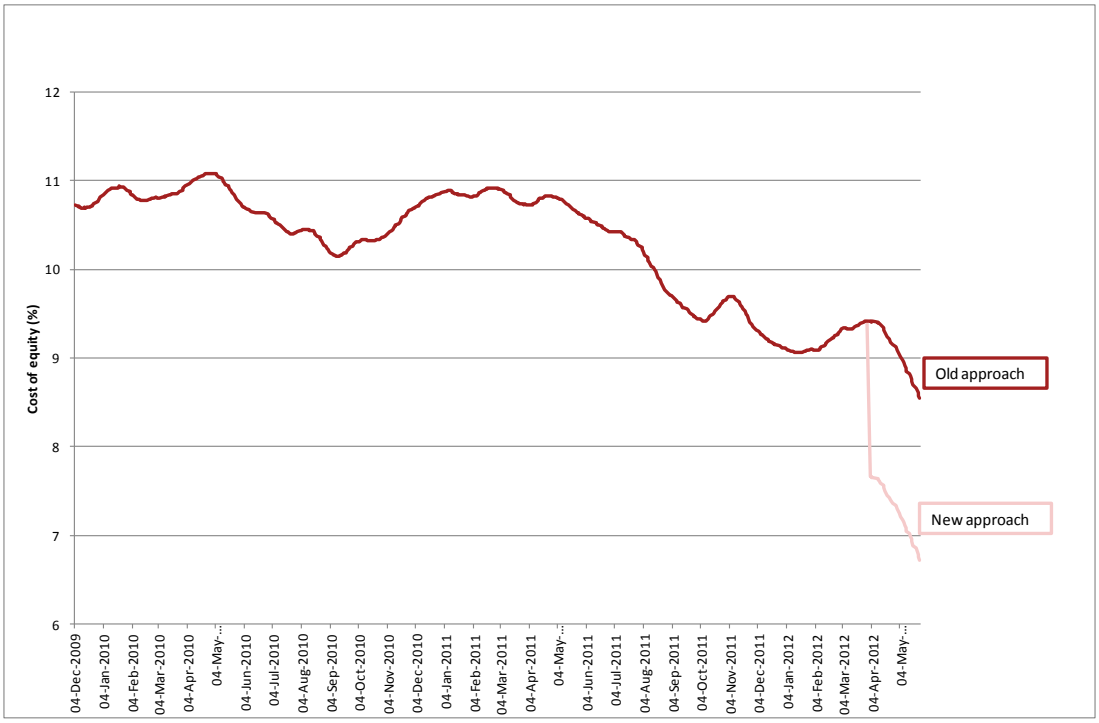


**Figure 3 – Change in the cost of equity: effect of change in the risk free rate and chane to the Authority's approach**

Grid Australia notes that there is a substantial body of opinion that this fall in the interest rate on Commonwealth Government debt is due to investors seeking a "safe haven" during the current crisis, and that the returns required by investors in risky, long-lived investments would not have fallen to the same extent (and indeed, may have risen in view of the more risky investment climate).

The problem with how the Authority has applied the CAPM is that during times of financial crisis, when government bond rates fall, the market risk premium does not remain at the long term average (or normal market levels), but increases by an amount that is at least necessary for the estimated cost of equity not to be lower during the crisis, and with an even larger increase in the market risk premium expected in line with the intuition that the cost of equity should rise during a crisis. Thus pairing the spot risk free rate (drawn from abnormal times) with the normal period market risk premium must understate the cost of equity. This point was recently recognised by the Independent Pricing and Regulatory Tribunal of NSW (IPART), who explained its decision as follows:[5]

[5] IPART, 2011, Review of water prices for Sydney Desalination Plant Pty Limited: Final Report, December, pp.93-94.

*For this review, we consider that the value of the risk free rate is currently well below long term averages and that there is a high level of market uncertainty. We consider the risks in setting a 5-year determination in the current conditions are more significant than under normal market conditions.*

*We acknowledge the argument that there may be greater stability in the sum of the market risk premium and the risk free rate (i.e., the expected market return) than in the individual components. In the current market circumstances, there is some evidence, as SDP noted, to support the view that expectations for the market risk premium have risen as bond yields have fallen. However, it is difficult to measure these short term variations in expectations for market risk premiums. SDP's advisors have developed an approach for addressing this which is interesting, but we consider it requires further testing and observation over time. An alternative approach is to look at the long term averages as a reference point for the sum of the market risk premium and risk free rate.*

*Therefore, to guide our decision-making on the point estimate for the WACC, we estimated the long term averages of the risk free rate, inflation rate and the market risk premium. We found that using these long term averages, the WACC range would be 5.9% to 7.8% with a midpoint of 6.7% (Table 9.5). This midpoint is 80 basis points higher than the midpoint of the range we determined for the WACC using short term averages for these parameters, but still within this range.*

The Australian Competition Tribunal has also recently warned about applying the CAPM mechanically in the face of unusual market events without testing the reasonableness of the outcome:[6]

*The Tribunal notes that the use of the WACC formula is only a means to an end, which is to estimate the required rate of return for an investment with certain characteristics of riskiness and debt. That rate of return is unlikely to vary greatly over the short to medium term, and should not therefore be overly subject to the vagaries of short-term movements in parameters such as market interest rates. Both the access provider and the ACCC should keep these facts in mind to ensure that they do not, by lighting on parameter values that are unrepresentative, end up with a rate of return that is inappropriate for its purpose. [emphasis added]*

Cost of debt assumption

The Authority's allowance for the cost of debt is also substantially lower than what the AER is currently determining (5.82 per cent compared to about 8 per cent). Most of this difference is due to the Authority's assumptions about the characteristics of the "benchmark" firm. In particular the Authority assumes that:

- a stand-alone operator would maintain a A- credit rating, rather than the BBB+ assumed by the AER and by the ERA in 2009, and
- debt would be issued with a term of 5 years, whereas the AER assumes a 10 year term, as did the ERA in 2009.

These matters are addressed in turn below.

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[6] Application by Telstra Corporation Limited ABN 33 051 775 556 [2010] ACompT 1, Para.422.

*Credit rating*

The ERA calculated a median credit rating of A- based on a sample of 13 businesses that were considered to be "sufficiently close comparators to the efficient benchmark network service provider".[7] However, the credit rating for the majority of those entities are boosted either by implicit government guarantees (Country Energy/Essential Energy, Ergon Energy, Integral Energy/Endeavour Energy), or as a result of the entity being part of a larger corporate group that is considered "supportive" (ETSA Utilities and the SPI entities). Once those non-stand alone entities are removed (along with AGL, which has little debt and no longer owns regulated networks), the *highest* credit rating of the remaining (comparable) entities is BBB. In light of this evidence, even a BBB+ rating could not be considered a conservative assumption.

*Term of debt*

The issue of the appropriate benchmark for the term of the debt was thoroughly debated before the AER in 2009, who accepted that an assumption of a 10 year term for debt was reasonable. Importantly, the AER accepted that the evidence was that stand alone entities issue debt with an average term on issue of more than 10 years. The reason for this was made clear from the evidence from ratings agencies that entities would not be able to maintain an investment grade credit rating if all of their debt had a five year term, given the substantial refinancing risks that this brings.

*Cost of debt and government ownership*

As discussed above, a stand-alone electricity transmission business would have to issue debt with a term substantially in excess of 5 years in order to retain an investment grade credit rating, and could not maintain a credit rating in excess of BBB+. However, it can be observed that government owned businesses are able to maintain higher credit ratings and/or issue shorter term debt because there is an expectation that tax payers will "bail out" a failing entity. It is noted, however, that if the Authority takes account of this implicit guarantee when setting prices for Western Power, then those prices will not reflect the full economic cost, and will amount to a subsidy (the subsidy coming from taxpayers, who would be guaranteeing the business without being compensated for this risk). Moreover, to treat a government owned entity differently to a privately owned entity is inconsistent with the Western Australian Government's commitments regarding competitive neutrality, as well as restricting the Government's future flexibility with the assets. This was recently commented upon by the Western Australian Department of Finance's Public Utilities Office as follows:[8]

> *The Office does not support the Energy Users Rule Change Committee's proposal for different approaches to the cost of debt for government-owned and privately-owned network providers as it could distort decision making regarding any future sale or divestiture of government-owned network service providers.*

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[7] ERA (29 March 2012), p. 174.

[8] Western Australian Public Utilities Office, Submission on the AEMC''s Direction's Paper, 19 April 2012.

Summary

The ERA's WACC decision is so far at odds with sound expert assessments and the positions adopted by other regulators as to invite questions as to the real drivers underlying this decision.

Grid Australia urges the Authority to review its decision on the WACC and provide a return on the regulated assets that is commensurate with the reasonable expectation of investors.

If you require any further information in relation to this submission, please do not hesitate to contact Phil Gall on (02) 9284 3434 or contact me on (08) 8404 7983.

Yours sincerely

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