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Dear Steve

**Envestra Submission to the AER's Review of the WACC parameters**

Envestra Ltd is Australia's largest distributor of natural gas, with regulated networks in Victoria, South Australia, New South Wales and Queensland. Envestra is extremely concerned with the inadequate cost of capital arrived at in the *Proposed Statement of the Revised WACC parameters (Transmission) and Statement of regulatory intent on the revised WACC parameters (Distribution)*. Envestra's primary concerns are that:

1. The available evidence does not support a downward revision to any of the WACC parameters.
2. The rate of return proposed by the AER is lower than the costs of raising capital currently being incurred by energy network businesses;
3. The relativities between the regulatory cost of equity and the corporate cost debt proposed by the AER do not provide equity investors with an appropriate return for the additional risk involved in holding equity;
4. The AER has significantly increased risk to energy businesses by playing down current market conditions and assuming things will return to "normal";
5. The sharp decline in the proposed rate of return (>10%) undermines investment confidence in the energy network sector making it more difficult for the industry to obtain investment funds; and
6. The returns proposed by the AER will not encourage the required investment in the industry.

The AER has not appropriately taken into account the current, and future, impact on the cost of capital resulting from the systemic failure of global credit markets. The reason for this is that AER has relied heavily on a backward looking analytical

framework to justify the proposed parameter values for equity beta, credit rating and market risk premium.

With the exception of market risk premium, the data used for equity beta and credit rating is all from the 2002-2007 credit bubble period, which is now widely acknowledged by governments and financial markets participants to have under-priced risk. Therefore, the AER cannot have reflected the prevailing market conditions into its proposed parameter values, notwithstanding the minor adjustment to equity beta.



Also, of concern are the AER's comments in regard to the 1-2 year timeframe for the end to the global credit crisis and about taking a long term perspective to setting rates of return applicable over the 2010 to 2019 period. No-one knows when the current conditions in the capital markets will subside, and it would be imprudent to set the cost of capital based on the unsubstantiated comments made by unknown parties. Moreover, this framework is contradictory to the AER's obligations as set out in clause 6.5.4(e)(1) of the National Electricity Rules, which states:

*the need for the rate of return calculated for the purposes of clause 6.5.2(b) to be a forward looking rate of return that is commensurate with prevailing conditions in the market for funds and the risk involved in providing standard control services;*

Therefore, the task of the AER is to set a rate of return *commensurate with prevailing conditions in the market for funds*. If conditions in the market change prior to the time of the next review in 2014, then this is the appropriate time for the AER to re-examine and amend the cost of capital. The current approach of ignoring business/economic cycles and setting the cost of capital based on data from a low risk aversion period asymmetrically biases the cost of capital downwards.

It is important that the AER does not separate the indissoluble link between the cost of capital and the quantity of capital expenditure made available. If the regulatory cost of capital is set too low then, irrespective of the benchmark capital expenditure allowances, or indeed, the wishes of management, businesses will be unable to finance the required level of capital expenditure.

We are now operating in a capital constrained world, where energy network businesses are competing for capital, not just with other corporate borrowers, but with governments and government guaranteed banks. If the regulatory cost of capital is mis-priced on the low side, even by a small amount, then rational debt and equity investors will pursue other opportunities and Australian energy consumers will suffer the effects of under-investment, capacity constraints, lower reliability and slower economic growth. We are already experiencing this effect as a result of the AER's Proposed Position. Envestra's more detailed comments on the AER's proposed cost of capital are outlined below.



## Cost of Equity

The AER's proposed cost of equity of 8.1% (480 basis points above the current 5 year Commonwealth government bond rate of 3.3%) is inadequate and does not reflect investor rate of return requirements. The yield on 10 year Commonwealth government bonds is the market standard proxy for the CAPM risk free rate. Yields on these bonds have recently fallen to their lowest levels in the past 15 years, primarily driven by investor risk aversion and a flight to the most liquid and highly rated bonds in the market. This peculiarity of the government bond market is not, as the AER assumes, acting to drive down the risk free rate and with it the required rate of return on equity. The opposite is occurring, where the required rate of return on equity is increasing. Higher costs of corporate debt are indicative of this fact, as the cost of equity increases at a faster rate than the cost of debt.



## Capital Asset Pricing Model

Under the National Electricity Law the AER must use the CAPM to estimate the regulatory cost of equity. The theory of the CAPM and practical application of the CAPM differ, with many of the theoretical assumptions relaxed when applied in the 'real world'. To a large extent, investors do not concern themselves with esoteric arguments about 'systematic risk' and whether the MRP should be based on 30 or 50 years of historical data. Investors are mainly concerned with earning the appropriate return on capital invested. A pertinent example of this is the Envestra 2 for 5 Rights Issue currently occurring<sup>1</sup>. The annual cost of equity for this issue is at least 18 percent. Using a risk free rate of 4.2%<sup>2</sup> and an equity beta of one, the implied MRP is 13.8%. This actual observed cost of equity is significantly above the 8.1% proposed by the AER (more than 2 times higher). This is an actual market example, and shows how far from reality the AER is with the WACC parameters contained in its Proposed Position.

The AER therefore needs to make the appropriate allowances in either, or all of, the (i) risk free rate (ii) MRP (iii) equity beta, to provide investors in regulated energy networks with returns comparable to those that could be achieved elsewhere with similar levels of risk.

<sup>1</sup> ASX Media Release, 22 Dec 2008

<sup>2</sup> 10 year commonwealth government bond rate at 27 January 2009

## Risk Free Rate

The AER has heightened the sensitivity of investors to the prospect of regulatory risk with the proposal to move from the 10 year to the 5 year Commonwealth government bond rate as the proxy for the risk free rate.

Industry, quite rightly, assumed this issue was resolved in the 2003 GasNet appeal<sup>3</sup>, where the Australian Competition Tribunal determined that the 10 year Commonwealth government bonds was the appropriate proxy for the CAPM risk free rate. The re-opening of this issue by the AER now has investors factoring a higher allowance for regulatory risk.



The AER concluded on the basis of the data provided in the Deloitte report, that because the debt of energy network businesses had (in 2007) a weighted average term to maturity of around 5 years then the proxy for the risk free rate should be the 5 year Commonwealth government bond rate. The analysis relied upon by the AER to reach this conclusion is flawed, specifically:

1. The AER has used data from both privately and publicly owned energy network businesses. Publicly owned businesses do not face the same market access and refinancing risks as privately owned businesses. Publicly owned businesses obtain debt from State government borrowing agencies that issue semi-government debt, which has a higher credit rating (mostly AAA) and higher volumes which facilitates a deeper and more liquid market. These aspects of semi-government debt reduce investment risk. Consequently, publicly owned businesses receive the benefits of this parent/shareholder support and are able to hold a debt portfolio with a shorter term to maturity;
2. Many State-owned network businesses face the prospect of privatisation, which necessitates a Treasury funding policy skewed against the more natural inclination to fund long-term assets with long-term debt; and
3. Deloitte appears to have used information presented in the Envestra 2008 Annual Report, Note 2(c)(ii) on page 42-43, which sets out a repayment schedule for the financial instruments used by the company in 2007. This is not information about the remaining term to maturity of Envestra's debt. To illustrate this point, the less than 1 year amount of \$16.4m attributed to Capital Indexed Bonds is the interest amount payable over the subsequent financial year and does not include any repayment of principal upon maturity. Similarly, the less than 1 year amount of -\$4.7m attributed to Swaps is the net amount to be paid to swap counterparties over 2007/08 and does not reflect any external debt

<sup>3</sup> Australian Competition Tribunal, Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6, 23 December 2003



balances. The consequence of the misinterpretation of the data is that as the term increases (i.e. greater than 1 year to less than 5 years, greater than 5 years to less than 10 years and greater than 15 years) the interest amount increases exponentially while the principal balances stay constant, which distorts the results of what the AER is trying to measure (maturity profile). This is a fundamental error and demonstrates that the AER's conclusions about 5 year maturity profiles are not supported by the evidence.



Term to maturity at issuance is the relevant information for the AER to assess. This data has been presented to the AER in the JIA's submission, and supports the use of the 10 year term to maturity for the risk free rate.

The 'benchmark entity' to which the CAPM applies is by implication a large listed entity. Listed companies operating in the debt markets face re-financing risk. Given networks invest in 50-100 year assets, it is simply ridiculous to suggest a risk-free rate for long-term investments should be restricted to a 5 year duration.

The other issue with the risk free rate is that the yield on the long-term Commonwealth government bonds (i.e. 5-10 years to maturity) is being driven lower due to investor risk aversion and the high levels of liquidity that are uniquely available in the Commonwealth government bond market. This phenomenon is termed the 'convenience yield' and is described in the JIA submission to the AER Issues Paper<sup>4</sup>. Recent debt issuance by Australian banks provides a good market based reference point for quantifying the 'convenience yield'. As this debt issuance is guaranteed by the Australian Commonwealth Government, it is default risk free and has the identical risk of default as Commonwealth government bonds, the key criteria for selecting a proxy for the risk free rate, a point acknowledged by the AER in the quote below.

*The risk free rate is the rate of return an investor receives from holding an asset with guaranteed payments (i.e. no risk of default).<sup>5</sup>*

Therefore the cost of Australian government guaranteed bank debt is a relevant risk free rate to be used in the CAPM and a benchmark from which the quantum of the 'convenience yield' can be estimated. Using the following information<sup>6</sup>:

- Commonwealth Bank issued A\$300 million of five-year government-guaranteed bonds, priced at 120 basis points over BBSW<sup>7</sup>
- National Australia Bank added A\$500 million to its five-year government-guaranteed bond, priced at around 110 basis points over BBSW<sup>8</sup>

<sup>4</sup> CEG, *Establishing a proxy for the risk free rate, A report for the APIA, ENA and Grid Australia*, 17 September 2008

<sup>5</sup> AER Proposed Position, p87

<sup>6</sup> The rates quoted reflect those as at 19-21 January 2009

<sup>7</sup> Reuters, 12 December 2008

- The debt issued only has a term to maturity of 5 years, rather than the standard 10 year term used in the CAPM;
- The 70bp guarantee fee payable by the banks to the Australian government;
- Margins payable by Banks above BBSW for guaranteed bank debt are in the range 110-120bp;
- The 3 month BBSW of around 3.6%
- The yield on 5 year CGS of around 3.3%;
- The yield on 10 year CGS of around 4.1%



Risk free AAA rated debt is being issued by Australian banks at between 180-190 bp over BBSW after taking into account the 70bp guarantee fee payable to the Australian government. The all up cost of risk free 5 year debt is between 5.4% - 5.5% (BBSW of 3.6% + 0.7% guarantee fee + 1.1%-1.20% bank credit margin) after taking into account the 70bp guarantee fee. This is equivalent to a margin of 130-140bp above the 10 year Commonwealth government bonds. The 130-140bp differential between the risk free rate attainable by non-government borrowers and the 10 year Commonwealth government bonds is indicative of the quantum of the convenience yield attributed to Commonwealth government bonds<sup>9</sup>.

The AER therefore needs to add 130-140bp to the observed yield on 10 year Commonwealth government bonds (or the MRP) when estimating the cost of equity in the CAPM to allow for the convenience premium incorporated into Commonwealth government bonds and adequately compensate equity investors for the opportunity cost of taking equity risk. This evidence demonstrates that the cost of equity has increased from the recent past and needs to be taken into account in setting the regulated cost of capital.

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<sup>8</sup> Reuters, 7 January 2009

<sup>9</sup> 130-140bp is likely to be too low as the debt margin is only relevant to a 5 year term and would be higher for 10 year risk free debt.



## Equity Beta & Market Risk Premium

The AER's claim that the NER mandates the highly theoretical approach of only compensating service providers for non-diversifiable risk<sup>10</sup> is not reflective of commercial practice and therefore such an approach is likely to understate the equity beta used in the CAPM. In the commercial application of the CAPM, practitioners make allowances for uncertainty and the statistical imprecision of the beta estimates made available by Bloomberg, AGSM etc.



*....the theory underlying the CAPM is rigorous the practical application is subject to shortcomings and limitations and the results of applying the CAPM model should only be regarded as providing a general guide. There is a tendency to regard the rates calculated using CAPM as inviolate. To do so is to misunderstand the limitations of the model.<sup>11</sup>*

As the AER has relied on historical data to inform itself about the value for equity beta<sup>12</sup> the AER has implicitly assumed the future will replicate the past. The full effects of systemic failure of global financial institutions, heightened refinancing risk and higher equity market volatility were not fully present in the market risk premium and equity beta data analysed (January 2002 to September 2008) by the AER, as acknowledged by the RBA below:

*World financial markets have come under severe stress in the period since the last Statement. Strains in credit markets escalated in early September, and the period since then has been marked by further large declines in equity prices and exceptional volatility across a range of markets.<sup>13</sup>*

Therefore, the AER may not have fully appreciated the seriousness of the situation at the time it drafted its Proposed Position. The AER now needs to recognise the significance of the global financial crisis, the systemic nature of the changes in the capital markets and that the cost of capital has increased and that it will remain high for a prolonged period into the future (albeit no-one knows how long). Clearly in this

<sup>10</sup> Two aspects of 'systematic risk' not addressed by the AER in its proposal are:

- 1) Companies with greater proportions of fixed costs in their cost structure, such as energy network businesses, will generally be subject to more systematic risk than those with lesser proportions of fixed costs.
- 2) Companies with cyclical revenues, such as energy network businesses, will generally be subject to greater systematic risk than those with non-cyclical revenues. The 5 year price reset cycle of the regulatory regime imposes a high level of cyclicity on regulated network businesses that feeds into higher systematic risk.

<sup>11</sup> SPAusNet, *Explanatory Memorandum, Grant Samuel Expert Report*, November 2007

<sup>12</sup> albeit with a minor upwards adjustment of 0.12

<sup>13</sup> RBA, *Statement on Monetary Policy*, November 2008

uncertain environment it is the wrong to be making significant changes to the WACC parameters.

Given the statistical measures used to assess the accuracy of the beta data indicate that there is a wide range of valid beta estimates, it seems intuitive that the AER choose an equity beta value higher than prevailed in the past. Similarly, choosing a market risk premium at the higher end of the historic average, of around 7%, would have been a responsible regulatory response to the financial crisis. A simple cross check, the outturn cost of equity using an equity beta of 0.8 and market risk premium of 6% (as per the Proposed Position) demonstrates the error in the AER analysis, as it provides a cost of equity significantly below the 13-18%<sup>14</sup> required in the market. This shows the problems with the theoretical approach taken by the AER.



In relation to the AER's use of data analysis in determining what is stated to be a 'conservative' assessment to equity beta of 0.8, no account seems to have been taken of the paucity of available data. There are no listed regulated electricity companies with more than 5 years history in the sample, and only Envestra, as a regulated gas utility has 10 years of market data. The small number of companies used are merely proxies for the 'benchmark utility', and furthermore, the statistical R-squared (to use the technical term) for the data used clearly shows that the equity beta estimate is unreliable. It is therefore beyond belief that the AER can come to such a steadfast conclusion on equity beta in the face of prevailing conditions in equity capital markets for regulated energy companies.

## Gamma

Market practice is to value imputation credits (gamma) at zero, as evidenced by the views of Grant Samuel, independent expert valuer:

*In Grant Samuel's view, however, the evidence gathered to date as to the value the market attributes to franking credits is insufficient to rely on for valuation purposes. More importantly, Grant Samuel does not believe that such adjustments are widely used by acquirers of assets at present. While acquirers are undoubtedly attracted by franking credits there is no clear evidence that they will actually pay extra for them or build it into values based on long term cash flows.<sup>15</sup>*

The AER's universal dismissal of commercial practice cannot be reconciled with the proposal to actually increase the value of gamma from 0.5 to 0.65. This continued divergence between 'regulatory practice' and commercial practice only serves to increase investor's sensitivity to regulatory risk and rate of return requirements for the

<sup>14</sup> This range reflects the average dividend yield for listed energy network businesses and the Envestra Rights Issue cost of equity.

<sup>15</sup> SPAusNet, *Explanatory Memorandum, Grant Samuel Expert Report*, November 2007



sector. This needs to be rectified in the Final Decision, with a value of gamma set to zero.

## Credit Rating

Credit ratings represent a forward looking assessment of the credit worthiness of a borrower. If any of the parameters used in making that assessment change materially, then the credit rating will need to be re-evaluated. Publicly owned energy businesses are not rated using the same methodology as corporate borrowers, as the credit enhancement provided by the shareholder (AAA rated State Government) is taken into account. Use of credit ratings on publicly owned energy businesses biases upwards the observed sector wide historical credit ratings and is inconsistent with the AER's own definition of the benchmark energy network business, which is a large listed firm<sup>16</sup> (i.e. privately owned).



Given the substantial change in the cost of capital proposed by the AER, it is inconceivable that the benchmark credit rating would do anything other than decrease. This view is consistent with that made by Standard & Poor's specifically in relation to Australian utilities, even before Standard & Poor's were aware of the proposed reduction in the WACC. Standard & Poor's expectations for industry wide credit ratings are negative, and that around half of the rated utilities are currently on negative outlook.

*Australian utilities rated by Standard & Poor's Ratings Services continue to face a challenging environment. Key challenges over the next two years include constrained credit markets, higher debt-funding costs, significant capital-expenditure plans, the expected introduction of a carbon-pollution-reduction scheme (CPRS), and the fallout from any sale of the New South Wales (NSW) government-owned energy retailers. **Our recent rating actions and distribution of rating outlooks for the sector support the negative tone: eight of the nine rating actions in the past six months have been negative, while about half of the 33 Australian utilities we rate have negative outlooks.***

*The increasingly negative ratings trend reflects a combination of concerns regarding balance-sheet management, capital-expenditure funding, and operational issues (see charts 1 and 2). Any difficulty in raising equity for committed capital works and/or rectifying operational difficulties could see some further downward ratings transition. A favourable note is that the sector's refinancing task is relatively modest until 2010.<sup>17</sup>*

<sup>16</sup> AER, NSW Draft Distribution Determination, 21 November 2008, page 190

<sup>17</sup> Standard & Poor's Industry Report Card: As Risks Heat Up, Can Australian Utilities Strengthen Their Balance Sheets?

Most importantly, the basis on which the AER has chosen to amend the rating is fundamentally flawed. The AER has observed the historical rating of a number of network entities and made an assessment based on history. However, it has taken no account of the fact that some of those entities have ratings that substantially reflect the ownership of these companies, being largely either State or Singapore government entities or Hong Kong based entities. This is inconsistent with the intended regulatory model which posits an 'efficient stand-alone network entity' capable of sustainable long-term investment. It is this 'mythical creature' that should be the subject of the ratings assessment and which has quite reasonably in the past been set at BBB/BBB+.



The AER's backwards looking credit ratings analysis is not valid. Given the views of Standard & Poor's, the current economic climate, the high level of gearing (60%) held by energy network businesses and heightened presence of refinancing and regulatory risk, it is reasonable to conclude that credit ratings on energy network businesses are likely to reduce in the future and supports a move from the BBB+ benchmark to BBB. There is no basis for increasing the benchmark credit rating.

### Conclusion

Using historical data as the basis for estimating CAPM parameter values is unlikely to provide a cost of capital commensurate with the prevailing market requirements due to the magnitude, and systemic nature, of the changes seen in global capital markets over the past 18 months, but particularly since September 2008. Investors are not particularly interested in esoteric arguments around the statistical precision of inherently imprecise and unobservable WACC parameter values. Investors make their own assessment of their rate of return requirements and will only allocate capital if these returns are likely to be achieved.

Consequently, the AER's rationale for, and decision, to make changes to all of the regulated cost of capital parameters<sup>18</sup> is irresponsible at this time. It results in a rate of return below market requirements. The AER has not adequately incorporated the effects of the systemic failure of the global banking system, and the associated factors, acting to drive the cost of capital higher.

The AER has an opportunity to foster development of Australia's energy networks by providing a regulatory cost of capital that enables businesses to attract funds, improve the network infrastructure and service consumers to the high level they have come to expect. That is, facilitate the National Electricity Objective. For that to occur the AER will need to make major revisions to the regulatory cost of capital in its Final Decision due in March 2009, and provide a cost of equity in the 13-18% range and a

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<sup>18</sup> The effective MRP was altered by the AER in its decision to move the risk free rate proxy from 10 to 5 years



cost of debt consistent with a 10 year term to maturity for a BBB+/BBB stand alone corporate borrower.

Whilst Envestra as a gas contributor is not immediately impacted by the AER decision, we clearly recognise that whilst a case can be (and will) be made for different WACC's to apply in each of the gas and electricity sectors, it is inevitable that the final AER decision will have significant influence on the assessment of those parameters for the gas businesses. We are therefore closely involved with the Energy Networks Association in preparing its response to the Proposed Position. But given our Board's major discomfort with the work undertaken by the AER, as well as the significant losses that have already occurred to our shareholders as a result of the Proposed Position, I wanted to take the opportunity to outline Envestra's considerable misgivings, particularly in the light of the substantive effort and material we have provided to support the Energy Networks Association's proposed WACC parameters.



I would be happy to discuss these matters in more detail if that would be useful and can be contacted on 08 8227 1500.

Yours sincerely

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