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Our Reference: UE.SU.01

Mr John Pierce  
Chairman  
Australian Energy Market Commission  
P.O. Box A2449  
Sydney South NSW 1235

**BY EMAIL TO: [aemc@aemc.gov.au](mailto:aemc@aemc.gov.au)**

**(And through the electronic lodgement facility)**

Dear Mr Pierce,

**Additional round of consultation on cost of debt issues for the Economic Regulation of Network Service Providers Rule Change Requests, project reference ERC 0134**

United Energy (UE) is pleased to respond to the AEMC's supplementary consultation on cost of debt issues<sup>1</sup>. The consultation has arisen as a result of an additional submission provided by the Queensland Treasury Corporation (QTC) on 8<sup>th</sup> June 2012<sup>2</sup>. As is noted in the response to question 2 below, UE has not formed an irrevocable internal view as to whether or not to endorse the QTC proposal, but would nonetheless like to provide comments.

In essence, the QTC has now devised what can be regarded as a forward-looking, moving average approach to the evaluation of the cost of debt. Under the proposed method, historic information on the actual debt margin (and the risk-free rate) will not be used, however, current and future data will be fully employed in the calculation. According to the QTC, the rationale for the forward-looking approach is to eliminate gaming. Other key features of the QTC proposal can be summarised as follows:

- The use of the particular method would be optional and there would be phasing-in arrangements for businesses which elected to switch, in a sequenced manner, to the new method.
- A benchmark approach would be retained for working out the actual debt margin in

<sup>1</sup> AEMC Consultation Notice, 21<sup>st</sup> June 2012, Additional round of consultation on cost of debt issues for the Economic Regulation of Network Service Providers Rule Change Requests

<sup>2</sup> QTC (2012), Moving average approach – detailed design issues. Supplementary submission to the economic regulation of network service providers Rule change process, Queensland Treasury Corporation, 8<sup>th</sup> June 2012.



each quarter and the base rate (which would either be the swap rate or the risk-free rate). Consequently, there would be scope to continue to use the Bloomberg fair value curve for BBB bonds.

- The moving average is essentially, therefore, a form of weighting scheme to be used in the evaluation of an effective actual cost of debt.
- A 10-year moving average has been chosen to match the 10-year tenor of the benchmark cost of debt.
- There is an assumption that a firm refinances 10% of the value of its debt each year, and that it does so by issuing a 10-year bond into the corporate bond market. The firm is also presumed to enter into swap arrangements each year, with the face value of each swap equalling 10% of the total debt balance.
- The QTC hasn't been clear about whether a firm's actual debt balances would be used in the weighting scheme, although the use of firm-specific data on this variable is implied. The issue here is not the fraction of the firm's debt that is assumed to be refinanced in each year, but the manner in which the firm's stock of debt evolves over time.
- The adoption of a moving average approach would have the result that the cost of debt would need to be reset every year. A new value for the cost of debt would need to be inputted into the post-tax revenue model, and then incorporated into the annual pricing proposal that is submitted to the regulator. The process of engagement with the regulator on the cost of debt would be administratively burdensome, and would lead to regular revisions to the trajectory for prices. There might also be some associated price volatility.

UE has reviewed the public submission prepared by the QTC and has also examined the spread sheet workbook which has been made available. The comments shown below have been written in response to the specific questions posed by the AEMC in its consultation paper.

**1. As compared to the proposal put forward by the EURCC in the rule change proposal and ETSA/ Citipower/ Powercor's proposal in response to the Directions Paper, what are the advantages and disadvantages of QTC's proposal?**

In order to distinguish properly between the ETSA and QTC proposals, UE sought to identify the problem that the particular proposals were aiming to solve or remedy<sup>3</sup>. After analysing the broader issue of the measurement of the cost of debt, UE concluded that the main difference between the ETSA/Citipower/Powercor and QTC proposals was in terms of the transition from the current to a future regulatory regime.

In order for the regulatory regime to compensate businesses for the cost of debt, or for any other cost, there is a need for practitioners to first identify the most efficient way in which these

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<sup>3</sup> The ETSA proposal is discussed in:

ETSA Utilities, CitiPower and Powercor Australia. JOINT RESPONSE TO AER AND EURCC RULE CHANGE PROPOSALS (ERC0134 / ERC0135), 8<sup>th</sup> December 2011; and

CEG, Critique of AER Rule change proposal, a report for ETSA Utilities, Powercor and Citipower, prepared by Dr Tom Hird, Competition Economists Group, December 2011.



costs are incurred. A significant number of regulated utilities in Australia favour the issuance of long-term debt, with the result that the businesses follow financing practices that have been observed internationally. If businesses tend to issue long term debt, with maturities of around 10 years, and with evenly spaced maturity intervals, then the compensation for the cost of debt should reflect the interest costs associated with such a portfolio.

The ETSA/Citipower/Powercor proposal (referred to hereafter as the “ETSA proposal”) and QTC proposal are both based on the premise that long term debt issuance is efficient to minimise refinancing risk and that it is impossible (or else prohibitively expensive) to try to hedge the debt risk premium to the beginning of the regulatory period. If the regulatory regime were being designed from the outset, then there would be merit in adopting the QTC proposal without any transitional arrangements (because there would be no existing framework from which to transition). This is because this proposal would provide compensation for pre-existing, efficient debt management practices – practices that would not have been affected by a prior regulatory regime.

However, there is a need to recognise that the regime isn’t being designed for the first time. The current Rules give businesses that issue long term debt an incentive to hedge the base interest rate so that it can be reset at the beginning of each five-year regulatory period. The QTC describes this result as a ‘distortion’ and UE concurs with the conclusion, in broad terms. The fact that businesses commonly hedge base rates at the commencement of a regulatory period is purely an artefact of the regulatory regime because the framework results in cost of debt allowances being re-established at the outset. While that practice may be efficient under the current system, there isn’t a strong case for designing a regime in such a manner as to induce potentially inefficient behaviour.

The ETSA proposal demonstrates a full understanding of the hedging strategies adopted by regulated businesses. It would seem that the ETSA proposal seeks to introduce a Rule change that:

- Acknowledges the efficiency of staggered issues of long term debt and the impossibility (in terms of the prohibitive expense) of hedging the debt risk premium; but also
- Recognises that current debt portfolios are likely to involve hedging of base rates to the regulatory period and that unwinding these will involve some cost.

The ETSA proposal addresses the first issue by setting the debt risk premium (DRP) based on the historical average risk premium on long-term debt. Since movements in this risk premium cannot be hedged, the only way in which the regulatory regime can ensure that its allowances are matched to efficient costs is to use an historical average. An underlying assumption is that businesses issue debt onto the market efficiently, and in a staggered manner, thereby maintaining a debt portfolio with a relatively stable maturity profile.

On the second issue, the ETSA proposal advocates the retention of the practice of resetting of base rates every five years. The ETSA formulation also changes the definition of the DRP so that it is measured relative to the swap rate, which is the base rate used by businesses for hedging purposes. There is no scope for businesses to engage in hedging relative to the prevailing yield on Commonwealth Government Securities.

If the ETSA proposal were implemented, then businesses which currently hedge base rates to the regulatory period would not need to alter their current strategies, over either the short term or the long term. However, the Rules would need to be amended so as to allow businesses to



be compensated for their efficient costs associated with the DRP.

In contrast, the QTC proposal envisages a long run scenario under which businesses would no longer have a regulation-induced incentive to hedge base rates for the duration of a regulatory period. A business opting into the QTC proposal would, if it always issued 10-year debt in a structured and sequenced manner, have little or no incentive to engage in further hedging transactions. The standard debt issuance programme for the business would deliver a cost of debt which was closely aligned to the regulatory allowance for the return on debt. If, for whatever reason, the actual debt issuance differed from the regulatory benchmark, then the regulated business would have an incentive to engage in additional hedging activity. However, the mismatch would probably be small in scale by comparison with the discordance that is observed under current regulatory settings, and the misalignment that might become apparent if the ETSA proposal were to be implemented. Accordingly, there would probably only be limited hedging over the long term under the QTC proposal.

The QTC proposal incorporates a transitional provision which has the effect of only allowing the scheme to apply prospectively. The implication is that at the time of any initial opt-in, a business will not be inclined to alter pre-existing hedging strategies but will nonetheless have an incentive to unwind hedging progressively over time.

United Energy contends that a feature of the current regime is that the DRP is reset every five years, and will be reflective of market conditions over a narrow time interval. Financial market conditions during an averaging or reference period may differ from those that prevailed at the times when the business actually issued debt. Both the QTC and ETSA proposals address the matter of the likely progression in the economic and financial environment. However, under the ETSA scheme, the discontinuity is remedied right at the outset, whilst the QTC proposal seeks to progressively harmonise regulatory settings, and the settings of variables in financial markets, over the 10-year transition period. UE considers that the ETSA proposal is superior on these grounds. At present, UE pays unhedged risk premiums to investors, with the levels of the variables representing historical average market conditions. The risk premiums cannot realistically be hedged. UE considers that the regulatory regime would be materially better if UE were compensated on this basis.

UE concurs with ETSA's proposal to measure the DRP relative to the swap rate rather than by comparison with the yields on 10-year CGS. UE therefore acknowledges that hedging is performed using swap rates not CGS rates.

An advantage of the QTC proposal is that the application of the method would, over the long term, eliminate the need for UE to engage in hedging of the base rate on its entire debt portfolio, with the hedging made to rates at the beginning of each regulatory period. UE considers that a relaxation of the requirement to hedge would be desirable and efficient. However, there would be a need for UE to unwind its existing hedging contracts and the performance of this task could be achieved at a materially lower cost if a satisfactory transitional arrangement were in place.

In summary, and subject to the caveat mentioned below in section 2, UE's preferred Rule change would be one which had the following effects:

- Permitting the immediate implementation of compensation arrangements based on a rolling average long-run DRP; and
- Facilitating a transition to the QTC approach, under which the base rate and the DRP



would be evaluated over the same time period. A further feature is that the regulatory allowance would simply be a rolling average cost of debt. There would be a lesser degree of emphasis on the prevailing swap rate.

UE considers that the precise nature of the transition is a matter that should be the subject of a consultation in future. A possible option would be for individual businesses to propose transitional arrangements that best reflect their circumstances. As an example, businesses which incur higher costs in unwinding existing hedging might aim to do so more slowly than other businesses.

Finally, UE would like to make the argument that the ERA and the AER have committed errors of logic in the past by suggesting that a possible justification for the use of debt instruments with a five-year term to maturity is that businesses engaged in hedging of the base rate to the commencement of the five-year regulatory period. The perspective adopted by the regulators is mistaken because the source of the distortion is the regulatory regime itself. Under the framework, compensation for the cost of debt is provided, in part, by base rates which are set at the beginning of the regulatory period. There is some skewing of debt strategies, however the observed unevenness should not be used to argue for a further anomaly, which would be compensation via five-year debt rather than debt with a ten-year tenor.

**2. If QTC's proposal were to be implemented, how would such a move affect an NSP's current financing practices? What might be the impact of the arrangement on the NSP's risk management practices?**

A significant amount of scenario analysis would need to be undertaken so as to understand the impact on business performance of a range of possible transitional arrangements. UE would need to consider factors such as compliance with covenants and the returns to equity investment. A number of variables would need to be evaluated before a recommendation on a particular transitional measure could be made to the firm's board of directors. UE is therefore not currently in a position to pledge unequivocal support for either the ETSA approach, the QTC proposal, or for any other technique concerned with historical averaging.

An industry-wide outcome might be that NSPs which choose to follow the QTC approach might need to give up some flexibility in the way in which they raise funding and manage interest rate risk.

**3. Would QTC's approach reduce the overall level of risk associated with debt financing for NSPs? If so, are there any implications for cost of equity?**

The QTC proposal (and the ETSA proposal, and UE's proposed hybrid) would boost the ability of the business to hedge debt costs and would thereby contribute to a reduction in idiosyncratic (or unsystematic) risk. In particular, these arrangements would result in a diminution of the risk that the prevailing DRP when a regulatory decision is made will differ from the DRP that is recorded when debt is issued. Consequently, there will be some attenuation of the risk that allowances for the cost of debt end up being materially different from the efficiently incurred cost of debt.

By comparison with the proposed amendments, the current regime creates risks for businesses, with the misalignment between the regulatory DRP and the actual cost of debt resulting in higher interest costs. Lenders are aware that the mismatch increases the likelihood that there will be difficulty in refinancing. However, the irregularities in the cost of debt do not necessarily give rise to a higher CAPM cost of equity. Indeed, the current mismatch may well



reduce CAPM risk – where CAPM risk, or systematic risk, can be identified as factors which tend to raise the beta of a regulated business<sup>4</sup>.

There is a relationship between the cost of debt for a firm and the cost of equity, which is underpinned, in part, by the Miller-Modigliani proposition II. Grundy, for instance, has shown that the equity risk premium must be at least 2.66 times as large as the debt risk premium. The relationship, as documented, provides a consistency check between the observed Debt Risk Premium for a firm and the minimum possible value for the Equity Risk Premium for that same firm, if it finances with 60% debt<sup>5</sup>.

During times of market uncertainty, debt risk premiums are likely to be at elevated levels, as is the market risk premium.

Currently, if debt risk premiums rise then businesses receive compensation over and above the immediate impact on their interest costs (which are based on a long run DRP). The implication is that the profits of regulated businesses tend to increase (decrease) when the prevailing DRP rises above (falls below) the rolling average. There is therefore a countercyclical impact on profits – in other words, a tendency for profits to rise in periods when risk premiums are high and therefore market returns are low. The dampening of this counter cyclical phenomenon would tend to increase CAPM risk rather than reduce it. In UE's view, equity investors care about more than just CAPM risk and would probably view the elimination of the current mismatch as having positive attributes. However, the current regulatory regime provides those investors with no compensation for any risks other than CAPM risks. There would be no basis for lowering the regulatory CAPM cost of equity based on elimination of the mismatch (and there may even be a case for raising it).

**4. What changes (if any) should be made to the approach to calculation of the cost of equity if this moving average approach is applied to debt so as to ensure a consistency of approach?**

The answer to question four is partly provided by the response to question 3. In addition, the cost of equity calculation is a separate matter and should be treated as such. However, UE believes that there is a sound rationale for adopting a long run historical average for the real risk free rate if the CAPM is implemented with a fixed MRP<sup>6</sup>.

**5. If the moving average approach is adopted, should the average be calculated based on dollar-weighted average of the rates or by calculating the effective interest rate (the IRR of all future payments on the debt) or some other method?**

The objective would be to ensure that the cost of debt allowance in forecast cash flows is

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<sup>4</sup> The CAPM provides the relationship between an investment's systematic risk and its expected return. Therefore, given the general risk aversion of the market, investments with high levels of systematic risk can be expected to provide a high return, and vice versa. The beta value of a company's shares is an index of the company's systematic risk relative to that of the market portfolio.

<sup>5</sup> Grundy (2010), *The Calculation of the Cost of Capital*, a report for Envestra, prepared by Professor Bruce D. Grundy, 30<sup>th</sup> September 2010.

<sup>6</sup> See, for instance:

CEG, *Estimating the regulatory debt risk premium for Victorian gas businesses*, a report for APA Group, Envestra, Multinet, and SP AusNet, prepared by Dr Tom Hird, March 2012.



equivalent to the interest payments in any one year. Therefore, the dollar weighted average would be appropriate.

The bond yields or fair value yields that are used as an input into calculations should be those which are recorded when bonds are issued. Bond yields reported subsequently in the secondary market will not be representative of the actual coupon rates being paid by regulated businesses on existing debt.

**6. Is the proposal for re-calculating the cost of debt on a quarterly basis reasonable? What other frequency of data points (to the proposed quarterly basis) could be used in calculating the cost of debt and why would this be an improvement?**

A quarterly approach is reasonable. However, any approach should have, as its objective, the estimation of the average cost of debt through time, giving appropriate weight to all periods when debt would have been issued efficiently. The answer that one receives for the annual average cost of debt should be the same whether there are quarterly, semi-annual or annual assessments.

**7. Should this approach be an option under the rules? If so, should the regulator or the NSP have the discretion to exercise the option and why?**

UE believes that no detriment would result if the regime offered options from which individual businesses can choose. However, the design of the options should not promote gaming with businesses selecting between alternatives with the aim of drawing higher compensation rather than contributing to a lowering of costs.

UE perceives that the main benefit from having options would be in relation to the transition to a new long run regime. UE would be supportive of a system which permitted firms to choose transition paths rather than the final nature of the regime.

**Final comment**

The adoption of a moving average method for the measurement of the cost of debt would necessarily entail a backward-looking approach which differs significantly from the current spot method, with advance nomination of an averaging period. Businesses would regard the retrospectivity as representing a significant departure from current arrangements. The requirement to use historical data is a feature of the QTC proposal, although there is less regard for historical information during the transition phase.

Regulated utilities would need to be convinced of the rule-maker's intent to leaving the regime framework in place before they could agree to make major changes to their financing practices. Debt portfolios would have to be re-structured in such a way as to conform to the new arrangements. Businesses would expect certainty and stability in the new framework.

A pre-commitment approach would probably be needed to facilitate the transition to a regime based on a moving average cost of debt. The AEMC should respond to the imperative of leaving key aspects of the Rule framework unaltered for a significant period of time.

If the AEMC has further questions about this submission, then please do not hesitate to contact Jeremy Rothfield, Network Regulation and Compliance Manager, on (03) 8846 9854.



Yours sincerely,

Jeremy Rothfield  
*Network Regulation and Compliance Manager*