



Our Reference: TRX - 06311

1 5 SEP 2008

Mr C Pattas General Manager Network Regulation South Branch Australian Energy Regulator GPO Box 520 MELBOURNE VICTORIA 3001

Dear Mr Pattas

As the shareholding Ministers for Ergon Energy Corporation Limited, Energex Limited and Queensland Electricity Transmission Corporation Limited (Powerlink Queensland), we welcome the opportunity to comment on the Australian Energy Regulator's (AER) issues paper, 'Review of the Weighted Average Cost of Capital (WACC) Parameters for Electricity Transmission and Distribution', 6 August 2008.

Our submission highlights the significant challenges faced by our large regulated businesses over the coming years in relation to the management of refinancing and repricing risks under the current regulatory regime and shortcomings in the AER's current WACC methodology to account for these challenges. While these are not intended by the AER, the process of setting the WACC drives behaviours by regulated bodies that we consider sub-optimal.

Driving prudent and efficient financing outcomes through reducing financing transaction costs, volatility, and allowing businesses to better manage financing and debt pricing risks, is also a key factor in delivering cost efficient electricity pricing outcomes for consumers. With record capital expenditure on electricity transmission and distribution assets by regulated businesses in Queensland and across Australia, combined with the introduction of the Commonwealth's Carbon Pollution Reduction Scheme in 2010, we regard the reduction of cost pressures and risks, wherever possible, as being prudent and essential.

In line with this, we strongly urge you to consider changing the AER's method for setting the risk free rate in determining the cost of debt to ensure that risks and costs are reduced. Changes to the method for calculating the risk free rate would achieve the optimal outcome as it would deliver significant benefits to both consumers and regulated businesses.

We have requested Queensland Treasury Corporation (QTC), as the State's central financing authority and advisor on financial risk, to provide supporting market based information and advice which has been used to support our submission. We trust the attached submission will be given due consideration. Should you have any queries or wish to discuss the submission further, please contact Mr Adrian Noon, Executive Director of the Office of Government Owned Corporations, Queensland Treasury on (07) 3224 4396 or Mr Neil Castles, General Manager Credit at QTC on (07) 3842 4740.

Yours sincerely

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INTRODUCTION

As the shareholding Ministers for Ergon Energy Corporation Limited (Ergon), Energex Limited (ENERGEX) and Queensland Electricity Transmission Corporation Limited (Powerlink Queensland), we welcome the opportunity to comment on the weighted average cost of capital (WACC) parameters to be adopted in determinations for electricity transmission and distribution network service providers. Details of the parameters appear in the issues paper released 6 August 2008 by the Australian Energy Regulator (AER) entitled "Review of the weighted average cost of capital (WACC) parameters for electricity transmission and distribution".

Our comments relate to the ability of a large regulated business to recover the assumed cost of debt used in the regulated WACC. To summarise:

- matching the regulated cost of debt is the only way for a regulated business to guarantee recovery of the assumed cost of debt from the allowable revenues set by the AER.
- the funding strategy required to recover the regulated cost of debt as it is currently determined is inconsistent with sound risk management principles. In particular the strategy involves a very high level of refinancing and repricing risk.
- attempting to implement this strategy will incur significant transaction costs due to the volume of debt required by Queensland's electricity transmission and distribution businesses. These costs are not reflected in the current allowed debt raising costs.
- the ongoing lack of debt market liquidity will further magnify the cost of refinancing this volume of debt.
- changing the method for calculating the risk free interest rate is the most effective way for a regulated business to recover the assumed cost of debt, as this will allow it to implement a diversified funding strategy that is consistent with sound risk management principles.

Implementing funding strategies without exceeding the regulated cost of debt at prior determinations was only possible due to the lower debt volumes and high level of market liquidity. These conditions no longer exist. We believe that changes to certain WACC parameters are justified as a result of these changed market conditions.

It is important for prices to be set in a way that allows a regulated business to recover the assumed cost of debt. To do otherwise will expose the businesses to a significant and uncompensated risk. Changing the method for calculating the risk free interest rate and the debt risk premium is the most effective way of addressing this issue. If the current method of calculating these rates over a 5 to 40 day period is retained, the cost of attempting to recover the regulated cost of debt should be treated as a legitimate expense for which there should be compensation.

This submission is structured as follows. Section 1 describes the interest rate risk management behaviours that are unintentionally encouraged under the current regulatory regime. The details of two material changes in circumstances that have occurred since the prior determinations are outlined in Section 2. Section 3 summarises the key problems and risks that exist under the current regime as a result of these changes. Our proposals for addressing these problems and risks are presented in Section 4.

RATIONALE FOR PROVIDING COMMENTS

It is understood that any changes to the current WACC parameter values or calculation methods must be based on a material change in circumstances since the last determination. Two material changes have occurred:

- the volume of debt required to fund Queensland's electricity transmission and distribution businesses has grown significantly and will be very large at the next determinations, and
- a sustained decrease in debt market liquidity due to the credit crisis has made it more difficult and costly to execute large physical or derivative debt transactions.

The increasing debt volumes will result in significant refinancing and repricing risk at future regulatory determinations of Queensland entities. These problems will be compounded further if the reduced level of debt market liquidity persists. Even if liquidity returns to pre-crisis levels the size of the refinancing task will still create problems relating to the type of funding strategies that can be used in practice. Regulated businesses with large borrowing requirements may be forced to implement diversified funding strategies that, while more prudent from a risk management perspective, increase the likelihood of producing a cost of debt that exceeds the regulated cost of debt.

Regulated businesses face conflicting objectives when managing interest rate and refinancing risk under the current regime. Our comments and recommendations are intended to help resolve these conflicts and to provide improved outcomes for both consumers and the regulated businesses.

SECTION 1 – IMPACT OF REGULATORY REGIME ON INTEREST RATE RISK MANAGEMENT

The method for calculating the regulated cost of debt influences the type of debt funding strategies used by regulated businesses. Current practice is to use the average yield on a 10 year Commonwealth Government bond over a 5 to 40 day period as the basis for calculating the regulated cost of debt and WACC.

The fact that the AER does not force a regulated business to adopt a particular funding strategy is irrelevant. If it is reasonable for a regulated business to be able to recover the assumed cost of debt then the method for calculating the risk free rate will always dictate the type of funding strategy that can achieve this. Similarly, the chosen methodology will make alternative strategies ineffective in achieving this objective, regardless of the benefits they may deliver in practice.

Matching the regulated cost of debt under the current regime involves resetting the interest rate on all existing borrowings into fixed rate funding for the term of the regulatory period over the same time period used to calculate the risk free rate. The interest rate on borrowings to be made during the next regulatory period must also be locked in at the same time. This is the only strategy that will enable the assumed cost of debt to be recovered from the allowable revenues set by the AER.

There is strong evidence that regulated businesses have used this strategy at prior determinations. This highlights the influence of the regulatory framework because in the absence of regulatory pricing principles this type of strategy would not be used. It is common practice for large commercial businesses to maintain diversified debt portfolios and to spread the refinancing task across time. By way of example, all large non-regulated government owned corporations in Queensland maintain highly diversified debt portfolios. Borrowings are spread across fixed rate loans with differing terms to maturity. This greatly reduces refinancing risk and allows the actual cost of debt to change gradually over time.

Resetting the interest rate on a large debt portfolio over a 5 to 40 day period every 5 years is inconsistent with sound risk management principles. Doing so creates significant refinancing and repricing risks. A diversified debt portfolio is an effective way of managing these risks, however, the actual cost of debt may differ significantly from the cost assumed in the WACC. The implications of this difference in cost are not trivial:

- net earnings volatility (both from year to year and over five year periods) will increase because interest costs are subject to change whereas the allowable revenue set by the AER is fixed.
- higher net earnings volatility will increase the risk of breaching minimum debt covenants including interest coverage ratios.
- breaching minimum debt covenants and/or interest rate volatility may have adverse impacts on a regulated business's credit rating.

A regulated business is not truly free in its choice of funding strategies under the current regime. Recovering the assumed cost of debt is a reasonable and prudent strategy. The only way a regulated business can do this is by resetting the interest rate on its entire debt portfolio to match a 5 year fixed rate loan over the same 5 to 40 day period used to calculate the risk free rate.

SECTION 2 - MATERIAL CHANGES IN CIRCUMSTANCES

Two material changes have occurred since the prior regulatory determinations. These are outlined below.

Significant Increase in Debt Volumes

The volume of debt required to fund Queensland's electricity transmission and distribution businesses has grown significantly since the prior determinations. In 2010 total refinancings in excess of \$14 billion are expected for Ergon and ENERGEX. A substantial refinancing task for Powerlink Queensland will take place in 2012. The size of the refinancing tasks will create significant problems at the next and subsequent determinations. The Australian debt market lacks the liquidity for refinancings of this size to be performed in an orderly manner over a 5 to 40 day period. These problems will intensify if the rate resets for Ergon and ENERGEX happen at the same or similar times.

Reduced Debt Market Liquidity and Increased Transaction Costs

During the past 12 months the level of debt market liquidity has fallen sharply. Losses stemming from the US sub-prime crisis have prompted financial intermediaries to reduce the amount of capital devoted to risk-taking activities such as price making in bonds and interest rate swaps. There is anecdotal evidence of the debt market being effectively closed during some days over this period.

The extent of the reduction in market liquidity is apparent when considering the increase in transaction costs since the credit crisis began in August 2007. A survey conducted by the Queensland Government's central financing authority, Queensland Treasury Corporation, of the twelve large banks which purchase Queensland Treasury Corporation bonds and sell to investors as well as provide secondary market support, confirms that transaction costs have risen significantly over the past 12 months and since 2005. The average bid/offer spread quoted on a \$200 million debt transaction has risen from 0.017% to 0.038%. This is evidence of reduced liquidity because the amount of funds that can be borrowed at a given rate is now smaller. Expressed differently, borrowing a given amount of money in the current market now requires paying a progressively higher interest rate. An estimate of the transaction costs that may apply if a very large volume of debt is refinanced over a 20 day period has been provided in Section 4.

Any improvement in liquidity will not resolve the problems due to the size of the future refinancing tasks. Even if liquidity returns to pre-crisis levels it will still be insufficient to accommodate the volumes outlined above in an orderly manner.

SECTION 3 - PROBLEMS CREATED BY THE CURRENT REGULATORY REGIME

"What is the true extent of interest rate and refinancing risk faced by regulated network businesses as a result of the regulatory regime? Can regulated network businesses manage their refinancing risk via swaps and other financial instruments?"

We note that this question by the AER contemplates regulated entities immunising interest rate risk. This would appear to confirm that the unintended consequence of the interest rate setting process is the immunisation of interest rate risk.

Our key concerns are captured by answering the above question posed by the AER on page 33 of the issues paper. The need for a regulated business to finance itself at or below the assumed cost of debt combined with the method for calculating the risk free rate defines the nature of interest rate risk under the regulatory regime. The details of how this was done at prior determinations has been outlined in Section 1. These determinations took place when debt market liquidity was much higher than current levels. More importantly, the amount of debt to be refinanced was significantly smaller. It was therefore possible for regulated businesses to refinance their borrowings over a 20 day period to immunise themselves against interest rate risk without incurring significant transaction costs or alerting the market that a regulatory refinancing was taking place.

Attempting to refinance the debt volumes outlined in Section 2 over a 5 to 40 day period is inconsistent with sound risk management practices and exposes each regulated business to significant repricing and refinancing risk. The market lacks the liquidity required to accommodate refinancings of this size in an orderly manner. Clear signals would be sent to the market indicating that a large refinancing was taking place. Ultimately this would have an adverse pricing impact for the regulated business. There is no reliable way to estimate how far yields may move if this occurs but it is fair to say that the larger the refinancing or repricing task, the greater the cost.

The current regulatory regime creates a conflict between two important risk management objectives. Implementing a prudent and diversified funding strategy and recovering the regulated cost of debt are mutually exclusive activities. Reducing one risk comes at the expense of increasing the other. Section 4 describes a simple and transparent method for calculating the risk free interest rate that greatly reduces this conflict. This method also provides significant benefits for consumers as it reduces the likelihood of prices being set during a period of temporarily high interest rates.

To manage interest rate and refinancing risk with interest rate swaps and other financial instruments still requires large transactions to be entered into over a short period of time. Using interest rate swaps will create other risks that cannot be managed under the current regulatory regime. A more detailed discussion on the use of interest rate swaps appears as an appendix.

In summary, setting the risk free interest rate over a 5 to 40 day period creates significant risks for regulated businesses with large borrowing requirements. Implementing the funding strategy required to recover the assumed cost of debt can only be achieved if there is sufficient market liquidity to accommodate the necessary transactions. The size of the refinancing task for Queensland's electricity transmission and distribution businesses makes this difficult in any environment let alone the current environment where liquidity is severely constrained. Even if sufficient liquidity does exist the concentrated debt profile that is created will still involve a significant level of refinancing risk in the future.

SECTION 4 - PROPOSED CHANGES TO WACC PARAMETER VALUES AND METHODOLOGIES

We believe that changes to certain WACC parameters are justified based on the material changes that have taken place since the prior determination.

Alternative Method for Calculating the Risk Free Interest Rate

An underlying principle of regulatory pricing is to set prices in a way that allows a regulated business to recover the assumed costs. The current method for calculating the risk free rate (and therefore the allowable revenue) may result in large regulated businesses being unable to do this at future determinations.

The method for calculating the risk free rate clearly influences the type of funding strategies used by a regulated business. As discussed in Section 1 attempting to recover the cost of debt used in the WACC is prudent and desirable. The funding strategy required to do this under the current regulatory regime is inconsistent with sound risk management principles. The debt volumes involved are now too large to allow the implementation of a strategy that can recover the assumed cost of debt as it is currently calculated.

Updating a percentage of the risk free interest rate each year is a very simple and transparent way of enabling a regulated business to recover the assumed cost of debt by implementing a prudent and diversified funding strategy. The debt risk premium should also be updated in the same way. There are many ways to do this. For example, the risk free rate could be recalculated annually, based on a five year funding profile, according to the following formula:

$$RF_t = 0.8 \times RF_{t,t} + 0.2 \times CGB_t$$

Where:

 RF_{t} = current value of the risk free interest rate RF_{tt} = value of the risk free interest rate 1 year prior

CGB_t = current 5 to 40 day average yield on a 10 year Government bond

This approach mimics a funding strategy that refinances 20% of the total debt each year whereas the current method refinances 100% of the debt every 5 years. By construction the risk free rate would change annually with the magnitude of the change being much less than the change in the 10 year Commonwealth Government yield. The same formula would be used to update the debt risk premium each year. For consistency the cost of debt, equity and the WACC should all be updated at the same time.

The benefits of this approach are twofold. Consumers will benefit from a reduced chance of prices being set during a period of temporarily high interest rates and/or debt risk premiums. Prices will be set in a way that enables the regulated business to recover the assumed cost of debt whilst pursuing a prudent and diversified funding strategy.

We acknowledge the weaknesses inherent in the proposed alternative. In particular:

- 1. there is an implicit assumption that prices should reflect a cost of funds that incorporates both current and historical interest rates. The current approach assumes that prices reflect the marginal cost of funds.
- 2. the type of risk free rate used in the cost of debt and equity calculations will differ from the rate used to estimate the market risk premium.

Ultimately these weaknesses need to be assessed against the benefits that will be delivered in practice. They also need to be viewed relative to the problems that have already been identified in the current approach. Resolving these problems may only be possible if certain theoretical objectives are forgone.

Compensation for Additional Debt Related Transaction Costs

Attempting to match the regulated cost of debt as it is currently calculated will incur significant transaction costs. In this regard, Queensland Treasury Corporation has consulted a large international bank to obtain an estimate of the transaction costs associated with a \$5 billion debt refinancing over a 20 day period in the current market. Total costs of 0.30% to 0.35% per annum above the mid market yield would apply to source the underlying funding. If swaps are used to achieve a 5 year fixed rate profile a further 0.05% to 0.075% per annum in transaction costs would apply, producing a total debt issuance cost of 0.35% to 0.425% per annum. These estimates assume that Queensland Treasury Corporation is the counterparty to all swap transactions. For a \$10 billion refinancing task an accurate transaction cost estimate could not be provided but would be expected to be significantly higher than 0.425% per annum.

The benchmark debt raising costs outlined in Table 10.4 on page 116 of the issues paper do not capture these costs. The risk free rate also excludes costs as it is defined as a midmarket rate. However, it could be argued that the benefits of hedging are implicitly captured in the way regulated prices are currently set. There is strong evidence that the sample of firms used to estimate the benchmark credit rating and equity return do engage in interest rate hedging¹. Failure of a regulated entity to hedge may jeopardise the ability of the business to maintain its credit rating and be able to achieve the regulated return. In addition, the AER contemplates that regulated entities hedge based on page 33 of its issues paper. As a consequence, the benefits of hedging are likely to be captured by way

¹ SFG Consulting

of a higher credit rating than what would apply if these firms did not hedge. To ensure consistency both the costs and benefits of hedging should be acknowledged.

Transaction costs are directly related to the size of the total refinancing task. For a given credit rating smaller borrowers are less exposed to illiquid market conditions and will require less compensation compared to a larger borrower. These considerations are best dealt with on a case-by-case basis depending on the size of the refinancing task.

It is noted that providing compensation will still encourage a regulated business to implement a funding strategy that is inconsistent with sound risk management principles. We believe that changing the method for calculating the risk free rate is a more appropriate solution as it also eliminates the need to compensate for the transaction costs outlined in this section.

CONCLUSIONS AND RECOMMENDATIONS

Regulated businesses will face many new and significant challenges over the coming years. As shareholding Ministers for Queensland's electricity transmission and distribution businesses we therefore welcome the opportunity to provide comments on the current WACC parameters and to suggest alternative approaches where material changes in circumstances make it appropriate to do so.

Our fundamental view is that a regulated business should not be required to implement a funding strategy that is inconsistent with sound risk management principles in an attempt to recover the cost of debt from the revenues set by the AER. Under the current regime the management of one risk unintentionally creates or increases other risks. This occurs because of the way the risk free interest rate is currently calculated.

Our main objective is to reduce risk for consumers and regulated businesses whilst maintaining consistency with the 'spirit' of the regulatory pricing principles. Our recommendations are therefore as follows:

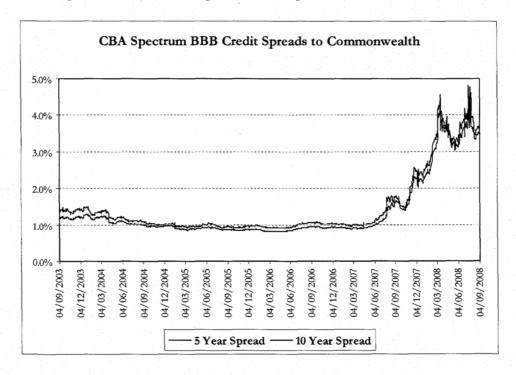
- 1. consideration be given to an alternative method for calculating the risk free interest rate that only requires a percentage of the total debt to be refinanced each year.
- 2. if the current method is retained then the cost of attempting to match the regulated cost of debt should be treated as a legitimate debt funding cost and compensated for at the next determination.
- the timing of the rate resets scheduled to occur in 2015 be changed for Ergon Energy Corporation Limited and Energex Limited so they do not take place within at least 6 months of each other.

Changing the calculation method for the risk free rate is the preferred approach. This will deliver significant benefits to consumers and the regulated businesses and will encourage more prudent risk management practices. The debt risk premium should be calculated in the same way. Providing compensation for transaction costs does not address the underlying risks of the current matching strategy and will not reduce risk for the consumer. These risks can be easily mitigated by making a relatively minor change to the method for calculating the risk free rate and debt risk premium.

APPENDIX A - MANAGING REFINANCING RISK WITH INTEREST RATE SWAPS

Interest rate swaps can be used to manage interest rate risk separately from refinancing risk. Refinancing risk can be managed by sourcing the underlying funding from a series of fixed rate loans with differing terms to maturity. Interest rate swaps can be used to convert the interest rate exposure to a fixed rate for the term of the regulatory cycle.

Under the current regulatory regime using interest rate swaps to manage refinancing risk will create other risks that cannot be effectively managed. The most significant risk relates to the debt risk premium that will apply to borrowings that are refinanced during a regulatory period. By construction, the majority of debt will mature outside the 20 day period used to calculate the regulated debt risk premium. As a consequence, the actual premium paid when refinancing a maturing loan is likely to differ from the premium used in the WACC at the prior regulatory reset. The significance of this risk is evident when considering the volatility of credit spreads over the past 12 months:



A regulated business that implemented a swap-based strategy at prior determinations in either 2005 or 2007 would be forced to refinance maturing loans at premiums several percentage points higher than the debt premium used in the WACC. This would create a significant mismatch between the actual and regulated cost of debt.

The above chart also highlights the risk to consumers when the WACC parameters are reset every 5 years. If a determination were to occur now the price paid by consumers would *fully* reflect the current debt risk premiums. Adopting the methodology presented in Section 4 will greatly reduce this risk because the risk free rate and debt risk premium will change gradually over time and will be less exposed to periods of increased volatility.

Other Considerations

The use of interest rate swaps will also create a credit exposure to the swap counterparty. It is common practice for credit exposures to be managed by way of agreements to post cash collateral if the net market value of a swap moves beyond a pre-defined threshold. For a borrower collateral may be required if swap rates fall significantly below the original fixed rate. Assuming the collateral can be obtained the associated cost will have an adverse impact on the profitability of the regulated business. The cost of hedging any other swap related credit exposures will have a similar impact.

Finally, interest rate swaps do not avoid the problems associated with attempting to execute very large transactions over a short period of time. Transacting interest rate swaps on the volume of debt outlined in Section 2 over a 5 to 40 day period will still involve an unacceptable level of repricing risk.

In summary, managing refinancing risk with interest rate swaps will create risks that cannot be effectively managed under the current regulatory regime. The newly created risks are very significant given the volatility in credit spreads over the past 12 months. Refinancing risk can be most effectively dealt with by adopting an alternative method for calculating the risk free rate, such as the one presented in Section 4.