Supplementary response

Cost of debt issues

Response to AEMC Consultation Notice

Economic Regulation of Network Service Providers

(Reference ERC0134 & ERC0135)

1. Overview

The Energy Network Association (ENA) welcomes the Australian Energy Market Commission's (AEMC) further round of consultation on cost of debt issues relating to proposals made by the Australian Energy Regulator (AER) and the Energy Users Rule Change Committee (EURCC). ENA understand that the AEMC is seeking comment from stakeholders on issues relating to the trailing average aspect of the EURCC's proposal.

In our view issues to be resolved with the use of a trailing average fall into the following areas:

- the modification of the weighted average cost of capital (WACC) principle and the level of prescription in the rules;
- the cost of debt benchmark and its measurement;
- the mechanics of implementing a trailing average into the cost of debt; and
- unintended consequences and transitional issues.

A range of views exist across ENA's membership about the relative merits of moving from the current approach for determining the cost of debt allowance. ENA members continue to be supportive of the development of a historical trailing average benchmark approach for consideration. If the option of adopting a trailing average approach for the cost of debt were to be adopted by the AEMC, then a number of critical concerns arise:

- the process of developing a trailing average within the timetable of the current AER/EURCC rule change proposal is incompatible with a timetable for carefully developing, and comprehensively consulting on, the new framework;
- the greatest risk with the current compressed timetable is the danger that potentially important transitional issues could be overlooked; and
- this is a material risk where transitional issues are being contemplated in an environment where no fully defined rule change proposal has been developed and the AEMC is still at the stage of consulting on different potential models. This is of particular concern to the ENA members given the business specific financing arrangements and the potential for a varying transition to any new framework.

ENA members continue to hold the view that this proposal would best be pursued outside of the relatively restrictive constraints of the current AER/EURCC rule change proposal.

Notwithstanding these concerns, the remainder of this submission outlines industry perspectives on each of the above four areas that need to be developed before the implementation of a trailing average.

2. Weighted average cost of capital principles and the Rules

The EURCC's rule change proposal argued that one of the benefits of a trailing average cost of debt is that it:[1]

> *… addresses the problem of volatile estimates of debt costs when sampled over a short period of time, and it also addresses the problem of windfall gains and losses that arise when there are differences between the embedded and future costs of debt.*

The ENA supports this statement with the qualification that the benefits of establishing a benchmark using a trailing average are only realised if the network business has the capacity to align its debt portfolio with the approach used to establish the benchmark. It follows that the primary benefit of a trailing average is that it affords network businesses the opportunity to better manage their debt risks. ENA strongly believes that the best method to achieve this goal would be for each network business to be provided with a choice about the key design feature of the trailing average approach (that is, whether apply: a spot rate; a "trail" of the total cost of debt; or a "trail" of the debt risk premium). Providing choice would permit the benchmark debt cost to be estimated in a manner that mirrors the circumstances of that business rather than forcing all businesses into a 'one-size-fits-all' approach.

In our view a change to the method of calculating the cost of debt allowance that empowered firms to better mitigate their debt risks is consistent with the criteria for a good WACC framework. Specifically, this change would promote regulatory certainty by diminishing the risk in the current arrangements whereby the spot cost of debt may be significantly different from a network business's actual costs debt during the regulatory period.

To ensure that the potential benefits of a trailing average are realised the following principles need to be enshrined in both the National Gas Rules (NGR) and National Electricity Rules (NER):

- a definitional principle is required to clarify that a reference in the overarching objective to "forward looking rate of return that is commensurate with prevailing conditions in the market for funds" means, in relation to the cost of debt:
    - the current and forward-looking cost of raising benchmark debt finance ("spot rate"), or
    - the current and forward-looking annual interest cost under a benchmark debt portfolio that is calculated in a manner consistent with this rule ("trailing average rate").
- that each network business has the option of how the allowance for the cost of debt is determined, ie:
    - the rules will prescribe three different methods that the cost of debt allowance can be calculated, namely that:
        1. the "spot total cost of debt" that sets the future allowance equal to the average annualised yield debt with the benchmark term and credit rating over a sample period as close as practicable to the revenue/price decision; or
        2. the "trailing total cost of debt" sets the future allowance at the weighted average of the historical and future total cost of debt that would be borne by a firm that issues debt with the benchmark term and credit rating, or

[1] EURCC, *Proposal to change the National Electricity Rules in respect of the calculation of the Return on Debt*, 17 October 2011, page 43.

3. the “trailing debt risk premium” sets the future allowance at the weighted average of the historical and future debt risk premium (measured relative to the swap rate) that would be borne by a firm that issues debt with the benchmark term and credit rating, plus the five year swap rate over an averaging period close to the commencement of the new regulatory period (with a process for this period to be agreed with the service provider).

- inclusion of measures to ensure that the debt allowance provides an unbiased estimate of the long term cost of debt.

In our view a mechanism that requires a network business to choose the specific method for determining the allowance for the cost of debt– would best allow it to take account of its specific circumstances and so maximise the benefits and minimise the transitional costs of introducing a trailing average.

Notwithstanding, our position that network businesses should propose the timing and form of a trailing average, if the AEMC was to impose a single specific form of trailing average then it is critical that the rules include a transitional mechanism so that firms are not unduly penalised for their current debt financing arrangements.

3. Cost of debt benchmark and its measurement

The ENA believes that evidence supports the adoption of the debt benchmark determined by the AER in its 2009 review of WACC parameters. That is, a benchmark efficient network business would raise debt with the following characteristics:

- Australian corporate bonds;
- which have a BBB+ credit rating from Standard and Poors; and
- at issuance have a term to maturity of 10-years.

The ENA also notes the absence of any evidence suggesting that the current debt benchmark is inappropriate. In our opinion, it is instructive to note that the AER has continued to adopt this benchmark in all its subsequent revenue/price decisions for gas pipelines and electricity distribution service providers.

The introduction of trailing average means that the debt benchmark is now an integral element of how the trailing average is calculated. Consequently, changes in the benchmark will have a retrospective effect on the optimal financing arrangements of a network business. For example a change in the debt benchmark from a 10-year term to a 5-year term would mean that the allowance would be set by reference to the new 5 year trailing average benchmark. Consequently, for network businesses to minimise the risk of differences between its allowance and its actual debt costs, firms would need to anticipate this change to the term benchmark and begin issuing five year debt 5-years before its next regulatory decision. However, businesses cannot be expected to anticipate possible decisions by the regulator.

The ENA therefore urges the AEMC to consider specifying the debt benchmark in the rules. This would support the pricing and revenue principles in the National Electricity Law by providing network businesses with a reasonable opportunity to recover ‘at least the efficient costs’ of meeting their regulatory obligations. A necessary (but arguably not sufficient) requirement is for the rules to require that any changes to the debt benchmark be applied only on a prospective basis. In other words, a change in the debt benchmark would have the following consequences:

- if the network business has elected to use a spot rate then the new benchmark would apply; however

- if the network business has elected to use either form of trailing average, then the old benchmark would continue to apply to historical debt while the new benchmark would apply to all future debt.[2]

Given the linkages between components of the relevant benchmark, for example benchmark gearing is linked to benchmark equity beta and credit rating, then all aspects of the benchmark debt should be specified in the rules.

Finally, the ENA notes that an area of significant regulatory uncertainty relating to the allowance for the cost of debt is the technique used to estimate the debt benchmark. A decision to introduce a trailing average has the potential to exacerbate this issue since a benchmark cost of debt benchmark would need to be estimated over a substantially longer period.

The ENA continues to hold the view that the method of measuring the benchmark cost of debt should be established at the time of each revenue/price decision. The choice of methodology would be subject to the objective that the method selected should lead to the best estimate of the cost of debt for a firm with the characteristics of the benchmark entity over the specified sampling period.[3]

Consistent with its previous submissions on this issue, the ENA urges that a condition to the introduction of a trailing average is a requirement for the AER to consult on the methodology it intends to apply to measuring the trailing average method for deriving the benchmark cost of debt. This could occur, for example, as part of the development of a wider guideline on the setting of regulated returns prepared by the AER. This guideline should also be required to set out other key aspects of an AER approach to implementing the trailing average methodology, namely:

- how the "weights" for the annual debt raisings would be derived (with our expectation that this would reflect intensity of benchmark debt raisings and assume that debt is raised and retired continuously over each year), and

- whether the annual cost of debt would be calculated as the average of daily observations or an average of a lesser number of observations (our expectation being the use of daily values).

The requirement for prescription of key debt benchmark parameters, and principles for the calculation of a trailing average approach in the Rules, is a function of the significant regulatory shift that would be represented by the trailing average approach being made available. Whilst prospective cost of debt benchmarks can properly be the subject of debate, incremental adjustment and refinement over time based on evolving market and other evidence, it should be recognised that under a trailing average approach the potential is for changes in the trailing benchmark approach to *retrospectively* undermine previous financing decisions of network businesses in a conceptually distinct manner. This possibility reinforces the need for important high-level elements of the benchmark to be prescribed in Rules to achieve a level of regulatory certainty for investors in long-lived network assets.

4. Features of a trailing average

The AEMC's consultation notice outlines the three potential methods for introducing a trailing average:

- the proposal put forward by the EURCC in its rule change proposal;

- the proposal put by ETSA/CitiPower/Powercor in response to the directions paper; and

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2 In other words, if the term is changed to 5-years then the cost of debt allowance will be an average of historical issued 10-year debt and 5-year debt forecast to be raised during the forthcoming regulatory period.

3 We note that the current approach used by the AER is to use an extrapolated Bloomberg fair value yield for 10 year BBB debt. However, industry has in the past had a number of legitimate concerns, subsequently upheld by the Australian Competition Tribunal, with the use of Bloomberg data. The lack of a single index to calculate the historical debt benchmark highlights the need for the AER to consult on how it intends to estimate the debt benchmark over time.

- the method contained in the Queensland Treasury Corporation's (QTC's) supplemental submission of 8 June 2012.

Each of these proposed trailing average mechanisms contain the following five features:

- the component(s) of the cost of debt that the trailing average measures;
- the period of time over which the trailing average is estimated;
- the frequency that the debt benchmark is measured during the trailing average;
- whether a simple or weighted average of the trailing average is applied; and
- whether the cost of debt is calculated annually over the regulatory period as a rolling average or whether it is fixed for the entire regulatory period.

The ENA's response to each of these features is outlined in the remainder of this section.

4.1 Trailing average of the total cost of debt or debt risk premium

The EURCC and QTC propose that the trailing average be applied to the total cost of debt. In other words, both the risk free rate and the DRP would be estimated using a long term average. In contrast, ETSA/CitiPower/Powercor propose that only the debt risk premium (DRP) be estimate using a trailing average while the risk free rate would continue to be set on the basis of the prevailing ('spot') rate at the time of the revenue/price decision.

ENA believes that each firm should have the option of proposing the framework that best suits its specific circumstances. This will avoid the potentially significant transitional costs of imposing a single framework. In particular, it most likely reflects the fact that, under some circumstances, network businesses may not be able to establish their debt portfolio in any way representative of the approach put forward to establish the benchmark. This is a key reason why ENA supports some optionality being built into the Rules.

The AEMC also specifically sought comment on whether the rate should be calculated on a dollar weighted average of the trailing debt yields or by calculating the effective interest rate, ie, using a method of calculating the internal rate of return (IRR) of all future payments on debt. The ENA notes that the two approaches appear to give broadly similar rates, however, it is not clear that the repayment of debt should be classified as a cost of debt (just as depreciation is not normally considered a cost of capital). It follows that our initial view is that the trailing average should be calculated as a dollar weighted average of the trailing debt yields.

4.2 Trailing average period

All three proposals match the trailing averaging period to the tenor of benchmark debt. This ensures that the allowed return on debt matches the cost to a network business of continuously raising benchmark debt, thereby establishing:

- an unbiased long term estimate of the benchmark cost of debt; and
- the objective of minimising the difference between the allowance for the cost of debt and the firm's actual cost of debt during the regulatory period.

The ENA supports a trailing average period that matches the tenor of benchmark debt which is 10-years so as to be consistent with the actual average term of debt issued by privately owned network businesses.

4.3 Frequency of measurement

A legitimate consideration when determining the frequency of measurement is the variability between the cost of debt allowance and a firm's actual debt raising practices. The following two tables calculate the differences between the daily average total cost of debt and DRP and spot rate using three possible debt strategies:

- raising debt once a year at the end of the March quarter;
- raising debt twice a year at the end of the March and September quarters; and
- raising debt four times a year at the end of each quarter.

The two tables below show minimal difference over a 10-year period between the debt allowance estimated using daily data and the above three debt strategies. We also note that these tables also support the proposition that a trailing average of the DRP exposes a network business to about half the intra year variation of a trailing average of the total cost of debt.

Table 1 - Deviation of Total Cost of Debt

Year ending 30 March	Cost of debt (daily average)	Cost of debt (end March)	Cost of debt (end Mar & Sep)	Cost of debt (end Qtr)
2003	7.40%	7.18%	7.15%	7.23%
2004	6.96%	6.95%	6.88%	6.83%
2005	6.98%	7.05%	6.99%	6.99%
2006	6.51%	6.52%	6.54%	6.46%
2007	6.93%	7.14%	6.93%	6.98%
2008	8.05%	9.45%	8.70%	8.42%
2009	8.60%	7.87%	8.32%	8.40%
2010	9.45%	10.26%	10.18%	9.86%
2011	10.09%	10.25%	10.05%	10.06%
2012	8.90%	8.34%	8.46%	8.63%
Ave	7.99%	8.10%	8.02%	7.99%
Ave Absolute deviation	n/a	0.42%	0.25%	0.17%

Source: Bloomberg 10 year BBB fair value yields or NERA estimated extrapolated 10 year BBB fair value yields.

Table 2 - Deviation of DRP

Year	DRP (daily average)	DRP (end March)	DRP (end Mar& Sep)	DRP (end Qtr)
2003	1.36%	1.66%	1.52%	1.44%
2004	1.10%	0.99%	1.09%	1.04%
2005	0.89%	0.88%	0.91%	0.90%
2006	0.66%	0.59%	0.60%	0.64%
2007	0.61%	0.63%	0.61%	0.62%
2008	1.08%	2.25%	1.63%	1.31%
2009	2.47%	2.78%	2.52%	2.52%
2010	3.42%	4.01%	4.00%	3.67%
2011	4.14%	4.16%	4.20%	4.18%
2012	3.64%	3.48%	3.61%	3.56%
Ave	1.94%	2.14%	2.07%	1.99%
Ave Absolute deviation	n/a	0.27%	0.15%	0.08%

Source: Bloomberg 10 year BBB fair value yields or NERA estimated extrapolated 10 year BBB fair value yields.

Under the QTC approach, some businesses may want to hedge the underlying interest rate. The less frequent the hedging the less the transaction cost. On the other hand this needs to be balanced with the need for the allowed DRP to reflect the average DRP over the year since a NSP could issue debt on any day during the year.

4.4 Weighting the trailing average

The EURCC proposes that the trailing average be a simple average of the trailing average. On the other hand, both the QTC and ETSA/CitiPower/Powercor propose that the trailing average be weighted by the debt raised in each year to maintain the assumed level of debt used to finance the regulatory asset base (RAB).

Given that the objective of adopting a historical average is to better reflect the actual costs of debt financing of a benchmark network business, the ENA believes that a weighted trailing average should be adopted.

4.5 Rolling trailing average or fixed at the start of the period

The EURCC and QTC both propose that the cost of debt be calculated each year of the regulatory control period as a rolling trailing average. In contrast ETSA/CitiPower/Powercor propose that the cost of debt be fixed at the start of regulatory control period as an average of:

- the historical average, weighted by the value of existing debt; and
- the current ("spot") rate, weighted by the value of forecast debt obligations.

Implicit in this approach is that the current ("spot") rate represents the best estimate of the cost of new debt raised in the forthcoming regulatory control period, while the historical average represents the best estimate of the cost of raising debt to finance existing assets.

The advantage of the EURCC and QTC approach is that the cost of debt allowance will better reflect the actual cost of debt. On the other hand, the ETSA/CitiPower/ Powercor proposal provides certainty as to the cost of debt at the start of each regulatory control period, thereby allowing networks to effectively plan their capital management programs.

The ENA does not have a consensus position on this feature on the understanding that under both approaches the measurement of the debt benchmark would continue to be a reviewable decision. It is clear that under the ETSA/CitiPower/Powercor proposal the cost of debt, as a constituent decision of a revenue/price determination would continue to be a reviewable decision. However, it is unclear howthe rolling average under the EURCC and QTC proposals would be reviewable since the measurement of the debt benchmark occurs during the regulatory control period. If it is not practicable for the rolling average to be subject to merits review then the ENA supports the adoption of an approach, for example fixing the cost of debt at the start of the regulatory control period consistent with the ETSA/CitiPower/Powercor proposal, where merits review can be applied.

5. Transitional and implementation issues

The ENA has significant concerns that we are being asked to specify transitional arrangements on unspecified changes to the way that the cost of debt is estimated. There is considerable risk that the current process could result in unintended outcomes to the detriment of businesses and/or end users.

Nevertheless, transitional issues could be minimised by not imposing a single framework on all network businesses and instead require each business to propose how the cost of debt should be calculated, subject to two conditions:

- that the trailing average must be an unbiased estimator of the long term cost of debt for a benchmark business; and
- that network businesses are not able to 'game' the nomination of the trailing average.

In our view, the current approach (of using the current "spot" rate) as well as three proposed approaches satisfy the first condition of being unbiased estimators of the long term cost of debt for a benchmark business.

There is currently a mismatch between the Rules and NSPs' actual financing practices insofar as the Rules contemplate an entirely forward looking cost of debt, whereas NSPs' actual DRP is both backward and forward looking at the time of an AER determination and backward looking at any point during a regulatory period. Perpetuating this mismatch through the prescription of an initial transition mechanism will just delay the setting of DRP allowances which reflect efficient debt financing costs.

The ENA is also cognisant that the introduction of a trailing average may have implications for other aspects of the regulatory regime. For example, the choice of whether future capital expenditure is included in the capex allowance or as contingent projects could have implications for how a trailing average is calculated.[4]

[4] Under the ETSA/CitiPower/Powercor proposal the trailing average depends on the level of forecast capex. As a result, both the regulator and the network business would have an incentive to classify capex as contingent if the spot rate differs from its historical average. For example, if the spot rate is below the historical average then businesses would have an incentive to classify capex as contingent to increase the cost of debt allowance by increasing the weight on historical rates. On the other hand, if the spot rate is above its historical average then the AER would have an incentive to classify capex as contingent and so lower the cost of debt. This issue could be avoided if the WACC for contingent projects is calculated exclusively using the spot WACC at the start of the regulatory period. This issue illustrates that rules other than those in the WACC sections may need to be modified before the implementation of a trailing average.

The ENA believes that the risks of transitional and implementation issues are such that it would be prudent for the AEMC to remove the trailing average cost of debt issue from the current AER/EURCC rule change proposal. Instead this proposal should be considered in a separate review process where these issues can be properly and thoroughly considered.

The ENA notes that the AEMC sought comments on the impact of changing how the allowance for the cost of debt would affect the cost of equity. The ENA members continue to hold the view that WACC decisions are expected to be evidence-led. As a consequence, the ENA expresses no opinion on the hypothetical impact that possible changes to the method for calculating the cost of debt allowance might have on the cost of equity.

Energy Networks Association
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