

6 July 2012

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A244
Sydney South NSW 1235

Via website: www.aemc.gov.au

Dear John

Additional Round of Consultation on Cost of Debt Issues for the Economic Regulation of Network Service Providers Rule Change Request (AEMC Reference ERC0134)

Grid Australia welcomes the Australian Energy Market Commission's (AEMC's) further consultation on cost of debt issues relating to the Rule change proposals made by the Australian Energy Regulator (AER) and the Energy Users Rule Change Committee (EURCC).

Grid Australia sees merit in the AEMC further developing the detail of possible models for implementing trailing average approaches for calculating the regulatory cost of debt allowance. Amongst other things, this would permit the full implications of the various models to be understood, including the implications for the commercial risks faced by the network businesses.

A range of views exist across Grid Australia's membership about the relative merits of moving from the current approach for determining the cost of debt allowance. That said, Grid Australia members are unanimously of the view that, if the option of adopting a trailing average for the cost of debt is to be introduced, then:

- a critical issue for businesses will be the arrangements that are put in place for transition from the current approach to the new approach; and
- the preferred approach to implementing a trailing average approach – namely whether it is the total cost of debt for which a trailing average is determined or the debt risk premium element only – is likely to vary across the businesses. To this end, it would be highly desirable for both options to be available to the businesses. They should also have the option of remaining with the current approach.

Grid Australia notes that it is impossible for firms to undertake a proper assessment of the relative merits of the different trailing average approaches, and to commence the more difficult work on understanding the transitional arrangements that may be necessary, until a model is sufficiently well developed. Furthermore, Grid Australia's own analysis has highlighted a number of issues that need to be resolved. While this should not prevent further development of the options, it does highlight the limitations of the timeframe that the AEMC has permitted for considering this issue. Accordingly, Grid Australia reiterates its desire for the AEMC to take this matter outside of the constraints of the assessment of the AER/EURCC Rule change proposal.

Subject to these qualifications, the attached submission aims to contribute constructively to the consideration of the various options being considered.

Should you wish to discuss any aspect of this submission, please contact me on (08) 8404 7983 or Philip Gall from TransGrid on 0417 042 108.

Yours sincerely



Rainer Korte
Chairman
Grid Australia Regulatory Managers Group

Economic Regulation of NSPs Rule Changes

Cost of Debt Issues

Response to AEMC Consultation Notice
of 21 June 2012

6 July 2012

Table of Contents

1. Overview	1
2. WACC Principle and the Rules.....	2
3. Cost of Debt Benchmark and its Measurement.....	4
4. Features of a Trailing Average	6
4.1 Trailing average of the total cost of debt or debt risk premium.....	6
4.2 Trailing average period.....	7
4.3 Frequency of Measurement.....	7
4.4 Weighting the trailing average	9
4.5 Rolling trailing average or fixed at the start of the period	9
5. Transitional and Implementation Issues	10

1. Overview

Grid Australia 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). We understand that the AEMC is seeking comment from stakeholders on issues relating to the trailing average aspect of the EURCC's proposal.

Grid Australia sees merit in the AEMC developing, in further detail, possible models for implementing trailing average approaches for calculating the regulatory allowance for the cost of debt and is keen to be involved in this process. Amongst other things, this would permit the full implications of the various models to be understood, including the implications for commercial risk facing the businesses.

However, Grid Australia notes at the outset, that a range of views exist across its membership about the relative merits of moving from the current approach for determining the regulatory allowance for the cost of debt. That said, Grid Australia members are unanimously of the view that, if the option of adopting a trailing average for the cost of debt is to be introduced then:

- a critical issue for businesses will be the arrangements that are put in place for transition from the current approach to the new approach, and
- the preferred approach to implementing a trailing average approach – namely whether it is the total cost of debt for which a trailing average is determined or the debt risk premium element – is likely to vary across the businesses, and that it would be highly desirable for both options to be available for businesses (and, as argued in the body of the submission, businesses should also have the option of remaining with the current approach).

Grid Australia notes that it is impossible for firms to undertake a proper assessment of the relative merits of the different trailing average approaches, and to commence the more difficult work of understanding the transitional arrangements that may be necessary, until a model is sufficiently well developed. Furthermore, Grid Australia's own analysis has highlighted a number of complex issues that need to be resolved. While this should not prevent further development of the options, it does highlight the inadequacy of the timeframe that the AEMC has permitted for considering this issue, and Grid Australia once again requests the AEMC to take this matter outside of the restrictive constraints of the current AER/EURCC rule change proposal.

Turning to the detailed specification of a possible trailing average model, in our view the 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) principles 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.

The remainder of this submission elaborates our views on the above four areas that need to be developed before the implementation of a trailing average.

2. WACC Principle 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.

Grid Australia supports this statement with the qualification that the benefits of a trailing average are only realised if the network business aligns its debt portfolio with the approach used to calculate the trailing average. It follows that the primary benefit of a trailing average is that it affords network businesses the opportunity to better manage their debt risks. Arguably 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). This would permit the trailing average to be applied that best meets its specific circumstances rather than forcing business into a 'one-size-fits-all' approach.

In our view a change to the method of calculating the cost of debt allowance that would empower 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 National Electricity Rules (NER):

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

- 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 for calculating the cost of debt allowance, namely that:
 - i. 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
 - ii. 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
 - iii. 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).
- a process and/or a transitional mechanism that essentially eliminates the ability of the network business to benefit from the nomination of how the debt allowance will be set in a manner inconsistent with the long term interests of consumers (see section 5 below)

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. This would

prevent firms from being unduly penalised for their current debt financing arrangements.

3. Cost of Debt Benchmark and its Measurement

The 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.

Grid Australia 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 would result in a debt benchmark that is 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 5 year debt 5 years before its next regulatory decision. However, businesses cannot be expected to anticipate possible decisions by the regulator.

Accordingly specifying the debt benchmark into the rules supports 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 the components of the relevant benchmark, for example benchmark gearing is linked to benchmark equity beta and credit rating, all aspects of the benchmark debt should be specified in the rules.

Finally an area of significant regulatory uncertainty relating to setting 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 cost of debt benchmark would need to be estimated over a substantially longer period.

The method of measuring the benchmark cost of debt (as distinct from the setting of benchmark itself – see below) should be established at the time of each revenue/price decision. The choice of methodology would be subject to the objective that it 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

In accordance with previous submissions from network businesses a condition to the introduction of a trailing average is that the AER consults 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 the development of a wider guideline on the setting of regulated returns prepared at regular intervals by the AER. This guideline could also set out the position the AER would adopt in relation to implementing the trailing average, 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).

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.

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 forward by ETSA/CitiPower/Powercor in response to the directions paper; and
- the method contained in the Queensland Treasury Corporation's (QTC's) supplemental submission, 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.

Grid Australia'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 estimated 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.

Grid Australia members have not reached an agreed preference on what components of the cost of debt should be measured using a trailing average. However, we note that there are a number of advantages and disadvantages with each of these approaches, as set out in submissions from the various parties. The key point is a network business's preference will depend on its specific circumstances, as will the challenges arising from transition issues. Accordingly, if one or more forms of a trailing average methodology become available then each firm should have the option of proposing the framework that best suits its specific circumstances.

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.

For these reasons it is appropriate for a trailing average period to match the tenor of benchmark debt which is 10-years. This allows consistency with the actual average term of debt issued by privately owned network businesses.

4.3 Frequency of Measurement

Grid Australia's preliminary assessment is that the trailing average should be calculated annually using daily data. The use of daily data ensures that any intra year variations in estimated cost of debt are reflected in the debt allowance.

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

Market variations in observed yields mean that a single daily value is unlikely to provide a good proxy for the yields over a month or quarter. This is a particular issue in illiquid markets such as the Australian corporate bond market. The problem of day-to-day volatility is well understood by regulators using market data, which overcomes this issue by using a sampling period over a number of days when estimating a “spot” rate.

Furthermore, the additional computational effort of using daily data is minimal since providers of financial data, such as Bloomberg, publish daily cost of debt estimates. Finally, the frequency that data is estimated has a minimal impact on the fundamentally more difficult task of determining the appropriate methodology for estimating the debt benchmark over time.

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, 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 Utilities/ 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.

A relevant consideration is whether both approaches to the measurement of the debt benchmark would continue to be a reviewable decision. It is clear that under the ETSA Utilities /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 how the 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, in the interests of improved regulatory certainty and to ensure that the AER is accountable for its performance, fixing the cost of debt at the start of the regulatory control period is the most appropriate option.

5. Transitional and Implementation Issues

Grid Australia's most significant concerns relate to developing transitional arrangements on, as yet, 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.

However, 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.

The possibility of 'opportunism' by network businesses at the expense of long term consumer interests could be overcome if the network businesses were required to specify which approach would be adopted in advance. Specifically, the AEMC could introduce a requirement that each network business must nominate the approach to estimating the cost of debt that would be applied in its next reset. In other words, this nomination would not affect revenues in the forthcoming regulatory control period, but would determine how revenues would be set in 5 years' time. Uncertainty regarding the underlying risk free rate and total cost of debt in 5 years, and the total cost of debt and DRP over the following five years, would curtail this type of opportunism. Put simply network businesses would not be able to forecast which approach would result in the greatest cost of debt allowance.

One matter that would need to be considered is how to give this option to businesses whose revenue cap applications are imminent. Clearly these businesses have no basis at this time to determine what option they might prefer and may be in no better position in a few months time as they finalise revenue cap applications. If the option to nominate is not able to be exercised at the next reset decision this would result in a further 5 year delay in implementing the most appropriate methodology.

Grid Australia recognises 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

As already noted 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.

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.