WACC Parameters, Equity Beta and Gamma

Response to EUAA Rule Change Proposal

20 June 2008

Table of Contents

1. Introduction

This submission has been prepared by Grid Australia, which represents the five transmission network services providers operating in the national electricity market, ie, ElectraNet, Powerlink, SP AusNet, Transend and TransGrid. It addresses the request by the Energy Users Association of Australia ('EUAA') to the Australian Energy Market Commission ('AEMC') for a rule change ('the EUAA rule change request') that alters the values of equity beta and gamma currently prescribed in Chapters 6.A and Appendix 1 of the National Electricity Rules ('the Rules').

Equity beta and gamma represent two of the six parameters of the regulated rate of return for transmission and distribution businesses that are to be reviewed periodically[1] by the Australian Energy Regulator ('AER'). The AER is scheduled to commence its first review of these parameters for transmission by 1 July 2009 and to complete its review of the distribution parameters by 31 March 2009. However, Grid Australia notes that the AEMC has before it a separate rule change request to bring these two reviews onto a common timetable so that they will both be completed by 31 March 2009. The AER has also released a proposed timetable which is consistent with completing both reviews by the earlier date of 31 March 2009.

Grid Australia has very serious concerns about the EUAA rule change request. These can be summarised as follows:

1. the EUAA rule change request does not meet the criteria for consideration under section 95 of the National Electricity Law (NEL) - because it does not comply with the threshold requirements for consideration of a rule change proposal set out at section 94. This concern is considered to be a 'threshold issue for this review and Grid Australia's position on this matter has been explained in more detail in the covering letter to this submission.

2. the EUAA rule change request does not meet the requirements of the Rule making test because it undermines the current framework in the Rules for determining and applying the rate of return element of the transmission and distribution revenue regulation arrangements. This framework was deliberately designed to avoid frequent, repetitive and inefficient examination of substantially similar issues on an ad hoc basis. By instigating a return to precisely the circumstances the current Rules were designed to avoid, the EUAA request would have substantial negative implications for regulatory certainty, procedural efficiency and the administrative costs of many market participants.

3. the EUAA rule change request explicitly pre-supposes that the determination of the initial WACC parameters made by the AEMC, in order to establish the current framework, did not reflect the best or unbiased estimate of the true value - for the equity beta element in particular. However, the EUAA does not offer any credible, contemporaneous evidence that this was the case; and

1 Rules 6A.6.2(f) and (g). and 6.5.4(a) and (b), respectively.

4. notwithstanding the concerns set out above, if the AEMC remains minded to proceed to examine the substance of the revised rate of return parameters set out in the EUAA rule change request, a substantially different process and timetable is required for consideration and assessment of the Rule change request. This is needed to ensure that a balanced assessment of the complete body of thought on these parameters can be made. While such a process, and timetable, would be required to enable the AEMC to address this matter properly, Grid Australia also considers that this would be duplicative, inefficient and inappropriate, given that the AER's process for consideration of precisely these (and other) matters has commenced. Specifically, the AER has already released its proposed consultation timetable.

This submission addresses the second through fourth of these concerns, noting that the first matter is addressed more fully in the covering letter to this submission.

2. Distortions to the Return on Capital Framework

The EUAA rule change request has very substantial implications for the framework established for the determination of the return on capital element of the transmission and distribution revenue regulation elements of the Rules. These implications are barely acknowledged by the EUAA, and are certainly not addressed in any substantive way. Grid Australia submits that the EUAA request gives rise to two fundamental implications for the current framework, as follows:

- the current framework was designed to mitigate cost and uncertainty associated with continually reopening both the methodology and parameters at each revenue or price reset. If this Rule change proposal is allowed to proceed, the AEMC will effectively signal a return to precisely the circumstances the new framework was designed to avoid; i.e. frequent, repetitive and inefficient examination of substantially similar issues; and

- by focusing on only two of the six return on capital parameters defined under the rule, the EUAA rule change request fails to give effect to its implications for other parameters, even though such implications are explicitly acknowledged by the EUAA.

These are discussed below.

2.1 Purpose of AEMC's Return on Capital Determination Framework

Consideration of the AEMC-developed framework for determining and applying the return on capital element of revenue determinations shows that its fundamental purpose was to reduce the cost and uncertainty associated with:

> *'continually reopening both the methodology and the parameters at each revenue cap review'….[since this is]….unwarranted in terms of any potential benefits.'* [2]

The EUAA rule change request acts to undermine this basic objective, by initiating a review of just two of the return on capital parameters outside of the mandated AER review process and without reference to the specific set of principles that have been established for reviewing them all.

This not only undermines the established framework without any apparent benefits in terms of the alternative decision-making process that it establishes but it would also involve a high degree of duplication and inefficiency – since the AER mandated review is not only slated to proceed, but has commenced. Effectively, the EUAA is instigating a second, virtually concurrent review of two identical parameters, by two different regulatory bodies, operating under similar but not identical legal frameworks (the AER is bound by the Rules governing its review, whereas the AEMC is not).

The costs of such procedural inefficiency are significant, and have already begun to be incurred. A decision by the AEMC to address the substance of the EUAA proposal will itself act to undermine the benefits of certainty and cost efficiency that are embodied in the current WACC-determination framework.

Further, if consideration of substantive aspects of this rule change is allowed, particularly this close to the scheduled AER review, there is a significant risk of encouraging other parties to put forward rule change requests of a similar form. Those interested parties likely to have different views from the EUAA will be encouraged to seek alternative values or methodologies to be applied to other return on capital parameters (or, indeed, to seek different values for the same parameters). Such a turn of events would quickly cause the AER's review to degenerate into a quagmire of uncertainty and procedural complexity.

For these same reasons, the EUAA proposal raises fundamental questions as to whether the AEMC or the AER is better placed to make the detailed, technical assessments required for the review and determination of rate of return parameters. The Chapter 6A and 6.5 Rules establish this role for the AER. The EUAA rule change request does not address why it may now be more appropriate for the AEMC to undertake this review role. This role is quite different in character from the AEMC's original task of establishing the framework and populating it with rate of return parameters and/or methodologies that reflected the status quo at the time, noting that these parameters had only recently been determined after a lengthy and wide-ranging open consultation process conducted by the ACCC.

Grid Australia concurs with the relative roles that have been set down for the AEMC and AER under the current framework, which have been explicitly identified in the Rules (since November 2007 for transmission). The AER is best-placed and should be allowed to undertake the review that the Rules require of it, and the EUAA's proposal should be tested in the context of this review. Indeed, the AEMC has itself

---

[2] AEMC, National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No.18, 16 November 2006, page 82

previously indicated that this is precisely what should happen on the specific question of the value for the equity beta, when it indicated in November 2006 in response to a similar contention of the EUAA that:

> *'Should compelling evidence arise to warrant a change in the assumed equity beta, this can be dealt with, as appropriate, at the time of the AER's five year review of the WACC parameters.'* [3]

2.2 Failure to Allow for Implications for Other Parameters

EUAA explicitly recognises that there is a link between the approach for determining and estimating gamma and the equity premium, through the need for consistent concepts and measurement techniques as between these two variables. The EUAA's own discussion of these links explicitly contemplates that its proposed value for gamma could be consistent with a market risk premium as high as 7%.

However, the EUAA dismisses the apparent need to reopen consideration of the market risk premium, on the basis that it assumes the market risk premium is

> *'…..[to be] estimated to the nearest 1% .'*

This statement from the EUAA underlines the ad hoc and partial nature of its rule change request. Reinforcing this flawed approach, the EUAA's rule change request offers no reason as to why the market risk premium parameter should be estimated with apparently less precision than the equity beta.

Grid Australia reiterates that, substantive consideration should not be given to the EUAA's rule change request. To do so would amount to an open invitation for other interested parties to put forward alternative or supplementary rule changes so that all related potential changes to the WACC can be considered at once. This further reinforces the potential to undermine the current framework and to change significantly the nature of the AEMC's role in the current institutional framework.

Grid Australia is firmly of the view that all required WACC parameters need to be reviewed together, and that this role appropriately should be performed by the AER, as the arrangements currently provide.

3. EUAA's Contention of Skewed Estimates

The EUAA rule change request pre-supposes that the current framework for determining and reviewing the rate of return parameters was established in manner that skewed estimates of the initial WACC parameters that fall within it.

To this end, the EUAA rule change request submission explicitly states[4]:

---

[3] AEMC, National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No.18, 16 November 2006, page 88

[4] Paragraph 14

> *'…..the value of Beta [established by the AEMC] was not set by estimating its true value.'*

The implications of this fundamental contention made by the EUAA pervade the entire rationale for its proposed change to the beta element of the rate of return. For example, the EUAA's 'Statement of issue' begins with the contention[5] that:

> *'The Current Parameter Values do not reflect the best estimate of the true value of these parameters.'*

Taking its contention of statistical bias as fact, the EUAA then devotes a substantial portion of its submission to a decision of the Australian Competition Tribunal from the telecommunications sector that rejected a contention that a regulator should 'add an amount artificially' in determining the regulatory WACC, because of the significant social harm that can flow from its underestimation.

Grid Australia submits that the EUAA has fundamentally misinterpreted and/or misread the AEMC's November 2006 transmission rule determination on the question of the initial parameter values.

The AEMC's Chapter 6A review did not involve a thorough review or estimation of the relevant WACC parameters – such as was being undertaken in the Australian Competition Tribunal decision cited by the EUAA. Rather, the AEMC sought to reflect and/or to codify the then current practice of the AER, as captured by its own extensive review processes for the WACC. This distinction is clear from the AEMC's final determination; i.e.:

'Although there has been ongoing debate about the parameter values used by the regulator to estimate WACC at each revenue reset, there has been a high degree of stability in the parameter values adopted by the regulator in recent years. ……..The provisions codified in the Revenue Rule therefore *largely represent current practice*' (emphasis added). [6]

The only evidence that the EUAA provides to support its contention that the equity betas determined by the AEMC are skewed are the statements[7] that the AEMC Rule Determination:

> *'…..expressly observes that a number of submissions were received to the effect that setting the value of Beta at 1 was too high' [EUAA, page 6]*

and that:

> *'In light of the difficulty in estimating beta, the AEMC approached the matter on the basis that it should err on the side of caution.'*

---

5 Paragraph 9

6 AEMC, National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No.18, 16 November 2006, page 82

7 Paragraph 14

Grid Australia submits that the fundamental premise in the EUAA's rule change request of bias in the AEMC's process for determining the existing Rule is in fact false. The simple fact that a number of submissions to the AEMC took a different view from decisions that had already been made by the AER on this parameter does not establish any form of statistical bias in the AEMC's Rule Determination. Rather, the AEMC's determination of the initial value for the equity beta reflected the best current estimate of relevant regulators and its view as to what was generally accepted.

4. Consideration and Assessment of the WACC Parameters

Notwithstanding the concerns set out above, if the AEMC were to undertake a review of any of the WACC parameters, this should be carried out under a comprehensive process that allows sufficient time for interested parties to commission detailed studies of the equity beta and gamma parameter values. However, Grid Australia reiterates that such an approach would fail to recognise the interrelationship between certain parameters as well as the need to assess all parameters in the context of an overall return on capital.

Grid Australia considers that, if the AEMC was to proceed to review the parameters (a decision Grid Australia opposes), it should issue a scoping paper so that interested parties understand the issues under consideration, and so may make meaningful submissions. The process should be clear and provide reasonable timeframes for consultation, especially for those such as Grid Australia, and its members, who are directly affected by the rule change proposal.

However, in the interests of efficiency and equity, Grid Australia's view is that it makes more practical and logical sense to have the issues raised by the EUAA in relation to two specific cost of capital parameters considered in the context of all parameters as part of the AER's recently commenced cost of capital review for electricity transmission and distribution businesses.

A cursory review of the material submitted by the EUAA in support of its proposed rule change request indicates that it has omitted a substantial body of alternative thought on these issues. The following sections briefly highlight the existence of a number of different points of view on the values of the equity beta and gamma. This is by no means a comprehensive review of the available material, but rather seeks to highlight the complexity of the issues that would need to be addressed in any review to be undertaken by either the AEMC or the AER.

4.1 Equity Beta

The EUAA relies on a report by Martin Lally,[8] as the principal form of support for its request that the equity beta be given the value of 0.75. Lally's analysis of the equity beta is premised entirely on the exclusive use of US asset beta data to determine the equity beta of Australian electricity network service providers.

---

8 Martin Lally, Review of Parameters in the National Electricity Rules, 19 September 2007.

Grid Australia notes that, in the past, a number of regulators have either rejected US evidence on the equity beta or have used the asset betas of US energy utilities as a secondary source to confirm Australian data.

Furthermore, Lally's estimates that the asset beta of US electricity utilities ranges from 0.12 to 0.32 with a median value of 0.26. However, Grid Australia understands that these figures have not been able to be replicated by other financial experts.

EUAA has also submitted a report by the Allen Consulting Group (Annexure C) that reviews evidence of the equity betas of Australian energy companies. However, given that a number of submissions to the Draft Decision disagreed with the analysis, Grid Australia does not consider this issue to be settled, in particular, as it has not been assessed by the AER.

Grid Australia submits that a comprehensive review of the equity beta for a benchmark efficient electricity network service provider would need to address at least the following issues:

- the appropriate sources of current market data, i.e. Australian versus international market information;

- the appropriate method for estimating the equity beta, i.e. the weight to be given to more recent estimates as distinct from long term values;

- the period of time over which equity beta data should be assessed; and

- the robustness of the market data, i.e. the extent to which adjustments should be made for potential influences on the data such as the 'technology boom', the use of stapled securities as well as the overall statistical relevance of the resulting estimates.

These considerations will need to be tested in light of the Rules that guide the AER in its WACC review, and which state that the overall objective should be to provide a forward looking rate of return that is commensurate with prevailing conditions in the market for funds and the risks of providing standard control services.

4.2 Gamma (γ)

The EUAA again relies on Lally to argue that the correct value of gamma is 1.0. However, Lally primarily bases his conclusion on a presumption that the CAPM parameters – the market risk premium in particular - have been calculated using a 'segmented market'.

However, Grid Australia understands that the contention that the CAPM parameters have been calculated in a 'segmented market' cannot be tested in practice.

An initial review of the EUAA's supporting Rule change material again highlights that such detailed issues can have flow-on implications to other parameters. Therefore, they should not be considered here by the AEMC in isolation, but instead as part of the AER's more comprehensive cost of capital review for electricity transmission and distribution.

The EUAA itself acknowledges that the increase in the value of gamma should also lead to an increase in the value of the market risk premium. Grid Australia agrees with this assessment, which reinforces the need for any review to encompass all WACC parameters so as to ensure that the end result meets the criterion that the rate of return be commensurate with the prevailing conditions in the market for funds.

These observations draw attention to the fact that the material put forward by EUAA is controversial, is not representative of the wide range of views that have been put forward on these parameters, and so does not represent a balanced view on the appropriate value of gamma. If the full range of material is to be considered, the AEMC would need to establish a much more comprehensive process to be achieved. However, Grid Australia submits that the National Electricity Objective would best be served by rejecting the EUAA rule change request, and thereby allowing the AER review to proceed as intended.

5. Conclusion

The observations in section 4 draws attention to the fact that the material put forward by the EUAA is controversial, is not representative of the wide range of views that have been put forward on these parameters, and so does not represent a balanced view on their appropriate value. If the full range of material is to be considered, the AEMC would need to establish a most comprehensive process. However, for the reasons set out in section 1 - 3, Grid Australia submits that the National Electricity Objective would best be served by simply rejecting the EUAA rule change request, and thereby allowing the AER review to proceed as intended.