



11 August 2009

Mr Lyndon Rowe
Chairman

Access Arrangement Review
Electricity Access
Economic Regulation Authority
PO Box 8469
Perth BC WA 6849

By email to: publicsubmissions@era.wa.gov.au

Dear Mr Rowe

The Australian Pipeline Industry Association (APIA) Response to the ERA Draft Decision on Western Power's Proposed Access Arrangement Revisions July 2009

The Australian Pipeline Industry Association (APIA) welcomes the opportunity to comment on the above Draft Decision. The APIA submission is attached.

While the Draft Decision and the electricity infrastructure regulatory process do not directly affect APIA members, issues relating to the rate of return are of broader concern to regulated infrastructure industries, including the transmission pipeline industry.

APIA is particularly concerned that specific rate of return calculation input variables may be established in the current process and inappropriately transferred to the regulatory processes involving transmission pipelines.

APIA therefore urges the ERA to reassess its draft decision conclusions relating to the rate of return.

Yours sincerely

CHERYL CARTWRIGHT
Chief Executive



The Australian Pipeline Industry Association (APIA) Response to the ERA Draft Decision on Western Power's Proposed Access Arrangement Revisions July 2009

Introduction

The Australian Pipeline Industry Association (APIA) welcomes the opportunity to comment on the Economic Regulatory Authority's July 2009 Draft Decision on Western Power's Proposed Access Arrangement Revisions (the "Draft Decision").

While the Draft Decision and the electricity infrastructure regulatory process do not affect gas transmission pipelines directly, issues related to the determination of regulated rates of return are of broader concern to regulated infrastructure industries, including the pipeline industry that APIA represents. Accordingly, APIA has prepared the following submission to address matters relating to gas transmission pipelines

In particular APIA is concerned that specific rate of return calculation input variables may be established in the current process and inappropriately and mechanistically transferred to the regulatory processes involving gas transmission pipelines. Transferring regulatory outcomes relating to rates of return should be undertaken with great care, as there are fundamental operational, market, financing, and economic differences between the electricity industry and other infrastructure industries such as gas transmission pipelines. Any rate of return decision by the ERA must take into account the attributes and unique features and risks of each industry.

Comment on WACC Input Variables

Debt Margin

APIA notes the Draft Decision's (p 199) preference to use the Bloomberg data service to estimate the debt margin. Given the lack of liquidity in the corporate bond market, APIA believes that there are issues with both CBA Spectrum and Bloomberg estimates of a debt margin for Western Power discussed in the Draft Decision.

For example, in recent times, the longest maturity bond referenced by Bloomberg in deriving its eight year yield curve (being its longest curve) has been around six years. Given the term structure of interest rates is generally upward sloping, using these rates Bloomberg is likely to under-estimate the eight year BBB bond yield. Similarly, it is recognised that CBA Spectrum may be over-estimating bond yields.

APIA does not accept the ERA's conclusion that Bloomberg definitively provides a better estimate than CBA Spectrum in the current market environment, although it is possible

that this will be the case once liquidity returns to the corporate bond market. It is apparent that there are issues with estimates derived from both data sources.

At a minimum, APIA considers that it is important to recognise that at the current time, debt margin estimates derived using Bloomberg data are likely to be understated.

Market Risk Premium (MRP)

The Draft Decision (p200) considers that a reasonable range of estimates for the market risk premium is 5.0% to 7.0%. APIA notes that in the AER May 2009 Final Decision on Electricity Transmission and Distribution Network Service Providers Review of WACC Parameters the AER determined a MRP value of 6.5%.

APIA concurs with Western Power that a value of between 6% and 7% remains an appropriate estimate for the long-term, forward looking MRP. The Draft Decision does not provide any details or discussion to support estimates below 6%, other than referring to the AER's analysis. The specific reference footnoted by the ERA is pages 175 to 177 in the AER's Draft Decision on Electricity Transmission and Distribution WACC parameters. This reference relates to survey data. There are some fundamental problems with using survey data in this context. The main limitations of surveys are that they:

- are influenced by the volatility of recent events, which can significantly limit the reliability of these estimates as a long-term, forward-looking measure;¹
- tend to reflect short term expectations;
- are based largely on opinions; and
- are vulnerable to bias.

In determining its recommended value of 6.5%, the AER noted that cash-flow based measures are currently indicating a forward-looking MRP well above 6% (reflecting the significant premium that investors have been requiring to provide equity capital following the global financial crisis).² The AER considered that there are two possible scenarios to explain current market conditions:

- *“that the prevailing medium term MRP is above the long term MRP, but will return to the long term MRP over time, or*
- *that there has been a structural break in the MRP and the forward looking long term MRP (and consequently also the prevailing) MRP is above the long term MRP that previously prevailed.”³*

It therefore arrived at a preferred value of 6.5%.

Putting the effects of the global financial crisis aside, APIA considers that Western Power's proposed range of 6 to 7% is reasonable. However, it also observes that at the current time, the actual forward looking MRP may well exceed this and reflects the

¹ For example, the quarterly results from the commonly cited survey by Graham and Harvey between 2000 and 2005 range from approximately 2.8% to 4.6%.

² Australian Energy Regulator (2009), Electricity Transmission and Distribution Network Service Providers, Statement of the Revised WACC Parameters (Transmission), Statement of Regulatory Intent on the Revised WACC Parameters (Distribution), p.237.

³ *ibid*, p.238.

premium that investors require to commit equity capital in the current environment. Hence, at minimum, a point estimate at or above the mid-point of Western Power's recommended range is considered appropriate. There is no compelling evidence to suggest that the lower bound of this range should be below 6%.

Equity Beta

The Draft Decision ascribes a value of 0.5 – 0.8 for the equity beta of the Western Power Distribution Network.

This assessment appears to be at least partially based on some of the work contained in the recent Allen Consulting Group (ACG) reports on the appropriate value for the equity beta for Australian electricity distribution and transmission assets⁴. However, these reports concluded that an appropriate value for the equity beta for Australian electricity distribution and transmission assets is 1.0. The conclusion of these ACG reports should be taken into account by the ERA in assessing a relevant equity beta.

Overall, beta estimation remains inherently uncertain. True betas cannot be observed. Instead, estimates are obtained by regressing the historical returns of a firm's shares against the historical returns for a market index, over the same time period. It is possible that there is considerable 'noise' in both data series, which can result in measurement error. This is particularly likely in the data history for the individual firm. As a consequence, the resulting data estimates can be of limited reliability and caution should be exercised in applying these estimates in a forward-looking analysis.

One of APIA's concerns is that the analysis that has underpinned the recent departures from previously established precedent is not sufficiently persuasive, nor has it given sufficient consideration to the risks and consequences of error. For example, in its report submitted to the AER for the Joint Industry Associations (JIA), ACG undertook analysis which showed that in a significant number of cases an equity beta of 1 could not be rejected within a 95% degree of confidence. They concluded:

“Central estimates of the equity beta do not necessarily answer whether there is ‘persuasive evidence’ for a change to the equity beta from the previously adopted value. The strength of the empirical evidence that is available cannot demonstrate that the true value may not lie materially above (or below) the range of the central estimates. We remain of the view expressed in our previous report that, if the full imprecision of the current beta estimates is taken into account, there is not persuasive evidence for concluding that the equity beta for a benchmark electricity transmission or distribution entity is different to the previously adopted value of 1.”⁵

⁴The Allen Consulting Group (2008), Beta for regulated electricity transmission and distribution: Report to Energy Networks Association, Grid Australia and APIA September; and The Allen Consulting Group (2009), Australian Energy Regulator's Draft Conclusions on the Weighted Average Cost of Capital Parameters: Commentary on the AER's Analysis of the Equity Beta, Report to Energy Networks Association, Grid Australia and Australian Pipeline Industry Association, January

⁵ The Allen Consulting Group (2009), Australian Energy Regulator's Draft Conclusions on the Weighted Average Cost of Capital Parameters: Commentary on the AER's Analysis of the Equity Beta, Report to Energy Networks Association, Grid Australia and Australian Pipeline Industry Association, January, p.1.

It is also important to consider the economic reasonableness of the overall estimates. In terms of the overall reasonableness of the AER's recent decision to adopt an equity beta of 0.8, the JIA observed:

"The equity beta of the market is 1.0 at the average level of gearing of the market (or market gearing), which is currently approximately 35%. At 60% gearing the equity beta of the market is calculated by the JIA at approximately 1.6. As such an equity beta of 1.0 at 60% gearing is already substantially below the market equity beta at 60% gearing. Therefore it is not possible to conclude that an equity beta of 1.0 for businesses at 60% gearing is too high."⁶

In another report submitted to the AER on behalf of the JIA, SFG Consulting⁷ showed that the implied return on equity resulting from the AER's proposed parameters was less than the yield that could be earned on an AA-rated debt security. Given equity holders rank below debt holders, it was seen as implausible that equity investors in a regulated electricity distribution or transmission business would accept a lower return than could be earned on a fixed interest investment from a highly rated institution. Equity investors would simply not be prepared to provide capital if that were the case.

It is also important to highlight that equity and asset beta values are specific to the characteristics of the regulated asset. The ERA has previously recognised this in deriving separate and distinct equity beta estimates for different assets – for example the urban rail network, the freight rail network and the Pilbara rail network.

This principle is very relevant to the ERA's assessment of the betas for other infrastructure asset classes such as transmission pipelines. Pipelines have different asset characteristics from electricity networks and this, in turn, means that the betas specific to pipelines should be assessed on their merits rather than by reference to inappropriate comparators.

Gamma

The Draft Decision values gamma at 57% - 81%.

This Draft Decision values appear to be based on the gamma value of 65% set in the AER May 2009 Final Decision on Electricity Transmission and Distribution Network Service Providers Review of WACC Parameters.

The process surrounding this AER Decision demonstrated that there is a broad diversity of conflicting views on gamma ranging from no value (0%) to full value (100%).

APIA has fundamental concerns with the AER's decision, which has not been subject to any further analysis by the ERA. While it is not appropriate to dissect the AER's analysis in detail in this submission, there are key reasons for APIA's concerns.

⁶ Joint Industry Associations (2009), Network Industry Submission: AER Proposed Determination – Review of the Weighted Average Cost of Capital (WACC) Parameters for Electricity Transmission and Distribution, February, p.110.

⁷ SFG Consulting (2009), The Reliability of Empirical Beta Estimates: Response to AER Proposed Revision of WACC Parameters, Draft Report Prepared for ENA, APIA and Grid Australia, 28 January.

The lower bound of the AER's range is based on a 2006 study by Beggs and Skeels, and the upper bound is based on a 2008 tax statistics analysis undertaken by Handley and Mahesawaran. It is also noted that the ERA has set its upper bound to equal the upper bound of the range produced by Handley and Mahesawaran, whereas the AER used the mid-point of their range.

First, APIA is concerned that the AER's use of only two studies ignores a number of recent, reputable studies that suggest that the value of gamma is below 0.5 (and in some cases, zero). While APIA notes that the AER considered these studies, the AER's grounds for dismissing them are not considered compelling.

Second, significant problems have been identified with the results of the single study that has been relied upon to estimate the value of franking credits from market data, which is the Beggs and Skeels study. These problems were identified in two consultants' reports submitted to the AER by the JIA.⁸ Further, one of these studies (being the report by SFG Consulting), sought to simply extend Beggs and Skeels' sample period to September 2006 – making no other changes to the methodology or assumptions they applied – and arrived at a very different estimate for the value of franking credits (0.37).

Third, tax statistics analysis is not an accepted method for valuing gamma. Taxation statistics measure the quantum of corporate taxation, the amount of credits distributed and the amount of credits claimed. The amount of credits claimed is not the value of those credits. It does not take into consideration the risk that shareholders bear in earning the dividends and credits. Therefore it merely establishes a hypothetical upper bound for theta (as the value must then be \$1 per \$1 of credits) which is higher than the 'true' upper bound. APIA considers that this study should not have been given such significant weight by the AER.

Fourth, another assumption that has proven particularly controversial is a 100% distribution rate, which differs from Hathaway and Officer's estimated market average of 71%⁹, which is widely applied in practice. In arriving at its conclusions the AER has relied on a further paper by Handley, "Further Comments on the Valuation of Imputation Credits".¹⁰ In APIA's view, there are a number of factual errors in this report that are relied upon to justify a 100% distribution rate.

The AER suggests that while the valuation of gamma has been contentious in the past, the evidence it has relied upon is sufficiently robust to enable a more definitive estimate to be made:

"In arriving at its final estimate the AER acknowledges the considerable complexities associated with valuing gamma that have been recognised by market practitioners (and have also been the source of contention in previous

⁸ SFG Consulting (2009), The Value of Imputation Credits as Implied by the Methodology of Beggs and Skeels (2006), Report Prepared for ENA, APIA and Grid Australia, February; Synergies Economic Consulting (2009), Peer Review of SFG Consulting Reports on Gamma, A Report to the ENA, APIA and Grid Australia, January.

⁹ N. Hathaway & B. Officer (2004), The Value of Imputation Credits – Update 2004, Capital Research Pty Ltd, November 2004.

¹⁰ J. Handley, (2009), Further Comments on the Valuation of Imputation Credits, Report Prepared by the Australian Energy Regulator, 15 April.

regulatory debates). However, it is now of the view that...it is indeed possible to arrive at a reasonable empirical estimate of the value of imputation credits taking into account all the available evidence."¹¹

However, APIA also observes that the report provided to the AER by its own consultant, Associate Professor Handley, concluded that a reasonable estimate for gamma is within the range of '0.3 to 0.7'.¹² This clearly does not support the notion that a definitive value for gamma can now be determined, nor does it support a range that lies above the mid-point of the range of possible values for gamma (being between zero and one). As noted above, a number of recent reputable studies suggest that the value of gamma is zero and this evidence has been dismissed by the AER in favour to two single studies, one of which cannot be used to estimate a value for gamma.

In conclusion, APIA is of the view that the evidence relied upon by the AER does not support its proposed value for gamma, which has been adopted by the ERA without any independent or rigorous analysis.

APIA is concerned that the ERA has not adequately assessed the latest evidence on the value of imputation credits and has relied on the 2003 determination. In APIA's view a reasonable estimate for gamma is 20%, or failing this, a continuation of the previous practice of setting gamma at 50%, which although probably incorrect, has the benefit of consistency.

Conclusion

While the Draft Decision does not directly affect APIA members, issues related to the rate of return are of concern to the gas transmission pipeline industry that APIA represents. In particular, APIA is concerned that specific rate of return calculation input variables may be established in the current process and inappropriately transferred to the regulatory processes involving transmission pipelines

APIA requests the ERA to reconsider its assessment of the debt margin, market risk premium and gamma as outlined above.

¹¹ Australian Energy Regulator (2009), Final Decision: Electricity Transmission and Distribution Network Service Providers - Review of the Weighted Average Cost of Capital (WACC) Parameters, May, p.410.

¹² Handley, J. (2009), Further Comments on the Valuation of Imputation Credits, Report Prepared by the Australian Energy Regulator, 15 April, p.41.