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Our Reference: UE.SU.01

Attention: The Manager, Projects
Economic Regulation Authority (Western Australia)
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BY EMAIL TO: publicsubmissions@erawa.com.au

Dear sir/madam,

DBNGP (WA) Transmission Ptd Ltd (DBP): Response to Issues Paper on Proposed Revisions to the Dampier to Bunbury Natural Gas Pipeline Access Arrangement, 2016 - 2020

United Energy and Multinet Gas, (UEMG), would like to thank the Economic Regulation Authority (Western Australia) for providing an opportunity for UEMG to respond to the Issues Paper on the proposed revisions to the access arrangement for DBNGP. UEMG supports the overall approach that has been adopted by DBP for the assessment of the rate of return on debt, the rate of return on equity, and the valuation of imputation credits¹.

In respect of the return on equity, UEMG considers that both of the energy regulators, the Australian Energy Regulator (AER) and the ERA (WA) have promoted methods that suffer from serious deficiencies. United Energy recently submitted a regulatory proposal to the AER and discussed the errors associated with the AER's foundation model method, and the use of extra-legislative criteria². The

¹ Proposed Revisions, DBNGP Access Arrangement, 2016 – 2020 Regulatory Period, Rate of Return, Supporting Submission: 12, 31st December 2014.

² Refer to:

2016 to 2020 Regulatory Proposal, United Energy, 30th April 2015, www.unitedenergy.engagementhq.com.au

Rate of Return on Debt: Proposal for the 2016 to 2020 Regulatory Period, prepared by United Energy, 30th April 2015

Rate of Return on Equity: Proposal for the 2016 to 2020 Regulatory Period, prepared by United Energy, 30th April 2015

Assessment of the Value of Imputation Credits – Gamma, Proposal for 2016 to 2020, prepared by United Energy, 30th April 2015

approach taken by DBP, which is to empirically test asset pricing models so as to ascertain whether or not such models provide forecasts that exhibit significant bias represents a significant step forward, because the method permits an objective test of models to be applied. Hence, the DBP approach will be relatively free of the kind of “expert versus expert” debates that have characterised regulatory proceedings in the recent past. The DBP proposal also provides key empirical evidence that has, to-date, not been properly considered by either the AER or the ERA (WA). Essentially, an asset pricing model may have attractive theoretical attributes, but its empirical performance is paramount. A model needs to be able to satisfy suitably designed tests which use historical data. Forecasts from the model should satisfy properties of unbiasedness. Only then will the model be capable of generating an allowed rate of return which achieves the allowed rate of return objective (ARORO).

In respect of the cost of debt, UEMG notes that DBP has applied methods which deviate from the methods espoused by the ERA (WA) in the latter’s rate of return guidelines. By way of example, DBP has adopted a ten-year term for the rate of return on debt. However, the ERA (WA) has itself departed from its rate of return guidelines, as evidenced by the analysis undertaken in the context of the draft decision for ATCO Gas³. UEMG considers that both DBP and the ERA (WA) have been justified in applying empirical techniques for the estimation of the rate of return on debt that were not adequately described in the rate of return guidelines⁴. The estimation of Nelson-Siegel yield curves, and the application, as a reference point, of the Gaussian kernel method, represent a significant step forward by comparison with the joint weighted averaging approach for the debt risk premium (DRP). The ERA (WA) has also embraced the use of bonds denominated in foreign currencies. For its part, DBP has made a strong case for the incorporation into the cost of debt of the new issue premium, which is a margin above secondary market yields that must be paid on primary bond issuance. DBP has relied on an empirical estimate of the NIP (27 basis points) that was prepared by the Competition Economists Group⁵.

The ERA (WA) has also provided an allowance for the transactions costs of hedging, however the increment to the cost of debt (of 2.5 basis points per annum) is minuscule and is not properly representative of the transactions costs that would be incurred by a benchmark efficient entity when borrowing from overseas⁶. UEMG would like to emphasise that swap transactions costs are a legitimate expense that the benchmark efficient entity (BEE) will incur when raising debt.

³ ERA (WA), Draft Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System; a response to the submissions by ATCO Gas Australia Pty Ltd, prepared by the Economic Regulation Authority, Western Australia; paragraph 869.

⁴ ERA (WA), Explanatory Statement for the Rate of Return Guidelines, Meeting the requirements of the National Gas Rules, 16th December 2013; Table 8, page 119.

⁵ CEG, The New Issue Premium, prepared by Dr Tom Hird, Competition Economists Group, October 2014; page 54.

⁶ ERA (WA), Draft Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System; a response to the submissions by ATCO Gas Australia Pty Ltd, prepared by the Economic Regulation Authority, Western Australia; see footnote 447. The ERA (WA) claims to account for the cross-currency basis swap and the interest rate swap, as per the RBA’s method, but not the conversion factor. The cross-currency basis swap is generally the most significant hedging cost. Note that UBS has prepared more realistic estimates of the transactions costs of hedging in reports prepared for Ausgrid, Transgrid, and Jemena Gas Networks. See, for instance:

UBS response to the Networks NSW request for financeability analysis following the AER Draft Decision of November 2014.

On the subject of annual updates to the rate of return on debt, UEMG considers that the ERA's approach as expressed in its rate of return guidelines was inadequate, as was the different "guide rails" method that was outlined in the subsequent ATCO Draft Decision. Both methods were oriented around the debt risk premium, and disregarded the requirement to incorporate changes to the base rate of interest. However, a business which raised debt during a regulatory period would be exposed to a certain value for the base rate of interest at the particular time. The perspective on annual updating that had been adopted by the ERA (WA) was therefore one-dimensional, and the resulting outcomes for the rate of return on debt, and for the allowed rate of return would not readily have satisfied the ARORO.

The approach taken by DBP to annual updating is preferable to the methods described by the ERA (WA), though we note that the debate has subsequently progressed from the time of the DBP submission, with the ERA (WA) having released a further debt discussion paper in March 2015⁷. At present, the ERA (WA) is giving consideration to the hybrid form of the transition to the trailing average rate of return on debt, and UEMG therefore anticipates that there will be further discussion of the matter in the ATCO Final Decision.

In respect of gamma, UEMG observes that DBP has been broadly supportive of the methodology expounded by the ERA (WA) in its rate of return guidelines, with emphasis placed on the use of dividend drop-off studies to estimate theta, the value of a distributed imputation credit. In this respect, UEMG supports DBP, as the approach that DBP has taken is reflective of the published academic literature on the topic and the methods that were endorsed by the Australian Competition Tribunal⁸. More recently, however, the ERA (WA) has considered other evidence about theta, including equity ownership data, and information about redemption rates from taxation statistics. The ERA (WA) has essentially contemplated the adoption of the methods set out in the AER's rate of return guideline⁹. Thus, the ERA (WA) has chosen to depart from its own rate of return guidelines in the draft decision for ATCO Gas, and UEMG would urge the ERA (WA) not to veer away from market based assessment methods in subsequent decisions.

UEMG does not wish to respond to the remaining matters raised in the Issues Paper¹⁰. However, the firm would like to draw attention to some of the recent literature which has been produced as part of the decision processes on the East Coast, with emphasis to be placed on two reports that were commissioned by UEMG.

The first of these reports is work by ESQUANT to examine the performance of different models for estimating the rate of return on debt¹¹. The context of the work is a little different to that in WA, as the AER proposes to use two third-party indices whereas the ERA (WA) proposes to apply empirical methods to primary data on bond yields. However, the use of the Gaussian kernel model means that, in most cases, the target tenor and the effective tenor are different, and thus adjustments need to be made when using this model. The Gaussian kernel method produces estimates of the return on debt which are

⁷ ERA (WA), Estimating the return on debt, Discussion paper, 4th March 2015.

⁸ Application by Energex Limited (No 2) [2010] ACompT 7 (13 October 2010).

⁹ AER, Better Regulation, Explanatory Statement, Rate of Return Guideline, December 2013.

¹⁰ ERA (WA), Issues Paper on Proposed Revisions to the Dampier to Bunbury Natural Gas Pipeline Access Arrangement 2016 to 2020, 20th April 2015.

¹¹ Evaluation of Methods for Extrapolating Australian Corporate Credit Spreads published by the Reserve Bank of Australia, A REPORT PREPARED FOR UNITED ENERGY AND MULTINET GAS by ESQUANT Statistical Consulting, April 29, 2015.



downwardly biased, to first order, at the target tenor. The AER has made adjustments based on advice from Lally, but Lally's approach is not the only approach which may be used. ESQUANT has assessed three principal extrapolation techniques, and the ESQUANT report not only provides the results of this analysis, but also describes how the assessment ought to take place. UEMG believes that the approach employed by ESQUANT could form a useful part of the assessment toolkit that is applied by the ERA (WA).

The second report is based on work undertaken by NERA on gamma¹². The report notes (but does not agree with) the concerns raised by the AER about dividend drop-off studies, and then responds by examining two different ways of estimating the market value of a distributed imputation credit (theta). One way is to directly estimate the model that Officer suggests that one use, in his 1994 paper introducing gamma, and to also estimate similar versions of the Black model and the Fama-French three-factor model. The other way is to examine whether equity prices reflect the discounted value of imputation credits that firms are expected to distribute. Both methods have been used in work recently published in peer-reviewed journals. The market-based evidence that NERA provides or summarises, suggests that any estimate of gamma over 0.25 is likely to significantly overstate the value of gamma; indeed, NERA suggests that DBP's value of 0.25 may itself be an overstatement.

If you would like to discuss any of the matters raised above, then please do not hesitate to contact me on (03) 8846 9854.

Yours sincerely,

Jeremy Rothfield
Network Regulation and Compliance Manager

¹² NERA (2015), Do Imputation Credits Lower the Cost of Equity? Cross-Sectional Tests. A report for United Energy, prepared by NERA Economic Consulting, April 2015.