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Critique of AER analysis of New Issue Premium

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1 Introduction

1. CEG has been engaged by Australian Gas Networks, CitiPower, Jemena Electricity Networks, Powercor, and United Energy to prepare an expert report[1] which provides an assessment of the AER's October and November 2015 preliminary and draft decisions[2] in relation to the allowance for the new issue premium.

2. The remainder of this report is structured as follows:

   - **Section 2** provides an overview of the AER decision;
   - **Section 3** provides a critique of that decision.

3. I acknowledge that we have read, understood and complied with the Federal Court of Australia's Practice Note CM 7, "Expert Witnesses in Proceedings in the Federal Court of Australia". I have made all inquiries that I believe are desirable and appropriate to answer the questions put to me. No matters of significance that I regard as relevant have to my knowledge been withheld.

4. I have been assisted in the preparation of this report by Johnathan Wongsosaputro in CEG's Sydney office. However, the opinions set out in this report are my own.

Thomas Nicholas Hird

[1] Terms of reference are provided at Appendix A.

[2] For electricity and gas transport companies.

2 Overview of AER position

5. The AER's October and November 2015 preliminary and draft decisions for Australian Gas Networks, CitiPower, Jemena Electricity Networks, Powercor, and United Energy reject the level of the new issue premium estimated by CEG in our October 2014 report[3] as insufficiently supported by the evidence. In addition, the AER argues that, even if it could be established that a new issue premium could be robustly estimated for the typical issuer, it may simple reflect evidence of inefficiency and, therefore, not be relevant to the costs of a benchmark entity that is efficient.

6. The AER's October and November 2015 decisions effectively refer back to its reasoning for South Australia PowerNetworks (SAPN) in its preliminary decision.

> *In a recent decision* [the April 2015 SAPN preliminary decision]*, we considered in detail the material submitted to us in support of the inclusion of a new issue premium allowance.*

7. In its October and November 2015 preliminary and draft decisions the AER simply repeats the same points, but at a higher level, that it made in the SAPN preliminary decision (referring back to that decision in multiple places). We therefore focus our critique on the more detailed SAPN preliminary decision – although our analysis applies equally to the October and November 2015 preliminary and draft decisions.

8. The grounds for not compensating for the cost of a new issue premium are in two parts.

   - First, the AER is not satisfied that a NIP is consistent with efficient financing costs – even if it can be robustly established that a NIP exists on average for other firms; and
   - Second, the AER does not believe that the evidence is sufficiently clear to support a finding that a NIP exists in general; and
   - Even if such evidence did exist and even it did constitute a component of efficient financing costs the AER believes that it has been 'generous' elsewhere in its decision and that it is therefore appropriate not to compensate for this component of efficient financing costs. [4]

9. In the following section we address both of the first two claims. We do not address the third directly except to note that the AER has not presented any reliable evidence of the magnitude of the alleged overcompensation elsewhere.

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3 CEG, The new issue premium, October 2014.

4 AER, Preliminary decision for SAPN, April 2015, section G.1.4.

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3 Critique of AER position

3.1 Advice from Handley

10. The AER relies on previous advice from Handley as follows.[5]

> *Also, in regulatory determinations in 2009 and 2010, we relied in part on a report by Associate Professor Handley of the University of Melbourne, who noted that 'assuming allowed revenues are determined using an appropriate estimate of the cost of debt … then it is my view that underpricing should not be allowed as a cost of raising debt capital'.*
>
> *Handley, J.C., A note on the costs of raising debt and equity capital, 12 April 2009, pp. 17.*

11. The quote reproduced by the AER from Handley does not support its rejection of compensating for the new issue premium. The quote excerpted from the AER is provided at the bottom of the following full excerpt – inclusive of relevant context.

> *In this way, underpricing costs associated with raising debt capital are arguably a direct cost rather than an indirect cost,* ***and so prima facie, should be compensated****.*
>
> *As indicated above,* ***CEG correctly argues that the appropriate cost of (new) debt*** *– equivalently the rate of return required by debt investors –* ***is the yield at the time of issue i.e. after taking into account the effect of any underpricing****. But in addition, they suggest that the use of secondary market data to estimate the cost of debt will mean that any underpricing of debt securities that occurs at the time of issue will not be picked up (in the observed cost of debt). In this case, the cost of debt will be too low and so underpricing will require specific recognition as a legitimate cost of raising debt capital****. So the key issue is whether the AER's approach to estimating the cost of debt for the benchmark regulated firm is appropriate****. If it is** *then, by definition, no compensation for underpricing is necessary, otherwise double counting would arise. On the other hand, if the estimated cost of debt is too low (due to underpricing) then an adjustment for underpricing is necessary. In my view, such an adjustment should then be made to the cost of debt rather than as a allowance for capital raising costs.*
>
> ***It is noted that the AER considers that the current approach to estimating the cost of debt is appropriate****. It is also noted that there appears to be an inconsistency in the NSP's claim for debt underpricing*

5 AER, Preliminary decision for SAPN, April 2015, p.471. Hereafter "AER, SAPN, April 2015".

since they too are happy with the current approach to estimating the cost of debt:

> *"The Australian Energy Regulator (AER) has established a methodology for setting the debt premium based on the use of Bloomberg Fair Value curves. The use of Bloomberg Fair Value curves is consistent with the approach outlined by Prof Bruce Grundy and Dr Tom Hird in their report for the ENA … On the above basis we propose the adoption of the AER approach in this report."*[30]

….

In summary, assuming allowed revenues are determined using an appropriate estimate of the cost of debt (and noting that both the AER and CEG believe this to be the case), then it is my view that, underpricing should not be allowed as a cost of raising debt capital.

12. The correct interpretation of Handley's advice is that the new issue premium is a cost incurred by a business and should be compensated.

13. Handley does make the definitionally true point that *if* the AER's allowance is appropriate (i.e., includes compensation for all costs including the new issue premium) *then* there is no need to separately make an allowance for the new issue premium. However, he does not establish, nor agree, that the AER's allowance is appropriate – and so does not support the AER's decision to reject a NIP allowance.

3.2 Efficiency of a BEE paying an NIP

14. The AER makes a number of arguments to the effect that the observed NIP may be a manifestation of inefficient financing costs and therefore may not be relevant to the benchmark efficient entity;[6]

> *Even if a new issue premium existed in the bond market on average, if it is a manifestation of inefficient financing costs, it is not clear that the benchmark efficient entity would incur this premium (because it is, by definition, efficient).*

And:[7]

> *Conceptually, we are not satisfied that the benchmark efficient entity would face a new issue premium as part of its efficient financing costs.*

6 AER, SAPN, April 2015, p.471

7 AER, Preliminary decision for Jemena , October 2015, p. 206. Hereafter "AER, Jemena, October 2015".

15. In Table G.1 the AER posits three reasons for why a NIP may be paid and rejects the relevance of each to a benchmark efficient entity (BEE). The first reason for the existence of a NIP that the AER considers is that the: [8]

> *premium compensates investors for uncertainty regarding how the issue will perform on the secondary market. This arises from imperfect or asymmetrically-held information in the relevant market. This could arise in part from a lack of robust and timely secondary market trading data.*

16. The AER rejects the relevance of this to a BEE based on the following reasoning. [9]

> *We consider that the benchmark efficient entity will likely issue its bonds mostly into the Australian corporate bond market. As this market is now dominated by sophisticated institutional investors and not retail investors, it is unclear to us that there would be an information gap significant enough to require compensation. Moreover, as we expect the benchmark efficient entity to issue its bonds at frequent intervals, we consider that the learning process would also serve to minimise any such gap. Given energy networks are established businesses that have issued debt previously and have regulated cash flows, we would expect there would be limited uncertainty regarding how its bonds would perform on the secondary market.*

17. The AER's second reason that a NIP may be paid is due to "*the oligopolistic underwriting system and the synergistic relationship between banks and institutional investors*". [10] The AER argues that this is not relevant to a benchmark efficient entity (BEE) because: [11]

> *This is unlikely to be important for the benchmark efficient entity. When financing itself with bank debt, this would likely occur through an ongoing relationship with a financial institution. When issuing bonds, this wealth transfer would not be 'efficient' and by definition would not apply to a benchmark efficient entity.*

18. The AER also posits another reason for why, if a new issue premium exists, it is not relevant to a BEE. That reason in question for the existence of a new issue premium is that new issues involve corralling a large number of buyers at a point in time. These are buyers who are not, of their own accord and at their own timeline, seeking out a purchase of that company's debt in the secondary market. Therefore, these

8 AER, SAPN, April 2015, Table G.1 on p. 3-473 (second row).

9 AER, SAPN, April 2015, Table G.1 on p. 3-473 (second row).

10 AER, SAPN, April 2015, Table G.1 on p. 3-473 (third row).

11 AER, SAPN, April 2015, Table G.1 on p. 3-473 (third row).

buyers must be enticed to be interested in assessing and participating in the new issue. A premium is compensation for the 'search costs' that they incur in the process. However, the AER argues that this is not relevant to a BEE because: [12]

> *It is possible that this has an effect on the benchmark efficient entity when it issues bonds in overseas markets. As the Australian corporate bond market consists predominantly of institutional investors, it is unlikely to be significant within it. This is because negligible search costs are incurred by institutional investors as they are frequent repeat customers and are easier to reach from an underwriter's perspective. Although Ronn and Goldberg have speculated that there may be a new issue premium due to these institutional investors taking on non-diversifiable risk and thereby acting as a pseudo-underwriter, this is also unlikely to affect the benchmark efficient entity when issuing in the Australian market as its participants generally 'buy and hold'.*

19. We consider that there are two different errors in the logic employed by the AER in the above analysis. The first is to treat market imperfections (relative to an idealised perfect market) as inefficient and therefore to conclude that these are not relevant to a BEE. We regard this as an error on the grounds that it confuses efficient conduct of the benchmark entity in the financial markets that actually exist with a hypothetical concept of an efficient financial market (one with zero transaction costs (search costs), perfect information and perfect competition). In such a perfect financial market we agree that the NIP would not exist – but that is not the financial market in which a BEE must operate.

20. This type of error is exemplified in the below statement in relation to a potential source of a NIP that derives from imperfect competition amongst investment banks:

> *When issuing bonds, this wealth transfer would not be 'efficient' and by definition would not apply to a benchmark efficient entity.*

21. It is correct that, relative to perfect competition, imperfect competition amongst investment banks is 'inefficient'. However, this is something that is out of the control of the benchmark efficient entity. We consider that the term 'efficient' in this context denotes efficient given the real world constraints that are faced – not that the BEE can be assumed to not face real world constraints.

22. The second is that the AER argues that the BEE would not pay a NIP based on reasoning that applies not just to the BEE but to the vast majority of issuers of investment grade debt (i.e., the firms in our sample on which the NIP was estimated). Therefore, these are not reasons to dismiss the relevance of our estimated NIP to the BEE. They are, in truth, reasons to believe that no NIP should exist at all. The AER's posited reasons are disaggregated below.

[12] AER, SAPN, April 2015, Table G.1 on p. 3-473 (fourth row).

a. The BEE is dealing with "sophisticated institutional investors and not retail investors";

b. The BEE is issuing debt at frequent intervals such that investors' learning processes would also serve to "*minimise any such gap*" (in information between buyer and seller);

c. The BEE is an established business that has issued debt previously and has regulated cash flows, such that there would be "*limited uncertainty regarding how its bonds would perform on the secondary market*";

d. The BEE issues debt in the Australian corporate bond market which "consists predominantly of institutional investors, it is unlikely to be significant within it. This is because negligible search costs are incurred by institutional investors as they are frequent repeat customers and are easier to reach from an underwriter's perspective"; and

e. The BEE is issuing debt to investors who "*generally 'buy and hold'*".

23. However, each of these reasons applies more generally:

a. All investment grade debt issuers deal with sophisticated investors. We are unaware of any who rely primarily, or even largely, on retail investors to fund their debt;

b. A staggered debt portfolio, with frequent intervals of debt raising, is the norm for investment grade debt issuers to manage refinance risk (as they are required to do to maintain an investment grade rating);

c. Almost all investment grade debt issues are by firms with past debt issues. It may be correct that a BEE has more stable cash-flows before interest than some, or even most, other BBB rated firms. However, at 60% gearing, it also has higher than average debt levels – the effect of which is to raise the volatility of cash-flows. These issues are accounted for in the credit rating and our estimate of a NIP is based on issuers of BBB debt (although issuers of A rated debt also have a positive NIP on average);

d. All debt we examined was issued in the Australian market which the AER regards as consisting *predominantly of institutional investors*. (In any event, the AER's apparent belief that foreign currency issues are not also made to predominantly institutional investors and that institutional investors do not face 'search costs' is not well explained and, in our view, not correct.)

e. Corporate debt is generally illiquid in that many investors do not trade on secondary markets. There is no reason to believe that a BEE debt would be special in this regard.

24. In summary, there are no valid grounds provided by the AER for believing that the measured NIP for BBB debt issues in Australia would not be equally valid for a BBB rated BEE.

3.3 NIP on foreign currency issues

25. Notably, the AER does believe that a NIP may be more likely to be paid on foreign currency issues by Australian businesses. When discussing search costs as a reason for an NIP to exist the AER states:

> *It is possible that this has an effect on the benchmark efficient entity when it issues bonds in overseas markets.* [13]

26. However, the AER rejects this as relevant presumably because it believes that the BEE would not issue material debt in foreign currencies. [14]

> *We consider that the benchmark efficient entity will likely issue its bonds mostly into the Australian corporate bond market.*

27. In a separate report[15] we present evidence to the effect that the dominant source of long term bond issuance for Australian businesses (be they utilities or not) is to issue debt in foreign currencies.

28. We also note that while our original study included both Australian and foreign currency debt issued by Australian companies we did test whether there was any reason to believe that the NIP was different on these samples. We concluded:[16]

> *Both samples report positive new issue premiums that are generally significant at the 5% level. Estimates of the new issue premium:*
>
> - *for the Australian dollar bonds range from 14bp to 23bp measured against changes in fair values and from 16bp to 30bp measured against changes in swaps; and*
> - *for the foreign currency bonds range from 12bp to 27bp measured against changes in fair values and from 15bp to 43bp measured against swaps.*
>
> *Table 10 in Appendix A shows the results of Welch's test applied to compare the means of these samples. For every estimation period and measured against both fair values and swaps, the test indicates that there is insufficient evidence to reject the null hypothesis that the means of these samples are the same.*

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13 AER, SAPN, April 2015, Table G.1 on p. 3-473

14 AER, SAPN, April 2015, Table G.1 on p. 3-473

15 CEG, Criteria for assessing fair value curves, January 2016.

16 CEG, The new issue premium, October 2014, p. 48

29. Ronn and Goldberg[17] have, using a different dataset but comparable method, estimated the NIP for Australian corporations issuing debt in the US. They find that the average NIP, expressed as a proportion of the spread between the new issue yield and the corresponding US Treasury yield at that maturity. They estimated this to be 27bp or 10.3% of the spread to Treasuries.[18]

> *There were 25 out of 32 bonds which exhibited an NIP, and the average NIP across all 32 bonds was 27 bps, reflecting 10.3% of the new issue spread.*

30. This was, coincidentally, the same as the 27bp we found for a larger dataset of Australian bond issues. Ronn and Goldberg noted that this was similar to the estimate for US issuers in the US. [19]

> *The average value of the (NIP/Spread) ratio was 10.4%, when measured across the entire database of 1,500 bonds. For the subset of bonds issued by Australian-domiciled corporations, the average value of the (NIP/Spread) ratio was computed to be 10.3%. The latter figure thus provides the best currently available guide as to the future NIP that would be paid by a benchmark Australian utility issuing bonds in the U. S. market.*

31. In summary, the best available evidence for an NIP roughly the same whether an Australian firm is issuing debt in Australia or in the US – and is similar to the level of NIP for a large sample of US firms.

3.4 CEG's empirical analysis

32. The AER rejects the robustness of our analysis. There full set of AER reasoning is provided below. Within this there are six separate concerns and we have shaded in grey the beginning of the text that raises each of the six concerns.[20]

> *The validity of the findings in the CEG report is not clear to us. Generally, we consider the CEG report lacks transparency and there are potential limitations with the methodology and data used by CEG.*
>
> - *Specifically, we consider the following aspects of the CEG report require clarification:*

[17] Ronn, E.I. and Goldberg, R.S., Research into the new issue premium and the applicability of that research to the Australian corporate bond market, October 2013.

[18] Ronn, E.I. and Goldberg, R.S., October 2013, p. 23.

[19] Ronn, E.I. and Goldberg, R.S., October 2013, p. 2.

[20] AER, SAPN, April 2015, Table G.1 on p. 3-480-81

- *It is not clear from CEG's report the extent to which its analysis is based on GFC period data, which may not be applicable to prevailing market conditions. CEG pooled data from different periods in the presentation of its report, which we consider could be problematic as it reduces the transparency of its results. Moreover, there is some evidence to suggest that the new issue premium varies throughout time.[1861] Historical data may not be representative of current estimates and future considerations — particularly if the data included the global financial crisis.[1862] Therefore, we have concerns that CEG's estimate may not represent the new issue premium well. SACES advice to SACOSS is consistent with this position. SACES found:[1863]*

  > *If any of the sample is pre-2009 the extreme dislocation of the financial markets in the after effects of the GFC could distort the results. (It is worth noting in this context that the distribution of the sample is very skewed, with 4 individual new issue premia of over 200 basis points in the '12 week, full sample, relative to movements in fair value yields' dataset when the mean value is 5 basis points. Whilst this could represent the normal shape of the data is seems more likely to us that this is driven by some of the observations coming from a period of high uncertainty and/or high yields.*

- *CEG's sample of bonds seems to be inconsistent with the bond samples included in the BVAL and RBA curves. This is relevant because our estimate of the allowed return on debt is based on the BVAL (and RBA) curves. For example, it included floating-rate bonds and bonds issued in British pounds, both of which are absent from the samples used to form the RBA and BVAL curves. Also, CEG did not appear to restrict bonds by either their BVAL score or their issue size — both of which are proxies for liquidity, which CEG hypothesises is a potential source of the new issue premium. Further, CEG used the BFV curve rather than the BVAL or RBA curves as a control for general movements in interest rates. These appear to show inconsistencies with CEG's statement that its methodology used Bloomberg data for consistency with how we estimate the allowed return on debt.*

- *CEG's results differ materially depending on whether Bloomberg fair value curves or swap curves were used to adjust for general movements in interest rates. For instance, these differ by 11 basis points for the average of its new issue premium estimates from 8 weeks to 16 weeks for its core sample. This appears to indicate that the results are highly sensitive to the choice of control. For instance, subtracting the swap rate leaves the credit spread; which can move with general conditions in the market. In particular, the credit spread*

has been reducing slowly since the global financial crisis.[1867] *Therefore, if many of the bonds in CEG's sample were issued since the global financial crisis, it would not be surprising to see credit spreads go down for them in the weeks following issuance. This would be consistent with CEG's observations but does not relate to the new issue premium. At the same time, this effect would not be observed with a fair value curve as a control. We consider this might explain why some of CEG's comparisons using the BFV curve appear to be less statistically significant.*[1868]

- *We are unable to determine whether CEG has used issue prices that include issuance fees or other costs. As we already provide an allowance for debt raising costs, we would want to avoid 'double counting' this matter.*
- *Consequently, we do not accept CEG's estimate of the new issue premium at 30 basis points as sufficiently robust to support an augmentation of the allowed return on debt. This is consistent with SACES advice to SACOSS, which found, 'we do not believe that the results can be reliably used without substantial re-analysis'.*

33. We deal with each of the six concerns below.

3.4.1 Failure to restrict the sample to RBA/BVAL samples

34. The AER states:

> *CEG's sample of bonds seems to be inconsistent with the bond samples included in the BVAL and RBA curves. This is relevant because our estimate of the allowed return on debt is based on the BVAL (and RBA) curves. For example, it included floating-rate bonds and bonds issued in British pounds, both of which are absent from the samples used to form the RBA and BVAL curves.*

35. The AER does not mention that we presented sensitivities to our analysis to exclude floating rate bonds and bonds issued in other currencies. We are unsure why the AER did not have regard to those sensitivities given that it cites our inclusion of such bonds as problematic. In section 7.4.1 of our original report we reported that:

> *On the same methodology as outlined above:*
>
> - *excluding firms operating in the banking and finance sectors (as defined by the RBA) reduces the new issue premium estimate by 1bp to 26bp;*
> - *including only fixed rate bonds reduces the new issue premium by 3bp to 24bp.*

- *excluding banking and finance sector bonds and including only fixed rate bonds reduces the estimated new issue premium by 2bp to 25bp.*

36. All of these sensitivities, if one thought it necessary, related back to the RBA and BVAL sample selection criteria – with RBA explicitly excluding financial firms[21] companies and neither RBA or Bloomberg including floating rate bonds. As noted in our report, applying these restrictions lowered the estimated NIP by between 1bp and 3bp.

37. This small change suggests that estimates of NIP on bond types not in the RBA/BVAL samples are reflective of the NIP for bonds in the RBA/BVAL samples. The AER provides no justification for a view that this would not be the case and we see no reason to not believe it is the case (certainly no reason to expect that the NIP on one is lower than the other). Absent such a justification a larger sample is to be preferred in order to increase the robustness of the estimates.

38. However, even if it was true that these types of bonds were different in some way to those included in the RBA/Bloomberg samples we still do not believe that they should be excluded. For exclusion to be justified (as concluded by the AER), a BEE must have the same NIP costs as the type of bonds in the RBA/BVAL sample and not the same as the bonds not in the RBA/BVAL sample (GBP bonds and floating rate bonds). However, there is no evidence that we are aware of that supports such a conclusion.

39. There are only 5 floating rate and GBP bonds in our sample; which increases (very slightly) our sample size. Of these, 3 are GBP bonds in our core sample at 12 weeks and are issued by APT, Asciano and Goodman. The 2 floating rate bonds are issued by DBNGP and Bank of Bendigo. Notably, two of the 5 bonds are issued by regulated businesses – one of which is a regulated network service provider (NSP). For the AER to be correct then the actions of these entities in issuing floating rate debt and/or GBP debt must be viewed as inefficient in some sense.

40. This is inconsistent with the AER's view that:[22]

> *…we consider* ***an efficient financing practice would have been to****:*
>
> - *borrow long term (10 year) debt and stagger the borrowing so only a small proportion (around 10 per cent) of the debt matured each year*
> - ***borrow using floating rate debt****, or borrow fixed rate debt and convert it to floating rate debt using fixed-to-floating interest rate*

[21] Financial firms are not typically included in the BVAL BBB constituents but have been at times (e.g., a bond by Liberty Financial was included in the first half of 2015).

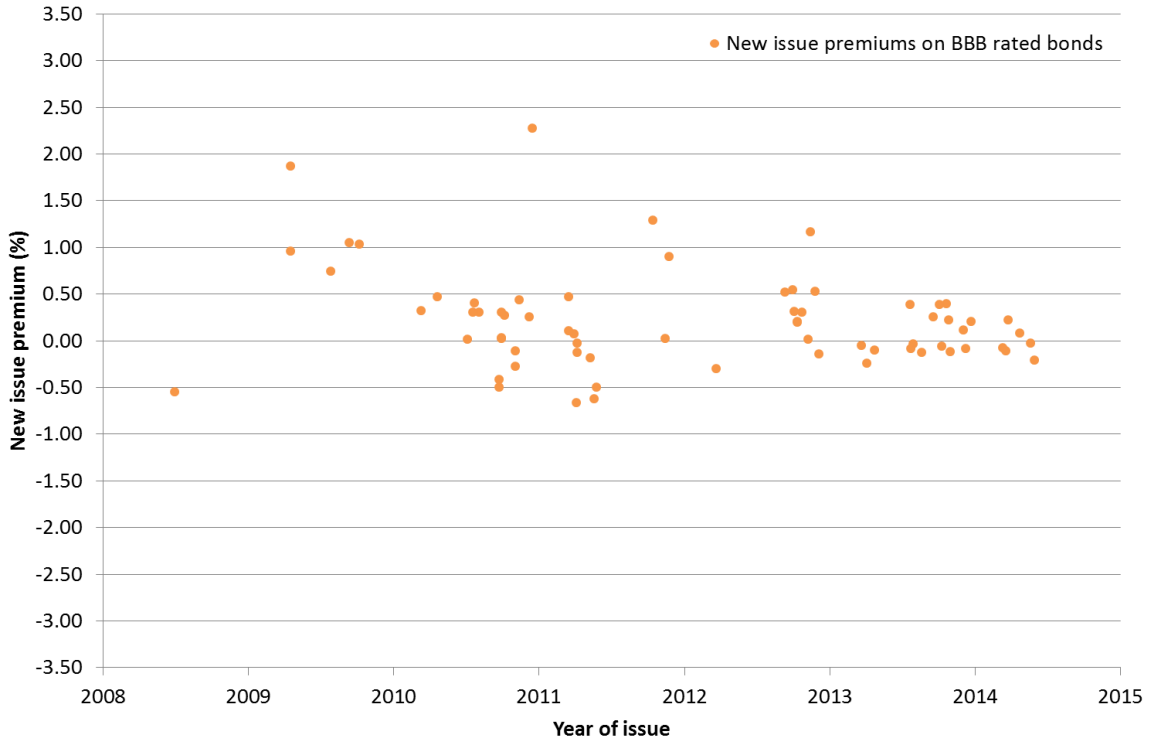
[22] AER, Preliminary decision for Jemena, October 2015, p. 185.

swaps at the time of the debt issue, which extended for the term of the debt (10 years)

3.4.2 Impact of the GFC

41. Our dataset only starts with new issues in mid-2008. The time series for the measured NIP for our core sample is depicted below.

Figure 1: Time series for NIP at 12 weeks (BFV used as control)



42. The individual 2009 issues are not outliers relative to the rest of the sample. However, the average is higher than in subsequent years and if only debt issued is 2010 onwards are included the average NIP falls to:

- 13bp is BFV curves are used to control for movements in interest rates; and
- 23bp if swap curves are used to control for movements in interest rates.

43. The average of these is 18bp which is 9bp lower than our estimate of 27bp including data from 2008 and 2009. It is, therefore, correct that excluding the GFC does reduce our measured NIP but does not eliminate it.

44. An obvious question is whether it is reasonable to exclude this period?

45. Perhaps it would be reasonable to exclude this period as exceptional if it was the case that the objective was to estimate the NIP for future new issues and if it was believed that there was a less than 5 in 72[23] (6.9%) chance that a similar period of financial distress would exist in the future. It is not obvious to us that the probability of such market conditions in the future is lower than, or materially lower than, 6.9%. However, even if it were this would be an argument for de-weighting 2009 not excluding it.

46. In any event, it is well accepted by all parties to these regulatory proceedings that the BEE maintains a staggered portfolio of 10 years debt. Consequently, the BEE can be assumed to have issued 10% (more than 6.9%) of its debt in 2009 and have an NIP cost that reflects this. Therefore, even if a zero percent probability of such market events repeating is accurate, a 6.9% weight for 2009 is too low (at least until 2009 drops out of the trailing average).

3.4.3 Restriction of bonds by size/BVAL score

47. The BVAL score is not available over the period of our analysis and, consequently, it is not possible to perform any analysis of the impact of any restrictions. In any event, we have no reason to believe even if it were available it should be used. The AER seems to implicitly assume that Bloomberg would assign a BEE's debt a high BVAL score because it would be more liquid and heavily traded than average corporate debt. We see no reason why this would be the case.

48. Data on the size of issue is available and our original report did include sensitivity of our results in relation to this. The AER decision does not discuss. In section 7.4.2 of our original report we noted that, if we weighted new issues by the issue amount, then the measured NIP fell by 2bp from 27bp to 25bp. We also noted that, if this weighting scheme was combined with other sensitivities, then the measured NIP rose, as outlined below, to:

- 31bp if firms operating in the banking and finance sectors are excluded;
- 30bp if only fixed rate bonds are included; and
- 33bp if both of the above changes are made to the sample.

49. Notwithstanding that, the AER decision did not discuss our existing analysis in this regard, we have also performed analysis of the sensitivity of our results to removing small issues altogether. Imposing a $100m AUD minimum issue amount does not alter our findings at all. This is because all of the bonds for which NIP estimates are available have greater than $100m AUD at issue. Imposing a $200m AUD minimum raises the estimated NIP to 30bp (24bp using BFV as control and 35bp using swaps as control). The sample size drops from 72 to 61 at 8 weeks, but the p-

[23] The number of bonds excluded divided by the number of bonds in the sample.

values tend to fall (meaning statistical significance increases). Similarly, if a $300m minimum is imposed the estimated NIP is 29bp[24] (i.e., remains above our estimate of 27bp). That is, our estimates of NIP are increased if each issue receives the same weight but only larger issues are included in the sample.

3.4.4 CEG used the BFV curve not the BVAL or RBA curve as a control for general movements in interest rates

50. CEG used both the BFV curve and the swap curve to control for the general movement in interest rates. We did so because:

- The BVAL curve is not available through most of the period of analysis and has limited tenor in most periods when it is available;
- The RBA curve is not published daily and cannot be applied to foreign currency issues. Consequently, it was not possible to use this curve for our full sample.

51. One could test the sensitivity of using the RBA curve to control for general interest rate movements for AUD bond issues (using, say, the AER's daily interpolation method to address the monthly publication issue). However, we consider this will unlikely have a material impact on your results (noting that both forms of control we applied resulted in material and positive NIPs). Unless evidence proves otherwise, there is no reason to reject our results simply because they are based on a logical methodological choice where others could also be made.

3.4.5 CEG's results differ depending on what control is used for the general movement in interest rates

52. The AER states that the 11bp difference in estimates depending on which measure (BFV or swap curve) is used indicates that the results are highly sensitive to the choice of control. The AER posits a rationale for why the smaller estimate (based on BFV as a control) is to be preferred.

> *In particular, the credit spread has been reducing slowly since the global financial crisis. Therefore, if many of the bonds in CEG's sample were issued since the global financial crisis, it would not be surprising to see credit spreads go down for them in the weeks following issuance. This would be consistent with CEG's observations but does not relate to the new issue premium. At the same time, this effect would not be observed with a fair value curve as a control. We consider this might explain why some of CEG's comparisons using the BFV curve appear to be less statistically significant.*

[24] 23bp using BFV as control and 35bp using swaps as control.

53. If this reasoning is valid it is a reason for believing that the lower of the two estimates (21bp based on the BFV control) is better than the higher estimate (32bp based on the swap curve as control). It would reduce our estimate by 6bp (27bp to 21bp). It is not a reason for providing zero allowance.

54. In any event, the above reasoning is problematic. Our sample period extends from 2008 to 2014. If the above logic was correct then it would imply that the estimated NIP using swaps to control for general movements in interest rates would underestimate NIP when risk premiums were rising in the lead up to the GFC. Moreover, even if this is ignored, by the end of 2009 the 10 year BFV DRP extrapolated using the AER methodology was 3.0% relative to swaps. By mid-April 2014 (the last issue in our core sample) it was 2.0%. A fall of 1% spread across 4.3 years is 0.4bp per week. If this occurred evenly through time such that it affected every NIP estimated then our average NIP using swaps as a control would be raised by 5bp. Given that we take the average of two methods it would raise our estimate by only 2.5bp.

3.4.6 Inability to determine whether CEG's issue price included issuance fees or other costs

55. We can confirm that our issue price included only the issue price paid by the bond purchaser. This is the only reasonable approach because subsequent traded price/yield estimates we compare the initial price/yield to do not include transaction costs. To include them in the initial price would be to compare 'apples with oranges'..

56. Our issue price only included the issue price. It did not, for example, include the costs of obtaining credit ratings or any other costs associated with the issue. That would be illogical.

3.5 International empirical evidence

57. The AER states the following in relation to international evidence. Once more we highlight the beginning of separate arguments being made. [25]

> *We consider the evidence on the new issue premium overseas to be mixed, with most of the academic literature limited to its presence in the US. In particular, evidence regarding Australian companies issuing overseas is limited. CEG provides a summary of the academic literature on the new issue premium in the US generally — even though it finds that academic literature, 'is of limited use in arriving at an estimate [of the new issue*

[25] AER, SAPN, April 2015, Table G.1 on p. 3-476

premium] that is specific for the current context'. We agree with CEG's observation that evidence in the literature appears mixed. CEG found:

> *[A] considerable degree of variation in the literature exists as to the estimated level of the new issue premium. While many academic studies have identified a positive new issue premium, some studies have found that the premium is not statistically significantly different from zero.*

- *For example, Cai, Helwege and Warga were unable to find a statistically significant new issue premium for new investment-grade corporate bond issues in the US between 1995 and 1999. Moreover, a statistically significant negative new issue premium of 18.7 basis points was found in a working paper by Kozhanov and Ogden for the plain vanilla investment grade bonds issued in the US between 2005 and 2009 by publicly traded US industrial and utility companies. We therefore consider that, despite there being some support in the academic literature for the existence of a new issue premium in the US, it is not yet established. Also, even if there were a consensus in the literature about the new issue premium in the US, we are unaware of any research on whether it applies to Australian companies issuing in the US. The CEG report noted:*

  > *[T]o date, there is not an academic literature focussing on the question of whether bonds issued by Australian companies would be expected to have higher or lower new issue premiums than bonds issued in other countries.*

- *More broadly, we are unaware of any evidence that an issuer's country of incorporation influences the new issue premium it faces. Ronn and Goldberg provided some empirical evidence regarding the new issue premium faced by Australian companies when issuing in the US. However, we do not consider this evidence to be particularly strong. Ronn and Goldberg were only able to examine 32 new bond issues by Australian companies in the US over the period from January 2005 to June 2013.[1850] This is a small sample given the time period, and this could be distorted by the effects of the global financial crisis.*

- *Moreover, approximately only a quarter of the volume of new bond issues by non-financial Australian companies is issued in the US. That being said, it is not clear whether the proportion of debt issued by Australian regulated utilities would follow the same pattern. In any case, we do not consider that the US-specific new issue premium literature indicates that any augmentation is required to the benchmark efficient entity's return on debt allowance for the new issue premium.*

3.5.1 Cai et. al. (and Datta et. al.)

58. In the above passage the AER refers to a paper by Cai, Helwege and Warga (2007) in support of a view that there is no statistically significant NIP for investment grade issues. The AER also, subsequently, refers to another paper with the same result (Datta, Iskandar-Datta and Patel (1997)).

59. We surveyed both of these papers in our original report (sections A.1 and a.3 of Appendix A). The authors did not find statistically significant NIP for investment grade debt. This is not a surprising result given that the literature as a whole, and our own results, find NIP increases as credit ratings reduce. Consequently, mixing BBB rated investment grade debt in the same sample as A to AAA investment grade debt is likely to obscure any result.

60. We note that these are just two of the 8 papers we surveyed and the dominant finding was for a positive NIP.

3.5.2 Statistically significant negative NIP found by Kozhanov and Ogden

61. In the above extract from the AER SAPN preliminary decision the AER refers to a 2012 paper by Kozhanov and Ogden[26] which they claim reported a statistically significant negative NIP for US industrial and utility bonds. Subsequently, the AER states in relation to this paper that:[27]

> *Kozhanov and Ogden observed US utility companies to face a lower new issue premium than industrial companies.*

62. The AER references page 20 of the Kozhanov and Ogden paper in support of this view. However, the AER has misunderstood the results reported by Kozhanov and Ogden. We note that this should have been obvious from the final paragraph of the paper.[28]

> *Both yield spreads and initial Rba's* ***indicate underpricing****, while the insignificance of long-term Rba's indicates that liquidity has been controlled.*

63. The correct reading of the authors' discussion on page 20 is that the authors are highlighting the measurement of a negative NIP as a mistake due to an incorrect

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[26] Kozhanov, I. and Ogden, J.P., 'The pricing and performance of new corporate bonds: Sorting out underpricing and liquidity effects', October 2012, p. 20.

[27] AER, SAPN, April 2015, Table G.1 on p. 3-478

[28] Kozhanov, I. and Ogden, J.P., 'The pricing and performance of new corporate bonds: Sorting out underpricing and liquidity effects', October 2012, p. 44.

methodology. Indeed, it is on this page that the authors are making precisely the point expressed in the title of their paper which is:

> *The pricing and performance of new corporate bonds:* ***Sorting out underpricing and liquidity effects***

64. The point is that, when measuring a NIP as the difference in yield on a new issue and a *benchmark* yield curve, a NIP (underpricing) can only be correctly measured if the benchmark and the bond are otherwise the same. The authors note that:[29]

> *Thus, by either measure new bonds are overpriced* ***relative to benchmarks****, on average. This result contrasts with findings in earlier studies (previously cited) that new-issue yield spreads are generally positive, and therefore new bonds are generally underpriced. [Emphasis added]*

65. The authors then go onto argue that the comparison to the benchmark is inappropriate because the liquidity of the new issues and the bonds in the benchmark are not the same. This is precisely the problem that we discussed in our original report.[30]

> *Some academic studies do report on the difference between the yield on new issues and some other third party estimate of the secondary market fair value for bonds with similar characteristics (e.g., industry, credit rating and maturity). That is, rather than estimating the new issue premium by comparing the issue yield of a bond with subsequent traded yields of the same bond they compare the issue yield of a bond with an estimate of the fair value yield for bonds of that 'class'.*
>
> *This approach is very simple to implement but relies critically on the assumption that each bond is appropriately matched to a fair value curve and that the fair value curve is an accurate estimate of the yield in secondary markets. These are strong assumptions that need not be true and which should, in our view, be avoided if possible. This is why we do not favour this form of estimate and, as explained in section 5, prefer an estimate that attempts to measure the movement in each bonds yield in the weeks following the issue date.*

66. Just as we did, Kozhanov and Ogden reject this method as an appropriate measure of the NIP. That is, they reject the measures that the AER relies on. The authors' best resolution to this problem is to compare the yield on a new issue to the yield on

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29 Kozhanov, I. and Ogden, J.P., 'The pricing and performance of new corporate bonds: Sorting out underpricing and liquidity effects', October 2012, p. 20.

30 CEG, The new issue premium, October 2014. p. 18.

secondary market bond that was traded in the 30 days before the new issue was made (and where the secondary market bond had similar time to maturity).[31]

> *This table shows pricing and performance results for 348 new plain vanilla investment-grade corporate bonds from our 2005–09 sample for which one or more 'matches' could be found among same-issuer seasoned bonds. A matching bond must: (a) be plain vanilla, either non-callable or with a make-whole call provision; (b) be issued at least two years prior to the new bond; (c) have remaining years to maturity within 33% (+ or –) of the new bond; and (d) be traded on TRACE within 30 days prior to the new bond's offering date. Matching yields are adjusted for the change in a benchmark yield between the matching bond's trade date and the new bond's offering date.*

67. The best estimate they provide of the NIP is in Table 10 Panel A column 4 – suggesting underpricing of 12bp across AAA to BBB- bonds which is statistically significant at the 1% level. They do not distinguish between utilities and industrials or between BBB+ to BBB- and other credit ratings. However, one can, from the results in column (3) of Table 8, conclude that BBB+ to BBB- bonds would be around 15bp higher than this and utilities around 5bp lower. So this paper would support an estimate of 22bp for BBB+ to BBB- utility bond.

68. Rather than this paper supporting a zero NIP, it is, in fact, strongly supportive of our 27bp estimate.

3.5.3 The AER is "unaware of any research" on whether estimates of the NIP in the US applies to Australian companies issuing in the US

69. Both our original report and the report by Ronn and Goldberg address this. Both find that a NIP exists for Australian companies issuing in foreign currencies (the vast majority of which are in USD). This is relevant research that the AER is, indeed, aware of. Moreover, there is no reason to believe that this would not be the case. If anything, one might expect it to be higher (as the AER has speculated it might be) because Australian companies may be less familiar to US investors and so attracting them may require greater compensation for 'search costs': [32]

> *It is possible that this has an effect on the benchmark efficient entity when it issues bonds in overseas markets. As the Australian corporate bond market consists predominantly of institutional investors, it is unlikely to be significant within it.*

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[31] Kozhanov, I. and Ogden, J.P., 'The pricing and performance of new corporate bonds: Sorting out underpricing and liquidity effects', October 2012, p. 59.

[32] AER, SAPN, April 2015, Table G.1 on p. 3-474

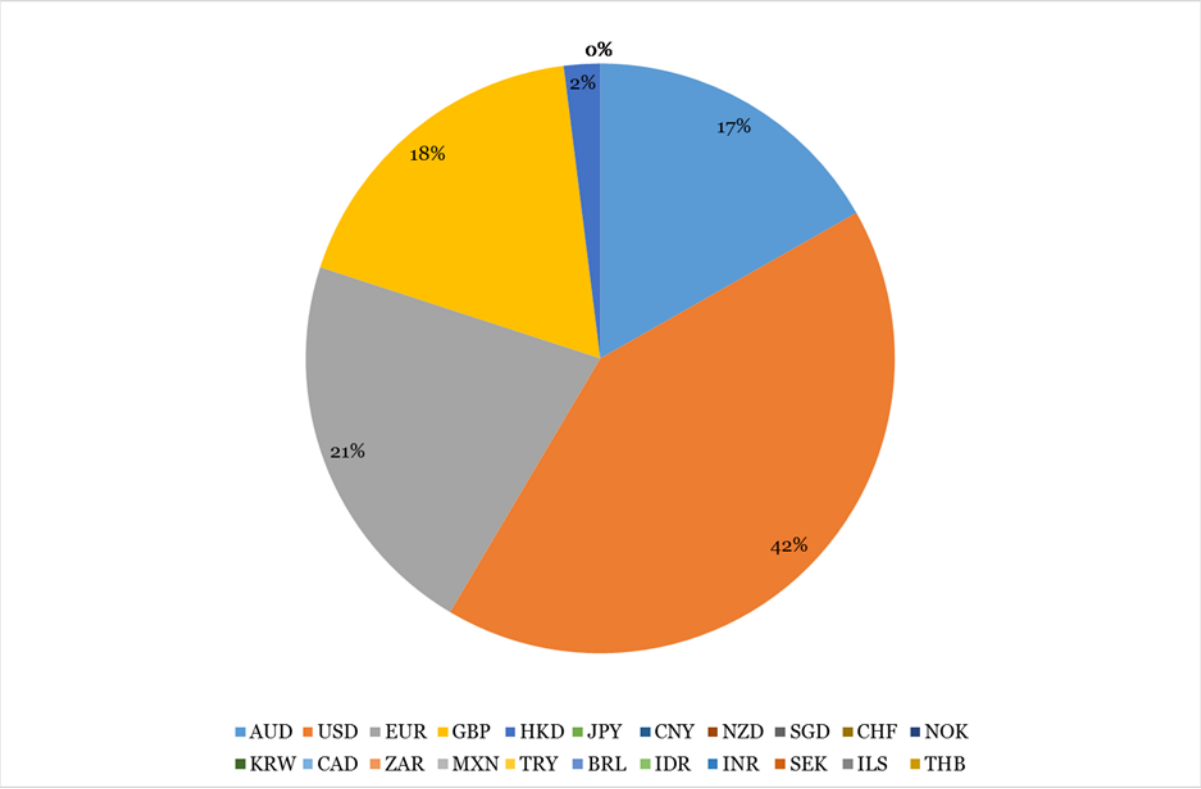
3.5.4 The AER is "unaware of any evidence" that an issuer's country of incorporation influences the new issue premium it faces

70. We are also unware of any such evidence and if there is no such evidence because an issuer's country of incorporation does not influence the new issue premium, then the evidence for US underpricing is relevant to Australian corporations issuing in the US.

3.5.5 Only a quarter of the volume of new bond issues by non-financial Australian companies is issued in the US

71. This is not correct. Our companion report[33] demonstrates that more than 40% of long dated bonds issued by Australian corporations– both utilities and more generally – are issued in the US. The following chart describes the currency of issue for a sample of utility issuers.

Figure 2: Currency of issue* for narrow sample including unrated debt – 8-12 year debt terms only



Source: Bloomberg, CEG analysis. Note currency of issue is akin to country of issue.

33 CEG, Criteria for assessing fair value curves, January 2016, section 4.2.

72. Clearly, USD debt is the dominant currency with AUD debt being the fourth most common currency of issue for long term debt. The AER's opposite conclusion is focussed on all debt and all terms (including short term bonds). The AER also refers to estimates from PwC.[34]

> *PwC observed that in 2012, Australian listed regulated energy networks' debt portfolios were comprised of 27% bank debt, 50% domestic bonds and 23% international bonds. Therefore, businesses comparable to the benchmark efficient entity issued approximately 70% of their bonds domestically in 2012. See PwC, A cost of debt estimation methodology for businesses regulated by the QCA, June 2013, p. 19*

73. As our companion report describes,[35] this PwC estimate is not reliable.

34 AER, SAPN, April 2015, Table G.1 on p. 3-475

35 CEG, Criteria for assessing fair value curves, January 2016 (section 4.2).

Appendix A Terms of reference

Background

Jemena Electricity Networks (**JEN**) is an electricity distribution network service provider in Victoria. JEN supplies electricity to approximately 300,000 homes and businesses through its 10,285 kilometres of distribution system. JEN's electricity distribution system services 950 square kilometres of northwest greater Melbourne. JEN's electricity network is maintained by infrastructure management and services company, Jemena Asset Management (**JAM**).

JEN submitted its initial regulatory proposal with supporting information for the consideration of the Australian Energy Regulator (**AER**) on 30 April 2015. This proposal covers the period 2016-2020 (calendar years). The AER published its preliminary determination on 29 October 2015. JEN is currently preparing its submission in response to the preliminary decision, to be submitted to the AER by 6 January 2016.

As with all of its economic regulatory functions and powers, when making the distribution determination to apply to JEN under the National Electricity Rules and National Electricity Law, the AER is required to do so in a manner that will or is likely to contribute to the achievement of the National Electricity Objective, which is:

> *to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:*
>
> *(a) price, quality, safety, reliability and security of supply of electricity; and*
>
> *(b) the reliability, safety and security of the national electricity system.*

The equivalent National Gas Objective is set out in section 23 of the National Gas Law.

Where the AER is making a distribution decision and there are two or more possible decisions that will or are likely to contribute to the achievement of the National Electricity Objective, the AER is required to make the decision that the AER is satisfied will or is likely to contribute to the achievement of the National Electricity Objective to the greatest degree.

The AER must also take into account the revenue and pricing principles in section 7A of the National Electricity Law when exercising its discretion in making those parts of a distribution determination relating to direct control network services. The revenue and pricing principles include the following:

> *A regulated network service provider should be provided with a reasonable opportunity to recover at least the efficient costs the operator incurs in:*
>
> *(a) providing direct control network services; and*
>
> *(b) complying with a regulatory obligation or requirement or making a regulatory payment.*

The equivalent revenue and pricing principles for gas network regulation are set out in section 24 of the National Gas Law.

Some of the key rules governing the making of a distribution determination are set out below.

Clause 6.4.3(a) of the National Electricity Rules provides that revenue for a regulated service provider is to be calculated adopting a "building block approach". It provides:

> *The annual revenue requirement for a Distribution Network Service Provider for each regulatory year of a regulatory control period must be determined using a building block approach, under which the building blocks are:*
>
> *(1) indexation of the regulatory asset base – see paragraph (b)(1);*
>
> *(2) a return on capital for that year – see paragraph (b)(2);*
>
> *(3) the depreciation for that year – see paragraph (b)(3);*
>
> *(4) the estimated cost of corporate income tax of the Distribution Network Service Provider for that year – see paragraph (b)(4);*
>
> *(5) the revenue increments or decrements (if any) for that year arising from the application of any efficiency benefit sharing scheme, capital expenditure sharing scheme, service target performance incentive scheme, demand management and embedded generation connection incentive scheme or small-scale incentive scheme – see subparagraph (b)(5);*
>
> *(6) the other revenue increments or decrements (if any) for that year arising from the application of a control mechanism in the previous regulatory control period – see paragraph (b)(6);*
>
> *(6A) the revenue decrements (if any) for that year arising from the use of assets that provide standard control services to provide certain other services – see subparagraph (b)(6A); and*
>
> *(7) the forecast operating expenditure for that year – see paragraph (b)(7).*

Clause 6.5.2 of the National Electricity Rules, relating to the allowed rate of return, states:

> *Calculation of return on capital*
>
> *(a) The return on capital for each regulatory year must be calculated by applying a rate of return for the relevant Distribution Network Service Provider for that regulatory year that is determined in accordance with this clause 6.5.2 (the allowed rate of return) to the value of the regulatory asset base for the relevant distribution system as at the beginning of that regulatory year (as established in accordance with clause 6.5.1 and schedule 6.2).*
>
> *Allowed rate of return*

(b) The allowed rate of return is to be determined such that it achieves the allowed rate of return objective.

(c) The allowed rate of return objective is that the rate of return for a Distribution Network Service Provider is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the Distribution Network Service Provider in respect of the provision of standard control services (the allowed rate of return objective).

(d) Subject to paragraph (b), the allowed rate of return for a regulatory year must be:

(1) a weighted average of the return on equity for the regulatory control period in which that regulatory year occurs (as estimated under paragraph (f)) and the return on debt for that regulatory year (as estimated under paragraph (h)); and

(2) determined on a nominal vanilla basis that is consistent with the estimate of the value of imputation credits referred to in clause 6.5.3.

(e) In determining the allowed rate of return, regard must be had to:

(1) relevant estimation methods, financial models, market data and other evidence;

(2) the desirability of using an approach that leads to the consistent application of any estimates of financial parameters that are relevant to the estimates of, and that are common to, the return on equity and the return on debt; and

(3) any interrelationships between estimates of financial parameters that are relevant to the estimates of the return on equity and the return on debt.

Return on equity

(f) The return on equity for a regulatory control period must be estimated such that it contributes to the achievement of the allowed rate of return objective.

(g) In estimating the return on equity under paragraph (f), regard must be had to the prevailing conditions in the market for equity funds.

Return on debt

(h) The return on debt for a regulatory year must be estimated such that it contributes to the achievement of the allowed rate of return objective.

(i) The return on debt may be estimated using a methodology which results in either:

(1) the return on debt for each regulatory year in the regulatory control period being the same; or

(2) the return on debt (and consequently the allowed rate of return) being, or potentially being, different for different regulatory years in the regulatory control period.

(j) Subject to paragraph (h), the methodology adopted to estimate the return on debt may, without limitation, be designed to result in the return on debt reflecting:

(1) the return that would be required by debt investors in a benchmark efficient entity if it raised debt at the time or shortly before the making of the distribution determination for the regulatory control period;

(2) the average return that would have been required by debt investors in a benchmark efficient entity if it raised debt over an historical period prior to the commencement of a regulatory year in the regulatory control period; or

(3) some combination of the returns referred to in subparagraphs (1) and (2).

(k) In estimating the return on debt under paragraph (h), regard must be had to the following factors:

(1) the desirability of minimising any difference between the return on debt and the return on debt of a benchmark efficient entity referred to in the allowed rate of return objective;

(2) the interrelationship between the return on equity and the return on debt;

(3) the incentives that the return on debt may provide in relation to capital expenditure over the regulatory control period, including as to the timing of any capital expenditure; and

(4) any impacts (including in relation to the costs of servicing debt across regulatory control periods) on a benchmark efficient entity referred to in the allowed rate of return objective that could arise as a result of changing the methodology that is used to estimate the return on debt from one regulatory control period to the next.

(l) If the return on debt is to be estimated using a methodology of the type referred to in paragraph (i)(2) then a resulting change to the Distribution Network Service Provider's annual revenue requirement must be effected through the automatic application of a formula that is specified in the distribution determination."

[Subclauses (m)–(q) omitted].

The equivalent National Gas Rules are set out in rule 87.

Clause 6.5.3 of the National Electricity Rules, relating to the estimated cost of corporate income tax, states:

The estimated cost of corporate income tax of a Distribution Network Service Provider for each regulatory year (ETCt) must be estimated in accordance with the following formula:

$ETC_t = (ETIt \times r_t)\ (1 - \gamma)$

where:

ETI_t *is an estimate of the taxable income for that regulatory year that would be earned by a benchmark efficient entity as a result of the provision of standard control services if such an entity, rather than the Distribution Network Service Provider, operated the business of the Distribution Network Service Provider, such estimate being determined in accordance with the post-tax revenue model;*

r_t *is the expected statutory income tax rate for that regulatory year as determined by the AER; and*

γ is the value of imputation credits.

The equivalent National Gas Rule is in rule 87A.

In its initial proposal, JEN submitted an expert report from CEG (the **Earlier Report**) on the new issue premium.[36] The AER preliminary decision considered this report.

In this context, JEN seeks a report from CEG, as a suitable qualified independent expert (**Expert**), on the best estimate of the new issue premium. JEN seeks this report on behalf of itself, Australian Gas Networks, Citipower, Powercor, and United Energy.

Scope of Work

In its preliminary decision, the AER:

- stated that it was satisfied with its current approach of not providing any uplift for the new issue premium;
- did not accept the proposals of United Energy and Australian Gas Networks to include a new issue premium of 27 basis points in the return on debt calculation;
- in respect of those service providers that had not proposed an allowance for the new issue premium but had submitted that the exclusion of the new issue premium makes their proposed return on debt conservative, did not agree with that submission; and

[36] CEG, *The new issue premium*, October 2014.

- stated that in light of concerns the AER identified with the Earlier Report, it did not consider that it was appropriate to rely on the level of the new issue premium advised in the Earlier Report.

The Expert is requested to provide an opinion report that:

1. Reviews and, where appropriate responds to matters raised in the preliminary decision in relation to the new issue premium not being relevant to the costs of a benchmark efficient entity, including (but not limited to):

   (a) reviewing the expert advice relied upon by the AER;

   (b) reviewing the literature relied upon by the AER; and

   (c) reviewing any empirical analysis relied upon by the AER.

2. In light of the Expert's opinion on the above matters and any other matters the Expert considers relevant, and having regard to the allowed rate of return objective, provides an opinion as to whether a benchmark efficient entity would incur new issue premium as part of its cost of debt.

In preparing the report the Expert will:

A. consider the theoretical and empirical support for the existence and magnitude of the new issue premium; and

B. consider any relevant comments raised by the AER and other regulators, and experts engaged by those regulators.

Information to be Considered

The Expert is also expected to consider the following information:

- such information that, in Expert's opinion, should be taken into account to address the questions outlined above;

- relevant literature on estimating the return on debt;

- the AER's Rate of Return Guideline, including explanatory statements and supporting expert material;

- material submitted to the AER as part of its consultation on the Rate of Return Guidelines; and

- previous decisions of the AER, other relevant regulators and the Australian Competition Tribunal on the return on debt and any supporting expert material, including the recent final decisions for

Jemena Gas Networks and electricity networks in ACT, NSW, Queensland, South Australia and Tasmania.

Deliverables

At the completion of its review the Expert will provide an independent expert report which:

- is of a professional standard capable of being submitted to the AER;
- is prepared in accordance with the Federal Court Practice Note on Expert Witnesses in Proceedings in the Federal Court of Australia (CM 7) set out in Attachment 1, and includes an acknowledgement that the Expert has read the guidelines [37];
- contains a section summarising the Expert's experience and qualifications, and attaches the Expert's curriculum vitae (preferably in a schedule or annexure);
- identifies any person and their qualifications, who assists the Expert in preparing the report or in carrying out any research or test for the purposes of the report;
- summarises JEN's instructions and attaches these term of reference;
- includes an executive summary which highlights key aspects of the Expert's work and conclusions; and
- (without limiting the points above) carefully sets out the facts that the Expert has assumed in putting together his or her report, as well as identifying any other assumptions made, and the basis for those assumptions.

The Expert's report will include the findings for each of the two parts defined in the scope of works (Section 2).

Timetable

The Expert will deliver the final report to Jemena Regulation by **6 January 2016**.

Terms of Engagement

The terms on which the Expert will be engaged to provide the requested advice shall be:

74. as provided in accordance with the Jemena Regulatory Consultancy Services Panel arrangements applicable to the Expert.

[37] Available at: http://www.federalcourt.gov.au/law-and-practice/practice-documents/practice-notes/cm7.