MEMORANDUM

AER Final Working Paper – Energy Network Debt Data

Purpose

1. The purpose of this memorandum is to set out preliminary observations on the approach proposed by the Australian Energy Regulator (AER) in its final *Energy Network Debt Data Working Paper* (Working Paper), published on 18 November 2020.

Summary

2. The AER's preferred approach set out in the Working Paper is a radical departure from a stable element of the regulatory regime (benchmark debt costs reflecting a 10-year BBB+ bond issuance). If applied, this would also have implications for the cost of equity, which does not currently reflect the heightened refinancing risk under the preferred debt approach.

3. The details of the preferred approach were first made available in this final Working Paper. We agree with the AER and other stakeholders (including the Consumer Reference Group) that changes to the regime need to be underpinned by empirical analysis and robust consultation and have provided this memo for the AER's consideration prior to its Rate of Return Consultation paper, due in May 2021.

4. A significant focus of the Working Paper is on options for greater use of the Energy Infrastructure Credit Spread Index (EICSI) in future determinations on debt costs. Underlying any enhanced, and particularly any direct, use of the EICSI series must be an assessment that it can provide consistent and reliable new information superior to that which inform current approaches. In particular, the Draft and Final Working Papers observe that the EICSI as currently constructed has tracked below the AER's benchmark cost of debt approach.

5. When the EICSI series is properly considered there is no outperformance in network debt issuances. This is because:

   - The cost of 10-year senior debt issued by networks is in line with the AER's allowance for 10-year BBB+ debt.
   - The cost of debt for all tenors issued by networks is in line with the AER's approach for setting the allowance for BBB+ debt for the same tenor.
   - That is, the cost of debt issued by networks is consistent with the cost of BBB+ debt at all tenors.

6. It is observable in the data underlying the EISCI that some networks have issued some debt at tenors less than the 10-year benchmark. There are two readily identifiable reasons why this could occur. Such shorter tenor debt could be undertaken to fill short-term funding gaps in a firms individual financing approach and needs. This would be consistent, for example, with an approach of a firm in a phase of transitioning to match or replicate the trailing average 10-year benchmark approach. A second reason could be a conscious individual business decision to depart from the AER efficient benchmark approach.

7. This issuance of shorter-term debt has the effect of reducing the average tenor as measured by the AER. The AER's analysis identifies the reduced tenor as being evidence of 'outperformance.' It is not. Rather, the claimed 'outperformance' is wholly due to the use of some shorter-term debt by some networks. Careful review and analysis of this point is required to avoid circumstances in which a ten-year trailing average cost of debt is maintained, but with the cost of this debt being measured on debt with a shorter tenor. This would represent an internally inconsistent outcome. It would result in lower debt compensation based, in effect, on a short tenor portfolio with no compensation for the higher refinancing risks associated with such a portfolio. Similarly, customers would benefit from lower expected debt costs but would not bear the higher volatility of debt costs associated with such a short tenor portfolio.

8. There are two possible regulatory responses to the evidence of some networks issuing some shorter-term debt:
   - **No action, consistent with benchmark principles** - Networks should be free to depart from the regulatory benchmark. But if they do so, they must bear all the associated risks. Such departures should not impact the prices that consumers pay or the risks that consumers bear; or
   - **Consideration of adjustment of current benchmark term** - If the AER considers that there is evidence that the benchmark efficient term of debt is less than 10 years, it should consider changing the benchmark term of debt.

9. Changing the benchmark credit rating to reflect evidence about the term of debt issued by some networks has no logical basis as it would result in a:
   - Benchmark credit rating assumption that differs from the observed credit ratings of network businesses; and
   - Benchmark return on debt allowance that does not align with any implementable debt management strategy.

10. While the final working paper couches Option 3 as less extreme than adopting the EICSI as the benchmark (Option 6), this is not true in all respects. While implementation problems may be reduced compared to Option 6, Option 3 suffers the same robustness problems, has similar incentive problems and is a

more extreme option regarding outcomes as it would fix the benchmark credit rating close to A for the duration of the 2022 RORI and future credit rating downgrades (which might arise due to the financeability challenges in the current regime) will not be reflected in the benchmark debt allowance until the 2026 RORI.

11. Specifically, Option 3 would result in around 90% to 100% weight being applied to the A curve depending on the time period assessed. Therefore, the AER is, in effect, proposing a material increase in benchmark credit rating. The benchmark credit rating would be set above the current credit rating of any NSP[1] and very materially above the ratings implied by forward looking credit metrics, which do not support the current BBB+ benchmark.

12. As the operation of Option 3 has only been set out in the Final Working Paper released in November, network businesses are still considering any potential ways to avoid, overcome or mitigate the issues identified in this memorandum.

The AER's proposed reform

13. The AER currently sets the benchmark cost of debt for 10-year tenor debt issuance based on a weighted average of BBB (2/3rd weight) and A (1/3rd weight) 10 year credit spreads published by third party data providers. The weights are set to be consistent with the benchmark BBB+ credit rating which has consistently been adopted in each regulatory guideline and instrument since 2009.

14. The AER's final Working Paper proposes to instead adopt weights that would set the benchmark credit rating on 10 year cost of debt such that, when applied retrospectively to the EICSI (the AER's index of actual industry debt costs) from July 2018 to June 2022, would result in zero "outperformance" of the EICSI relative to the (new) benchmark. This is 'Option 3' in the Working Paper.

Outperformance of Industry Debt reflects lower than benchmark Tenors at Issuance (not lower than BBB+ spreads)

15. The AER final Working Paper shows "outperformance" of the EICSI relative to the AER's current 10 year BBB+ benchmark.[2] This gap is due to some networks issuing shorter term debt (taking on uncompensated refinancing risk not

[1] Currently a couple of networks have an A- credit rating while the median industry credit rating remains BBB+ (AER Annual Update December 2020 – Table 11)
[2] See Figure 2 of the Final Debt Data working paper

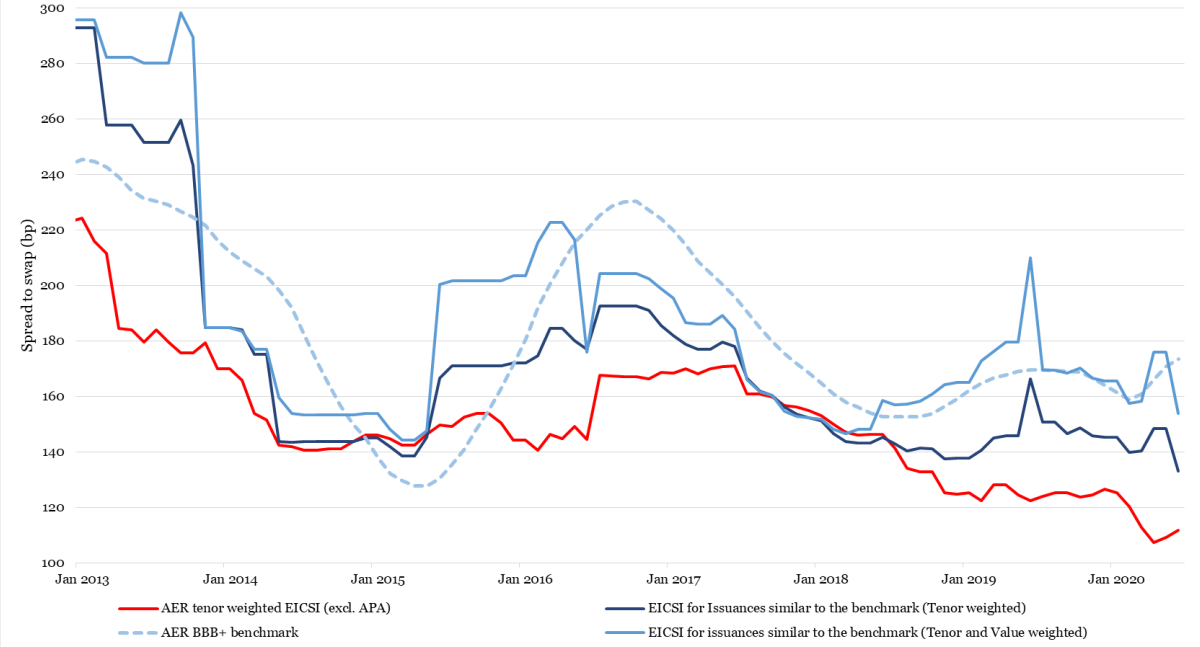
reflected in benchmark practices or borne by customers) and is only material in periods when the simple average tenor (also shown in Figure 2) is below 8 years.

16. This analysis obscures very different debt management strategies pursued by NSPs. The Weighted Average Term to Maturity Index[3] (WATMI) for each NSP as at June 2019 ranges from 5 years to 12 years. The AER's EICSI is a blend across some NSPs following the 10-year benchmark strategy and others pursuing a shorter tenor strategy.

17. When issuances that reflect the AER's benchmark tenor and efficient debt management practices are assessed the apparent "outperformance" disappears.

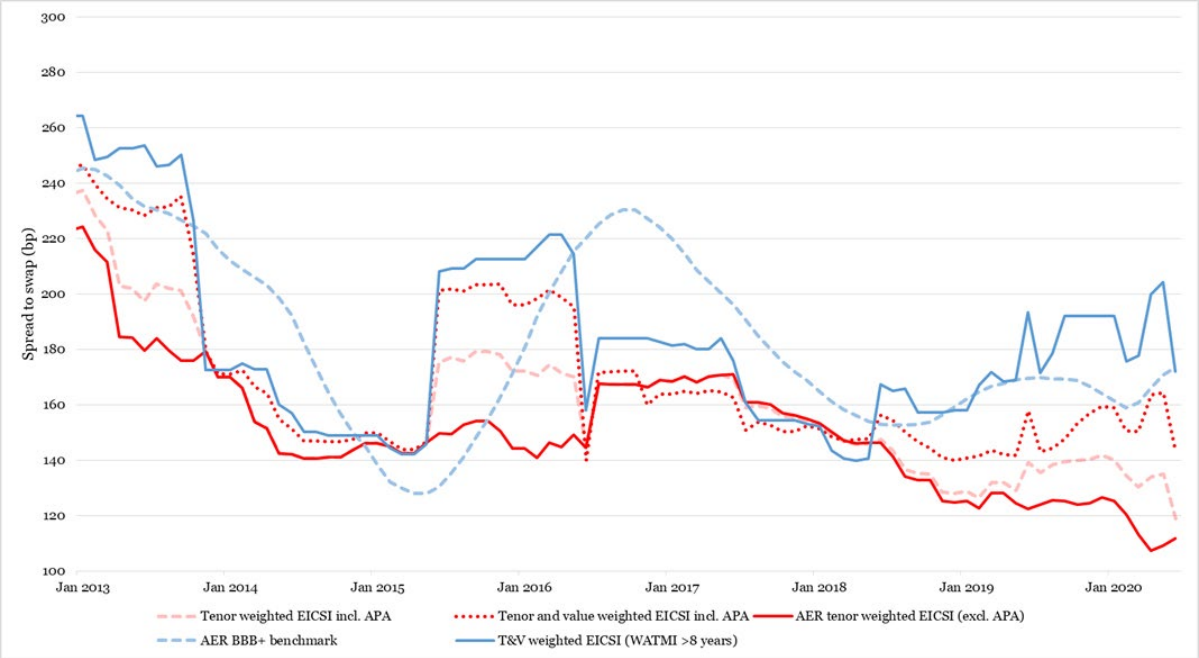
- Figure 2-1 restricts EICSI **issuances** to those that are consistent with the benchmark (e.g., 7-13 year tenor, BBB to A- non-callable/subordinated debt);
- Figure 2-2 includes all tenors for instruments matching the AER's final working paper criteria but only by **issuers** that have a WATMI > 8 years.

Figure 2-1: Only issuances consistent with 10-year benchmark in EICSI



[3] Average term of debt at issuance.

Figure 2-2: Only issuers that have WATMI > 8 years



The series labelled "AER tenor weighted EICSI excluding APA" is the closest replication of the AER's published tenor weighted EICSI estimate. The AER does not state that it is excluding APA debt but it nonetheless appears to have done so. The data for APA bond issuance is publicly available here. The ENA also notes that the AER BBB+ benchmark curve is slightly different (e.g., lower in 2015) than that published by the AER in its November working paper. We have included the Reuters estimate in the average BBB+ benchmark. However, we note that we can closely replicate the AER published curve by excluding Reuters estimate.

18. Figure 2-2 shows three steps in moving from the AER published EICSI to the 10-year tenor consistent EICSI. The first step is to include APA instruments – which shifts the EICSI to the dashed red series. The next step is to weight by value as well as tenor – which shift the EICSI to the dotted red series.[4] The final step is to exclude the issuers with WATMI less than 8 years[5] – which shifts the EICSI to the blue solid series.

19. In both charts, the seeming "outperformance" for the AER EICSI disappears when the EICSI is constructed to be consistent with a 10-year tenor.

[4] Failing to value weight the EICSI leads to incongruous results which provide a distorted and uncalibrated picture of debt costs. This issue is discussed later in this memo.
[5] Specifically, we have calculated the WATMI for each issuer for all debt issued after 1 January 2013 (VPN, CitiPower and Powercor are treated as one entity). All issuers that had a WATMI of less than 8 years on 30 June 2019 were excluded. This is different to estimating the WATMI for each firm based on all debt because some firms have issued long term debt prior to January 2013 that is still active. Applying this latter approach would only result in AGN being included and would not materially change the EICSI. However, we prefer the former approach because what is important is the tenor of debt issued in the period over which we are calculating the EICSI (not the existence of prior very long-term debt).

Inappropriate to adjust benchmark credit rating in response to a subset of NSPs issuing at shorter than benchmark tenor

20. Given the analysis of above, the AER's proposed reform appears on its face to be, in effect, a proposal to:

    - maintain a 10-year benchmark tenor and hence a 10 year trailing average;
    - lower compensation **below** the costs NSPs incur in following that 10-year tenor, *because* lower costs have been achieved by some NSPs who follow a shorter tenor strategy over the observation window.

    This gives rise to an internal inconsistency in the debt benchmark.

21. This means that NSPs following the benchmark debt management strategy (i.e. issue debt with a tenor of 10 years) will be unable to recover their efficiently incurred costs, a result which is inconsistent with the Revenue and Pricing Principles. The only way to try to match the compensation provided in expectation would be for firms to shorten their tenor of issue (to whatever the effective tenor implicit in the AER EICSI is). But this would simultaneously raise refinancing risks and cause actual debt costs to be more volatile than the 10-year trailing average. If the effective tenor in the EICSI is 7 years then the AER would be, in effect, updating a 10-year trailing average 10% every year with 7 year credit spreads. Obviously, it is impossible to maintain a debt portfolio that simultaneously refinances 10% each year but at credit spreads associated with 7-year tenors.

22. By contrast, the AER could respond to evidence of some NSPs using shorter tenor strategies by shortening the benchmark tenor (with appropriate transition). Shortening the benchmark tenor would likely lead to lower benchmark debt costs for customers but, critically, higher price volatility associated with a less stable trailing average cost of debt. It would also allow NSPs who follow the benchmark debt management strategy to recover their efficient costs as it is internally consistent. Similarly, depending on future determined approaches by the AER in relation to estimating beta, overtime the observed asset betas for listed NSPs would reflect the changed tenor benchmark. This would allow the possibility that at some point in the future the additional refinancing risks were accounted for in an internally consistent manner across return on debt and equity allowances, resulting in a rate of return that reflected these relevant risks. Prior to this occurring and this risk manifesting itself in measured beta estimates, however, the AER would need to take this net increase in refinancing risk into account in other ways.

23. The ENA does not support a shortening of the benchmark tenor as it considers the current 10-year benchmark reflects efficient, low risk debt management practices and customers to benefit from this low risk through less volatile prices.

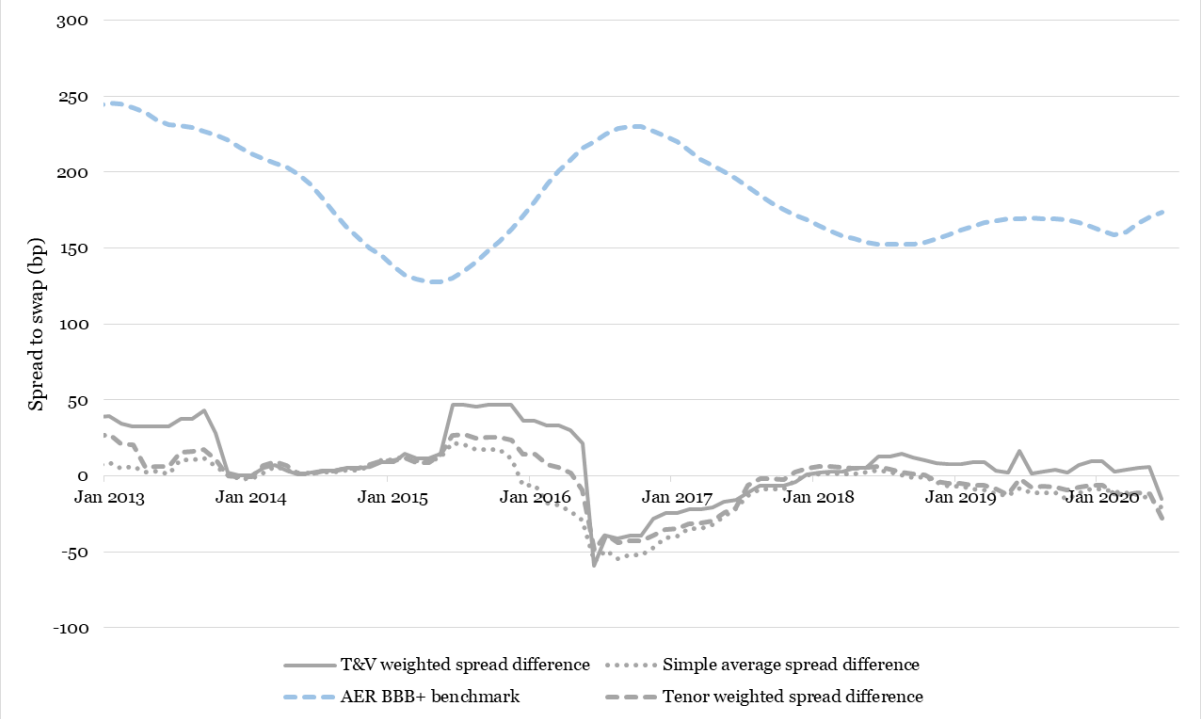
Importantly, some networks that target 10-year debt issuances have been doing so for many years, pre-dating the 10-year trailing average. This gives confidence that these practices are efficient and unrelated to the AER's benchmark.

24. Another way of directly assessing whether NSPs, on average, issue debt at a BBB+ credit rating is to calculate the difference between the spread on each debt instrument and third party providers' estimate of the BBB+ spread on the same pricing date and for the same tenor. When we do this analysis, we see that NSPs on average issue very close to the BBB+ spread *at the relevant tenor*.

25. The series in Figure 2-3 represent the difference between the spread on an NSP instrument that meets the AER inclusion criteria (but includes APA instruments) and the BBB+ spread at the same tenor.[6] Each observation is a trailing average over the previous 12 months. A positive value is associated with NSPs issuing at a higher than BBB+ spread (and vice versa) over the preceding 12 months. Different weighting approaches are shown but the final result is not sensitive to weighting methodology.

[6] Where available, we take an average of the Bloomberg, RBA and Reuters BBB+ spread for a particular tenor. For bonds with longer dated tenor than the longest tenor published BBB+ spread (derived from published BBB and A spreads) we use the longest tenor published BBB+ spread as the relevant BBB+ benchmark. When calculating the Bloomberg estimate at each date, we use the BVAL curve if its maximum tenor is at least 7 years, otherwise we use the BFV curve. Consistent with the AER's approach set out in Footnote 41 of its Working Paper, our RBA estimates incorporate the RBA's June 2018 revisions to its F3 statistical table.

Figure 2-3: "Outperformance" relative to BBB+ benchmark at the relevant tenor



26. It can be seen that, except for FY16/17, NSPs have issued debt at, or above, the BBB+ benchmark – provided that the same tenor is used to estimate that BBB+ benchmark. From July 2018 to June 2020 the average tenor and value weighted gap is positive 6 bp (i.e. NSPs issued debt at 6 bp more than the tenor consistent BBB+ benchmark).

Other concerns

27. This memo focuses on the internal inconsistencies that flow from conflating departures from benchmark tenor for departures from benchmark credit rating.

28. The ENA has a range of other concerns about the AER proposals and implementation. These include concerns about:

    - the robustness of the use of a 12-month rolling EICSI (no matter how constructed);
    - failing to value weight the EICSI leads to incongruous results. This is because NSPs, consistent with other comparable capital-intensive infrastructure service firms, use short term bank debts to 'plug' small gaps in their financing requirements. Consequently, the number of individual (small) short term

bank debt instruments issued is out of all proportion to the importance of this form of bank debt in overall funding requirements.[7]

    - By analogy, it would not be a reasonable or informative assessment of the average cost of debt for a household, to give 3 different credit card instruments of $2,000 each the same weight as a $500,000 home mortgage.

- the exclusion to date of materially relevant debt costs, in circumstances where observed debt spreads from the same instruments are interpreted as evidence of the potential availability of debt at below the cost of the current benchmark;
- the exclusion of subordinated debt despite including the senior debt that the excluded subordinated debt supports;[8]
- the use of historical data to make inferences about what should be an internally consistent forward-looking assessment of credit rating. In addition, the impacts of incentive scheme revenues on current credit metrics and whether these can be sustained, the reduction in tax allowances with no change in underlying tax costs and the reduction in the return on equity resulting in negative profits for investors in the benchmark entity should be considered; and
- the incentive problems with this framework.

29. The ENA will make submissions on these concerns as necessary in future consultations.

[7] By way of example, the gap between dotted and dashed red series in June 2020 in Figure 2-2 is due in large part to the fact that the tenor weighted EICSI gives 8% weight to 7 bank debts that all have less than 3 years tenor and 150m or lower individual value. These bank debts have a cumulative value of $750m. By contrast, a single Ausgrid 7-year instrument worth $1.4bn (i.e., twice as much and with more than three times the average tenor) is given only 3.5% weight (less than half the weight of the 7 short term bank debts). The tenor and value weighted series corrects this bias and this explains why the tenor and value weighted series is typically above the tenor weighted series.

[8] Networks may issue subordinated debt to support their credit ratings. The higher spreads paid on subordinated debt is the "price" to achieve lower spreads on senior debt. It is incorrect to include the former in the EICSI but not the latter.