3 September 2021

Mr Warwick Anderson
General Manager, Network Pricing
Australian Energy Regulator
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Canberra ACT 2601

By email: RateOfReturn@aer.gov.au
Cc:

Dear Mr Anderson

Response to AER Rate of Return Omnibus papers

Thank you for the opportunity to respond to the AER's draft working papers that were published on 15 July 2021 as part of the 2022 Rate of Return Instrument (RoRI) review. This submission is provided on behalf of SA Power Networks, United Energy, CitiPower and Powercor.

We commend the AER's early and ongoing engagement on this important review, which is occurring at a critical time in the evolution of Australia's energy system. We are pleased with the level of engagement in the process to date and with the level of guidance that the AER has provided in relation to its preliminary thoughts at this early stage of the 2022 review process.

The context for the current review

The ENA Equity Omnibus submission notes that the review process thus far has identified that there are some fundamental problems with the way the 2018 RoRI has operated in the financial market conditions that have developed over the last three years. These problems were most obviously manifest in the SA Power Networks decision in 2020 which involved a record low allowed return on equity, materially below that allowed by other comparable regulators.[1]

The ENA submission also notes that the AER is considering the process for estimating the required return on equity during an unusual time. Government bond yields have fallen to historical lows, real rates are negative, the central bank is intervening to push rates below the market-determined level, and there is heightened uncertainty in global financial markets.

We submit that it is very important that the 2022 RoRI is developed in such a way that stakeholders can have confidence that it will produce reasonable outcomes across the range of future scenarios that might eventuate. This will require some significant changes to the approach adopted in the 2018 RoRI.

[1] Brattle, June 2020, *A review of international approaches to regulated rates of return*.

The expert reports commissioned by the AER have identified a number of problems that the AER will need to address if the 2022 RoRI is to be more robust to the financial market conditions that might eventuate while it is in effect.

Brattle has advised that the AER's 2018 approach is not as effective as that of other regulators[2] and CEPA has advised that there is no good evidence for a key part of the 2018 approach to setting the allowed return on equity.[3] In addition, the number of domestic comparator firms is rapidly approaching zero. There are some real challenges for the AER to address. In these circumstances, *'turning the handle'* on the 2018 approach for the return on equity would not seem to be a viable option.

In this context, ENA has identified a small number of issues for careful and balanced consideration through the remainder of the 2022 review process. A summary of those issues, our views, and relevant ENA submissions is set out in the table below. The remainder of this submission addresses what we consider to be the key issues.

Table 1 Summary of key issues to be resolved

Issue	Our views	ENA submission
CAPM	Standard Sharpe-Lintner CAPM model used whilst acknowledging the underlying weaknesses in the model, such as low beta bias.	*Equity Omnibus* (Sep 2021)
Term of the risk-free rate	Maintain 10-year term.	*Term* (July 2021)
Use of government bonds to estimate the CAPM risk-free rate	Further consultation required.	*Low rates* (July 2021)
Exclusive reliance on domestic comparators when estimating beta	Have real regard to all relevant evidence.	*Equity Omnibus* (Sep 2021)
Exclusive reliance on historical excess returns when estimating MRP	Have real regard to all relevant evidence.	*Equity Omnibus* (Sep 2021)
Role of subordinated debt	Subordinated debt that has all the economic characteristics of debt should be included as debt.	*Overall rate of return* (Sep 2021)
Consistent treatment of debt instruments	Debt instruments must be treated consistently throughout the regulatory process. Including an instrument in one part of the process but excluding it in another is likely to lead to biased outcomes.	*Overall rate of return* (Sep 2021)
Role of EICSI data	Maintain current approach. EICSI should be used as a cross check only, not determinatively)	*Return on debt* (Nov 2020) *Debt Omnibus* (Sep 2021)
Use of EICSI to estimate outperformance	Maintain current approach. Concerns about bias due to omission of subordinated debt and inclusion of recently-privatised networks. And strong concerns about changing credit rating parameter to reflect a perceived discrepancy in the term parameter.	*Return on debt* (Nov 2020) *Term* (July 2021) *Debt Omnibus* (Sep 2021)

[2] Brattle, June 2020, *A review of international approaches to regulated rates of return*.

[3] CEPA, June 2021, *Relationship between RFR and MRP*, pp. 6-7.

Implementation of the CAPM

We support the use of the CAPM to estimate the required return on equity. Nonetheless this should not be done in isolation and appropriate regard should be given to the underlying weaknesses in the model where this is supported by evidence (for example, low beta bias).

Have regard to all relevant evidence

We agree with the AER's proposed approach of systematically considering all relevant estimation methods, financial models, market data and other evidence[4] when implementing the CAPM. We consider this to be an important improvement on the 2018 approach, where the beta and MRP parameters were each set on the basis of a small subset of the relevant evidence.[5] In this regard, the Brattle and CEPA reports commissioned by the AER conclude that the AER should have regard to a wider range of relevant evidence when estimating the MRP, with both reports being quite critical of the approach adopted in 2018.[6]

Have regard to how the CAPM is implemented in practice

It is also important to consider how the CAPM is implemented in practice. Market professionals and other regulators do not implement the CAPM in a mechanistic fashion based on a particular statistical estimate of each parameter. The Economic Insights report commissioned by the AER notes that:[7]

> *the CAPM more readily facilitates the application of expert judgment in estimating required expected return.* ***Industry practitioners typically do not apply the CAPM in a mechanistic way*** *but use expert judgement to* ***vary the values of its estimated parameters to take into account aspects of risk not captured by the model*** *but relevant to stakeholders.* [8]

We submit that there is important information in observing how market professionals and other regulators exercise judgment in their implementation of the CAPM.

Have regard to imprecision and volatility in estimates

Judgment is required when selecting parameters – because the available data and statistical methods are not capable of producing precise figures. For this reason, it is important to have regard to the parameters adopted by other regulators and practitioners who are engaged in performing the same task of estimating the required return on equity.

Have regard to documented weaknesses and biases in the CAPM

It is also important to consider the known weaknesses of the CAPM. The Economic Insights report presents the example of low-beta bias in this regard. That report notes the well-documented evidence

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4 AER, July 2021, *Equity Omnibus*, p. 28.

5 The market risk premium was set equal to the mean of historical excess returns, particularly over the period from 1988-2017 and the equity beta was determined by a small set of domestic comparators, with particular focus placed on AusNet Services and Spark Infrastructure. No other relevant evidence had any impact on point estimates of CAPM parameters or on the allowed return on equity.

6 Brattle, June 2020, *A review of international approaches to regulated rates of return*; CEPA, June 2021, *Relationship between RFR and MRP*.

7 Economic Insights, June 2021, *Methodological issues in estimating the equity beta for Australian network energy businesses*, p. 28, emphasis added.

8 Economic Insights, June 2021, *Methodological issues in estimating the equity beta for Australian network energy businesses*, p. 28, emphasis added.

that actual returns on low-beta stocks are persistently higher than a mechanistic implementation of the CAPM would suggest, and observes that expert judgment is required in response:[9]

> *An understanding that mechanistic application of the CAPM must be supplemented by expert judgement casts a different light on **the academic literature showing a flat relationship between beta and expected return**. Academic studies using large samples are constrained to rely on estimates of beta based on historical data. The significant methodological issues in identifying, obtaining and using historical data to estimate beta lower the likelihood of finding an empirical association between beta estimated from historical data and future return. Expert judgement is needed to ameliorate the issues. **That is, estimates of beta obtained from regression analysis are a starting point, not the end point, for estimating beta**.*

Another example of the application of judgment is the approach presented by the Customer Reference Group (CRG) during the stakeholder forum on 11 August 2021. The CRG proposed a modified version of the CAPM in which the nominal risk-free rate cannot fall below expected inflation. This approach is an attempt to recognise that the CAPM (with a fixed MRP) does not generate reasonable estimates of the required return on equity when government bond yields are very low.

Summary of our submissions

In summary, we submit that, when implementing the CAPM:

- it is important to have real regard to all relevant evidence, not select subsets of it;
- mechanistic approaches should be avoided – a degree of judgment is required;
- judgment is required to:
  - recognise the imprecision with which parameters are estimated;
  - recognise the documented weaknesses in the model itself; and
- evidence of how other regulators and market professionals exercise judgment is relevant evidence that should be considered.

The estimation of CAPM parameters

We endorse the ENA submission on the *Equity Omnibus* draft working paper.

We note that Brattle has advised that the AER's 2018 approach is "not as effective as that of other regulators"[10] and CEPA has advised that there is "no good evidence"[11] to support the AER's 2018 approach to setting the allowed return on equity.

We appreciate the AER's willingness to consider improvements to its approach to ensure that the outcomes in its decisions from early 2020 are not repeated.

We consider that the most important improvement is for the AER to have real regard to all relevant evidence. The 2018 approach in relation to the beta and MRP parameters was to produce a point estimate from a single favoured subset of the relevant evidence, and then explain why none of the other relevant evidence would lead to any change in the preliminary estimate.

The consultants commissioned by the AER have been quite critical of that approach, with Brattle noting that it has produced regulatory allowances materially below those of all comparable regulators that it examined.

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[9] Economic Insights, June 2021, *Methodological issues in estimating the equity beta for Australian network energy businesses*, p. 28, emphasis added.

[10] Brattle, June 2020, *A review of international approaches to regulated rates of return*.

[11] CEPA, June 2021, *Relationship between RFR and MRP*, pp. 6-7.

We endorse the approach proposed in the ENA submission – of having real regard to all relevant evidence when selecting parameters for use in the CAPM.

The importance of scenario testing

We strongly support the ENA's submission in relation to scenario testing. Under a binding RoRI, determinations can be made under very different market conditions than those that existed at the time of the RoRI. Consequently, it is important to ensure that the RoRI is capable of generating reasonable allowances over the range of future market conditions that might reasonably be anticipated over the life of the RoRI.

For example, the allowed return on equity in the SA Power Networks determination in early 2020 was widely regarded as problematic, but there was no avenue or opportunity for the AER to depart from the mechanical approach required under the binding RoRI legislation.

For this reason, it is critical for the 2022 RoRI to be robust to the range of market scenarios that might eventuate during the life of that instrument.

Issues relating to the allowed return on debt

We endorse the ENA submission on the *Debt Omnibus* draft working paper.

We consider that the industry debt data demonstrates the current approach to setting the return on debt allowance is working well and should be maintained. The approach of selecting a benchmark efficient debt financing approach (10-year, BBB+, fixed-rate, staggered-maturity) and using independent third-party data sources is an entirely appropriate approach for setting a regulatory benchmark allowance.

Our approach is to seek to replicate the AER's allowance for the return on debt by aligning hedging and debt portfolios to the AER's 10-year trailing average approach. We consider that approach to be prudent and efficient and an appropriate regulatory benchmark.

We have a number of concerns about the departures from this well-accepted regulatory benchmark that are currently being considered by the AER.

1. *Real questions remain about the reliability of the EICSI data*

   We note that real questions remain about the transparency, reliability and construction of the EICSI data. In particular, it is not clear that all debt has been included and properly accounted for. Concerns remain particularly in relation to subordinated debt. It is clearly the case that the inclusion of senior debt, and the exclusion of subordinated debt in the same firm will lead to a bias in the EICSI estimates.

   We submit that it would be inappropriate for the EICSI figures to have a determinative role in the RoRI process until stakeholders have confidence in the robustness of the data that is being used to construct it. It seems unlikely that data that is subject to such fundamental unresolved questions would be deemed to be fit for purpose anywhere else in the RoRI process.

2. *The AER should seek to properly understand what is driving any perceived outperformance*

   If the AER *does* plan to use the EICSI data in a determinative way, and it concludes that the data *does* suggest outperformance of past regulatory allowances, it is important for the AER to take the time to understand the drivers of that outperformance. For example, if the outperformance is due to the omission of the subordinated debt issued by some networks and the inclusion of

shorter-term debt issued by recently-privatised networks, there would be no basis for abandoning the current approach to the allowed return on debt.

We submit that it would be entirely inappropriate to embed a bias into the regulatory benchmark by considering only part of the debt used by networks as part of their steady-state financing approach and to include debt issued by networks still transitioning to a steady-state debt financing approach.

Rather, a network 'halo' effect would only be established by evidence of networks being able to issue 10-year debt at yields lower than the independent third-party estimates that the AER currently uses. But there is no such evidence.

3. *The need for the return on debt allowance to be replicable by an efficient benchmark business*

The AER's preliminary assessment of the EICSI data is that the benchmark term of debt might be lower than 10 years. However, the ENA submissions have demonstrated that the average term is 10 years if short-term debt issued by recently privatised firms is removed and if subordinated debt (which has all the economic characteristics of debt) is included.[12]

We are particularly concerned about the AER's suggestion that it may change the benchmark credit rating to reflect its interpretation of a shorter benchmark term. Changing one parameter to reflect a perceived change in a different parameter fails every test of good regulatory practice.

ENA, and the AER's own consultants,[13] have explained why it is important for the allowed return on debt to be based on a strategy that could feasibly or viably be implemented in practice. We consider it to be inappropriate to depart from, as the efficient benchmark, a debt management strategy that can be implemented by any regulated network.

The benchmark network cannot simply decide to increase its credit rating to match a new regulatory assumption, and it is not good regulatory practice to adopt a parameter value (higher credit rating) that is inconsistent with the regulator's own assessment of the observed evidence (BBB+).

4. *The weighting of tranches in the return on debt allowance*

The AER is seeking stakeholder views about whether the tranches in the trailing average return on debt allowance should receive equal weight (which is the AER's current approach) or different weights based on forecast CAPEX requirements.

On balance, our view is that the equal weighting approach should be maintained for two reasons:

- An approach based on firm-specific CAPEX forecasts would be a step away from the AER's longstanding approach of setting a generic benchmark efficient allowance. The generic benchmark efficient allowance has the benefits of simplicity, objectivity, transparency and longstanding regulatory precedent. It should not be changed without very careful consideration of the implications of moving towards a more firm-specific form of regulation.
- Most networks have predominantly incremental (BAU) CAPEX requirements, so a difference in weighting schemes would not be material for them (such that any corresponding increase in complexity is not warranted).

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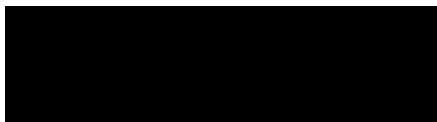
[12] ENA, *Term submission*, July 2021, ENA, *Debt Omnibus submission*, September 2021.
[13] Lally, April 2021, *The appropriate term for the allowed cost of capital*, pp. 46-47.

The next stages of consultation

The next stage of the process is the release of the AER's working papers in December 2021, which will guide the consultation process through the first half of next year. In this submission, we have highlighted a number of issues that we consider to be of critical importance (Table 1: Summary of key issued to be resolved). We consider that these issues should be addressed in detail in the AER's December 2021 working papers and they should form the basis of the expert panel sessions early next year. These issues should also be highlighted for particular consideration by the Independent Panel.

We again express our appreciation for the opportunity to provide this submission for consideration by the AER, and we look forward to actively contributing to the remaining stages of the 2022 RoRI consultation process.



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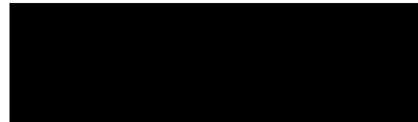

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