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[redacted]
General Manager, Networks Finance and Reporting
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By email: [redacted]
Cc: [redacted]

Dear [redacted]

Re: Response to draft rate of return working papers

Thank you for the opportunity to respond to the AER's recent draft 2022 Rate of Return Instrument (RoRI) working papers on the *term of the rate of return* and the *rate of return and cash flows in a low interest rate environment* (Draft Working Papers).

We welcome the AER's engagement on the development of the 2022 RoRI through the Draft Working Papers and its position paper on assessing the long-term interests of consumers (Position Paper). Engagement in the development of the 2022 RORI is important to ensure full consideration of alternative approaches and available evidence.

We endorse the Energy Network Australia's (ENA's) submissions on these papers, which set out detailed responses to the matters raised in the Draft Working Papers[1].

The remainder of this submission sets out our views on the AER's Draft Working Papers and Attachment A sets out our responses to the questions raised in the papers.

Paper 1: Draft working paper – Term of the rate of return

We support the continuation of ten year terms for the return on debt and equity and agree with the AER that the terms of forecast inflation, return on debt, and return on equity should be determined independently.

We endorse the ENA's position that the consensus from the AER's stakeholder forum held on 15 June 2021 was that:[2]

> the term adopted for regulatory inflation is independent of the term adopted for the allowed return on debt and equity capital

> no stakeholders are actively promoting any change in the AER's approach to the term adopted when setting the allowed return on debt and equity capital, and

1 ENA, *The term of the rate of return: ENA submission on the AER's draft working paper*, 2 July 2021; ENA, *Allowed returns in a low interest rate environment: ENA submission on the AER's draft working paper*, 2 July 2021.

2 ENA, *The term of the rate of return: ENA submission on the AER's draft working paper*, 2 July 2021, p.3.

> maintaining the current approach to the allowed return on debt would avoid the complexity of implementing a new transition mechanism part-way through the current transition mechanism.

We endorse the ENA's submission that no strong case for changing the term underpinning the return on debt or equity has been made.

The term of the riskless rate for calculating the return on equity term should remain at 10 years

We endorse the ENA's position that:

> a 10 year term is consistent with standard commercial and regulatory practice, and

> there is no change to finance theory or practice that would justify breaking the stability and predictability of retaining a 10 year term, consistent with the AER's rate of return reviews in 2009, 2013, and 2018.

The Australian Competition Tribunal (Tribunal) has clarified that the benchmark efficient entity (BEE) is a firm that undertakes the activities of the regulated firm in a workably competitive market[3]. In such markets, firms make investment decisions over the effective life of their assets[4]. As such, where firms invest in infrastructure assets, the relevant risk-free rate is one which matches the life of the assets. In the case of freehold land, the relevant rate has an infinite duration.

What clearly flows from the Tribunal's view is that the term of any regulatory control mechanism is irrelevant to determining the cost of capital of the regulated firm simply because such a mechanism would not exist in a workably competitive market. In particular, the NPV=0 condition as applied by Lally is not relevant. We note there is limited or no academic, or judicial support for Lally's application of this principle.

There is no evidence that firms and their investors limit their investment making timeframes to the length of the regulatory control period, rather they clearly are concerned with the present value of cash flows expected after that period ends.[5] This should be apparent from the fact that the return of capital occurs over the life of the assets, not the term of the regulatory control period.

As a practical matter, data on risk free rates in Australia is limited to a term of up to around 10 years. In those jurisdictions where longer dated government bond data is available, regulators have used such data in estimating the return on equity. For example, consistent with earlier decisions, the Office of Gas and Electricity Markets (Ofgem) recently decided to continue using the yields on 20-year index linked gilts (i.e. inflation-index government bonds) to estimate the risk-free rate for transmission and gas distribution network companies and the electricity system operator.[6]

Adopting a term longer than the regulatory period is also consistent with advice previously provided by Officer and Bishop:[7]

> *If the planning period of the company is longer than the periods between regulatory decisions, it is inappropriate to use the five year rate as distinct from a longer term rate such as the ten year rate. The longer term will better reflect the investment horizon of the company which is the relevant term and not that of the regulators. A moving ten year rate should be used if regulatory periods are considerably shorter*

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3 Australian Competition Tribunal (Tribunal), Applications by Public Interest Advocacy Centre Ltd and Ausgrid [2016] ACompT1, 913–915

4 Professor Bob Officer and Dr Steven Bishop, Term of Risk Free Rate Commentary, September 2008, pp. 7 and 13

5 Even if an investor expects to sell its holdings by the end of the regulatory period, it will consider cash flows beyond that period when assessing an appropriate sale price.

6 Ofgem, *RIIO-2 Final Determinations – Finance Annex (REVISED)*, December 2020, pp.25–31

7 Bishop and Officer, *Term of Risk Free Rate*, September 2008.

than the ten year period. In short, there is no sound justification for the use of a five year rate.

We endorse the ENA's position that there are strong grounds for retaining the 10 year term for the return on equity, with no obvious reason for reducing this to match the length of the regulatory period.[8]

Return on debt term should also remain at 10 years

We endorse the ENA's positions that:

> the allowed return on debt should reflect the cost that would be incurred each year under the assumed efficient debt financing practice.

> the assumed term should match that of efficient energy network business' borrowing practices. Evidence from the AER's Energy Infrastructure Credit Spread Index (EICSI) and corresponding weighted average term to maturity at issuance support a 10 year term for debt.[9]

> the principle of setting the allowed return on debt to match the efficient financing costs of the BEE is widely accepted. For example, in its 2013 Rate of Return Guideline, the AER adopted a 10-year trailing average allowance because it considered that approach to best reflect efficient financing practice.

> the trailing average approach reflects efficient debt financing practice, and that this approach should continue to be used to estimate the return on debt. The trailing average approach is consistent with how long-term infrastructure businesses raise debt, staggering long-term debt issues over time and is consistent with a financial strategy that a firm in a workably competitive market would adopt. We note that the trailing average would need to change if the term were to change, which would introduce complexity that should be avoided in the absence of clear benefits.

> retaining a 10 year term for debt is consistent with past AER practice and decisions by other Australian and international economic regulators and is consistent with the long term nature of the energy infrastructure assets financed with debt.

For these reasons, we consider that a 10 year term should be retained for the return on debt as well as for the return on equity.

Paper 2: Draft Working Paper – Rate of return and cash flows in a low interest rate environment

We appreciate the AER focusing on the critical issue of how the rate of return should be determined in a low interest rate environment. We agree with the AER that:

> we are in a low interest rate environment – many stakeholder recognise this and the data presented in the AER's paper confirms it, and

> the consequences of this are that rates of return allowed by the AER have reduced materially over recent decisions (when the 2018 RORI is applied), partially offset by reduced debt financing costs – with the net impact being lower prices faced by consumers and lower cash flows available to energy businesses to reinvest in their networks.

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8 We also note that defining the term to match a regulatory period that is yet to be determined is premature. That is, the length of the regulatory period is determined by the AER when making its determinations for regulated energy networks. Although most recent decisions have adopted 5 years, other terms are permissible.

9 This is particularly so once subordinate debt is included and adjustments are made to recognise that the observed terms of debt issued by many NSW networks are still transitioning to a stable debt portfolio following changes in corporate control.

Although we are broadly comfortable with how the return on debt is estimated, we are concerned that the approach used to estimate the return on equity does not work in a low interest rate environment. We explain our concerns below.

(a) Return on equity should be robust to different interest rate environments

We agree with the ENA that the AER should adopt unbiased estimates of both the risk-free rate and market risk premium parameters, including by considering and adjusting for market interventions (e.g. by the RBA) and market conditions.

The present case highlights that it is important for the 2022 RORI to contain methods and assumptions that are robust to different interest rate (and broader economic) environments.

With the ongoing impact of the COVID-19 pandemic (and fiscal and monetary policy responses) there is considerable uncertainty over how interest rates may evolve. Rates could remain low or they could increase. It is important for both consumers and network businesses that the rates of return allowed by the AER fairly adjust to reflect such changes:

- for **debt**, the trailing average approach adjusts automatically – by recognising that lower interest rates affect new debt, while the interest rates on existing debt are generally fixed at the time it was created, however
- for **equity**, the simplistic approach of assuming a fixed margin over the yields on Commonwealth Government Securities (CGS) is not robust to the real world impact of interest rate changes. We encourage the AER to ensure that the 2022 RORI contains an approach to calculating the return on equity that:
  - provides fair compensation for the risks faced by regulated energy networks, and
  - adjusts, where appropriate, to reflect changes to investor expectations.

The return on equity approach embedded in the 2018 RORI implies that investors only adjust their expectations for changes in the yields on CGS. A simplification that may work when those yields are stable and close to their long term averages. However, when rates reach high or low extremes it becomes apparent that it just does not hold – the simplification is tested and found wanting.

(b) MRP should vary with the risk-free rate

We support the ENA's position that:

- the mean historical excess returns (HER) estimate is essentially constant over time, whereas the true MRP varies over time, and
- a superior estimate of the MRP can be obtained by giving some weight to forward-looking evidence.

We encourage the AER to reconsider its approach of adopting a fixed MRP over the risk-free by placing meaningful weight on other approaches, such as the Wright and dividend growth model (DGM), which recognise that the MRP can vary with the risk-free rate.

We endorse the ENA's position that the evidence is mixed on the exact nature of the relationship between the MRP and the risk-free rate. However, it would be inappropriate to use that as justification to ignore the reality that investors do not vary expectations based simply on changes in yields on CGS. We agree with the ENA that,[10] it would be inappropriate to assume that the MRP increases when the risk-free rate increases.

Options that could be adopted for the 2022 RORI, include:

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[10] ENA, *Allowed returns in a low interest rate environment: ENA submission on the AER's draft working paper*, 2 July 2021, p.35.

> a smoothed approach whereby the return on equity only changes by a proportion of the change in the risk-free rate

> an MRP that varies over time with the risk-free rate in some automated way, and

> caps and collars (i.e. upper and lower bounds) around the MRP that limit potential volatility in MRP changes.

There may also be other options. We have not a settled preference for any specific option at this stage, but look forward to further engaging with the AER on these when it releases its future working and consultation papers.

What is important is ensuring that the MRP and risk-free rate parameters are estimated and combined in a consistent way *over time*. The AER's task is somewhat unique among regulators in that it must determine an approach to estimating the return on equity at one point in time to apply automatically at future points in time, without scope to reconsider. If not designed appropriately, there is a real risk that in the future this approach will combine parameters that are inconsistent with each other to derive a return on equity that does not reflect efficient equity financing costs.

Given this, we encourage the AER to take particular care to avoid combining an MRP that reflects an historical average of excess returns over varying interest rate environments with a mechanism to update the MRP to reflect changes in prevailing interest rates.

(c) The low interest rate environment is exacerbating our financeability concerns

We agree with the ENA that a financeability assessment has an important role to play in assessing the overall allowed return, including to ensure that that return is robust to potential changes in future financial market conditions.

The 2022 RoRI will significantly impact our regulatory allowances over a period where we expect to undertake significant investment to deliver Major Projects identified by the Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP) optimal development path. By the end of our current regulatory period[11] we will have delivered three of the projects on the optimal development path at an expected total cost of $2.15 billion including:

> the Queensland to NSW Interconnector (QNI)

> the Victorian to NSW Interconnector Minor Upgrade (VNI), and

> Project EnergyConnect (PEC).

Delivering these projects is consistent with AEMO's optimal development path, which will deliver the lowest cost energy solutions for customers, consistent with a low carbon future, and address security and reliability issues in the NEM.

In order to attract equity to finance these Major Projects, we must be able to earn a return on equity, which is commensurate with efficient financing costs. It is therefore in the long-term interests on consumers that the allowed return should be set to equal the best possible estimate of the market cost of capital at the time of each decision.

The financeability of Major Projects continues to be a major concern for us. For the reasons set out in our recent financeability rule change request[12], we remain concerned that the current regulatory framework does not support efficient investment in Major Projects.

Implementing a reasonable approach to the return on equity, that is commensurate with efficient financing costs, is critical to promoting efficient investment in the long-term interests of consumers. In particular, it is necessary to ensure the financeability of Major Projects.

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[11] Our current regulatory period ends on 30 June 2023

[12] TransGrid, Making ISP Projects Financeable, 30 September 2020

The AER's current allowed return on equity based on the RORI in a low interest rate environment is not commensurate with efficient financing costs. It is lower than that adopted by comparable regulator operating under broadly similar regulatory regimes. It could also lead to inefficient levels of investment that impact negatively on the services delivered in the long term.

In relation to our investment in PEC, we required significant financial support from the Clean Energy Finance Corporation (and earlier support by the South Australian government) in order to make this financeable.[13]

In order to ensure timely investment in Major Projects, including those identified by AEMO in its ISP optimal development path, network service providers (NSPs) must be compensated for the additional greenfield and other risks associated with these investment which include risks arising from climate change, the energy transition, and energy system security.

Paper 3: Position Paper - Long term interests of consumers

We appreciate the AER setting out its position on the long term interests consumers and support the AER's guiding principle for unbiased estimates of the expected efficient return consistent with the risks involved in providing regulated network services.

The Position Paper does not, however, explain how the AER will apply the principle to determine the methods and assumptions adopted in the 2022 RORI. This makes it difficult for stakeholders to appreciate how the guiding principle will be used to inform AER decisions on the 2022 RORI.

For instance, it remains unclear how the AER will assess:

> whether a method or assumption produces unbiased estimates or not (and, what the AER means by 'unbiased')

> whether consumers' long term interests are promoted or not by a given method or assumption, and

> what is a 'best' estimate possible in the circumstances.

We encourage the AER to provide further clarification on how it intends to apply its guiding principle, and would welcome the opportunity to provide input.

Closing

We look forward to continuing to work with the AER in the next stages of its 2022 RORI consultation to arrive at an outcome in the long-term interests of investors and consumers. If you have any questions on this letter, please contact me on [redacted]

Yours sincerely

[redacted]

[redacted]
Head of Regulation

Attach.

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13 CEFC, Historic CEFC investment to kickstart nation building Project EnergyConnect, 31 May 2021

Attachment A - Response to AER Questions

Table 0.1: Response to questions on the term of the risk-free rate draft working paper

Question	TransGrid response
1. Should the term for expected inflation match the term for the rate of return?	> There is no clear rationale why the term for expected inflation should match that for the rate of return. > Expected inflation is used in the AER's post-tax revenue model to project indexation of the regulatory asset base over the regulatory period, but not subsequent periods. As such, it is appropriate to set the term of expected inflation to match the regulatory period. > The same does not apply to the rate of return.
2. Should the term for equity match the term for debt?	> There is no clear rationale why the term for equity should match the term for debt.
3. Should the term for the return on equity align to the regulatory control period (typically five years) or a longer period more consistent with the life of the underlying asset life (e.g. ten years)?	> The Tribunal has clarified that the BEE is as a firm undertaking the activities of the regulated firm in a workably competitive market[14]. In such markets, firms make investment decisions over the effective life of their assets[15]. > For firms which invest in infrastructure assets, the relevant risk-free rate is one which matches the life of the assets. > Based on the Tribunal's view the term of any regulatory control mechanism is irrelevant to the determining the cost of capital of the regulated firm simply because such a mechanism would not exist in a workably competitive market. > In particular, the NPV=0 condition as applied by Lally is not relevant. We note there is limited or no academic, or judicial support for the application of this principle. > There is no evidence that firms and their investors limit their investment decision-making timeframes to the length of the regulatory control period, rather they clearly are concerned with the present value of cash flows expected after that period ends.[16] This should be apparent from the fact that the return of capital occurs over the life of the assets, not the term of the regulatory control period.

[14] Australian Competition Tribunal (Tribunal), Applications by Public Interest Advocacy Centre Ltd and Ausgrid [2016] ACompT1, 913–915

[15] Professor Bob Officer and Dr Steven Bishop, Term of Risk Free Rate Commentary, September 2008, pp. 7 and 13

[16] Even if an investor expects to sell its holdings by the end of the regulatory period, it will consider cash flows beyond that period when assessing an appropriate sale price.

Question	TransGrid response
	> There are strong grounds for retaining the 10 year term for the return on equity, with no obvious reason for reducing this to match the length of the regulatory period.[17]
4. What is the appropriate form for the return on debt for businesses we regulate?	> We support retaining the trailing average approach. > This is consistent with how long-lived infrastructure owners generally finance themselves. It is also consistent with the justification used by the AER to support the transition to the trailing average approach in the first approach – as outlined in the Explanatory Statement to the 2013 Rate of Return Guideline. > Having almost transitioned to a 10-year trailing average over the prior and current regulatory periods, we would be concerned if there were a change to another form for the return of debt. Transitioning to something else would just not be sensible.
5. What is the appropriate term of debt given the form of the return on debt (in your response to question 3)?	> 10 years remains the appropriate term for the return on debt. > A 10 year term is consistent with past regulatory practice and the general practice of long term infrastructure businesses, including energy networks like TransGrid. > Although there may be reasons why some businesses adopt shorter or longer terms (e.g. COVID-19 impacts, changes in corporate control etc), this does not invalidate the widely held view that longer term debt is better placed to finance longer term investments like those made by energy networks. > There would also be obvious difficulties estimating the return on debt if the assumed term of debt were adjusted every time the RORI were reset. Assuming that the trailing average method were used, then adjusting the term may require some sort of transition. If so, then changing the term every 4 years would potentially mean that the trailing average were constantly transitioning from one length to another (potentially differing across networks) – which appears unnecessarily complex and is inconsistent with real world debt financing. > A far simpler and more astute approach is to focus instead on first principles – namely, that it makes more sense to finance long term assets with long term debt. An assumed term of 10 years satisfies that principle and is generally consistent with observed debt issuance by long term infrastructure owners in Australia.
6. Should our index of network debt costs (EICSI) and the corresponding WATMI	> Care needs to be taken when interpreting the outputs from the EICSI and WATMI: – subordinate debt should be included as it remains an important source of debt financing for infrastructure investors

[17] We also note that defining the term to match a regulatory period that is yet to be determined is premature. That is, the length of the regulatory period is determined by the AER when making its determinations for regulated energy networks. Although most recent decisions have adopted 5 years, other terms are permissible.

Question	TransGrid response
be used to adjust the benchmark debt term?	– debt raised by the NSW networks that have been subject to large transactions in recent years as these networks are part way through a transition to a steady state debt portfolio > Adjusting for both of the items leads to WATMI estimates that appear consistent with a 10 year term.
7. What transitional arrangements would be required if a change in the debt term is implemented?	> It is not clear to us what if any transitional arrangements would be required if there were a change to the debt term. > As noted above, transitions between terms will likely be complex and potentially lead to transitions within transitions for those networks that are partway through the transitions adopted in the 2013 Rate of Return Guideline. > Our concern is that creating this sort of complexity will only serve to confuse consumers and investors alike. Nor is it clear how it would promote the long-term interests of consumers.

Table 0.2: Response to questions on the rate of return and cashflows in a low interest rate environment draft working paper

Question	TransGrid response
1. Are we in a low interest rate environment?	> We agree with the AER that we are in a low interest rate environment. > The charts presented by the AER and analysis undertake by others clearly supports this conclusion. > Although there are times historically where rates have been comparable, that was more than 60 years ago. Rates have been consistently higher than those lows for the intervening years.
2. What are the consequences of interest rates being low?	> We agree with the AER that lower interest rates generally leads to: – lower estimates of the returns allowed by the AER (when applying the 2018 RORI) – lower actual debt costs incurred by energy networks – reduced net cash flows to energy networks, which places downward pressure on net profit after tax and funds from operation to debt > As discussed in the letter above, we are concerned that the approach to setting the return on equity contained in the 2018 RORI assumes that the return on equity reduces (or increases) one-for-one with movements in the yields on 10 year Commonwealth Government Securities. This does not accord with real world equity investors. > In low interest rate environments like the present this places significant financial pressure on energy networks.

Question	TransGrid response
3. Does this suggest that there is something that needs to be addressed?	> In relation to debt, we agree with the AER that there is general alignment between the return on debt allowed by the AER and the debt costs faced by energy networks. > In relation to equity, this does not hold. In simple terms, the 2018 RORI implies that equity investors only change their return requirements in response to changes in yields on 10 year CGS. Real world equity return requirements are more sophisticated than this. > As discussed in the letter above, the AER should reconsider its approach to the MRP and the return on equity for the 2022 RORI.