

AER Rate of Return Guidelines

Response to Issues Paper

12 December 2017

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Separate Attachments

Attachment A.1 - Draft Stakeholder Engagement Approach

Attachment C - Letter from Dr Neville Hathaway, Capital Research

1 Overview

Energy Networks Australia welcomes the opportunity to respond to the AER Issues Paper *Review of the Rate of Return Guidelines*.

Electricity transmission and distribution networks and gas distribution networks want to play their part in delivering a secure, reliable and affordable energy future for Australia.

Establishing a predictable, transparent and evidence-based Rate of Return Guideline (Guideline) is critical for Australia's energy future because it allows for the efficient financing of long-lived infrastructure and other energy solutions to meet the needs of almost 10 million Australian electricity customers and around 5 million gas customers.

Network businesses understand that energy prices are a concern to consumers and we are contributing to establishing a Guideline that needs to deliver outcomes that are in the long-term interests of consumers. This includes ensuring that network businesses are able to achieve a reasonable, predictable and sustainable return on investment, as this is a precondition for the long-term investment in energy infrastructure that is vital for Australia's growing energy needs.

Energy Networks Australia supports the goal of a Guideline that is 'capable of acceptance' by all stakeholders and which is arrived at through open and constructive engagement with the AER, consumers and other stakeholders. Our comments to the Issues Paper are provided in the context of contributing to a Guideline that is capable of being accepted by all stakeholders.

The network sector is committed to working with all stakeholders in the Guideline process wherever possible. Energy Networks Australia is seeking to complement the AER's consumer engagement approach. The sector is also keen to explore opportunities for collaboration going forward in the AER's review process.

As part of informing its response to the AER Issues Paper and the Guideline more broadly, Energy Networks Australia has commenced some early stage engagement with a number of consumer and stakeholder groups.

Through further stages of the Guideline process, and in a manner which adds value to the AER's own consultation process, we intend to continue to engage with stakeholders to ensure network proposals and positions take into account and reflect the critical needs of wider stakeholders. A summary of feedback from initial engagement activities are set out in [Attachment A](#), and our draft *Stakeholder Engagement Approach* setting out our proposed approach through the process is included in [Attachment A.1](#).

The 2017 Rate of Return Guideline process is an opportunity to build on considerable work undertaken in the 2013 guideline review process, and network businesses support an incremental approach building on this past guideline review and subsequent legal review. This approach recognises the past work and resources which

contributed to the 2013 guideline, and that there have been no major developments in relevant finance theory since that process. The focus of the review should be on updating data where possible and focusing on selected high priority issues identified in earlier AER consultations with stakeholders.

Maintaining a clear and aligned approach to risk assumptions and approaches across all elements of the regulatory framework will be critical to fostering pricing outcomes that are predictable and that promote the efficient financing of investments required to deliver outcomes for consumers. The Guideline review will also need to take into account the changing role of networks, and potential implications of evolving competition and other risks, to ensure the overall regulatory risk compact and assumptions around sectoral risks remain consistent.

Energy network businesses note that businesses are now actively transitioning to the trailing average cost of debt approach, and do not consider there are material outstanding issues on cost of debt estimation. This response does put forward a range of incremental suggestions on estimation of return on equity to better give effect to what we understand to be the intent of the 2013 guideline.

2 Context for Guideline review

2.1 Approach to review

In the Issues Paper, the AER expresses the view that the Guideline should set out a method for determining an allowed rate of return that achieves the National Electricity Objective (NEO), National Gas Objective (NGO) and the Allowed Rate of Return Objective (ARORO), noting the primacy of the NEO and NGO. It identifies as its goal a Guideline that sets out how to determine a rate of return that promotes the efficient investment in and use of energy network services for the long-term interests of energy consumers.¹ Energy Networks Australia agrees with this objective and welcomes the opportunity to work collaboratively with the AER and other stakeholders to achieve it.

2.1.1 The primary process goal is a Guideline that is “capable of acceptance” by all stakeholders

Energy Networks Australia supports the goal of a Guideline that is ‘capable of acceptance’ by all stakeholders, and which is arrived at through open and constructive engagement with the AER, consumers and other stakeholders.

Paramount to this objective is that the AER provides balanced and objective consideration of all evidence put forward in the review process, to support final decisions on these matters being capable of acceptance. Another key plank of the ‘capable of acceptance’ goal is that the Guideline provides stakeholders with a clear understanding of how the AER has reached its conclusions.

2.1.2 Building constructively and incrementally on the 2013 Guideline

Energy Networks Australia agrees with the position outlined in the AER Issues Paper that the Guideline process should not seek to ‘reinvent the wheel’ for setting the rate of return. As the AER has noted:

...we consider this review should seek to build on the current Guideline rather than start afresh. There are a number of aspects of the current approach that are reliant on market data and empirical analysis, and this material would clearly need to be updated. However, there are a number of aspects of the current approach that are driven by finance theory and available academic literature. We not aware of any significant new developments in this area that might warrant us taking a new approach.²

¹ AER Issues Paper, Review of Rate of Return Guideline, October 2017, p. 14.

² AER Issues Paper, Review of Rate of Return Guideline, October 2017, p. 8.

Energy Networks Australia agrees that the focus should be on incremental improvements rather than a 'blank slate' approach, and that the relevant empirical evidence should be updated.

For example, in the 2013 review, Energy Networks Australia members proposed a specific 'multi-model' approach to setting return on equity estimates. Networks do not seek to have that model adopted in this current Guideline review. Rather, networks consider it appropriate to work within the AER's foundation model approach (which gives some weight to the dividend growth model and Black CAPM). This is consistent with a range of individual network regulatory proposals to the AER over the past three years. To change from the foundation model approach after such a short timeframe would cause significant disruption and unpredictability in pricing.

Network businesses remain of the view that more information should be used to directly inform cost of equity estimates. It is acknowledged, however, that a comprehensive review of this was undertaken in setting the 2013 guideline. As outlined above, there have been no changes in finance theory and no new evidence put to further support the position already put to the AER by network businesses.

2.1.3 Ensuring outcomes are consistent across the regulatory framework

Through the review, an important consideration for the AER's approach will be to ensure that the Guideline, as developed and applied:

- » Delivers on the policy objective of the COAG Energy Council to improve the certainty and transparency of regulators' decisions.³
- » Maintains a consistent approach to risk assumptions across all elements of the regulatory framework including consistency between rate of return outcomes under the Guideline and the regulatory 'risk compact' on which the Guideline is based. For example, the allowed return should be consistent with the types and nature of risks which inform the AER's benchmark entity assumptions.⁴

Achieving overall alignment between the expectations of policy makers, stakeholders and the outcomes of the Guideline will be critical to ensuring stability and confidence in the Guideline approach, and to delivering outcomes in the long term interests of consumers.

Maintaining a consistent and coherent approach to risk assumptions across all elements of the regulatory framework will also be critical to fostering pricing outcomes that are predictable and that promote the efficient financing of investments required to deliver outcomes for consumers.

³ Council of Australian Governments Senior Committee of Officials *Bulletin: Binding Rate of Return Guideline*, 4 October 2017

⁴ See for example, AER *Explanatory Statement Rate of Return Guideline*, December 2013, Section 3, p. 39-40.

Energy Networks Australia notes that the role of energy network businesses is evolving rapidly and this is potentially increasing the risks faced by businesses in delivering network services. Examples of the changes that electricity networks are now having to grapple with include the growth in distributed generation (which is occurring more rapidly in some states than in others), emerging storage technologies, and the emergence of contestability of metering and other related services. These developments have occurred more rapidly since the publication of the 2013 Guideline, and this trend appears likely to continue in coming years.

The current Guideline is based on the assumption that energy networks face limited competition (a reason why their services are regulated), and that competition is unlikely to emerge in such industries.⁵ There is now much less reason to believe this assumption to be correct. The AER recognised in the 2013 Guideline that exposure to competition “may alter the relevant (systematic) risk profile” of a business.⁶ As the risk environment for network service delivery continues to evolve, there is a need to ensure the most recent available information informs the guideline process. This point is discussed further in Section 5.3.1.

2.2 Stakeholder perspectives

Energy Networks Australia is committed to engaging with all stakeholders in the Guideline review process where practical.

Energy Networks Australia is seeking to complement and add value to the AER’s consumer engagement approach through the development of a draft *Stakeholder Engagement Approach* for the Rate of Return Review (See [Attachment A.1](#)). This draft approach outlines how members propose to seek input and feedback from consumer groups and other stakeholders to inform its considerations and positions to feed into the AER’s process. This will include gaining input from consumer groups and others stakeholders for discussion and sharing during the AER’s concurrent evidence sessions, and which can be used to help shape our views and positions.

To inform its response to the AER Issues Paper and the Guideline more broadly, Energy Networks Australia has undertaken early engagement with a small number of consumer groups and other stakeholder groups about our draft response to the Issues Paper, and our proposed approach for engaging with consumer groups and stakeholders. We have also sought to take into account the AER’s recent guidance on the intended process for guideline development and engagement.

Through further stages of the Guideline review process, we intend to continue to engage to ensure our proposals and positions gain input from a broad range of stakeholders. This includes leveraging off engagement processes undertaken by Energy Networks Australia’s members as part of their ‘business as usual’ processes.

⁵ AER, 2013, Rate of Return Guideline, Explanatory Statement, [Appendix C](#), p. 37.

⁶ AER, 2013, Rate of Return Guideline, Explanatory Statement, p. 34.

The feedback and how we have or propose to respond to feedback received to date is summarised in [Attachment A](#).

Early feedback from meetings with consumer and stakeholder groups has been that there is:

- » Support for Energy Networks Australia to continue engaging with representatives of consumers and other stakeholders;
- » A need to understand why and how any changes to the rate of return could impact on consumers and other stakeholders;
- » A need to understand how changes to the rate of return could impact consumer prices;
- » A desire to benchmark the rates of return for the energy sector with those of other regulated networks;
- » A need for Energy Networks Australia's information to be provided in plain English to assist consumer groups and other stakeholders to provide informed input and feedback;
- » Interest from consumer groups and other stakeholders to contribute to the rate of return Guideline review process; and
- » That effort must be made to make reading material, submissions and discussions understandable and accessible to broader stakeholders as well as technical experts.

We acknowledge that, at this stage, we have only been able to engage with a small number of our members' stakeholders. However, we aim to use further opportunities to engage more broadly going forward, consistent with a draft *Stakeholder Engagement Framework* set out in [Attachment A.1](#).

In [Attachment B](#) we have proposed initial possible areas for discussion in the concurrent evidence sessions, but we look forward to further discussions with all stakeholders around possible areas of focus.

2.3 Process steps

2.3.1 Support for a collaborative approach

Energy Networks Australia welcomes the open and collaborative approach the AER has taken to designing an enhanced Guideline consultation process with stakeholders, with clearly articulated process steps made public well in advance.

The AER's Positions Paper on the process for the Guideline review provides clear guidance on how the review process will operate. Energy Networks Australia recognises and supports important elements of the Positions Paper's approach, including:

- » AER Board presence at the concurrent evidence sessions – network businesses consider that the materiality of the issues and impacts mean that full AER Board participation at each session is essential;
- » A widened scope for the task of the independent panel, including a capacity to provide an assessment of the linkage between the information provided to the review and the AER’s conclusions; and
- » A focus on maximising the value of the concurrent evidence sessions through a pre-session identification of areas of common ground and key issues, and a post-session opportunity to set out amended agreed views.

These represent material steps towards promoting stakeholder confidence in the process as a whole, and demonstrating practically the AER’s commitment to flexibly evolve and trial new regulatory review processes in response to stakeholder feedback. Energy Networks Australia suggests these steps will promote the process objective of a guideline which is capable of acceptance by all stakeholders.

2.3.2 Opportunities to enhance the process

Energy Networks Australia considers there are further opportunities to enhance the AER’s process steps, and looks forward to discussing these with the AER and other stakeholders. Some further minor refinements to the AER processes that may be of significant value to all stakeholders include the following:

- » An AER paper released prior to the draft Guideline, that explains the AER’s response to submissions received on its Issues Paper, and the resulting implications for the concurrent evidence sessions;
- » An opportunity for stakeholders to submit issues and questions to be addressed in concurrent evidence sessions;
- » Exploration of the potential for direct stakeholder questions to be raised with participants in the concurrent evidence sessions;
- » Allocation of sufficient time for the sessions to consider the issues and questions raised by stakeholders;
- » Attendance at the concurrent evidence sessions by the Expert Panel and AER Board, because the sessions form a critical element of the process; and
- » The opportunity for stakeholders to engage further with the AER following the concurrent expert evidence sessions and prior to the release of the draft Guideline to enable further clarity or to provide additional evidence that may be gathered in relation to matters raised in the concurrent sessions.

Energy Networks Australia looks forward to further discussions with the AER and stakeholders about the development of the next steps in the consultation process.

3 Overall allowed rate of return

3.1 Outcomes of current approach

Energy Networks Australia supports the continued use of the AER's 'foundation model' approach. As noted by the AER in its Issues Paper, departures from the current regulatory framework should only occur where there have been identified changes in finance theory.

Within the current foundation model approach, network businesses consider it important that the AER, wherever feasible, clearly explain how its answers are derived in applying the Guideline in individual determinations. This involves an explanation of what information was considered, why it was considered to be relevant and how the information was used to set the rate of return. It should be possible for a stakeholder to understand how the AER's reasoning process, applied to the relevant evidence, produced the final outcome.

Importantly, network business do not advocate for purely mechanistic approaches to be used in setting allowed rates of return. Regulatory judgement and discretion remain important tools, and qualitative assessments remain a legitimate approach when quantitative precision is not possible. In these cases, networks consider that any judgement exercised should be explained sufficiently so that a stakeholder can understand and may arrive at the same (or similar) answer independently of the AER, by following the AER's reasoning process.

3.1.1 Response to Issues Paper questions

1. In your view, to what extent has the current approach to setting the allowed rate of return achieved the National Electricity Objective (NEO) and National Gas Objective (NGO), the Allowed Rate of Return Objective (ARORO), and the related revenue and pricing principles (RPPs)?

Energy Networks Australia considers that there are several indicators of where an approach to setting the allowed rate of return would not contribute to the NEO and NGO to the greatest degree. These indicators are described below and fleshed out in more detail throughout this submission.

As the Issues Paper states, stakeholders at the pre-issues paper forum generally agreed that it would be appropriate to use the AER's current approach to setting the allowed rate of return as a starting point for the Guideline review, rather than adopting a 'blank-slate' approach. Energy Networks Australia supports this incremental approach.

The AER considers that its current approach has been achieving the NEO/NGO, the ARORO and is consistent with the RPPs, but notes the difficulty in drawing firm conclusions on those matters. The AER refers to the absence of severe adverse consequences as support for this position.

The difficulty in assessing the achievement of these overarching objectives is not surprising given the uncertainty and imprecision of the estimate of the rate of return. As the Rules recognise, there is often more than one approach or estimate that will contribute to the achievement of the NEO/NGO and the AER is tasked with choosing the approach or estimate that will or is likely to contribute to the achievement of the objective to the greatest degree.⁷

While it is not possible to show conclusively that the various objectives have been achieved, Energy Networks Australia considers that there are some indicators that may tend to show when the objectives are not, or will not be, met or not met to the greatest degree.

Allowed return on debt

In relation to the return on debt, the AER and stakeholders generally agreed in the 2013 Guideline process that the trailing average approach was an efficient approach that would contribute to the achievement of the ARORO and the NEO/NGO.⁸ The commonly held view by the AER and stakeholders is that the trailing average approach reflects an efficient debt management practice. The key area of disagreement between the AER and networks since 2013 has been the AER's application of a transition from its old 'on-the-day' approach to the full trailing average approach.

Many networks are now part way through the transition to a 10-year trailing average and have structured their financing arrangements accordingly. As addressed further below, a change in approach mid-way through the transition would require networks to put in place new financing and hedging arrangements, and would give rise to regulatory risk and uncertainty, undermining the achievement of the NEO/NGO and RPP. While it is not possible to state conclusively whether or not the current approach to estimating the return on debt (transitioning to a trailing average approach) has achieved the NEO, NGO, ARORO and RPP, Energy Networks Australia notes that a change in that approach at this stage would certainly undermine the achievement of those objectives.

Allowed return on equity

In relation to the return on equity, the current approach, which estimates the risk free rate as the average of Commonwealth Government Securities (CGS) yields measured over a short-term averaging period, combined with a constant estimate of the equity risk premium, results in a "lottery" effect, whereby the customers of two networks, whose revenues are reset just a few months apart, can receive materially different outcomes, depending on whether interest rates happen to be higher or lower at the time the AER makes each of those decisions.

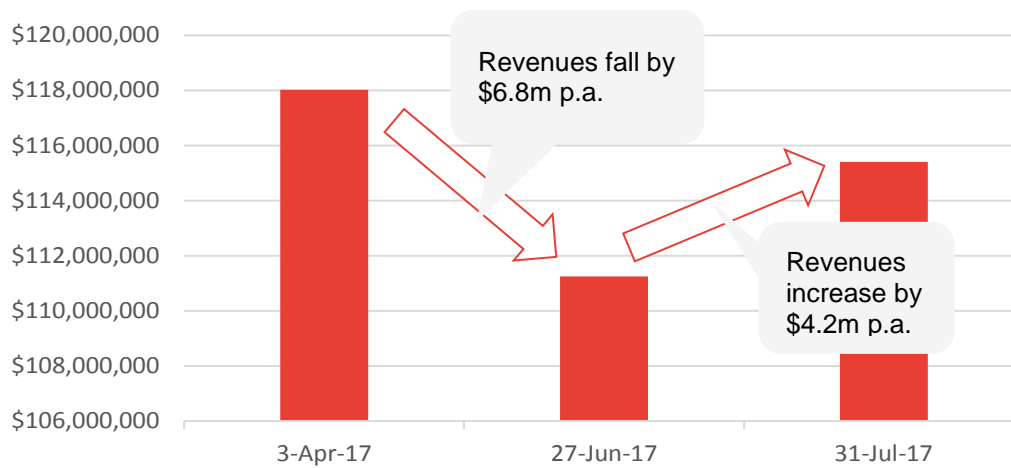
⁷ National Electricity Law s16(1)(d), National Gas Law s28(1)(b)(iii).

⁸ For example, see the AER's Explanatory Statement at page 109.

By way of example, the following chart shows how volatile allowed revenues can be due to fluctuations in government bond yields, and the AER's current approach to determining the return on equity allowance.

The chart below presents the return on equity, in dollar terms, for three identically and average-sized hypothetical networks, whose revenue resets are staggered over a four month period.⁹

Sensitivity of return on equity allowance to decision date



The difference in revenues in the scenario above is driven solely by variation in the CGS yields over the current short-term averaging periods.

In the 2013 Guideline the AER summarised the potential benefits of more stability in allowed returns.¹⁰ The AER explained the process by which its allowed return on equity might become more stable under the new Rules:

...the DGM and the Wright approach (for implementing the Sharpe-Lintner CAPM) will result in estimates of the return on equity that may be relatively stable over time. The informative use of these implementations of the Sharpe-Lintner CAPM, in addition to the DGM and other information, is expected to lead to more stable estimates of the return on equity than under our previous approach. The extent of this stability will depend on:

- *the extent to which movements in the estimates of the risk free rate and market risk premium in the foundation model offset each other*
- *the informative value provided by the DGM and Wright approach (and other information that provides relatively stable estimates of the return on equity).¹¹*

⁹ This chart shows the return on equity in dollars for an average-sized regulated network with an asset base of \$4 billion, adopting a gearing assumption of 60%.

¹¹ AER Rate of Return Guideline, Explanatory Statement, p. 66.

However, the current approach results in material volatility in the measured return on equity. Energy Networks Australia supports the objective of a more stable return on equity allowance and suggests that it is contrary to the principles embodied in the NEO/NGO, ARORO and RPP for consumers and networks to be faced with the volatility produced by the current approach. In our responses below we have considered how this issue might be addressed.

2. Should information on profitability, asset sales, financeability and any other financial information be used when assessing outcomes against the NEO and NGO, ARORO, and the related RPPs? If so, how?

Each of the measures outlined cannot be used to assess the reasonableness of the allowed rate of return, as they are impacted by a wider set of market conditions, and other components of the overall regulatory decision.

Profitability measures. Energy Networks Australia has provided a separate submission, in response to the AER's Profitability Discussion Paper, which sets out networks' position on the use of profitability measures.

Asset sale prices. Networks consider that consistent with the AER's 2013 Guideline approach no weight should be given to the results of asset sales when assessing outcomes against the NEO and NGO, ARORO and the related RPPs. The price that investors pay for particular assets may reflect many more considerations than the expected future stream of regulated revenues. For example, the price that investors are willing to pay for an asset may reflect the following factors:

- » Investors' expectations over the ability to realise future efficiencies (and associated payoffs) under a system of incentive regulation;
- » Existing and/or expected future streams of non-regulated revenues from the network assets;
- » The scope for synergies with the purchaser's existing business;
- » Diversification benefits to the purchaser;
- » Strategic considerations, such as the scope to gain entry into a particular market, or to achieve greater scale economies; and
- » A premium for obtaining a controlling interest.

Financeability assessments. Financeability assessments are used routinely by a number of regulators in the UK (e.g. Ofgem and Ofwat) and some regulators in Australia (e.g. IPART and ESC) as a cross-check of their overall regulatory decisions. Financeability assessment can, for example, ensure that cash flows are consistent with maintaining the benchmark credit rating assumption over the regulatory period. The solution to any financeability issues identified, however, is not necessarily an adjustment in the allowed rate of return. Regulators in other jurisdictions have typically addressed financeability problems by re-profiling regulated cash flows from future periods.

3.2 Benchmark gearing and term

3.2.1 The process for estimating benchmark gearing

Energy Networks Australia notes that the assumed gearing of the benchmark efficient entity has been the most stable and least controversial parameter since regulation by the AER, with gearing set to 60% in every decision since its inception.

In its 2013 Rate of Return Guideline review, the AER considered empirical evidence on the (market value) gearing of a set of comparator businesses over a 13-year historical period.¹² That evidence indicated that the average gearing levels changed over time, ranging between 50% and 70%, and the AER paid particular regard to the average figures over the entire period, which were close to 60%.

Energy Networks Australia considers that the same approach should be applied in the current Guideline review and that the 60% gearing figure should be maintained unless there is evidence of a material change in the average gearing over the historical period. In this regard, a recent report commissioned by the Queensland Competition Authority (QCA) concluded that the current evidence continues to support a 60% gearing level for energy network businesses.¹³

3.2.2 Market value gearing is more appropriate than book value gearing or net debt to RAB

Energy Networks Australia considers that gearing should be estimated on a market value basis to be consistent with other Weighted Average Cost of Capital (WACC) parameters that are estimated on a market value basis. The cost of capital (debt or equity) represents the market-clearing price of capital. Indeed, the mathematical derivation of WACC begins with market values of debt and equity.

For the purposes of estimating WACC, the standard approach in commercial practice is to estimate gearing using the market value of equity (because it is easily available for listed firms) and the book value of debt (because market values are not readily available and the book value is likely to be a reasonable proxy for the market value of debt).

The use of a market value gearing estimate is the standard approach used in commercial and regulatory practice and is consistent with finance theory. Two examples of the rationale for using market value gearing are presented below.

Example 1

Using market values rather than book values to weight expected returns follows directly from the formula's algebraic derivation (see Appendix B for a derivation of free cash flow and WACC). But consider a more intuitive explanation: the WACC represents the expected return on a different investment with identical risk. Rather than invest in the company,

¹² AER, 2013, Rate of Return Guideline, Appendix F, Table F.1, p. 127.

¹³ Incenta, Estimating Seqwater's firm specific WACC parameters for the 2018-21 bulk water price investigation, November 2017.

management could return capital to investors, who could reinvest elsewhere. To return capital without changing the capital structure, management can repay debt and repurchase shares, but must do so at their market value. Conversely, book value represents a sunk cost, so it is no longer relevant.

Koller, T., M. Goedhart and D. Wessels, 2015, *Measuring and managing the value of companies*, McKinsey and Company, pp. 308-309.

Example 2

[After presenting a book value balance sheet for an example company called Geothermal]...Why did we show the book value balance sheet? Only so you could draw a big X through it. Do so now. We hope this will help you remember that book values are not relevant to estimating the cost of capital. When estimating the weighted average cost of capital, you are not interested in past investments but in current values and expectations for the future. Geothermal's true debt ratio is not 50 per cent, the book ratio, but 40 per cent [the market value ratio].

Brealey, R., S. Myers, G. Partington and D. Robinson, 2000, *Principles of corporate finance*, McGraw-Hill Australia, p. 566.

Any move to measure gearing in terms of net debt to RAB has the additional problem of requiring an allocation of debt across assets. Most regulated firms own a number of assets that are outside the RAB, in which case debt must be allocated between “regulated” and “unregulated” assets. Further impediments could also arise from circumstances in which businesses own more than one regulated asset.

For all of the reasons set out above, and based on there being no relevant changes to applicable finance theory, Energy Networks Australia considers that the AER would be well-advised to maintain its focus on market value gearing estimates.

3.2.3 Term of debt

In its 2013 Rate of Return Guideline review, the AER adopted a benchmark term of debt of 10 years, based on three considerations:

- » **Conceptual analysis:** The AER’s conceptual analysis indicated that long-term debt would be appropriate for a regulated energy sector given that its assets are long-lived and depreciated over as much as 60 years, and that the use of a long-term debt benchmark would reduce volatility in the allowed return on debt:

A significant proportion of regulated energy assets are long-lived. We observe that electricity transmission lines and gas pipelines are depreciated for regulatory purposes over as long as 60 years. Accordingly, we consider that the entity will seek to fund the long-lived energy assets with longer debt tenors in order to manage refinancing and interest rate risk. By issuing longer term debt the entity reduces the frequency with which it must approach the market, thereby reducing the risk associated with not being able to secure funding at the time when it is required, or at rates that are higher or lower than those it currently pays. In approaching the market less frequently there is less risk associated with changing interest rates, which reduces the volatility in debt servicing costs and the

likelihood of mismatch between the business' cash flows and its debt servicing obligations.¹⁴

- » **Empirical evidence:** The AER also undertook a review of the term of debt issued by a set of comparator firms and noted that bonds were issued with an average term of 10 years, supplemented by some shorter-term bank debt.¹⁵
- » **Consistency of term for debt and trailing average:** The AER also noted that the term of debt would need to be set to match the 10-year trailing average approach to the return on debt allowance.

...in moving to a trailing average approach we consider that we are committing to a debt term for the period nominated. To change the benchmark debt term in response to updated debt portfolio information would not be conducive to regulatory stability. In light of this, in order to ensure that the benchmark efficient entity is able to recover its efficient financing costs consistent with the allowed rate of return objective, we propose to use a 10 year debt term for the purposes of estimating the return on debt and for setting the period of the trailing average.¹⁶

Most businesses are now part-way through a transition to the 10-year trailing average approach. This has involved progressively locking in 10-year debt finance in accordance with the approach set out in the 2013 Guideline.

Changing the term of debt at this point would render the 10-year debt that has been issued by the businesses on the basis that it replicates the regulatory benchmark no longer optimal. Such a change would require a further set of transition arrangements for firms to move from their 10-year debt transition to a new regulatory benchmark. Such a change would affect all businesses differently depending on their current position within the 10-year transition arrangements set out in the last Guideline. It would also represent a departure from the principle of seeking regulatory stability, as identified by the AER above.

In addition to the difficulties that would arise from a change in the term of debt at this time, Energy Networks Australia considers that the AER's conceptual analysis summarised above, and the empirical evidence over the relevant recent historical period, continue to support a 10-year term of debt.

For all of the reasons set out above, Energy Networks Australia considers that the benchmark term of debt should be maintained at 10 years.

3.2.4 Response to Issues Paper question

3. Is the current approach to setting the benchmark term and level of gearing appropriate?

As discussed above, Energy Networks Australia considers that:

¹⁴ AER, 2013, Rate of Return Guideline, Explanatory Statement, p. 136.

¹⁵ AER, 2013, Rate of Return Guideline, Explanatory Statement, Table 8.2, p. 143.

¹⁶ AER, 2013, Rate of Return Guideline, Explanatory Statement, p. 137.

- » It is appropriate to consider market value gearing, as this is consistent with the standard commercial and regulatory practice and with the derivation of WACC.
- » To reduce volatility it is appropriate to consider empirical evidence from comparator firms, averaged over a 10-year period.
- » The current 60% gearing estimate should be maintained unless there is convincing empirical evidence of a material change in average gearing levels.
- » The benchmark term of debt should be maintained at 10 years. Any change to that term would require a new set of transition arrangements, as firms are already part-way through the 10-year transition set out in the 2013 Guideline. There is no evidence that the AER's conceptual analysis and empirical evidence relied upon in the 2013 Guideline in support of a 10-year term has changed.

3.3 Prescription in setting averaging periods

3.3.1 Return on debt averaging period

In its 2013 Rate of Return Guideline review, the AER allowed a return on debt averaging period of 10 or more consecutive business days up to a maximum of 12 months.¹⁷ The AER set out a number of principles to be followed, including the requirement that the averaging period must be set in advance to ensure that the allowed return on debt will be free of any 'look-back' bias.¹⁸

Energy Networks Australia notes the importance of allowing each regulated business to set its own averaging period. This enables the business to issue (or price) its debt in a way that reasonably matches the regulatory allowance for their individual business. It also benefits consumers because businesses would otherwise face more risk and a higher cost of debt. Therefore, even though providing businesses flexibility over the timing and length of debt averaging periods may take the AER more time to assess, there are corresponding benefits to consumers.

3.3.2 Return on equity averaging period

Under the previous on-the-day approach to the allowed return on debt, there was an element of symmetry in adopting the same averaging period for the return on debt and for the risk-free rate. This no longer applies in the case of a trailing average return on debt allowance.

Consequently, the averaging period for the risk-free rate should be determined by considering the approach that is likely to produce the best estimate of the required return on equity. This should take into account the preference for overall stability in estimates of the return on equity.

Under the current approach, a short averaging period combined with a fixed equity risk premium provides a volatile return on equity allowance.

¹⁷ AER, 2013, Rate of Return Guideline, Explanatory Statement, p. 130.

¹⁸ AER, 2013, Rate of Return Guideline, Explanatory Statement, pp. 130-131.

In this context, Energy Networks Australia proposes that in consultation with stakeholders the AER consider the value of providing for a lengthening of the risk-free rate averaging period for equity. Lengthening the averaging period and/or adopting a market risk premium estimate that better reflects the prevailing market conditions would produce more stability in the return on equity allowance.

Energy Networks Australia welcomes the opportunity to engage further with the AER and stakeholders on this issue.

3.3.3 Response to Issues Paper question

4. Should the conditions and process for setting averaging periods be refined?

Energy Networks Australia would welcome:

- » Further discussion with the AER and other stakeholders in relation to the prospect of increasing flexibility on the return on debt averaging period, within the AER's requirements that the averaging period must be forward-looking and close to the beginning of the relevant regulatory period.
- » The opportunity to engage with the AER and other stakeholders on the appropriate length of the averaging period for the risk-free rate parameter in the return on equity allowance. This discussion would need to take into account the overall impacts on the stability of the return on equity estimate.

4 Return on debt

4.1 Return on debt transition is part-way through

Energy Networks Australia notes that most networks are now part-way through a transition to the 10-year trailing average approach. This has involved progressively locking in 10-year debt finance in accordance with the approach set out in the 2013 Guideline.

Changing the transition towards a 10-year trailing average approach at this stage would be very difficult for firms to manage, and some firms would need to unwind debt and related hedging with 10-year terms that have been entered into at the initiation of the AER's transition. This could impose a significant cost on networks and consumers. Moreover, any change would have to be individually tailored for each business to begin with the current stage of transition for that business.

It would also raise the prospect of regulatory risk if the AER were to make such a change even before the transition set out in its previous Guideline was complete. This would be inconsistent with achieving the NEO and NGO by discouraging, rather than promoting, efficient investment in the long-term interests of consumers.

Consequently, Energy Networks Australia considers that no change to the return on debt transition arrangements should be made in the current Guideline.

4.1.1 Response to Issues Paper question

5. To what extent are changes required to the current approach of transitioning from an on-the-day rate to a trailing average?

Energy Networks Australia considers that no change to the return on debt transition arrangements should be made in the current Guideline because most networks are part-way through the transition to the 10-year trailing average approach established four years ago and any change would impose a significant cost on networks and consumers, and be contrary to the achievement of the NEO/NGO and the ARORO.

4.2 Return on debt estimation

Energy Networks Australia considers that the AER's general approach to deriving the allowed return on debt from the available data sources is appropriate and requires no change.

Consequently, and consistent with the AER's desire to make incremental improvements to the existing approach, Energy Networks Australia agrees with the AER's proposal to consider only whether additional data sources should be added to the set that are currently used.

Energy Networks Australia is of the view that the criteria used to assess the appropriateness of any proposed new data sources should include the following:

- » The data source is derived from a dataset that appropriately **matches the characteristics of debt** issued by a benchmark efficient entity.
- » The data source is derived from a **sufficiently large data set**, which provides confidence that the result is not unduly influenced by a small number of observations in the data set.
- » The data source is **published regularly by an independent reputable organisation**—independent in the sense that the source is beyond the direct influence of any stakeholders.
- » A **sufficiently long history** of estimates is available to determine whether the source provides reasonable estimates over a range of market conditions.

4.2.1 Response to Issues Paper question

6. Is it appropriate for us to review the return on debt implementation approach by performing a review of the four third party debt data series currently available to us? Please also explain if you think there is further value in broadening this scope of debt implementation issues and why you hold this view?

Energy Networks Australia:

- » Considers it is appropriate to review the four data sources; and
- » Proposes that additional data sources should be assessed in accordance with the criteria set out above. This would ensure that the return on debt is estimated using a sufficiently large set of data sources that are reputable, independent and which match the characteristics of debt issued by a benchmark efficient entity.

5 Return on equity

5.1 Foundation model approach

In its 2013 Guideline, the AER developed what it called a “foundation model” approach for setting the allowed return on equity. Under this approach the Sharpe-Lintner CAPM (SL-CAPM) is used as the foundation model, and the known downward bias flaw of the SL-CAPM is taken into account by reference to some information from the Black CAPM to select the equity beta estimate from within a beta range, and a number of sources of evidence, including from Dividend Growth Models (DGMs) are used to inform the MRP estimate. The AER stated that this foundation model approach:

...draws on the key elements from a number of models, but recognises that all models are incomplete and that some approaches provide greater insight than others.¹⁹

and that:

...we consider this approach will deliver a robust estimate of the expected return on equity that will maximise the likelihood of our overall rate of return achieving the allowed rate of return objective.²⁰

The AER considered use of a single model, without any use of other models to form part of the estimation process, or without scope for any adjustments of the single models outputs, was not supported as it “may be too prescriptive.”²¹

Energy Networks Australia agrees that, as required by the Rules, regard must be given to all relevant financial models and that a mechanistic implementation of one single model to the exclusion of all other evidence would not contribute to the achievement of the ARORO or the NEO/NGO to the greatest degree. A better estimate will be arrived at if the allowed return on equity is informed by all relevant models and evidence.

In the spirit of the current review being focused on incremental improvements to the current Guideline, Energy Networks Australia accepts that the AER’s current foundation model approach will be adopted and proposes to engage within that framework. This includes the role currently given to the Black CAPM and the DGM.

In circumstances in which the AER determined that the role of any specific evidence should be revisited, or a more ‘blank slate’ approach should be adopted, and the entire framework for determining the allowed return on equity was being reconsidered afresh, Energy Networks Australia would seek to engage with the AER and other stakeholders in a process for considering the relative merits of all relevant financial models and the appropriate role for each.

¹⁹ AER, 2013, Rate of Return Guideline: Explanatory Statement, p. 55.

²⁰ AER, 2013, Rate of Return Guideline: Explanatory Statement, p. 55.

²¹ AER, 2013, Rate of Return Guideline: Explanatory Statement, p. 55.

5.2 Market risk premium

5.2.1 The MRP varies over time as market conditions change

In its 2013 Guideline materials, the AER concluded that:

Evidence suggests the MRP may vary over time. In their advice to the AER, Professor Lally and Professor Mackenzie and Associate Professor Partington have expressed the view that the MRP likely varies over time.²²

Energy Networks Australia agrees with the conclusion that the MRP varies over time, and that the regulatory task is to estimate a forward-looking MRP that is commensurate with the prevailing conditions in the market.²³ However, the approach that has been adopted since the 2013 Guideline has been to apply a fixed risk premium (of 6.5%) with the prevailing risk-free rate measured over a short averaging period. This has produced a relatively volatile return on equity allowance that varies one-for-one with changes in government bond yields.

Energy Networks Australia considers that a more stable overall return on equity allowance would be more consistent with the NEO, NGO and ARORO. Such stability would be obtained by applying material weight to the DGM and Wright estimates of the MRP, as foreshadowed in the 2013 Guideline – as market conditions change, volatility in the risk-free rate will tend to be partially offset by changes in the MRP estimate. This is an approach adopted by other regulators.

If, however, a fixed risk premium is to be adopted for the duration of the Guideline period:

- » Such a fixed risk premium would have to be combined with a longer-term average risk-free rate to produce more stability in the overall allowed return on equity, avoiding the sort of volatility that has been observed under the current Guideline; and
- » There would need to be a process for reconsidering the MRP allowance during the period of the Guideline in the event of a material change in financial market conditions such that the allowed MRP was no longer appropriate.

Thus, there are at least two ways to produce the type of stability and predictability that was, in our view, intended by the 2013 Guideline. For example, the guideline could adopt:

- » A short risk-free rate averaging period and set out a clear *process* (implementable by any stakeholder, independently of the AER) for estimating the MRP in a way that is consistent with the prevailing market conditions. Such an approach would apply appropriate weight to all of the relevant evidence, as set out below; or
- » A fixed MRP (one that is commensurate with the prevailing conditions at the time of the Guideline, and which is subject to revision in the event of a material change

²² AER, 2013, Rate of Return Guideline: Explanatory Statement, p. 91.

²³ AER, 2013, Rate of Return Guideline: Explanatory Statement, Appendices, p. 108.

in financial market conditions) to be paired with a risk-free rate measured over a longer averaging period.

5.2.2 A more stable allowed return on equity is consistent with the NEO, NGO, and ARORO

In its 2013 Guideline materials, the AER concluded that an approach that gave material weight to a number of approaches to estimating the MRP would be likely to produce a more stable allowed return on equity, which would be consistent with the NEO, NGO, and ARORO. The AER summarised the potential benefits of more stability in allowed returns as follows:

In our consultation paper, we stated that a relatively stable regulatory return on equity would have two effects:

- *It would smooth prices faced by consumers.*
- *It would provide greater certainty to investors about the outcome of the regulatory process.²⁴*

The AER also noted that:

Submissions in response to our draft guideline were also broadly supportive of stability.²⁵

Energy Networks Australia agrees that an approach that produces a relatively stable allowed return on equity is consistent with the achievement of the NEO, NGO, and ARORO.

5.2.3 Use of evidence to produce a more stable allowed return on equity

In its 2013 Guideline materials, the AER explained the process by which its approach to estimating the MRP might result in a more stable allowed return on equity:

...the DGM and the Wright approach (for implementing the Sharpe-Lintner CAPM) will result in estimates of the return on equity that may be relatively stable over time. The informative use of these implementations of the Sharpe-Lintner CAPM, in addition to the DGM and other information, is expected to lead to more stable estimates of the return on equity than under our previous approach. The extent of this stability will depend on:

- *the extent to which movements in the estimates of the risk free rate and market risk premium in the foundation model offset each other*

²⁴ AER Rate of Return Guideline, Explanatory Statement, pp. 65-66.

²⁵ AER Rate of Return Guideline, Explanatory Statement, pp. 65-66.

- *the informative value provided by the DGM and Wright approach (and other information that provides relatively stable estimates of the return on equity).*²⁶

As noted above, Energy Networks Australia supports the objective of a more stable return on equity allowance and agrees that the DGM and Wright approaches are likely to assist in that regard.

The AER's advisers have described the AER's current approach as producing an effectively constant MRP allowance:

*The AER decisions hold the risk premium nearly constant (although upward adjustments of 0.5% have been made). As (sic) result the regulated return tends to fall 1 for 1 with falls in the risk free rate.*²⁷

Fixing a constant MRP to the prevailing risk-free rate produces a *volatile* return on equity allowance, which rises and falls one-for-one with changes in the risk-free rate. An example of how the current approach can impact on networks and consumers is given in the answer to Question 1 above. This is contrary to the objective of more stability in the allowed return on equity. It is also inconsistent with any material weight being applied to the DGM or Wright approaches, which do produce more stability in the estimated return on equity.

Energy Networks Australia considers that, when setting the MRP at the time of each Guideline, the AER should have regard to all relevant evidence (in the manner set out in the remainder of this section) and that such an approach is likely to produce MRP estimates that vary over time in a way that is both realistic and produces more stability in the allowed return on equity.

5.2.4 Support for 2013 Guideline that gives weight to DGM estimates in MRP

In its 2013 Guideline materials, the AER stated that, while it has some concerns about the reliability of input assumptions, those concerns must be weighed against the positive features of DGM estimates:

*Notwithstanding our concerns about the reliability of input assumptions, we consider DGM estimates have strong theoretical grounding and are more likely to reflect prevailing market conditions than other approaches.*²⁸

This led the AER to adopt a preferred approach to implementing the DGM to minimise its concerns. The AER describes its preferred approach as:

*...the most significant development in this area*²⁹

and stated that it would give:

²⁶ AER Rate of Return Guideline, Explanatory Statement, p. 66.

²⁷ Partington and Satchell (2016), p. 17.

²⁸ AER, 2013, Rate of Return Guideline: Explanatory Statement, Appendices, p. 85.

²⁹ AER, 2013, Rate of Return Guideline, Explanatory Statement, Appendices, p. 89.

...significant consideration to DGM estimates of the MRP.³⁰

and indeed that it would:

...give these estimates greater consideration than we have in the past.³¹

Since the Guideline, the AER's DGM approach has produced quite stable estimates of the allowed return on equity, with an increase in the MRP partially offsetting the material decline in government bond yields – consistent with what was foreshadowed in the 2013 Guideline.

By contrast, in all decisions since the 2013 Guideline, the AER has maintained a constant estimate of the MRP of 6.5%. The DGM estimates appear to have had no impact on the level of the AER's overall MRP estimate.

Since the 2013 Guideline, the AER has highlighted a number of potential concerns about the reliability of DGM estimates to be weighed against the theoretical soundness and forward-looking nature of the DGM. However, all of those potential implementation issues were known and considered by the AER at the time of the 2013 Guideline, and were not viewed by the AER as impediments to the AER giving “significant consideration” to DGM estimates.³²

As part of the 2013 Guideline process, the AER developed its own preferred specifications of the DGM, which it said at the time addressed many of the potential implementation problems that the AER has, in recent decisions, cited as reasons to use DGM estimates as directional evidence only.

Most networks have adopted the AER's preferred DGMs in their proposals since the publication of the 2013 Guideline, so there is no disagreement between networks and the AER about the particular specification of the DGMs that should be used.

Energy Networks Australia considers that the DGM approach continues to produce relevant evidence and should have a direct role (along with other evidence currently considered by the AER) in determining the overall MRP estimate. This would involve DGM estimates informing the estimation process, as set out in the 2013 Guideline.

Network businesses are concerned with the suggestion in the AER's Issues Paper that it should have less regard to the DGM to inform the MRP estimate. No new issues with DGM estimates have been identified, and the approach has produced stable estimates of the allowed return on equity, as foreshadowed, and identified as an advantage of that approach in the 2013 Guideline. Assigning less weight to the DGM evidence only in circumstances in which government bond yields are low would introduce asymmetry in the use of that evidence.

Energy Networks Australia considers that the DGM provides important relevant evidence in relation to the MRP. Energy Networks Australia also considers that the DGM should be used in a symmetric way over time, rather than assigning it greater or

³⁰ AER, 2013, Rate of Return Guideline, Explanatory Statement, p. 97.

³¹ AER, 2013, Rate of Return Guideline, Explanatory Statement, p. 96.

³² AER, 2013, Rate of Return Guideline: Explanatory Statement, p. 97.

lower weight, depending on prevailing market conditions. The 2013 Guideline outcome reflected this point.³³

5.2.5 Wright estimates of the MRP

The Wright approach is a method for estimating the MRP from historical stock market data. The Wright approach has no relevance at all to the estimation of the risk-free rate or the equity beta – it is a method for estimating the MRP to be used in the SL-CAPM formula.

The Wright approach is used as a method for estimating the MRP by other regulators including the WA Economic Regulation Authority, QCA, a number of regulators in the UK (including Ofgem) and the New Zealand Commerce Commission.

One of the AER's advisers, Dr Lally, has recommended that the Wright estimate of the MRP should be used to inform the regulatory allowance for MRP.

By contrast, in decisions since the 2013 Guideline, the AER has used the Wright evidence only as a cross-check of the overall return on equity estimate, and has not used the Wright evidence as a cross-check on its MRP estimate.

In circumstances where the AER's Wright estimates of the MRP have been consistently and materially higher than its 6.5% MRP allowance, that evidence appears not to have had any effect on the overall MRP allowance. This is because the AER's approach has been to combine its Wright estimates of the MRP with an equity beta of 0.4 to form a “lower bound” return on equity that is below the AER's allowed return on equity. The AER then concludes that its overall return on equity estimate (rather than the MRP estimate) passes the Wright cross-check.

Energy Networks Australia considers that:

- » The Wright estimate of the MRP should be used (in combination with estimates derived using other methods) to estimate the MRP, in the same way that it is used by other regulators. This would permit the Wright evidence to have the effect of producing a more stable allowed return on equity, as foreshadowed in the 2013 Guideline.
- » Combining the Wright MRP estimate with an equity beta of 0.4 (to support the conclusion that the allowed return on equity is consistent with the Wright evidence) is not a reasonable cross-check.

5.2.6 MRP estimates from independent expert valuation reports

The AER currently uses the evidence from independent expert valuation reports only in a cross-check role. In no case have any of these cross-checks resulted in a revision to the AER's parameter estimate, so independent expert views currently appear to have no impact on the AER's determination of the allowed rate of return.

Energy Networks Australia considers that evidence from independent expert valuation reports remains relevant evidence that should be used to inform the estimate of the

³³ AER, 2013, *Rate of Return Guideline: Explanatory Statement*, p. 92.

MRP, however, given no change in relevant finance theory and the incremental objective of the review, network businesses accept the approach of the 2013 guideline in this regard.

5.2.7 Historical excess returns estimates of the MRP

Energy Networks Australia agrees with the AER that historical excess returns, which provide an estimate of the historical MRP, are relevant evidence that should be considered.

On the technical issue of measurement, it is noted that Dr Lally has considered whether an arithmetic or geometric average should be applied to the historical data. He evaluates whether each form of average is consistent with the NPV=0 principle and concludes that:

The geometric mean fails this test whilst the arithmetic mean will satisfy it if annual returns are independent and drawn from the same distribution. So, if historical average returns are used, they should be arithmetic rather than geometric.³⁴

In its recent decisions, the AER has concluded that there may be a bias in the geometric averages.³⁵

Energy Networks Australia agrees and considers that the geometric average is inappropriate for the purposes of estimating the expected excess return, that the geometric average should not be used, and that only the arithmetic average should be used.

5.2.8 AER's interpretation of relevant evidence

Energy Networks Australia is concerned about the AER's interpretation of some of the relevant evidence in its recent decisions.

Three examples are presented below, where the AER has interpreted evidence as being supportive of its constant 6.5% MRP allowance, but where a full assessment of the evidence would appear to support a materially different conclusion.

These examples are provided as illustrations of where further reasoning is preferred through this process. Energy Networks Australia welcomes the AER's willingness to openly discuss these concerns with stakeholders within the current review process. Such engagement with stakeholders will serve to increase confidence in the regulatory framework, and promote the goal of a guideline which is capable of acceptance.

³⁴ Lally (2012 MRP), p. 40.

³⁵ TransGrid AER Draft Decision, 2017, Attachment 3, p. 76.

Example 1: Conclusions about the practice of other regulators

The AER's recent Draft Decision for TransGrid concludes that "regulatory decisions over the past 12 months indicate a market risk premium of 6.5 is reasonable."³⁶ To support this conclusion, the Draft Decision contains a chart that summarises the MRP allowances of other Australian regulators.³⁷ That chart, reports 14 regulatory decisions in relation to the MRP over the last 12 months, of which:

- » 12 are well above 7.0%.
- » 1 (by the QCA) is equal to 6.5%.
- » 1 is set to 6.0% that being a June 2016 determination by IPART for WaterNSW in relation to bulk water services supplied in the Murray-Darling Basin (MDB) valleys. However, that figure should be disregarded because IPART was constrained by legislation to use a 6.0% MRP for WaterNSW's charges in relation to the MDB valleys.³⁸ Indeed, in the same determination, IPART adopted a 7.75% MRP for charges that were not subject to that legislative constraint.³⁹

Energy Networks Australia suggests that the evidence shows that a MRP of 6.5% is materially lower than the recent decisions of other Australian regulators and, therefore, this evidence does not support the AER's MRP estimate of 6.5%.

Since the Draft Decision for TransGrid was published, a number of regulators—including IPART, ERA and QCA—have made determinations on the MRP, and all of these decisions have estimated the MRP to be 7.0% or higher. Notably, the QCA—which in the chart considered by the AER was the only regulator to have used the same estimate of 6.5% as the AER—adopted MRP estimate of 7.0% in its November 2017 Draft Decision for Seqwater.⁴⁰

Example 2: Conclusions about survey evidence

The TransGrid Draft Decision concludes that the relevant survey evidence generally supports a MRP estimate of around 6.0% or less.⁴¹ It is unclear how this conclusion is linked to the specific evidence relied upon, however. The AER considers two surveys from 2017, which ought to receive predominant weight since older surveys will have little or no relevance to prevailing market conditions.⁴²

Fernandez et al (2017) reported a mean and median MRP estimates of 7.3% and 7.6% respectively, which estimates are above the AER's 6.5% allowance.

KPMG (2017) reported a median MRP of 6.0% but specifically noted that the vast majority of respondents are currently using risk-free rates that are well above the

³⁶ TransGrid Draft Decision, 2017, Attachment 3, p. 76.

³⁷ TransGrid Draft Decision, 2017, Attachment 3, Figure 3-16, p. 237.

³⁸ IPART, Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021, June 2017, p. 72.

³⁹ IPART, Review of prices for rural bulk water services from 1 July 2017 to 30 June 2021, June 2017, p. 75.

⁴⁰ QCA, Seqwater Bulk Water Price Review 2018-21, November 2017, p. 54.

⁴¹ TransGrid Draft Decision, 2017, Attachment 3, p. 76.

⁴² AER, 2013, Rate of Return Guideline, Explanatory Statement, p. 90.

prevailing 10-year government bond yield.⁴³KPMG also indicates that the most commonly used risk-free rate is 4.5%.⁴⁴

If the most commonly used risk-free rate is 4.5%, and the most commonly used MRP is 6.0%, the total required return on equity for an average firm is 10.5%. At the time of the TransGrid Draft Decision, the prevailing risk-free rate was approximately 2.7%, implying a MRP of approximately 7.8% (i.e. 10.5% - 2.7%). However, the Draft Decision interprets this survey as supporting the use of an MRP 6.0% or less.⁴⁵

Thus, the only two surveys that are less than a year out of date both indicate that the required return on equity is materially above the AER's allowance. This presents a significant challenges in stakeholders understanding how evidence has been used. As an example, the only way that the survey evidence could be construed as supportive of a MRP estimate as low as 6.0% is if material consideration was given to surveys that are up to four years out of date.

Example 3: Conclusions about whether current government bond yields are currently low

A number of networks have made submissions to the AER, over the last three years, that average historical excess returns can, by definition, only provide an estimate of the MRP for the average market conditions over the historical period that was used. It follows that, if the prevailing market conditions differ relative to the historical average conditions, the historical average MRP would not reflect the prevailing conditions, as it is required to do.

In this regard, a number of submissions have indicated that one important difference is that the prevailing government bond yields are presently at historic lows. The AER's recent TransGrid Draft Decision rejects that submission⁴⁶ on the basis that "the low rates we are currently experiencing are not so unusual."⁴⁷

However, the 10-year government bond yields for the last three years (i.e. those since the 2013 Guideline) are the three lowest yields that have been observed since 1883. Energy Networks Australia suggests that, contrary to the AER's conclusions, the evidence is clear that current rates are abnormally low by historical standards.

5.2.9 Response to Issues Paper questions

7. Would a more prescriptive approach to setting the equity risk premium be appropriate? If the Guideline has a more prescriptive approach to estimating equity risk premium, what set of conditions for reopening the Guideline would best achieve the national gas and electricity objectives and the allowed rate of return objective?

Energy Networks Australia considers that:

⁴³ KPMG, 2017 Valuation Practices Survey, p. 10.

⁴⁴ <https://home.kpmg.com/au/en/home/insights/2017/07/valuation-practices-survey-2017.html> (accessed 7 December 2017).

⁴⁵ TransGrid Draft Decision, 2017, Attachment 3, p. 76.

⁴⁶ TransGrid Draft Decision, 2017, Attachment 3, p. 285.

⁴⁷ Partington and Satchell (2016), p. 23.

- » A fixed risk premium, added to the prevailing government bond yield measured over a short averaging period, produces the “lottery” type outcomes previously discussed in Section 3.1.1.
- » A fixed risk premium, set at the time of each Guideline, would only be appropriate if:
 - The fixed risk premium were set in a transparent and consistent manner from one Guideline determination to the next, and properly reflected the available evidence at the time of each Guideline determination.
 - The risk-free rate averaging period were lengthened to avoid any timing “lottery” impacts identified.
 - The equity risk premium would be the subject of a re-opener in the case of a material change in market conditions (e.g. as occurred around the time of the Lehman Brothers default in September 2008.) Any such re-opener would have to be predictable and transparent, and provide for a process of stakeholder consultation.
 - There was widespread consensus amongst stakeholders that a prescriptive approach would be acceptable.

Energy Networks Australia would welcome engagement with other stakeholders, including the AER, on the specifics of how any risk premium re-opener would operate.

9. *What is the appropriate role of dividend growth models (DGMs) in setting the allowed return on equity?*

Energy Networks Australia considers that:

- » The DGM evidence should be used as material evidence to inform the estimate of the MRP. If judgment is to be used to weight the DGM evidence, then it is proposed by Energy Networks Australia that the judgment exercised by the AER should be explained in sufficient detail as to allow any stakeholder to derive a closely proximate estimate independently of the AER. Further, any such judgment should be exercised in a symmetric and consistent manner over time, to enhance predictability and transparency.
- » If the AER proposes to move away from its current foundation model approach, a full consultation about the relative merits of, and appropriate uses for, all relevant models and approaches should be undertaken.
- » When estimating the MRP:
 - balanced and objective regard needs to be had to all relevant evidence;
 - Wright model evidence should be considered; and
 - Evidence from independent expert valuation reports (derived from estimates of total required returns) should be considered.

5.3 Equity beta

5.3.1 Available set of comparator firms

In its 2013 Guideline, the AER's approach was to first construct a primary range using evidence from a set of nine domestic comparator firms, and then to use other evidence to select a point estimate from within the range. Only three of those firms remain listed today. Some of the firms in the AER's comparator set will have been delisted for almost 20 years during regulatory control periods under the 2017 Guideline. There are two problems with continued reliance on these now delisted firms:

- » Data that is up to 20 years out of date is of limited use in estimating the required return on equity in the prevailing market conditions.
- » Equity beta estimates for individual firms vary considerably over time. When a delisted firm is included in the sample, its beta estimate at the time of delisting becomes permanently determinative at whatever the estimate happened to be at the time.

Energy Networks Australia considers that:

- » Evidence from firms that have been delisted for some years should not be used to construct a binding primary range that is consistent with the prevailing market conditions.
- » Three comparators are insufficient to be deriving statistically-reliable estimates of beta.

A further issue for consideration in the guidelines developed is the degree to which estimation approaches will reflect prevailing risk conditions. As an example, the greater risk exposure that networks now face will not be reflected in the AER's historical estimates of beta because:

- » These developments are relatively new and are unlikely to affect beta estimates derived using data over relatively long historical periods;
- » Even if estimates from the most recent periods are considered, beta estimates (derived using standard statistical techniques) are so statistically imprecise that it would be difficult (perhaps impossible) to separate the true effect of these emerging risks from statistical noise; and
- » Most of the domestic comparators that the AER has used to date to estimate betas are not exposed to these risks (e.g. because they have substantial involvement in non-electricity or gas network service related activities).

Moreover, these evolving risks are not addressed in any other component of the regulatory framework.

Energy Networks Australia considers that the changing risk profile of energy network businesses should be recognised and accounted for somewhere within the AER's application of the regulatory framework. Energy Networks Australia would welcome the opportunity to engage further with the AER and stakeholders on different options

for refining the application of the broader regulatory framework to take account of the evolving nature of the risks faced by energy networks.

5.3.2 Re-levering to 60 per cent

The AER has consistently, and correctly, identified that there are two components of the systematic risk of equity: business risk and the financial risk arising from the fact that the firm's debt financing ranks ahead of equity. In relation to the second component, the AER has stated that:

Financial risk relates to the additional systematic risk exposure that arises from the debt holdings of the firm. The underlying principle is that since payments to debt holders take precedence over payments to equity holders, the systematic risk exposure for equity holders (i.e. the equity beta) increases as more debt is issued.⁴⁸

That is, the greater the amount of prior-ranking debt, the greater will be the risk of the residual equity. As each comparator business will have gearing that differs from the 60% figure that the AER adopts for the benchmark efficient entity (the 'BEE', or in other words, the firm used as a target or 'benchmark' in setting risk assumptions) beta estimates must be re-levered to reflect the benchmark amount of financial risk.

In relation to the approach to re-levering equity beta estimates to ensure consistency with 60% gearing, Energy Networks Australia notes that:

- » Every standard finance work⁴⁹ explains (a) why equity betas must be re-levered to reflect the assumed gearing of the relevant firm and (b) how that re-levering should be performed.⁵⁰
- » Every one of the equity beta estimates in the Henry (2014) report commissioned by the AER were re-levered to 60% using a standard approach.
- » The approach that the AER adopts for re-levering has been mathematically derived to be consistent with the AER's assumption of the BEE having a constant proportion of debt finance.

Energy Networks Australia firmly considers that all equity beta estimates must be re-levered in the standard manner – to be consistent with the assumption that the BEE would maintain constant gearing of 60%. Energy Networks Australia considers that this proposition should be uncontroversial.

⁴⁸ AER, 2013, Equity beta issues paper, October 2013, p. 16.

⁴⁹ One example (of many) is Brealey, R., S. Myers, G. Partington and D. Robinson (2000), Principles of Corporate Finance, McGraw Hill, p. 499.

⁵⁰ The AER has previously noted that there are a large number of different formulas for de-levering and re-levering betas, and that there is uncertainty over which approach is most appropriate. The AER has then concluded that this uncertainty means it should compare unlevered equity betas (as well as de-levered asset betas) in its decisions. Energy Networks Australia notes that, whilst there are a large number of different formulas for de-levering and re-levering, if the same formula is used consistently for both de-levering and re-levering, the final re-levered equity beta estimates are very insensitive to the formula selected. Therefore, uncertainty over the appropriate de-levering/re-levering formula is not a sound reason to not make adjustments for differences in gearing.

5.3.3 Use of overseas evidence

In its 2013 Guideline, and in its subsequent decisions, the AER has had regard to evidence from international comparator firms. In its most recent decision, the AER set out nine estimates based on international comparators, which reflect 60% gearing to be consistent with the AER's estimates. All nine estimates are above 0.7, seven of the nine are above 0.8 and the mean across the nine estimates is 0.88.

Energy Networks Australia suggests that:

- » Consideration should be given to the evidence from overseas comparators. Some regulators, such as the New Zealand Commerce Commission, consider a much larger sample of comparators (i.e., over 70 listed companies, most of which are not New Zealand firms) than the AER currently considers.⁵¹ Such an approach would result in more stable and statistically-reliable estimates.
- » The overseas evidence should have a greater role than simply informing the selection of a point estimate from within a range drawn from the small available amount of domestic evidence.
- » This is particularly so in circumstances where the available domestic evidence is as scant as it currently is.

5.3.4 Use of evidence from other domestic infrastructure firms

Energy Networks Australia considers that binding “primary range” should not be set on the basis of the remaining set of domestic energy network comparators because (a) that set is now too small to obtain statistically reliable results, and (b) supplementation with historical companies that no longer exist is inappropriate for firms that have not existed for many years. For these reasons, Energy Networks Australia proposes that the set of domestic comparators should be expanded to include other domestic infrastructure businesses.

5.3.5 Correction for low-beta bias

Energy Networks Australia considers that there is overwhelming and consistent evidence of low-beta bias – the Sharpe-Lintner CAPM systematically under-estimates the returns on stocks with beta estimates less than 1.

This evidence has been documented in different markets and across different time periods from the 1930s through to the present. The existence of this bias is well-accepted, for example, being routinely documented in the standard introductory finance works.

The AER has noted that the Black CAPM was developed to explain the empirical evidence of low-beta bias and that it produces estimates of the allowed return on equity that are more consistent with the empirical evidence. In its 2013 Guideline materials, the AER noted that:

⁵¹ New Zealand Commerce Commission, Input Methodologies – Final reasons papers, December 2016, Topic 4 paper, Attachment A, p. 219.

A key outworking of the Black CAPM is that the Sharpe-Lintner CAPM may underestimate the return on equity for firms with equity betas less than one.⁵²

The AER's 2013 guideline states the AER will have regard to the evidence of low-beta bias and the Black CAPM when selecting a beta estimate to insert into its SL-CAPM formula:

...using the Black CAPM theory to inform our equity beta estimate may mitigate possible low beta bias...we consider this represents a pragmatic approach.⁵³

That is, the AER has recognised the existence of low-beta bias and has stated that it will set the allowed equity beta so as to “mitigate possible low beta bias”. Energy Networks Australia supports the AER's position that evidence of low-beta bias means it needs to be accounted for in reaching a return on equity estimate within the guideline.

5.3.6 Response to Issues Paper questions

8. Is the theory underlying the Black CAPM still appropriate for informing an equity beta point estimate? In its place, should alternative information be used to guide the selection of an equity beta point estimate?

Energy Networks Australia considers that:

- » The evidence of low-beta bias associated with the SL-CAPM, to which the theory of the Black CAPM responds, have not changed since the 2013 Guideline. The low-beta bias evidence and the Black CAPM are both well-established within the field of finance.
- » The evidence of low-beta bias should be properly reflected in the allowed return on equity, whether by an adjustment to the raw SL-CAPM beta estimates (per the AER's existing approach) or by some other method.
- » If the AER proposes to move away from its current foundation model approach (which includes the use of the Black CAPM to inform SL-CAPM estimates), a full consultation about the relative merits of, and appropriate uses for, all relevant models and approaches should be undertaken.
- » The remaining available domestic evidence is so scant that it cannot be used reliably to construct a binding primary range for estimation of an equity beta. Rather, the relevant evidence that should be considered holistically includes:
 - Existing domestic energy network businesses.
 - Existing international energy network businesses.
 - Existing domestic infrastructure businesses.
 - The evidence of low-beta bias and the Black CAPM.

⁵² AER, 2013, Rate of Return Guideline, Explanatory Statement, Appendix A, p. 18.

⁵³ AER, 2013, Rate of Return Guideline, Explanatory Statement, Appendix A, p. 12.

6 Estimating value of imputation tax credits

6.1 The interpretation of the “value” of imputation credits

In the 2013 Rate of Return Guideline process, Energy Networks Australia submitted that the value of imputation credits (gamma) should be interpreted as the market value of imputation credits – the amount that investors would be prepared to pay for credits if they could be traded in a separate market.

Energy Networks Australia considered that this was necessary for consistency with the regulatory framework, in which the allowed return to equity holders is reduced by “the value of imputation credits.” In this context, if gamma is not estimated by reference to the market value of imputation credits to equity investors, the reduction to the allowed return to equity to account for that value will be too big (if the value of imputation credits is overestimated) or too small (if the value of imputation credits is underestimated).

Energy Networks Australia accepts that the Federal Court and Australian Competition Tribunal have recently found that it is open to the AER to adopt a utilisation rate interpretation, under which gamma is estimated by reference to the proportion of credits that can be redeemed rather than in terms of their economic worth to investors.⁵⁴ Energy Networks Australia does not propose to re-open that issue in this review, and will seek to work with the AER in the implementation of a utilisation rate interpretation when estimating gamma, consistent with the findings of the Tribunal.

6.2 Approaches for estimating gamma under a utilisation interpretation

The AER currently uses two approaches for the purposes of estimating gamma under a utilisation rate interpretation. In relation to ATO tax statistics, the Tribunal recently found that the reliability of tax statistics is unclear.⁵⁵ We have sought to address the uncertainty around the extent to which ATO tax statistics can be used to reliably estimate an overall gamma below.

- » **The ATO tax statistics approach** uses aggregate tax statistics data published by the ATO to calculate gamma as the ratio of *credits redeemed* to *credits created*. Under this approach:

$$\gamma = \frac{\text{Credits Redeemed}}{\text{Credits Created}}$$

⁵⁴ Australian Energy Regulator v Australian Competition Tribunal (No 2) [2017] FCAFC 79. It is noted that the Full Federal Court is yet to hand down its decision in relation to SA Power Networks judicial review application (NSD 2032/2016) which also relates to gamma.

⁵⁶ For example: TransGrid Draft Decision, September 2017, Attachment 4.

where the numerator is the total amount of credits redeemed against personal tax obligations and the denominator is total corporate tax paid over the relevant period.

- » **The equity ownership approach** estimates theta as the proportion of Australian shares that are owned by resident investors, and then combines this with an estimate of the distribution rate:

$$\gamma = \frac{\text{Credits Distributed}}{\text{Credits Created}} \times \frac{\text{Equity owned by residents}}{\text{Total equity}}$$

$$= \text{Distribution rate} \times \text{Domestic equity proportion}$$

Energy Networks Australia considers that the ATO tax statistics approach should be the preferred method for estimating gamma under a utilisation rate interpretation for the following reasons:

- » The AER has previously expressed concerns that the distribution rate may be difficult to estimate reliably.⁵⁶ However, the ATO tax statistics approach has the advantage of being implementable without having to estimate the distribution rate separately. This means that the AER's concerns about reliability of the distribution rate can be avoided under a consistent application of the ATO tax statistics approach.
- » *Credits Redeemed* is obtained from personal tax returns and *Credits Created* is equal to corporate tax paid. Both of these figures are maintained accurately by the ATO, clearly the best authority in Australia to collect these data. Energy Networks Australia has asked Professor Neville Hathaway to provide his views on the reliability of the ATO data required to obtain this estimate and he states that:

The Company Tax item is the total company tax collected by the ATO during the relevant period and the Credits Redeemed item is the total amount of credits redeemed via the filing of personal tax returns. These two data items are 100% reliable as they are figures that relate directly to ATO tax collections. There is no reason to question the ATO's records of the amount of corporate and personal tax it has collected.⁵⁷

Dr Hathaway then concludes that:

The combination of these two data items directly estimates gamma as the proportion of company tax that is in practice pre-payment of personal tax.⁵⁸

- » The equity ownership approach does not factor in the operation of the 45-day Rule or any other reason why a credit distributed to a resident investor might not be redeemed, so is overstated to that extent.

⁵⁶ For example: TransGrid Draft Decision, September 2017, Attachment 4.

⁵⁷ See Attachment C - Letter from Dr Neville Hathaway, Capital Research, 12 December 2017, p. 1.

⁵⁸ Hathaway (2017), p. 2.

- » The equity ownership estimates are based on survey data collected by the ABS which requires filtering and adjustment to “clean” the data. It is the subject of express data quality warnings by the ABS. Since the ABS data are collected through surveys of samples of taxpayers, the equity ownership estimates are subject to sampling error and, unlike the ATO tax statistics estimates, represent very indirect estimates of gamma under a utilisation rate interpretation.

6.3 Approaches for estimating the distribution rate

If the AER determines that it will adopt one or more approaches that *do* require a separate estimate of the distribution rate, it will be necessary to determine how to best estimate that parameter. Three approaches have been proposed for that purpose:

1. Applying the “dividend” approach to the ATO data base.
2. Applying the Franking Account Balance (“FAB”) approach to the ATO data base.
3. The “Lally” approach of estimating the distribution rate from the annual financial statements of a small group of large firms.

Energy Networks Australia considers that the Lally approach does not produce a reliable estimate of the distribution rate for the benchmark efficient entity. This is because most of the 20 large firms considered in the Lally analysis have material foreign income, which can be used to assist in the distribution of credits via dividends. In contrast, the benchmark efficient entity as defined by the AER has no foreign profits and so an estimate based on the Lally analysis will overestimate the distribution rate of the benchmark firm.

6.4 Principles to be applied when selecting a point estimate for gamma

Energy Networks Australia proposes that, when selecting a point estimate for gamma, the AER:

- » Identifies all of the evidence it considers to be relevant and why it considers that evidence to be relevant;
- » Explains how it has used the evidence and processed it into a point estimate. This involves listing the relevant evidence taken into account and stating the conclusion that the AER has drawn from it. Ideally, the explanation should be should allow a stakeholder to apply it to the relevant data and independently obtain the AER’s estimate; and
- » Explains the role of ranges versus prevailing estimates in its analysis. For example, in recent decisions, the AER constructs a range for its equity ownership estimates where the top end of the range is based on data that is 12 years out of date and the bottom end of the range is more than 5 years out of date.⁵⁹ The fact that the

⁵⁹ See, for example, TransGrid 2017 Draft Decision, Attachment 4, Figure 4.3, p. 177.

prevailing figures are closer to the lower bound of the range appears to receive no weight. Indeed, updated data would seem to have no effect at all so long as it lies between the historical minimum and maximum.

The sort of approach outlined above would meet the AER's objective of producing a Guideline that sets out how to determine a rate of return that promotes the efficient investment in and use of energy network services for the long term interests of energy consumers. To support the process goal of a Guideline that was capable of acceptance, the methodology to be applied to achieve that objective will need to be clearly articulated in the Guideline.

Response to Issues Paper question

10. Is it appropriate to limit the review of the valuation of imputation credits to updating the empirical analysis? Are there any particular issues we should take into account when updating empirical analysis?

- » As noted above, Energy Networks Australia does not propose to re-open the conceptual definition of gamma and accepts use of the AER's utilisation rate interpretation.
- » Energy Networks Australia supports the empirical analysis relied upon by the AER being updated to reflect the most recent evidence available.
- » In updating the empirical analysis, the AER should consider the points made above in respect of the following factors:
 - Reliance on ATO tax statistics as a reliable and direct estimate of the utilisation rate;
 - If separate estimates of the distribution rate are to be used, the comparison problems arising from a distribution rate based on a sample of firms with material foreign income.
- » In deriving a point estimate of gamma, Energy Networks Australia suggests that the AER sets out clearly how the updated empirical analysis has been used and distilled into a point estimate.
- » Given that a utilisation interpretation of gamma will be used, Energy Networks Australia considers that it is important to properly consider which approach (or approaches) are likely to produce the most reliable estimate.

Attachment A – Stakeholder feedback summary

Following are key themes and comments received during early engagement by Energy Networks Australia and its members that are relevant to the Rate of Return Guideline review.

Who	What we heard	How we will consider
Energy Network Australia's objectives	General agreement on what Energy Networks Australia proposes to target in its submission, i.e. capable of acceptance, complies with the Rules, build on work already done, AER to provide a clear understanding of how it considers evidence and reaches conclusions and principles of the AER being transparent in its methodology and that outcomes be stable over time.	Will continue to engage consumers and other stakeholders on these objectives.
Capable of acceptance	Looking for demonstrable evidence of a 'capable of acceptance' process from networks, and ensuring networks actions are consistent with approach.	Energy Networks Australia supports this and highlights that it is a specific objective of Stakeholder Framework.
Information for consumers	There are strong benefits in ensuring consumers are in a stronger informational position to be able to judge the consistency of outcomes with the long-term interests of consumers (e.g. profitability, reliability, network pricing outcomes).	Agree. For this reason Energy Networks Australia has supported the development of the AER's proposed network profitability reports, and performance reporting more broadly.
Information for consumers	Information needs to be clear and concise and made more accessible for broader (non-technical) stakeholders. Suggest Energy Networks Australia develops a brief 2-page document that summarises the key highlights of its submission in clear, plain English language.	We are preparing a brief summary of our response to the AER's Issues Paper.

<p>Consumer impact</p>	<p>Consumers do not really look at the Rate of Return but look at costs or the price to themselves.</p> <p>There is an initial assumption that prices are too high, and if this is so, it might suggest that the regulated asset bases are too large or that where the Rate of Return may change dramatically, that price increases be capped.</p>	<p>Need to provide more information on how the Rate of Return impacts on consumer prices.</p>
<p>Consumer impact</p>	<p>Encourage use of a simple way to show how Rate of Return would impact final prices, i.e. what is the flow-on impact to consumers? Maybe a diagram would help show the impact.</p>	<p>Develop simple diagrams to explain how the Rate of Return impacts on consumers.</p>
<p>Consumer impact</p>	<p>Need to ensure that conclusions or outcomes on individual 'building blocks' in the regulatory process add up to a feasible cost to consumers.</p>	<p>Agree. In the specific guideline context, this had led to a focus on ensuring decisions are empirically based, and reasoning is clearly set out, but do not ignore wider elements of the framework or broader market circumstances relevant to the long-term interests of consumers.</p>
<p>Engaging with consumers and other stakeholders</p>	<p>Continue to engage stakeholders on submissions. This is an important part of the process.</p> <p>Pleasantly surprised that Energy Networks Australia is doing this.</p>	<p>Implement the Energy Networks Australia's Stakeholder Engagement Approach for the Rate of Return Review.</p>
<p>Engaging with consumers and other stakeholders</p>	<p>Consider summarising the feedback from stakeholders and how/where it was addressed, i.e. this is what we think you told us.</p>	<p>Document feedback from consumers and other stakeholders, share with members, and summarise how this feedback has been considered.</p>

<p>Engaging with consumers and other stakeholders</p>	<p>Energy Networks Australia needs to maintain a clear distinction of those groups AER will engage with i.e. (1) Networks (2) Customers who rely on the services of the networks (3) Stakeholder groups.</p>	<p>To ensure our language is clear.</p>
<p>Engaging with consumers and other stakeholders</p>	<p>Energy Networks Australia's engagement approach is a good statement of intent but needs greater clarity on implementation and measurement.</p>	<p>For consideration when finalising the draft Energy Networks Australia's Stakeholder Engagement Approach for the Rate of Return Review.</p>
<p>Trust</p>	<p>There is significant distrust of industry.</p>	<p>We are committed to engage with consumers and others stakeholders through the review process in a manner which is open and seeks to build better relationships with consumers and other stakeholders.</p>
<p>Litigation</p>	<p>Recent litigation of AER decisions by networks does not improve trust of the industry and has forced to the AER to select the most conservative end of any range. Should there be an automatic penalty for litigation?</p>	<p>Litigation by members has occurred in recent times by some networks. Comments for member consideration.</p>
<p>Joint work between Energy Networks Australia and consumers</p>	<p>Sought network sector interest in potential joint work, including a 'bottom up' assessment of risks applying to network services to inform guideline risk assessments.</p>	<p>For further member consideration through the ongoing AER review process. Networks agree that upfront clarity on risk allocations in the framework are key to ensuring sound decisions on regulatory return measures.</p>

Benchmarking	<p>How would the Rate of Return compare with other natural monopoly businesses? e.g. power assets, networks, airports, rail lines, water utilities. Why would there be differences? Such information would help stakeholders to understand given the level of information asymmetry.</p>	<p>Members to examine opportunities to conduct and share benchmarking of Rate of Return with other regulated sectors.</p> <p>Note that the recently commenced AER network profitability review process also appears to be seeking to address this issue.</p>
Risks	<p>Need for the regulatory framework to accurately deal with actual network risks, and take into account cross linkages between relevant Rules sections (e.g. tax treatment, gearing, profitability).</p>	<p>For further member consideration through the ongoing AER review process. We support the need for judgements to be made on a holistic basis that considers how each of the parameters impacts on each other.</p>
Profitability	<p>Sought network sector commitment to provide historical retrospective profitability data for future AER profitability reports.</p>	<p>For member consideration. Energy Networks Australia plans to further engage on this issue as part of the AER's Network Profitability reporting process.</p>

Attachment B – Possible concurrent evidence issues

Suggested questions for joint consideration of experts and concurrent evidence sessions

Overall allowed rate of return

1. Where does the balance between judgement and data lie, and how precisely can we seek to estimate rate of return parameters objectively, and in a way that can be replicated independently by any stakeholder, using market data?
2. Under what circumstances should a binding Rate of Return Guideline be re-opened?
3. How should the changing risk profile faced by networks be taken into account in the regulatory framework?

Market risk premium

4. What role should the geometric mean of historical excess returns play in arriving at an estimate of the MRP?
5. What role should DGM estimates play in arriving at an estimate of the MRP?
6. How should the Wright evidence be used to inform the estimate of the MRP? How is this evidence used by other regulators?
7. How should independent expert valuation reports be used to inform the estimate of the MRP?
8. What estimate of MRP is supported by recent decisions of other Australian regulators?
9. What estimate of MRP is supported by recent surveys?
10. How should the set of relevant evidence be distilled into a single MRP point estimate?

Equity beta

11. Can a reliable estimate of equity beta, or a reliable range, be obtained from the three remaining firms? If not, how can the reliability of equity beta estimates used by the AER be improved?
12. Should equity beta estimates be re-levered to the 60% gearing of the BEE?
13. What is the appropriate role for the evidence on equity betas of overseas energy network businesses?
14. What is the appropriate role for the evidence from domestic infrastructure businesses?

15. How should low-beta bias associated with the SL-CAPM, and evidence from the Black CAPM, be taken into account when implementing the foundation model approach?

Estimating value of imputation tax credits

16. What are the relative merits of the ATO tax statistics and equity ownership approaches to estimating gamma under a utilisation rate interpretation?
17. What are the relative merits of the ATO tax statistics and the “Lally” approach to estimating the distribution rate?
18. What role should data that is 12 or more years out of date have when estimating gamma using the equity ownership approach?