Energy Networks Australia

AER 2026 Rate of Return Instrument Review

Response to AER Review Discussion Paper

19 December 2025

Contents

Energy Networks Australia
energynetworks.com.au
info@energynetworks.com.au

Energy Networks Association
ABN: 75 106 735 406

Overview

Energy Networks Australia (ENA) welcomes the opportunity to provide a response to the Australian Energy Regulator's (AER) recent *Discussion Paper* released as part of the 2026 Rate of Return Instrument review process.[1]

Review role, context and impact

The AER's preparation of the 2026 Rate of Return Instrument (RORI) is occurring across a critical period in the energy transition globally. The AER has positively recognised the importance of its future RORI being capable of delivering rate of return estimates that enable efficient investment to occur by matching the market return required by investors in the individual determinations through which it is applied.

Reinforcing the challenge of this task is that the regulatory regime also needs to ensure clear investment signals for identified transmission projects, the ongoing integration of customer solar and storage into the grid and required investments in gas distribution systems to support a once in a generation least-cost transition to a net zero energy system.

Investment in gas and electricity grids is also increasingly essential to ensure networks are resilient for their customers and communities, helping them to manage through and bounce back from increasing climate-change related natural disaster events like floods and bushfires.

Efficient network investment will help keep Australia's energy system secure and reliable, promote increased wholesale market competition and enable customers to connect more solar and storage devices like batteries, as well as electricity vehicles, to the grid, giving them greater control of their energy. By allowing for connection and grid capacity to support these innovations, the community can avoid more expensive options such as building more network and more generation than necessary, helping keep bills lower.

A critical feature of the RORI is its long-term impact on investment signals, with each Instrument having a direct effect on regulatory return on capital estimates up to 9 years into an uncertain future. Consistent with the existing guidance in the framework, this feature highlights the need for settings which are driven by the goal of delivering an unbiased estimate of the efficient expected return.

A focused Instrument review which supports investability and financeability is supported

ENA supports the outlined approach of the AER to conduct a focused and streamlined review.

It is appropriate for the review to focus on the two major issues of reaching a new beta estimation methodology recognising the lack of Australian comparator data, and potential movement to a capital expenditure weighted average trailing cost of debt to more accurately reflect a benchmark efficient cost of debt. This movement in debt approaches could help avoid adverse impacts of mismatches between the prevailing and allowed cost of debt, particularly during a period of significant capital expenditure requirements.

---

[1] AER August 2025, *Rate of return instrument: Review discussion paper*

This support for a focused scope for the review is not due to an assessment that the current RORI is performing well. Rather, at best, there is only limited and conflicting evidence surrounding the performance of the 2022 settings, with no counterfactual available. As the AER highlighted in its 2022 review, it is not appropriate to draw inferences between proposed capital expenditure and the adequacy of currently allowed returns.

There have been a range of indications that the current Instrument settings do not clearly underpin investable and financeable outcomes, including a range of government interventions, amendments to regulatory frameworks, and jurisdictional departures from the existing framework to support timely and investable outcomes.

Examples of this include significant concessional financing interventions by the Clean Energy Finance Corporation, and recent changes to address the financeability challenges of major electricity transmission projects implemented by the Australian Energy Market Commission (AEMC). ENA considers that these developments reinforce the need for the 2026 Instrument review to take into account a fuller and balanced scorecard of contemporary evidence of the performance of current settings.

Developing an approach to use international beta evidence

Network businesses have supported the development of a robust approach to the use of international beta evidence through a number of prior Instrument and guideline reviews.

In this submission, ENA seeks to discuss the challenges identified in the *Discussion Paper and* set out network businesses views on a pragmatic and implementable way of addressing the issues. Across a range of the identified challenges the practice of other regulatory bodies and commercial markets, faced with the same challenge of a lack of relevant domestic comparators, indicate practical ways forward. The use of international data provides an opportunity to reassess, on a transparent and consistent basis, the AER's existing beta estimate, and set out a transparent and predictable methodology for incorporation of international evidence in future reviews.

Regulatory judgement has an important place in the process of setting an appropriate approach and methodology, but it will be critical to the goals of accuracy, transparency, and predictability that this judgement is applied in a manner that is limited, and clear to debt and equity capital providers. This would not be achieved by a limited and binary focus in the review on whether a prior value of 0.6 was justified, without development of a clearly described estimation methodology giving genuine weight to new international data.

A capital expenditure weighted trailing average cost of debt

ENA supports the implementation of a capital expenditure weighted cost of debt measure which is simple to operate, proportionally addresses issues with a simple trailing average, is consistent with past AER decisions, and transparent in its outcomes.

Using AER cost of debt transition approaches already implemented and the Queensland Treasury Corporation's (QTC) proposed model will provide a simple and proportionate approach, which is able to be commercially implemented by network businesses. ENA does not support the implementation of the AER's previously published illustrative model, as it is both overly complex, and could not be practically implemented by networks as a benchmark approach. Parameterisation of the yield estimates of shorter tenor assumed debt tranches is likely to be impossible to reliably undertake, due to a lack of relevant market observations.

Approach to review issues

This submission seeks to directly address the matters raised in the *Discussion Paper*, including suggesting practical ways the AER may proceed on the specific focus areas of the review.

ENA appreciates the constructive engagement to date with AER Board Members and staff and the AER Consumer Reference Group (CRG) in relation to these issues and looks forward to further engagement.

Please note that in addition to this submission there are three associated documents referred to throughout this document:

- Frontier Economics Report *Beta estimation issues* **(Attachment A)**
- Competition Economists Group Report *Implementing a weighted trailing average cost of debt* **(Attachment B)**
- Frontier Economic Worked Example – CESS Excel Model – WTA True Up **(Attachment C)**

This submission and its attachments contain no confidential information.

Consistent with the approach adopted in the 2022 review, ENA has also provided a short summary of issues intended to serve as a useful guide to network sector perspectives on the key review issues (Section 8). ENA would be grateful if, together with the submission and reports, the Independent Panel could be directed to this summary of issues when appointed.

1 Decision-making framework

1.1 Context for the review

The 2026 Rate of Return Instrument review occurs at a critical phase of the energy transition, which is defined by required new investment needed to deliver on the long-term interests of consumers for safe and reliable energy services across future decades.

The draft Instrument must establish, and the final Instrument must deliver, the efficient signals required to enable significant private capital to be secured to underpin competitive energy wholesale markets, and efficient outcomes for all consumers.

The review context is shaped by a continuing strong need to support significant investment in networks capacity required to achieve key consumer and system outcomes. As an example, the 2026 draft Integrated System Plan (ISP) highlights the historically high levels of transmission investment necessary to assist in the decarbonisation journey of the Australian economy. It identifies that the weighted net market benefits of the proposed optimal development pathway, across all scenarios, compared to there being no major new transmission at all is around $24 billion. That is, the actionable and future ISP transmission projects would repay their investment costs, and collectively save consumers a further $22 billion in additional costs, and deliver emissions reductions valued at a further $2 billion.[2]

This highlights the potential costs of rate of return settings which do not provide a basis for timely private sector investment decisions and commitments to underpin project delivery in accordance with the optimal development path. Efficient network investment is also critical to facilitating greater wholesale competition. In this regard, the AEMC's recent *Residential Electricity Price Trends* report has identified that delays to transmission infrastructure builds are key risks for higher future wholesale costs to consumers.[3]

Over the effective life of the 2026 Instrument (around nine years) investment will be required to ensure network capacity to meet growing demands of the future, such as those arising from the accommodation of a growing number of electric vehicles, integrating renewable gas sources, and meeting the expanded needs of the data centre sector.

Given the magnitude of the investment required, the policy intent of the access framework – to allow the efficient low-cost financing of long-lived energy infrastructure by private sector investment – is more critical than ever.

The 2026 Rate of Return Instrument is also occurring against a background of increasing calls upon government resources across other elements of the energy transition, including the provision of government funding to unlock further private sector investment. Higher costs of public financing, with the reversion of government bond rates from historical lows in previous Instruments to closer to historical norms, reinforces the objective of avoiding inadequate settings under the regulatory framework leading to excessive burdens on current and future taxpayers.

---

[2] AEMO *Draft 2026 Integrated System Plan*, December 2025, p.18

[3] AEMC *Residential Electricity Price Trends,* 4 December 2025, p.8

1.2 Objectives and principles for the review

In this context, ENA consider that a streamlined and focused review should maintain the objective – consistent with previous AER's objectives set out in its 2021 Position Paper *Assessing the long term interests of consumers* – that:

> *…the expected rate of return should be an unbiased estimate of the expected efficient return*[4]

This objective should be guided, consistent with the legislative framework, by the relevant National Energy Objectives, and the revenue and pricing principles.

In addition, Section 18F of the National Electricity Law and its National Gas Law equivalent sets out a range of other expected content for the explanatory information accompanying the Rate of Return Instrument. It highlights that from the explanatory information provided for the Instrument, stakeholders should have access to a document explaining:

- How stated values, or the way to calculate a rate or value was decided
- Why the AER is satisfied the Instrument will, or is most likely to, contribute to the achievement of the national energy objectives to the greatest degree
- How the AER has had regard to a number of matters including estimation methods, financial models, market data, prevailing conditions in the market for equity funds and the interrelationships between financial parameters

ENA supports the 2026 Rate of Return Instrument review being determined in accordance with the primary regulatory framework, as well as the AER's 2021 findings on the nature of the estimate sought.

AER Consumer Reference Group proposed principles

The AER Consumer Reference Group (CRG) has developed a proposed set of four principles to guide and inform the 2026 RORI.

ENA does not agree that the principles proposed provide a sound basis for guiding AER decision-making through the 2026 RORI. A significant factor in this judgement is that the adoption of the CRG proposed principles would:

- Introduce an overlapping set of guiding factors at variance with the established guidance in the regulatory framework for the decision process, for example, the revenue and pricing principles (e.g. setting required returns 'on the balance of probabilities')
- Effectively re-open an element of the 2022 RORI decision process, outside of the identified areas for change, for example, by redefining the objective of the Instrument review
- Introduce concepts and terms which have no clear interpretation, and which are likely to promote a lack of consistently and transparently applied regulatory judgement (e.g. 'material shortcoming', 'material interests')
- Embed asymmetrical and incomplete analytical lenses into AER decision making, such as bill impacts which cannot properly reflect indirect and broader system and wholesale market

[4] AER *Assessing to the long term interests of consumer – Position paper*, May 2021, p.12

impacts of providing an unbiased rate of return estimate informed by the prevailing conditions in the market for funds

The potential for principles of this kind to introduce an unaccountable and contradictory set of guidance for the regulator is apparent from the evolution of the RORI framework itself.

In previous frameworks, the AER was bound by a rules-based obligation to not move from previous rate of return guideline settings absent 'persuasive evidence' for a change. Both the AER and consumer groups actively advocated for the removal of the concepts of a such an 'inertia principle' applying to past AER values or methodologies – arguing that it unduly constrained making the best possible decision based on available evidence. The framework was amended to reflect these considerations.

At subsequent reviews, significant reductions were made to allowed return on equity estimates, on the basis of the current framework of guidance.

Reintroduction of an effectively analogous 'inertia' principle by way of stakeholder introduced principles would appear to run counter to the express policy intentions of governments in removing these requirements in the conduct of AER decision-making. Indeed, it would risk a perception that the intention of such a principle would be to consciously permit a rate of return estimate which did *not* clearly meet the requirements of the applicable energy objectives and revenue and pricing principles.

2 Building on the 2022 RORI review

2.1 Potential areas for further development beyond 2026 review

ENA supports the AER objective of a streamlined review focused on the higher priority issues identified in the *Discussion Paper*.

In the lead up to this 2026 review and in discussions on its potential scope, ENA supported early regulatory analysis and consideration of issues relating to alternative approaches to reaching robust beta estimates, as well as further work on forward-looking market risk premium issues. The AER had itself identified these two areas of work as priorities leading from the 2022 review.

There remain a number of issues which in ENA's view do warrant further structured and evidence led consideration outside of the 2026 review, well prior to the development of the 2030 Instrument. The issues which ENA consider should be placed on the forward agenda or work program, for progression between this current Instrument review and the next, are:

- The potential for market risk premium (MRP) estimates to more fully reflect forward-looking market-based evidence and estimates, such as approaches making use of Dividend Growth Model evidence in a manner consistent with actual practice in corporate finance, and other regulatory agencies
- Calibrating AER assumptions on debt and equity raising costs with more recent data and evidence
- The appropriate consistent definition of beta that should be adopted by the AER under Capital Asset Pricing Model (CAPM)-based return estimates, including whether the beta as measured should reflect systematic risk only, under traditional Sharpe-Lintner model assumptions used by the AER to date.

A further potential issue for future consideration is gas network depreciation allowances in recent AER decisions.

The AER Information Paper *Regulating gas pipelines under uncertainty*[5] indicated an AER view that depreciation adjustments formed the most appropriate tool for addressing future uncertainty over the economic lives of gas network assets. It rejected the option of adjustment of rate of return risk parameters, favouring the flexible use of depreciation allowances.

Recent AER draft decisions appear to move away from the use of depreciation mechanisms as a means of dealing with future uncertainty, effectively disallowing the management of these risks by setting depreciation parameters which on an *ex ante* basis would not allow the network to recover its efficiently incurred capital expenditure unless future market conditions are substantially better than forecast. If this approach is maintained in future finalised determinations, the AER will need to consider what implications this might have for future allowed rates of return across any energy network infrastructure facing the potential for economic asset stranding in the future.

[5] AER *Regulating gas pipelines under uncertainty - Information paper*, 15 November 2021.

3 Reaching an overall rate of return estimate

3.1 Investability as a threshold for the energy transition

In reaching an overall estimate of the allowed rate of return, it will be critical for the AER to ensure the prospective investability of network infrastructure required to deliver the energy transition for consumers, consistent with the policy goals of Commonwealth, State and Territory governments.

Reaching these energy transition goals will involve a substantial investment task on a global basis, with Australia needing to attract investment capital with many potentially attractive alternative investment destinations across developed and developing markets.

As recognised by other regulatory bodies, such as Ofgem, the concept of investability is a cornerstone feature of a regulatory framework that seeks to sustainably support the delivery of essential services. It is also distinct from debt-financing focused concepts underpinning financeability, recognising the specific needs for settings to support ongoing commitments of equity capital.

3.2 Evidence on appropriateness of current rate of return

There is mixed evidence on the appropriateness of current rate of return settings, making it impossible to conclude that existing settings are appropriate, or performing well.

The simple presence of ongoing investment or transactions in a regulated environment is not a sound indication of a regime performing well, as the level of investment proposed and undertaken under a counterfactual is unavailable. There is no basis for concluding that the existing level of investment is efficient compared to this unobserved counterfactual.

There are a number of indicators that the 2022 RORI settings have not provided sufficient investor incentives to bring forward efficient levels of investment from a private sector benchmark network entity:

- The continuing required participation of the Clean Energy Finance Corporation (CEFC) to provide concessional finance support to major new investment in electricity transmission infrastructure (with CEFC indicating in latest annual report that they are careful to 'pull back where markets are functioning effectively') – with CEFC commitments of $2.8 billion across three projects (Humelink, CWO-REZ and VNI West NSW) in 2024-25, and a further commitment of $3.8 billion for 2025-26 for Marinus Link.[6]
- Concern over the potential for past AER changes in approach on return on equity estimation to constrain capital flows into required and enabling energy infrastructure:

> *It's easy to say offshore investors will step up – Australia's an attractive place to invest, all that stuff. However, they're wary of thin-cap tax changes, which prevent*

[6] CEFC *Annual Report 2024-25,* p.31, and p.16-17

infrastructure owners from leveraging up their portfolio companies as earnings grow, and regulatory changes. The way the energy regulator changed how it looks at return on equity soon after NSW's big privatisation spree last decade still stings, for example.[7]

» Survey evidence of capital providers expressing caution over exposure to regulated assets on the basis of regulatory risk 'surprises':

> *"There is still an appetite for regulated utilities, but we're very cautious about the nature of the regulator. The honest answer is you need both across a portfolio, because there is a fair degree of risk in the regulated space given regulators have proven to be surprising to us at times."*
>
> *Institutional Investor*[8]

» An increasing trend towards development of State-based frameworks for transmission development under a number of different regulatory frameworks to meet connection requirements of renewable energy projects.

Trends in proposed or actual capital expenditure are an unsafe basis for conclusions on the adequacy of current regulatory settings. Almost all network capital expenditure is non-discretionary, and required in order to meet safety, service, reliability and connection obligations.

It should be observed that prior regulatory periods and Instrument review processes have featured network capital expenditure proposals that were lower in real terms than previous proposals or actual expenditures.

This has not previously been interpreted by the AER as reliable evidence of its prevailing rate of return settings being insufficient to promote efficient levels of investment. Indeed, in the case of past trends of under-expenditures of innovation allowances, these coincided with AER decisions to reduce the allowed return on equity.

In its 2022 rate of return Explanatory statement the AER has provided clear reasoning for this position:

> ***A desire to invest in discretionary capex may, in some regulatory regimes, indicate that allowed returns are attractive. This is not an appropriate inference for the Australian system.*** *As reported in our annual electricity network performance reports, network companies have received significant rewards for underspending on their capex allowance. A capital expenditure incentive is available to Australian licensees in the form of the Capital Expenditure Sharing Scheme (CESS). The CESS provides networks with financial incentives to undertake efficient capital expenditure over time to ensure that only efficient capital expenditure is added to the regulated asset base (RAB). Under the CESS, a service provider*

[7] Australian Financial Review, 'The $4.6trn data-centre vortex could starve Australia of capital', 12 November 2025

[8] Infrastructure Partnerships Australia *2025 Australian Infrastructure Investment Monitor,* p.14

> *receives a fixed reward equivalent to 30% of capital expenditure efficiency gains made within a regulatory period (and equivalent penalty for efficiency losses).*[9]

In its 2022 Explanatory statement the AER further highlighted the position in its December 2021 working paper that investment trends 'offer little value as a cross-check', and that stakeholders generally agreed with this position:

> *Our examination of investment trends suggests that the key issue is that investment levels are determined by many factors.*[10]

The AER also discussed the outcomes of rule change applications made in 2020 by Transgrid and Electranet to allow for changes in their return profiles to support the financeability of upcoming investments in its final decision. It noted that the AEMC's rejection of participant derogation suggested a 'supportive investment environment' for the networks AER regulates. Since the finalisation of the 2022 Instrument the AEMC has approved rule changes with the effect of allowing for changes to the return profiles of the same types of projects that was sought under the participant derogations.

In its final Explanatory statement, the AER notes that the 2022 Consumer Reference Group had put different views on the issue of investment trends to the AER process, supporting the AER's conclusion to exclude investment trends as cross-checks in March 2022, but including investment trends in a table of additional cross checks in September 2022.[11]

ENA considers there is no clear indication that capital expenditure trends, expenditure in innovation allowances, or the outcomes of individual AEMC determinations suggest that existing settings are correct or incorrect. Rather, ENA would like to see:

- The AER demonstrate a consistent analytical and decision-making framework to the extent it considers investment trends; and
- A clearly symmetric approach is taken through time to empirical evidence - for example, avoiding a directional movement in innovation allowances being incorrectly ascribed as evidence on the performance of rate of return settings in one period, where the opposite directional trends were not linked to rate of return settings in previous decisions.

If the AER considers a departure from its 2022 approach of assigning 'little value' to discretionary capital expenditure, and its previous conclusions that inferences from such expenditure were 'not appropriate' for the Australian regulatory system, fuller consultation should occur on this change in approach.

---

[9] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.301

[10] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.273

[11] See AER, February 2023, *Rate of return instrument: Explanatory statement* p.273, CRG, Advice to the Australian Energy Regulator: CRG Response to the AER's December 2021 Information paper, March 2022, p.105).

Discretionary capital investment

One significant reason discussed by the AER, ENA and past collaborative empirical work undertaken by the ENA-CRG in 2018 for the problematic nature of investment trend evidence is a lack of clarity around the concept of 'discretionary' capital investment.

While network innovation allowances may be a single example of discretionary capital expenditure, these allowances typically make up an extremely small proportion of a network's capital expenditure. It should be noted that there is no interaction between the demand management innovation allowance (DMIA) and the weighted average cost of capital except for the time value of money applied to any customer payback.

Looking across the categories of capital expenditure approved by the AER under the National Gas and Electricity Law and Rules framework, it is unclear what elements of expenditure would meet any clear definition of 'discretionary'.

As an example, for an electricity network under Chapter 6 of the *National Electricity Rules* capital expenditure proposals typically include expenditures designed to:

- Safely and reliably operate the network, including complying with binding regulatory obligations or requirements relating to quality, reliability and security of supply;
- Meet and manage the demand for network services by network major network users, including business and residential consumers;
- Upgrade and augment the network to serve growing demand for network services;
- Replace ageing assets to ensure continuity of safe and reliable services to consumers;
- Contribute to the achievement of emissions reductions targets;
- Reduce the risk and impact on consumers of power of outages, and
- Meet foreseeable contingencies as set out in prescribed contingent project criteria.

Furthermore, the network firms are obliged to provide revenue proposals that they consider best reflect the application of the expenditure criteria, and meet the relevant National Energy Objectives. In turn, the AER is obliged by the relevant Law and Rules to reject any capital expenditure which does not reasonably reflect the efficient costs a prudent operator would require to achieve the capital expenditure objectives, taking into account a realistic expectation of the demand forecast, cost inputs and other relevant inputs required to meet the objectives. It is unclear what types of capital expenditure, other than innovation, the AER considers may be being put forward, or approved, which meet the definition of 'discretionary' on this basis.

3.3 Current RORI settings place regulated networks almost uniformly below the AER's financeability threshold

The AER's new Financeability Guideline

Since the 2022 RORI, the AER has developed a detailed financeability test that was published in its *Financeability Guideline* in November 2024.[12]

[12] AER, *Financeability Guideline*, 6 November 2024

Although the Rules only require the AER to apply that financeability test to major new transmission Integrated System Plan (ISP) projects, ENA considers that test to provide useful information in relation to all networks as part of its RORI review process. This is because the RORI applies equally to all networks – gas and electricity and distribution and transmission.

In particular, ENA considers that an evaluation of the internal consistency of the RORI decision should be a key component of every review process.[13] An internal inconsistency arises where the AER assumes a particular credit rating (currently BBB+) when setting allowed revenues, but where the resulting allowed revenues do not support the credit rating that was assumed when setting them.

The AER's new financeability test performs precisely that task. It examines the allowed revenues in the Post-tax Revenue Model (PTRM) and computes the credit rating that would be supported by those allowed revenues.

Thus, the AER's new financeability test would seem to be an ideal framework to test the internal consistency of the AER's decisions.

As explained below, ENA does not suggest that the financeability test must be performed in a mechanical manner, as the Rules require for ISP projects. Rather, ENA suggests that the test has clear relevance to the RORI review process and that it should be formally considered as part of that process. Specifically, as part of the RORI review process, the AER should:

- Consider evidence of how its current decisions perform against its financeability test – the extent to which its decisions support the BBB+ rating that has been assumed when setting allowed revenues;
- Use its financeability framework to consider the credit ratings that are likely to be supported by its decisions under the new RORI; and
- Fully explain the extent to which the AER is comfortable with its decisions failing its financeability test – in terms of the proportion of decisions that fail the test and the magnitude of such failures.

Components of the AER's new Financeability Guideline

A key component of the AER's new financeability test is the 'financeability threshold'. The AER explains the role of the financeability threshold as follows:

> *The rules define the financeability threshold for the purpose of this test to be the benchmark credit rating used to estimate the return on debt component in the applicable Rate of Return Instrument. In the 2022 Rate of Return Instrument we used a benchmark credit rating of BBB+ to estimate the return on debt.*[14]

[13] In the AER *Discussion Paper it* is stated that: 'There is no available evidence to support elevating any of the cross-checks to a higher status or indicate they should be used in a formulaic role. This position was supported by all stakeholders and the 2022 Independent Panel', p.11. This does not reflect ENA's submissions in the 2022 review, which was that financeability tests were a crucial cross-check for internal consistency between components of the rate of return decision. See for example: ENA *Response AER 2022 Draft Rate of Return Instrument* (September 2022), p.139

[14] AER, July 2024, *Financeability guideline: Explanatory statement – Proposed*, p.26.

That is, the financeability threshold is a form of credit score that determines whether the allowed revenues would be sufficient to support the credit rating that the AER adopted when setting the allowed return on capital. Thus, in the current context, the financeability threshold is an assessment of whether the AER's allowed revenues are sufficient to support the BBB+ credit rating that the AER adopted when setting those allowed revenues. It is essentially a test of the internal consistency of the AER's regulatory allowances.

Under its new *Financeability Guideline*, the AER determines the BBB+ financeability threshold by considering four key financial ratios that credit ratings agencies use in their process for assigning credit ratings:

- FFO interest coverage;
- Net debt/RAB;
- FFO/Net debt; and
- RCF/Net debt.[15]

The AER essentially:

- Determines the credit rating that would be supported by each metric;
- Maps that rating to a numeric score;
- Computes a weighted score that applies weights that are identified in publications about the specific processes performed by credit ratings agencies in relation to electric and gas utility businesses;[16] and
- Identifies the weighted credit score that would be required to support the BBB+ credit rating that it assumes when setting the allowed return on capital.

The next step in the AER's financeability approach is the calculation of a 'financeability position' for a particular network, using the PTRM for that network. The AER follows the above approach, but uses metrics from the PTRM of the network in question. In essence, the AER's approach is as follows:[17]

- For each regulatory year, the AER first determines the credit rating that would be supported by its allowed revenues in relation to each of the above metrics; and
- The AER then computes a weighted-average of the credit ratings supported by each of the four metrics.

This process produces an estimate of the 'financial position' of the particular regulated network. It is an estimate of overall credit rating that would be supported by the AER's allowed revenues using the PTRM of the network in question.

The financial position of a particular network can then be compared with the AER's BBB+ financeability threshold. For example, a network with a financeability position of BBB- would fall short of the BBB+ threshold. The PTRM for this firm indicates that the allowed revenues would

---

[15] AER, November 2024, *Financeability guideline: Final decision*, p. 9.

[16] Moody's Investor Services, 13 April 2022, *Rating Methodology – Regulated Electric and Gas Networks*.

[17] AER, November 2024, *Financeability guideline: Final decision*, p. 9.

only be sufficient to support a BBB- credit rating, even though BBB+ was used when deriving those allowed revenues.

Other considerations in the setting of credit ratings

The AER has noted that, whereas the calculations set out above all involve quantitative metrics, credit rating agencies also have regard to qualitative metrics when setting credit ratings:

> *Ratings agencies will compute various quantitative metrics and combine them with other qualitative assessments—such as the stability of the regulatory regime, revenue risk, and asset ownership model, financial policy, etc—to assess the overall credit rating for an entity. The weighting applied to each factor differs by agency, and in many cases is not transparent to those external to the assessment process.* [18]

The AER has also noted that a positive qualitative assessment would improve the rating of a firm with a poor set of quantitative financial metrics, but that the Rules require a test based on quantitative metrics alone:

> *[M]atching a purely quantitative score to a specific credit rating ignores the fact that TNSPs operating under our regulatory framework would be expected to score well in the qualitative assessment. This positive qualitative assessment would allow the TNSP to carry relatively worse quantitative metrics than would be implied by only linking the quantitative score directly to a credit rating.*
>
> *The amended rules only allow us to consider the quantitative financial metrics of the regulated network in determining a TNSP's financeability position. We consider it important to clarify that the financeability position and its relationship to a credit rating outcome for the purposes of undertaking a financeability test must be viewed in the context of this rule requirement. The financeability position implied from PTRM cashflows based purely on quantitative metrics—using Moody's methodology as the base—may fall below the' 'benchmark' threshold, or even reflect a 'non-investment grade' score. However, this does not imply that a TNSP experiencing these cashflows would be assigned this credit rating. The overall score (and in turn credit rating) would be expected to be lifted by the qualitative factors which make up a greater proportion of the assessment.* [19]

ENA agrees with the AER's assessment. Australian network credit ratings are generally positively impacted by the qualitative assessment performed by credit rating agencies and that the size of that impact cannot be reliably quantified.

We agree with the AER that the financeability test is not a measure of *the* credit rating that a particular network (or even the benchmark network) will achieve, but rather of the credit rating that would be supported by the quantitative credit metrics of the benchmark firm.

That is, the AER's financeability test provides a framework for:

» Identifying the quantitative credit metrics that agencies use when setting credit ratings;

---

[18] AER, July 2024, *Financeability guideline: Explanatory Statement – Proposed*, p.8.

[19] AER, July 2024, *Financeability guideline: Explanatory Statement – Proposed*, p.8.

- Computing each of those metrics for the benchmark firm under a particular set of regulatory allowances; and
- Determining the credit rating that would be supported by those metrics considered alone (i.e., without adjustment for any positive qualitative assessment).

We agree that it is important to interpret the following analysis within this context.

Application of the AER's new Financeability Guideline

ENA engaged HoustonKemp to apply the AER's new financeability test to all regulatory decisions made by the AER under the 2022 RORI. In particular, HoustonKemp has computed the financeability position using the PTRM for each network business and compared those financeability positions against the AER's BBB+ financeability threshold.

Figure 1 below sets out the AER's financeability position score from the PTRM for each network for FY27. It also shows the credit rating bands from the AER's new *Financeability Guideline*.[20]

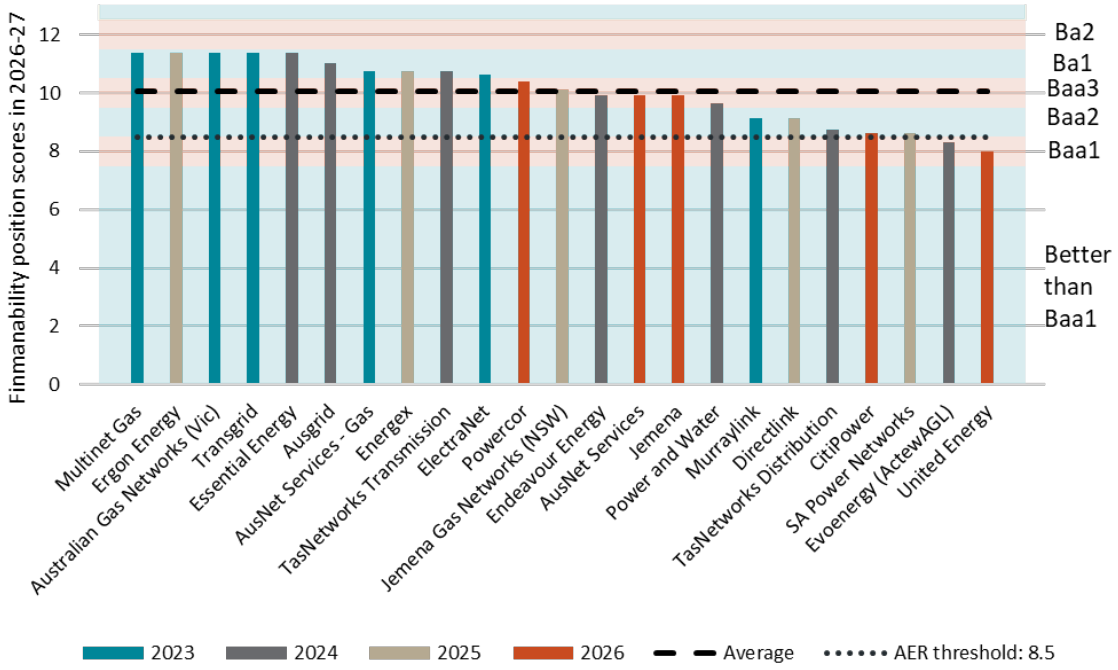
Note that a higher 'financeability position' score corresponds to a lower notional credit rating.

Only 2 of the 22 networks have a financeability score within the BBB+ range and almost half of the networks have a score placing them below investment grade for FY27.

That is, the AER's allowed revenues, drawn from the AER's PTRM, when assessed against the AER's financeability test, generally do not produce financial metrics that support the AER's benchmark credit rating for FY27. And, for almost half of the networks, the allowed revenues do not produce metrics that are consistent with an investment grade rating.

[20] AER, November 2024, *Financeability guideline*, Table 2.4, p.11.

Figure 1: Credit rating supported by AER regulatory allowances per AER Financeability Guideline: FY27 regulatory year



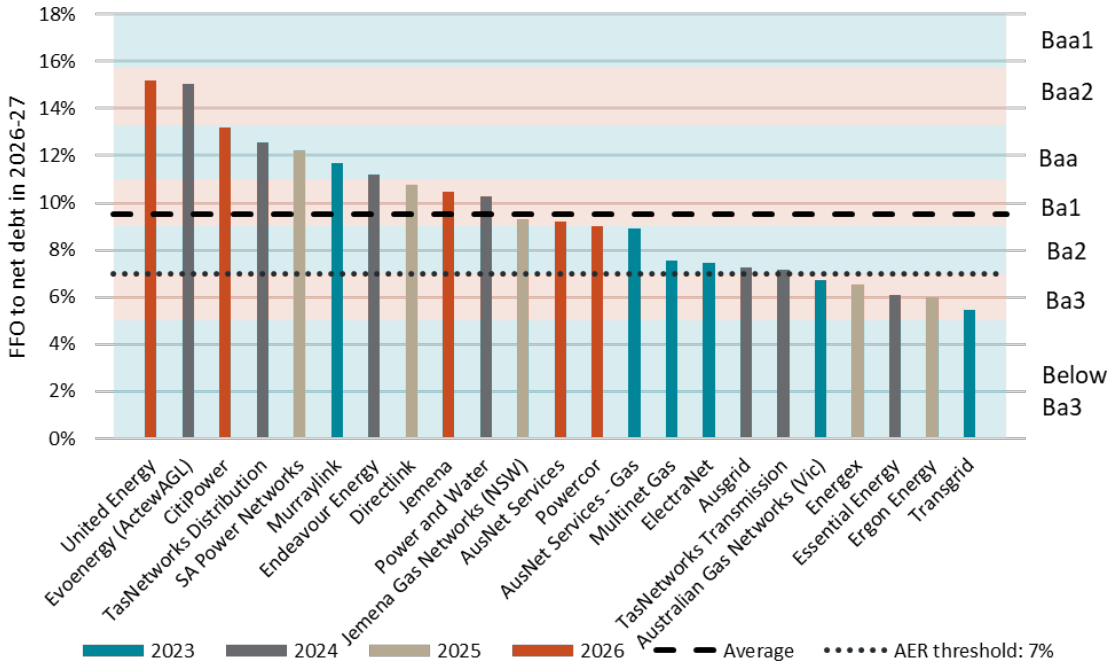
Source: AER - Financeability guideline - Attachment B - Template model – Final, Spreadsheet, November 2024; PTRMs for individual determinations; HoustonKemp analysis.

The AEMC's Financeability Rule Change process identified the central role of the FFO/Net debt metric for Australian network businesses. The AER also identified the key role of this metric in its 2022 RORI review process. For this reason, ENA engaged HoustonKemp to apply the AER's *Financeability Guideline* framework to the FFO/Net debt ratio alone.

The results of this analysis are set out in Figure 2 below.

That figure shows that, for the FY27 regulatory year, allowed revenues produce FFO/Net debt ratios that fall well short of the BBB+ threshold and where the average is below investment grade. For several networks, the ratio is below 7%, which corresponds to the Ba3 (BB-) range under the AER's financeability test.

Figure 2: Credit rating supported by AER regulatory allowances per FFO/Net debt metric in AER's Financeability Guideline: FY27 regulatory year



Source: AER - Financeability guideline - Attachment B - Template model – Final, Spreadsheet, November 2024; PTRMs for individual determinations; HoustonKemp analysis.

In summary, the AER's new financeability test indicates that the regulatory allowances made under the 2022 RORI are generally insufficient to support the benchmark BBB+ credit rating and, in a number of cases, insufficient to support a bare investment grade credit rating.

Table 1 below shows that, other than the Net Debt to RAB metric which is (by construction) 60% in the PTRM for every network, very few metrics for very few firms reach the threshold of BBB+.

Table 1: Financeability across the AER's four financial metrics for FY 27

Rating	FFO to net debt		Net debt to RAB		FFO interest coverage		Retained cash flows to net debt	
	Threshold	Number of determinations	Threshold	Number of determinations	Threshold	Number of determinations	Threshold	Number of determinations
A1	23.3%-26.0%	0	45.0%-50.0%	0	5.00-5.50	0	18.7%-21.0%	0
A2	20.7%-23.3%	0	50.0%-55.0%	0	4.50-5.00	0	16.3%-18.7%	0
A3	18.0%-20.7%	0	55.0%-60.0%	0	4.00-4.50	1	14.0%-16.3%	1
Baa1	15.7%-18.0%	0	60.0%-65.0%	23	3.60-4.00	4	11.7%-14.0%	3
Baa2	13.3%-15.7%	2	65.0%-70.0%	0	3.20-3.60	3	9.3%-11.7%	2
Baa3	11.0%-13.3%	5	70.0%-75.0%	0	2.80-3.20	5	7.0%-9.3%	7
Ba1	9.0%-11.0%	6	75.0%-80.0%	0	2.47-2.80	4	5.0%-7.0%	10
Ba2	7.0%-9.0%	5	80.0%-85.0%	0	2.13-2.47	6	3.0%-5.0%	0
Ba3	5.0%-7.0%	5	85.0%-90.0%	0	1.80-2.13	0	1.0%-3.0%	0

Source: AER, AER Financeability guideline - Attachment B - Template model – Final, Spreadsheet, November 2024; PTRMs for individual determinations; HoustonKemp analysis.

The role of the AER's financeability test in the RORI process

ENA notes that the *Financeability Guideline* process was introduced not just to support the major investment that is required for the energy transition, but to make that investment possible.

In producing its *Financeability Guideline*, the AER has:

- Identified the quantitative credit metrics that agencies use when setting credit ratings;
- Shown how each of those metrics can be computed for the benchmark firm using the PTRM; and
- Shown how each metric maps to a particular credit rating.

Within this context, ENA considers that the financeability framework that the AER has developed since the 2022 RORI process has a useful role to play in the current and future RORI processes.

Our view is that, as part of the RORI process, the AER should compute the various financial metrics and financeability position for a representative network to help inform its determination of the adequacy of its proposed RORI parameters.

We do not suggest that the calculation of these metrics would have a mechanical effect as it does for ISP projects. Rather, we propose that, as a standard part of the RORI process, the AER would:

- Compute, using the proposed RORI parameters, the relevant metrics and the credit rating bands to which they pertain; and

» Include in its Draft and Final Instrument decisions an explanation of why it considers those outcomes to be appropriate, or revisit how regulatory judgement has been applied throughout the RORI.

4 Cost of equity approach

4.1 Structure of this section

This section first sets out ENA's submissions in relation to the estimation of equity beta – that being one of the key issues that the AER has identified for consideration throughout the 2026 RORI process.

In relation to other return on equity parameters, we explain our understanding of the AER's current approaches and accept that those approaches will be maintained for the 2026 RORI. ENA would expect the opportunity to provide further submissions in the event that the current RORI process is broadened.

4.2 Equity beta – Summary of ENA submissions

Our submission on equity beta is structured as follows:

- We begin by noting that we agree with the AER that:
  - Beta estimation is one of the key issues for the 2026 review process as the number of domestic comparator firms has fallen to (at most) one. Indeed, there has been broad agreement on this point since the 2022 RORI identified the need for the AER to develop a revised approach in the future; and
  - The most viable response to the loss of domestic comparators is to have regard to evidence from international comparators.
- We then set out views on how the evidence from international comparators can be sensibly incorporated into the analysis. We do this in the context of the key steps, or questions, that must be addressed throughout the process of beta estimation:
  - What methodology/approach should be used when estimating beta for each comparator firm? For example, what regression method, data period, and return frequency should be used?
  - Which firms should be included in the comparator set? For example, how should international comparators be selected? After what period do delisted firms cease to provide relevant information?
  - How should all of the relevant evidence be combined into a single estimate? What weight should be applied to each piece of evidence?
- In relation to the selection of comparators and the process of selecting a single estimate from all of the relevant evidence, we note that the *Discussion Paper* sets out three 'challenges' that must be addressed. We explain that we think there are sensible ways of addressing these challenges – drawing on current regulatory and commercial practice to inform our thinking. Indeed, these challenges have been overcome in regulatory and commercial practice.
- Building on our review of the choices that must be made when estimating beta, and our discussion of the various challenges that arise when estimating beta, we provide a set of relatively non-controversial 'bounds' to beta. This range is based on objective evidence. Regulatory judgement would then be needed to choose a point from within this range, but ENA's illustrative approach seeks to keep all regulatory judgement to a single step, so that its consequences can be clearly and transparently seen.

» Our final step is to compare our estimates against those adopted by comparable regulators, independent experts and others.

4.3 The key issue identified by the AER – lack of domestic comparators

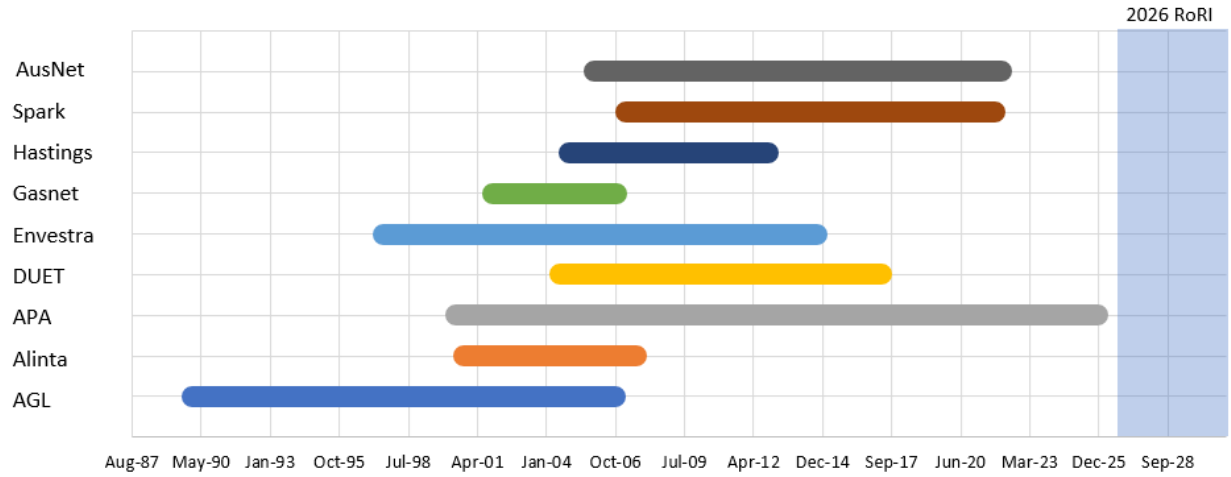
The AER's domestic sample has ceased to exist

In its recent *Discussion Paper*, the AER notes that its original sample of nine domestic comparators has now reduced to a single comparator – APA Group – and that this one remaining comparator is less than optimal because over 90% of its revenue is unregulated.[21]

That is, the domestic comparator set now consists of either zero or one firm, depending on whether APA is included as an appropriate comparator.

Moreover, by the time the 2026 RORI is finalised, all of the other former comparator firms will have been delisted for at least five years and some will have been delisted for decades, as shown in **Error! Reference source not found.** below.

Figure 3: Data availability for domestic comparators



Source: ASX listing dates.

Recognition of the need for action in the 2022 RORI

During the 2022 RORI process, the AER recognised the importance of using up-to-date data and evidence to inform the estimation of Weighted Average Cost of Capital (WACC) parameters in its regulatory framework.

For example, in its 2022 final decision, the AER identified the need for evidence on beta to be:

> *sufficiently reflective of contemporary market conditions,* [22]

[21] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.15.

[22] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

and further that:

> *We recognise the need to develop a revised approach in the future. The Independent Panel recommended that we provide details on the nature of future research that we propose to conduct or commission on the potential use of international comparators as well as other methodologies. To this end, we propose to undertake further analysis to understand the degree to which international energy firms are comparable to domestic firms.* [23]

In its recent *Discussion Paper*, the AER notes that it has considered a number of potential sources of data that might be sufficiently reflective of contemporary market conditions, including international comparators, domestic non-energy infrastructure and other firms, and the possible use of accounting information to estimate beta. [24]

The AER has concluded that:

> *Of the above potential alternatives, only international energy firms appear to be potentially viable.*[25]

And further that the use of an international comparator set:

> *…would offer a larger sample of firms and appears to be the most viable option. It is adopted by several other regulators, such as ERAWA, QCA and NZCC.*[26]

In this regard, the AER has developed a set of international comparators and published beta estimates from that set in its annual *Rate of Return Updates* since commencing those updates in 2019.

We agree that the best available set of contemporary market evidence is the use of an international comparator set and we explain below that we consider that approach to be consistent with standard regulatory and commercial practice.

Within this context, the focus of the AER's *Discussion Paper* is on how to best use the contemporary evidence from international comparators to inform the beta parameter adopted in the 2026 RORI. Consequently, the remainder of this section sets out ENA's views on how the AER might best use all of the available evidence in its regulatory process.

4.4 Best practice beta estimation

Overview

In this section, we set out our views about best practice beta estimation – the best methodologies and approaches to use when estimating beta for any comparator. ENA broadly supports the AER's current approach to estimating beta for each comparator. In the sections that follow, we consider how that same approach can be applied to domestic and international comparators alike, as well as to a combined set.

---

[23] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

[24] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.16.

[25] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.16.

[26] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.16.

The AER's current approach to beta estimation

The key elements of the AER's current approach to beta estimation are set out in the recent *Discussion Paper* as follows:[27]

- Estimates are computed using Ordinary Least Squares (OLS) regression;
- Returns are computed at the weekly frequency;
- Comparator stock returns are regressed on returns from the relevant local stock market index;
- Predominant weight is placed on estimates using the longest period of data available; and
- The Brealey-Myers formula is used in the process of re-levering to benchmark gearing of 60%.

ENA supports the continued use of these estimation choices and endorses their application to the analysis of international comparators.

A preference for longer-term estimates

In its *2023 Explanatory Statement*, the AER noted that its approach in the 2018 RORI was to:

> *Give the greatest weight to equity beta estimates from the longest estimation period,* [28]

and that this approach was maintained through the positions published in the AER's July 2021 paper, its September 2021 paper, and its draft and final decisions.[29]

The AER stated the following reasons for its preference for long-term estimates:

- *longer-term estimates provide more statistical observations, which would lead to a more robust and reliable equity beta estimate*
- *we observe higher volatility in short-term beta estimates and long-term estimates minimise the impact of one-off events, which can temporarily obscure the true underlying systematic risk of a regulated energy network business*
- *experts and stakeholders broadly agree on the strengths of long-term estimates.* [30]

The AER also noted that:

> *Our own estimates also found that the longest period estimates tend to be relatively stable over time. While less comparable from a point estimate perspective, we also found international beta estimates of the most comparable international firms have tended to be relatively stable when estimated over the longest time period.* [31]

And also that:

---

[27] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.43.

[28] AER, February 2023, *Rate of return instrument: Explanatory statement*, pp.73-74.

[29] AER, February 2023, *Rate of return instrument: Explanatory statement*, pp.73-74.

[30] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.175.

[31] AER, February 2023, *Rate of return instrument: Explanatory statement*, pp.73-74.

The Independent Panel supported our approach to place the most weight to the longest period estimates. [32]

Indeed, we note that the stability of longer-term estimates and the volatility in shorter-term estimates of beta is readily apparent in the AER's *2025 Rate of Return Update*. For example, **Error! Reference source not found.** below shows that, for the one remaining domestic comparator (APA):

- The estimate using the longest period available has been stable within the range of approximately 0.6 to 0.7; whereas
- The 5-year beta has more than doubled and then more than halved over the period set out in the table.

Table 2: Re-levered weekly beta estimates for APA Group

Period	Apr 2014	Sep 2018	Aug 2019	Aug 2020	Aug 2021	Dec 2022	Aug 2023	Aug 2024	Aug 2025
Longest period	0.59	0.68	0.69	0.70	0.69	0.69	0.69	0.69	0.67
Post tech boom and excluding GFC	0.64	0.75	0.75	0.77	0.75	0.75	0.74	0.74	0.72
Recent 5 years	0.54	1.06	1.06	0.93	0.87	0.82	0.74	0.70	0.50

Source: AER, November 2025, Rate of Return Annual Update 2025, p. 14.

Obviously (in our view) the true systematic risk of APA has not doubled and then halved over the last 10 years as the *5-year estimate* has. That is, the doubling and then halving of the 5-year estimate more likely reflects random statistical variation in the *estimate* than a real doubling and then halving of the true systematic risk.

Within this context, ENA agrees with the AER's strong and consistent preference for longer-term estimates over short-term estimates of equity beta.

No removal of data points

Although the AER does report estimates that exclude various periods that might be considered to be unusual (e.g., the tech boom, GFC and Covid), it places predominant weight on the estimates from the longest period available – without the exclusion of any data points.

ENA agrees with this approach on the basis that all data points are relevant evidence and informative about the relationship between stock and market returns – which is what beta seeks to measure.

[32] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.176.

Whereas these major market events can have a disproportionate effect on shorter-term estimates, there is no clear rationale for excluding them from longer-term estimates.

We note in **Error! Reference source not found.** above that the estimates for APA Group are slightly higher when the tech boom and GFC periods are removed, but we consider that predominant weight should be placed on long-term estimates without the exclusion of any data points from within the period.

The need for re-levering

ENA notes that the CAPM equity beta measures the systematic risk of an equity investment in a firm, which is a function of two things:

- The systematic risk of the assets and operations of the firm; and
- The extent to which debt (which ranks ahead of equity) has the effect of magnifying that risk.

Selecting a set of comparable firms controls for the first component and the re-levering exercise controls for the second, such that like-with-like comparisons can be made.

Re-levering to ensure that comparisons are being made on the same basis is standard regulatory and commercial practice. The process, and the reason for it, is explained in every corporate finance textbook.

We note that the attached Frontier Economics Report (**Attachment A**) contains a more detailed explanation of the rationale and necessity of re-levering equity beta estimates when implementing the CAPM.

The AER has always followed the standard practice in comparing re-levered equity betas to ensure it is making like-with-like comparisons and ENA endorses that approach.

For completeness, ENA submits that:

- Associate Professor Partington's suggestion in the *Eligible Experts Report* that re-levering might not be "worthwhile" [33] should be rejected. Re-levering must be performed to ensure comparisons are like-with-like, in accordance with standard regulatory and commercial practice and textbook explanations; and
- Associate Professor Partington's suggestion in the *Eligible Experts Report* that the Hamada formula for re-levering might be given some weight should also be rejected. The Hamada formula is only appropriate for the case where a firm has a constant *dollar* amount of debt. Where a firm has a constant *proportion* of debt (e.g. the 60% for the benchmark firm regulated by the AER), the Brealey-Myers formula must be used. Mr Kumareswaran's appendix to the *Eligible Experts Report* contains a mathematical proof of that point.

[33] *Eligible Experts Report*, December 2025, paragraphs 249-250.

Information Box: The role of 'a priori reasoning'

ENA recommends that beta, like all other WACC parameters, should be estimated using the available market data. Estimating WACC parameters on the basis of data and evidence is standard regulatory and commercial practice. Obtaining WACC parameters via a process of reflection and introspection is not – because (among other things) that approach is not transparent or replicable and depends entirely on who is selected to perform the reflection and introspection.

In particular, ENA does not support the approach of conceptualising *a priori* estimates of beta. In the *Eligible Experts Report*, Associate Professor Partington proposes an *a priori* asset beta of 0.4 as follows:

It is well understood that key drivers of beta are cyclicality, operating leverage, and financial leverage. Given a regulated monopoly with relatively inelastic demand then cyclical variation in cash flows is expected to be relatively low. NSPs have substantial fixed costs which normally increases operating leverage. However, the nature of regulation means that there is very little risk that NSPs will not recover their fixed costs and NSPs show sustained profitability. Thus, it is reasonable to conclude that operating leverage, although relatively high, does not contribute substantially to risky cash flows. Given relatively low cyclicality and relatively low risk from operating leverage, NSPs are expected to have low asset betas. My priors on the asset beta of NSPs is a value of about 0.4. [34]

He further explained this approach during the Eligible Experts Forum as follows:

….where did my 0.4 for the asset beta come from? It came from introspection on my priors - I simply asked myself, what do you think is the most likely value for the asset beta of an NSP? And the answer came back, 0.4.

Now, what's the foundation for that prior? Well, I guess your priors are a function of your experience, the observations that you've made, and your reflection on the matters relevant to the, er, in this case, asset betas. And I've had decades of experience - I've had over 50 years of studying and working in finance, and I've had over a decade and a half observing rate of return regulation for networks, so I've got pretty good foundation there. [35]

ENA submits that this approach should receive no weight in the AER's process – even though (as we show below) Associate Professor Partington's *a priori* estimate is at the upper bound of the empirical estimates that are currently available.

[34] *Eligible Experts Report*, December 2025, paragraphs 174-176.

[35] AER Eligible Experts Public Forum and see also *Eligible Experts' Responses to Stakeholders' Questions*

4.5 What to do about the lack of domestic comparators

4.5.1 Overview

ENA has noted above that the AER no longer has a sufficient set of listed domestic comparators available to it and that the AER has recognised the need to develop a revised approach[36] that is sufficiently reflective of contemporary market conditions.[37] We have also noted our agreement with the AER that international comparators are the most viable source of relevant evidence.

In this section, we begin by noting that the use of international comparators is standard regulatory and commercial practice – that a lack of sufficient domestic comparators is essentially a solved problem. That is, we think the international evidence can be sensibly incorporated to inform the estimate of beta – in the same way that others do this.

We discuss each of the three 'challenges' relating to the use of international evidence that have been set out in the *Discussion Paper*. Our view is that there are sensible ways of addressing and managing each of these issues. Noting that the AER is not alone in facing these challenges, we discuss how they have been managed elsewhere in regulatory and commercial practice.

Finally, we note that, there is no readily apparent alternative to the use of international comparators for developing a revised approach that is sufficiently reflective of contemporary market conditions.

4.5.2 The use of international comparators is standard regulatory and commercial practice

The lack of sufficient domestic comparator firms is not unique to the AER. It is very common in regulatory and commercial practice for the set of available domestic comparators to be too small to obtain reliable estimates of beta. In these circumstances, the standard approach is to include international firms in the comparator set.

Other regulators have recognised and addressed the problem

Other Australasian regulators have recognised the problem of relying exclusively on a very small set of domestic comparators.

For example, the New Zealand Commerce Commission (NZCC) uses a large set of international gas and electricity transmission and distribution firms as its comparator set.

Similarly, the Queensland Competition Authority (QCA) has recently stated that:

> *We consider that continuing to use an international sample of firms (alongside domestic firms) is preferable, as relying purely on Australian firms to form comparator sets for the entities subject to our regulatory regime is problematic. We are not confident that there are a sufficient number of listed Australian firms for us to draw upon in order to determine reasonable betas. In particular, any industry sample would comprise a very*

[36] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

[37] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

small number of firms, which could result in beta estimates fluctuating by large margins from review to review. This does not provide regulatory predictability.

An advantage of using a larger sample of firms is that the impact of any one seemingly anomalous beta estimate is not significant when taking an average or median beta from all the firms in the sample. This would not be the case when relying on a very small sample of firms. The potential loss of comparator firms from delisting as a result of mergers and acquisitions would only exacerbate the above issues. [38]

The QCA has also concluded that, although there are some differences between international and domestic firms, the international firms are likely to be broadly similar in terms of their risk profile:

Despite these differences, we would expect many of the international energy firms to have broadly similar operational risks as a regulated energy business operating in Australia, such as Jemena or Ausgrid. [39]

And further that:

This arrangement is not dissimilar to regulated energy businesses in Australia that operate transmission and distribution infrastructure within specified areas as monopolists. [40]

The QCA has also observed that a number of international regulatory regimes share many of the same key features as the Australian framework:

Additionally, while there may be differences in regulatory frameworks across countries, we generally find that most international regulated energy businesses are regulated in such a manner that allows them to recover their efficient costs, including a return on capital commensurate with the risks they face. Many businesses are allowed to recover costs where they depart from forecast levels and some have 'decoupling' mechanisms that allow the business to recover revenue independent of volume—similar in effect to a revenue cap. [41]

In New South Wales, IPART has also concluded that a broad sample of firms, including international firms, should be included in the comparator set:

We agree that a broad sample method is more objective, more likely to yield statistically reliable estimates, and more resistant to problems caused by companies dropping out of the sample over time (for example, because they become de-listed).[42]

The WA Economic Regulation Authority (ERA) has also highlighted the problems of having a comparator set with only a single live firm:

---

[38] QCA, December 2021, *Rate of return review: Final report*, pp.71-72.

[39] QCA, December 2021, *Rate of return review: Final report*, p.72.

[40] QCA, December 2021, *Rate of return review: Final report*, p.72.

[41] QCA, December 2021, *Rate of return review: Final report*, pp.72-73.

[42] IPART, February 2018, *Review of our WACC method: Final report*, p.7.

The ERA's sample of live Australian energy networks is reducing, with DUET already being delisted and Spark Infrastructure and AusNet Services delisted in 2022.

The ERA has some concern with the use of such a small sample, including that:

- *A forward-looking equity beta requires live firms that can incorporate information into prices, where historical estimates cannot incorporate information due to being delisted.*
- *A sample that is largely reflective of one firm deviates from a benchmark approach to an actuals approach.*
- *A small sample may be overly affected by the idiosyncratic position of one firm and its changes over time.*
- *A sample largely reflective of one firm also may be statistically unreliable.* [43]

The ERA has identified a number of advantages of broadening its comparator set to include international firms:

The ERA considers that using international comparators has the following advantages:

- *An extended sample size results in equity beta estimates that are reliable and less sensitive to individual equity beta estimates of the Australian energy network sample.*
- *Using international samples is a more robust approach over time, given that there is currently only one listed Australian energy network.*
- *Other regulators have been using international comparators for their equity beta estimation, largely driven by the difficulty in finding a sufficient number of comparable businesses to estimate equity beta using a purely domestic sample.*[44]

It is standard for independent expert valuation reports to have regard to international comparators

It is also standard practice for independent expert valuation reports, that are produced in relation to large corporate transactions, to use international comparators.

Table 3 below sets out information about the nature of the comparator sample used in a number of different independent expert valuation reports across industries over the 2024-25 period. We have selected the most recent report of each expert firm that performs a discounted cash flows valuation that requires a CAPM estimate of the required return on equity.

The table shows that it is common practice among the independent experts to include international comparators to inform their estimate of beta. We note that these independent expert reports informed billions of dollars of corporate and market transactions.

---

[43] ERA, December 2022, *2022 final gas rate of return instrument: Explanatory statement,* paragraphs 1001-1002.

[44] ERA, December 2022, *2022 final gas rate of return instrument: Explanatory statement*, paragraph 1039.

Table 3: Beta comparator sets used in recent independent expert reports

Report date	Target/Acquirer	Expert firm	Transaction size ($ millions)	Domestic comparators	International comparators
Nov-2025	RPM/Caterpillar	Grant Thornton	1,123	28	10
Aug-2025	Gold Road/Gruyere Holdings	Deloitte	3,694	14	6
Dec-2024	Silk Logistics/DP World	Kroll	175	9	9
Jul-2024	Base Resources/Energy Fuels	PwC	186	8	6
Aug-2025	Washington H Soul Pattinson/Brickworks	Lonergan Edwards	13,585	6	5
Jun-2024	Alumina Ltd/Alcoa	Grant Samuel	4,454	0	10
May-2024	MMA Offshore/Cyan MMA Holdings	BDO	985	0	8
Sep-2025	Smartpay/Shift4	Calibre Partners	290	2	6

Source: Independent expert valuation reports obtained from Connect 4 database.

We also note that the most recent independent expert valuation reports written in relation to networks regulated by the AER are the KPMG report for SPARK Infrastructure (October 2021) and the Grant Samuel report for AusNet (December 2021). Both of those expert reports included international comparators to inform the estimate of beta.

Although international comparators are commonly used in regulatory and commercial practice, the *Discussion Paper* raises three potential issues or challenges in relation to the inclusion of international comparators, which we address in the sub-sections that follow. We explain why we consider that there are sensible ways of addressing and managing each of these issues. We also note how they have been addressed and managed elsewhere in regulatory and commercial practice.

4.5.3 *Discussion Paper* Issue #1 – The comparability of international firms

Identification of the issue raised in the Discussion Paper

In its recent *Discussion Paper*, the AER has raised the possibility that Australian gas and electricity networks may differ, in terms of systematic risk, from gas and electricity networks in other parts of the world.[45]

This raises the question of how to best balance the competing considerations of:

- The need to obtain *some* data and evidence, given that there is no longer a viable domestic sample; versus
- The comparability to the AER's benchmark firm of the available firms that *do* exist.

Insisting that the comparator sample is restricted to exact replicas of the benchmark firm is impractical – because that approach would produce a null set. Indeed, even the AER's domestic sample of nine firms differ materially from each other and produce a wide range of beta estimates. Thus, the question is how to best identify a set of comparator firms that do exist and that are sufficiently comparable to inform the AER's selection of beta.

We have noted above that other regulators and expert valuation firms have faced the same issue and concluded that international comparators can be used to inform their estimates of beta – that their estimates are improved by having regard to international evidence in circumstances where the domestic evidence is insufficient.

Thus, the key question is how to best select the set of international comparators – because the only alternatives are to rely on no data at all that is reflective of contemporary market conditions,[46] or to adopt estimates from an earlier period of history, or to apply some form of conceptual reasoning.

Ensuring that selected firms are sufficiently comparable

Ensuring that selected firms are sufficiently comparable is important whenever developing a set of comparators.

In relation to regulated energy networks, this would seem to be a largely solved issue. The NZCC and the ERA have already compiled sets of international comparators. The AER itself has a set of international comparators that are used in its annual rate of return updates. This would all seem to constitute relevant evidence for the AER to consider.

In its recent *Discussion Paper*, the AER has suggested a number of 'filters' to maximise the comparability of a set of international comparators:

> *We would select international firms that:*
>
> - *operate in developed economies*
> - *operate in energy-related sectors and industries*

[45] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.16.

[46] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

- *derive most of their revenue from electricity and/or gas networks*
- *have been listed for at least a specific number of years*
- *have a market capitalisation that exceeds a certain threshold*
- *have a bid-ask spread that is below a certain threshold.* [47]

ENA has no particular objections to these filters, but invites the AER to consider the following two suggestions:

» The second filter would seem to be redundant in light of the third; and

» The bid-ask spread filter is likely to be difficult to operationalise in light of the fact that data on bid-ask spreads is less accessible than stock price data and the bid-ask spread for any firm changes multiple times throughout the day. This filter seems to be designed to ensure that trading in the comparator firm is sufficiently liquid. In this case, the AER might consider using the standard Amihud liquidity filter that is often used in beta estimation.

We note that Associate Professor Partington has proposed a very extensive set of filters.[48] ENA does not recommend that approach because:

» It would inevitably produce a null set – no two firms would ever match on such an extensive list of filters. Thus, this set of filters would embed the very problem that the AER are seeking to address;

» Mr Kumareswaran has shown that even the AER's domestic sample differ from each other on these criteria to the extent that they would not be considered to be comparators of each other;[49] and

» There is no reason why firms would have to match on all of those criteria to provide relevant information.

We also recommend the AER consider why such an approach has not previously been adopted in regulatory or commercial practice.

Comparison with diversity of the domestic sample

We note that the beta estimates for the AER's sample of nine domestic comparators vary materially among themselves. For example, the AER's beta estimates supporting the 2018 RORI decision (OLS, weekly, longest period, re-levered) when the beta of 0.6 was adopted by the AER are set out in **Error! Reference source not found.** below. The various estimates differ by a factor of four and they span the range of 0.34 to 1.30.

[47] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.17.

[48] *Eligible Experts Report*, December 2025, paragraph 204.

[49] *Eligible Experts Report*, December 2025, paragraphs 268-279.

Table 4: AER estimates of beta for domestic comparator firms

Firm	AAN	AGL	APA	DUE	ENV	GAS	HDF	SKI	AST
Scenario 1									
OLS	0.83	0.69	0.72	0.34	0.37	0.35	1.30	0.39	0.40

Source: AER, March 2018, Discussion paper: Equity beta, Table 3, p. 35. "Scenario 1" refers to the longest period of data available.

That is, it is not the case that the beta estimates for the AER's comparator sample are all close to 0.6, such that firms with beta estimates different from 0.6 might be considered "different". Indeed, the table above shows that only two of the nine comparator firms had a beta estimate within the range of 0.4 to 0.8.

ENA proposes that consideration of international comparators should be made within the context of the wide observed variation among the domestic comparator set. For example, rejecting firms with equity beta estimates far from 0.6 would exclude the majority of the domestic comparators.

Moreover, **Error! Reference source not found.** above shows that it would be wrong to interpret the evidence from the nine domestic comparators as supporting an estimate of 0.6 in which great confidence can be placed. The domestic estimates do not all congregate closely around 0.6 – rather, seven of the nine estimates are not even within ±33% of 0.6.

As a general principle, we would suggest that any filter or approach for excluding international firms on the basis of a lack of comparability should be also applied to the set of nine domestic comparators to determine how many of them would have been excluded by the same mechanism.

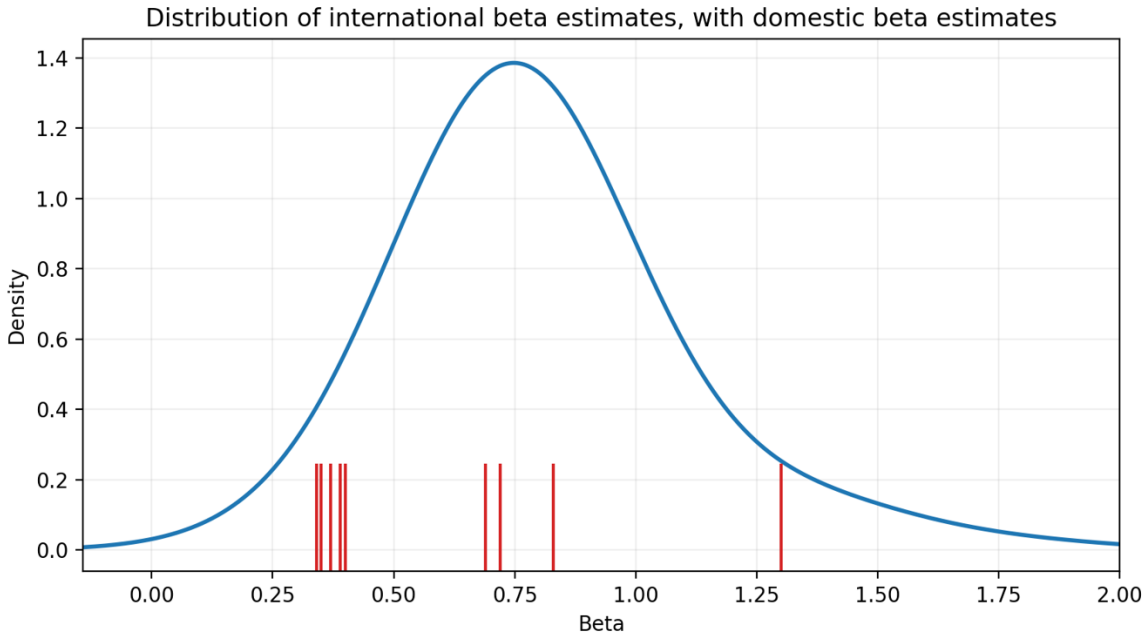
Distribution within comparator sets

Figure 4 below shows the distribution of equity beta estimates for the combined set of international comparators that we discuss below[50] all re-levered to 60% (the blue distribution line) together with the AER's equity beta estimates for each of the nine domestic comparators at the time the AER adopted its current beta of 0.6 (individual red lines).

Figure 4 shows that there is a distribution of beta estimates across international firms, but there is also a distribution of beta estimates across domestic firms. The range of domestic estimates (0.34 to 1.30) covers a large part of the distribution of international comparators.

[50] A standard kernel density estimate computed using the SciPy module in Python.

Figure 4: Distribution of international and domestic equity beta estimates



Source: Bloomberg data; Frontier Economics calculations.

It is not the case that the domestic evidence clearly and consistently supports an equity beta of 0.6. The figure above shows that the estimates for the nine domestic comparators vary over a wide range. That variation occurs either because (a) the nine firms are not comparable in that they have different degrees of systematic risk, or (b) they are comparable in terms of systematic risk but the *estimates* are affected differently by random statistical variation (i.e., random noise in the returns data that affects the statistical *estimates* of beta).

That is, the domestic comparators are either not comparable with each other or the estimates are significantly affected by statistical noise. The AER has tried to ensure that the firms are comparable by selecting comparator firms that own and operate energy networks. To the extent that the variation in the domestic beta estimates is significantly affected by statistical noise (rather than the inclusion of non-comparable firms) it is important to have as large a sample as possible – as statistical noise tends to cancel out in larger samples.

Thus, the evidence available to the AER is:

- A small domestic sample that has been selected to include firms that own and operate energy networks, but which produces a very wide range of beta estimates (possibly as a result of statistical noise) and which is now essentially frozen in time; and
- A large, currently available set of international comparators, also selected because they own and operate energy networks.

Our view is that the estimate of beta would be improved by having some regard to international energy network firms – in line with commercial and regulatory practice.

ENA's proposed approach is to:

- Have regard to international comparators – consisting of firms that own and operate energy networks;

- Not select a single set of international comparators that is considered to be 'optimal' in some way; but rather
- Consider a number of sets of international comparator firms, informed by the comparator sets adopted by various energy network regulators including the AER, ERA and NZCC.

We show below that the evidence is broadly consistent across this range of comparator sets.

4.5.4 *Discussion Paper* Issue #2 – Gearing differences

Identification of the issue raised in the *Discussion Paper*

The AER's recent *Discussion Paper* states that:

> *We also observe that the average gearing ratios of international energy firms tend to be lower than our current benchmark gearing ratio, which is based on Australian energy networks. This means that if we de-lever and re-lever the equity beta estimates of international firms to our benchmark gearing ratio using the Brealey-Myers formula, it would likely result in an upward bias in the estimates of equity beta and overall weighted average cost of capital (WACC). This is known as the "leverage anomaly".* [51]

Our response below addresses four aspects of this issue:

- The need for re-levering to the AER's selected benchmark gearing;
- Whether the AER should change its benchmark gearing assumption to match the average gearing of the international comparator set;
- Whether a debt beta should be used in the re-levering calculation and, if so, what value should be used; and
- Whether the fact that the average gearing of the international comparators tends to be lower than the AER's benchmark gearing suggests they are inappropriate comparators – as Associate Professor Partington has suggested in the Eligible Experts Report.

ENA considers that each of these aspects can be addressed in a sensible way. In particular, we show how they have been addressed in regulatory and commercial practice. Our conclusions on this point are straightforward – there is no need for the AER to make any change to its longstanding approach to re-levering equity beta estimates. Whereas the AER might consider using a positive debt beta in that process, reasonable estimates of debt beta would have little impact.

The need to re-lever to benchmark gearing

In Section **Error! Reference source not found.** above it was noted that beta estimates must be re-levered to ensure that appropriate like-with-like comparisons are being made and that such re-levering is standard regulatory, commercial and textbook practice.

The reason why it is essential to perform the re-levering calculation is that the risk to equity holders increases as gearing increases. To see this, consider the simple example of a firm that

[51] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.17.

will produce a cash flow that is expected to be $100, but which may turn out to be $20 higher or lower than expected. If there is no debt, the equity holders own the entire cash flow, which might deviate from the expected value by ±20%. If debt holders are promised the first $20 of that cash flow, the equity holders have a residual cash flow with an expected value of $80, but which might deviate by ±25%. If debt holders are promised the first $50, the equity holder have a residual cash flow with an expected value of $50, but which might deviate by ±40%, and so on. Increasing (prior-ranking) debt increases the risk of the (residual) equity.

The mathematical relationship between the level of gearing and the impact on the systematic risk of equity is well-known, set out in textbooks, and adopted as part of standard commercial and regulatory practice. An explanation is set out in the attached Frontier Economics Report (**Attachment A**).

That is, other things being equal, the equity beta (and consequently the allowed return on equity) increase with gearing. This relationship is not an 'anomaly' – it properly reflects the well-known relationship between gearing and equity beta.

Adopting gearing from the international sample

The *Discussion Paper* suggests the possibility of the AER setting benchmark gearing equal to the average gearing of the international comparator sample.[52]

However, any change to the AER's current benchmark gearing parameter of 60% would have major and far-reaching consequences for the AER's regulatory process. As the *Discussion Paper*[53] and the *Eligible Expert Report*[54] recognise, any decrease in the gearing parameter would have significant ramifications for the trailing average return on debt allowance.

There would seem to be two ways to implement a change to lower gearing for the benchmark firm:

- The AER could embark upon a new transition process whereby the benchmark firm progressively retires debt towards the new target. Under this approach, gearing would gradually transition to the new target, requiring a different capital structure and a different re-levered equity beta to be used in each year of the transition; or
- The AER could assume that the benchmark firm would immediately retire the required proportion of each tranche of debt, making a special regulatory allowance for the mark-to-market cost of retiring debt prior to maturity.

ENA submits that neither of these approaches are practical in the context of the current review process and the better approach is for the AER to maintain the benchmark 60% gearing that it has adopted in all of its decisions to date.

---

[52] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.18.

[53] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.18.

[54] *Eligible Experts Report*, December 2025, paragraphs 149-152.

Using a debt beta in the re-levering process

Debt beta is a measure of the systematic nature of defaults

The *Discussion Paper* raises the possibility of including a debt beta in the re-levering process.[55]

Under the CAPM, a debt beta arises for a firm in circumstances where:

- There is some positive probability of the firm defaulting on its debt obligations; and
- Where such a default is relatively more likely when the broad market is down than when the broad market is up.

This point is explained in more detail in the attached Frontier Economics report (**Attachment A**).

In the *Eligible Experts Report*,[56] Mr Kumareswaran explains that part of the debt risk premium may be compensation for the systematic risk of default. He notes that the observed debt risk premium includes compensation for:

- Illiquidity, term premiums and so on;
- Expected default loss – for example, if the yield is 7.14% and there is a 2% chance of a -50% return (because only half of the loan capital is returned), the expected return on debt is 6%.[57] Thus, a debt risk premium of 1.14% would be required as compensation for the statistical probability of default – before any consideration of debt beta; and
- Additional compensation for the extent to which any default is systematically related to market conditions.

Mr Kumareswaran further explains that, because the various components above cannot be reliably estimated, debt betas cannot be estimated with any precision.[58]

Estimates of debt beta tend to be small

The leading textbook of Berk and DeMarzo provides information in relation to debt betas as set out in **Error! Reference source not found.** below.

[55] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.18.

[56] *Eligible Experts Report*, December 2025, paragraphs 154-157.

[57] $98\% \times 7.14\% + 2\% \times (-50\%) = 6.00\%$.

[58] *Eligible Experts Report*, December 2025, paragraphs 157-159.

Figure 5: Empirical estimates of debt betas by credit rating

TABLE 12.3 Average Debt Betas by Rating and Maturity*

By Rating	*A and above*	*BBB*	*BB*	*B*	*CCC*
Avg. Beta	< 0.05	0.10	0.17	0.26	0.31
By Maturity	(BBB and above)	*1–5 Year*	*5–10 Year*	*10–15 Year*	> 15 *Year*
Avg. Beta		0.01	0.06	0.07	0.14

Source: S. Schaefer and I. Strebulaev, "Risk in Capital Structure Arbitrage," Stanford GSB working paper, 2009.

*Note that these are average debt betas across industries. We would expect debt betas to be lower (higher) for industries that are less (more) exposed to market risk. One simple way to approximate this difference is to scale the debt betas in Table 12.3 by the relative asset beta for the industry (see Figure 12.4 on page 457).

Source: Berk, J. and P. DeMarzo, Corporate Finance: 4th Global edition, p. 451.

Error! Reference source not found. indicates that:

- The average debt beta is 0.10 for BBB debt (so lower for BBB+); and
- The average debt beta is in the range of 0.06 to 0.07 for 10-year investment grade debt.

The figures presented here are averages across all industries. The recommendation is that these figures be scaled downward proportionally for low beta industries. This evidence would seem to support a debt beta of less than 0.1 for a network business.

In terms of commercial practice, we note that all of the independent expert valuation reports set out in Table 3 above re-levered to a common level of gearing and all adopted a debt beta of zero.

It is also common for regulators to perform their re-levering calculations using a debt beta of zero, although some have adopted positive debt betas. The *Eligible Experts Report* includes a table setting out a number of regulatory estimates of debt beta.[59] Those estimates are generally at 0.1 or lower, although the QCA has recently adopted a figure of 0.12.

ENA recommends that no weight be placed on:

- Associate Professor Partington's estimates of the correlation between bond ETF returns and market returns[60] – because what is required is an estimate of the extent to which a default by a regulated energy network firm might be correlated with the broad market, which is entirely different; or
- Associate Professor Partington's 'priors' of a range of 0.1 to 0.2[61] – because the basis for those figures is not identified as discussed in the *Information Box: The role of 'a priori reasoning'.*

[59] *Eligible Experts Report*, December 2025, pp. 51-52.

[60] *Eligible Experts Report*, December 2025, paragraph 228.

[61] *Eligible Experts' Report*, paragraphs 227-229.

Small debt betas have a very small impact on re-levered equity beta estimates

Error! Reference source not found. below shows the degree to which the true re-levered equity beta would be mis-estimated by assuming a debt beta of 0. For example, the figure in the top right corner indicates that, if the true debt beta is 0.10 and the comparator in question has 45% gearing, re-levering to 60% with a debt beta of 0 will introduce estimation error of only 0.04, which is well within the confidence interval of any beta estimate. The deviations are even smaller for lower debt betas (which seems more reasonable in light of the evidence above).

Table 5: Impact on final estimate of equity beta from using debt beta of zero

		True debt beta				
		0.00	0.03	0.05	0.08	0.10
Comparator gearing	45%	0.00	0.01	0.02	0.03	0.04
	50%	0.00	0.01	0.01	0.02	0.03
	55%	0.00	0.00	0.01	0.01	0.01
	60%	0.00	0.00	0.00	0.00	0.00
	65%	0.00	0.00	-0.01	-0.01	-0.01
	70%	0.00	-0.01	-0.01	-0.02	-0.03
	75%	0.00	-0.01	-0.02	-0.03	-0.04

Source: Facilitator's Note: Expert Session 2, 2018 Rate of return guideline review

ENA conclusions in relation to debt betas

Our conclusions in relation to debt beta are:

- In the regulatory context, debt beta measures the extent to which a regulated energy network is likely to default and the extent to which any such default is correlated with a broad market index;
- Because the probability of such a default is likely to be small, it is common to adopt a debt beta of 0.1 or less – commonly zero; and
- Reasonable estimates of debt beta tend to have a small effect on the estimates of re-levered equity betas.

In our estimation section below, we show that the adoption of a positive debt beta has a small effect on the estimates of equity beta.

Are gearing differences evidence of non-comparability?

In the Eligible Experts Report, Associate Professor Partington poses the question of whether the fact that the average gearing of the international comparators tends to be lower than the AER's benchmark gearing suggests they are inappropriate comparators.[62]

The gearing of international comparators, however, tends to be well within the range of gearing for the nine domestic comparators, as shown in Figure 3 below.

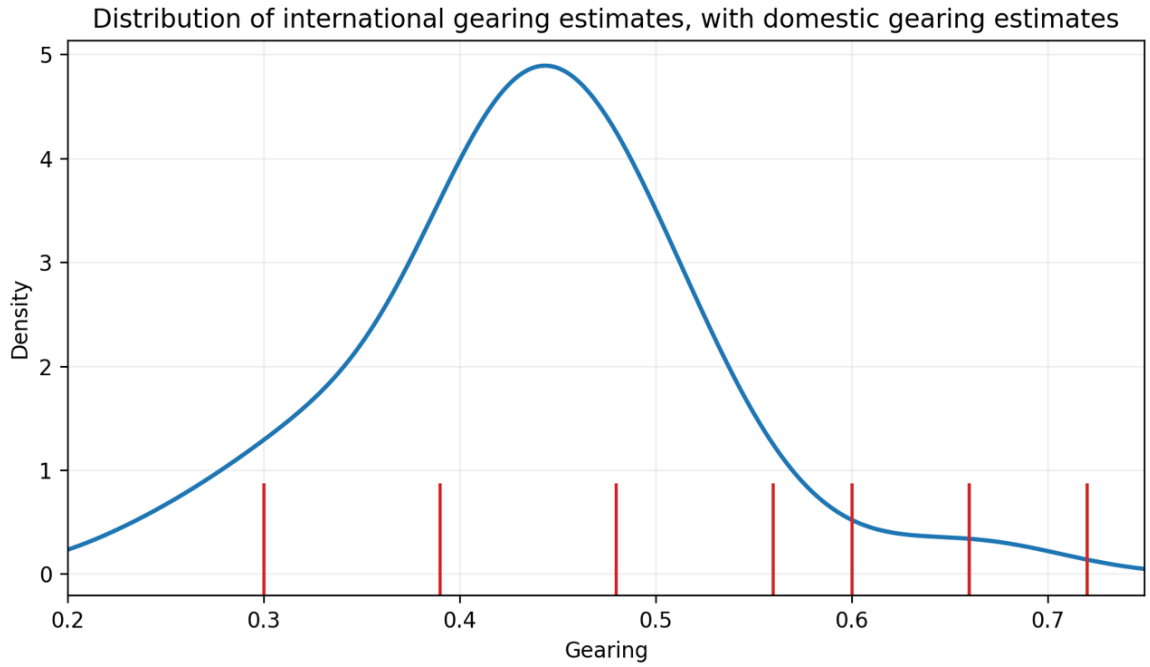
As a general principle, ENA suggests that any tests of 'comparability' should be first applied to the set of nine domestic comparators. For example, the approach of eliminating any comparator with gearing outside some range around the 60% benchmark would eliminate many of the domestic comparators.

Gearing has a very particular role under the CAPM – as explained in the Frontier Economics report (**Attachment A**). Differences in gearing can be mechanically adjusted for via the standard re-levering approach.

Our view is that firms that have comparable business and operating risks (e.g. because they have all been selected on the basis that they own and operate energy networks) are suitable comparators even if they have different levels of gearing – because there is a well-accepted, mechanical approach for adjusting for differences in gearing; an approach that is standard regulatory and commercial practice.

[62] *Eligible Experts Report*, December 2025, paragraphs 177-180.

Figure 6: Distribution of international and domestic gearing estimates



Source: Bloomberg data; Frontier Economics calculations.

4.5.5 *Discussion Paper* Issue #3 – Differences between the Australian and international market indexes

Identification of the issue and summary of responses

The third issue raised in the AER's *Discussion Paper* is that betas are measured against the local market portfolio and the composition of the market portfolio may differ across countries:

> *The equity beta estimates of international firms are measured with respect to the market portfolio of their home markets, which do not have the same industry sector composition as that of the Australian market. Again, this could mean that international firms' equity beta estimates would not reflect those of Australian energy networks.*[63]

This is another aspect of the question of whether the systematic risk of gas and electricity network business might be different in Australia than in all other countries.

Again, we think this issue can be, and has elsewhere been, addressed in a sensible way. In particular, we explain why we consider that the following observations support the straightforward practice of estimating each firm's beta against its domestic market index:

[63] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.18.

- An ‘international’ version of the CAPM should not be used – largely due to the problems with that approach that have already been identified in the *Discussion Paper* [64] and the *Eligible Experts Report*;[65]
- The uniform practice of comparable regulators is to estimate betas of international comparators against the relevant local index and to make no adjustment in relation to potential differences in market composition;
- The uniform practice of independent expert valuation professionals is to estimate betas of international comparators against the relevant local index and to make no adjustment in relation to potential differences in market composition; and
- The AER itself estimates beta over long periods during which the structure of the Australian stock market index has changed very markedly. Thus, the AER’s existing practice is to make no adjustment in relation to different market composition. That is, if some sort of adjustment is required to accommodate the current difference in market composition as between the US and Australia, for example, the same adjustment would be required to accommodate the difference in market composition as between Australia now and Australia historically.

Practicality of an ‘international’ version of the CAPM

The AER’s *Discussion Paper* raises the possibility that an ‘international’ version of the CAPM might be considered – but then sets out a number of significant problems that would arise under that approach.[66]

ENA agrees that an international version of the CAPM – with some sort of global risk-free rate and global MRP – should not be used.

We consider that the practice of estimating betas against the relevant local market index does not then require the use of an ‘international’ version of the CAPM. And ENA notes that standard regulatory and commercial practice is to use (a) international comparators with betas estimated relative to each firm’s domestic market index, and (b) a domestic risk-free rate and MRP for the particular firm in question (i.e. the Australian benchmark firm in this case).

That point was well summarised by Dr Lally during the Concurrent Evidence sessions that were conducted as part of the 2022 RORI process:

> *There's been a number of mentions in the AER's reports about the idea that if you use foreign beta estimates then necessarily you must be adopting an international CAPM. And I don't think that's right at all. Clearly, the Australian regulator is using a domestic CAPM. The betas are defined against the Australian market index. And if that set is sufficiently small, you might want to use foreign beta estimates, but those foreign beta estimates, for example from the United States, would be defined against the US index.*

---

[64] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.18.

[65] *Eligible Experts Report*, December 2025, paragraph 252.

[66] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.18.

> *In both cases, you're using beta estimates defined against their local market index. That is not an international CAPM.*[67]

ENA agrees with this assessment, and with Associate Professor Partington's observation that:

> *I do not recommend the use of an international CAPM, the solution is worse than the problem.* [68]

Standard regulatory practice is to make no adjustment in relation to international comparators

The uniform practice of comparable regulators is to estimate betas of international comparators against the relevant local index and to make no adjustment in relation to potential differences in market composition.

For example, the ERA has noted that, where regulators have regard to international firms, they all estimate beta in the standard way via regression analysis against the local market index. None use an international CAPM and none make any adjustment for any perceived differences between markets.

The ERA then concludes that it will compute and assess its international beta estimates in the same manner as its domestic estimates:

> *On balance, given the smaller Australian domestic sample, as a working view the ERA considers that examining both domestic and international listed energy networks may be useful when estimating the equity beta for Australian energy networks.*
>
> *The ERA proposes to use the following method:*
>
> - *To use a domestic CAPM model for each country to estimate the equity beta.*
> - *The use of an international CAPM would introduce complexity without substantial benefits as it relies on stronger assumptions than the domestic CAPM*
> - *To only include firms where the majority of the observations are present in the estimation window.*
> - *Consistent with the manner in which domestic equity beta estimates are unlevered and re-levered to the benchmark gearing level, international equity beta estimates will also undergo the same procedure.* [69]

[67] AER 2022 - Concurrent evidence session 1 - Proofed transcript - February 2022, p.84.

[68] *Eligible Experts Report*, December 2025, paragraph 252.

[69] ERA, December 2021, *2022 gas rate of return instrument review: Discussion Paper*, p.76.

The standard practice of independent expert valuation professionals is to make no adjustment in relation to international comparators

The uniform practice of independent expert valuation professionals is to estimate betas of international comparators against the relevant local index and to make no adjustment in relation to potential differences in market composition.

That approach was taken by:

- KPMG in its report for SPARK Infrastructure;
- Grant Samuel in its report for AusNet; and
- All of the recent independent expert reports summarised in Table 3 above.

The composition of the Australian market has changed markedly over time

The composition of the Australian market (in terms of the relative weighting of different sectors) differs from the composition of other national equity markets from time to time. Despite these differences, the correlation between returns on the Australian market and markets of other advanced economies is consistently high – particularly in times of significant market downturns when systematic risk is of greatest importance.[70]

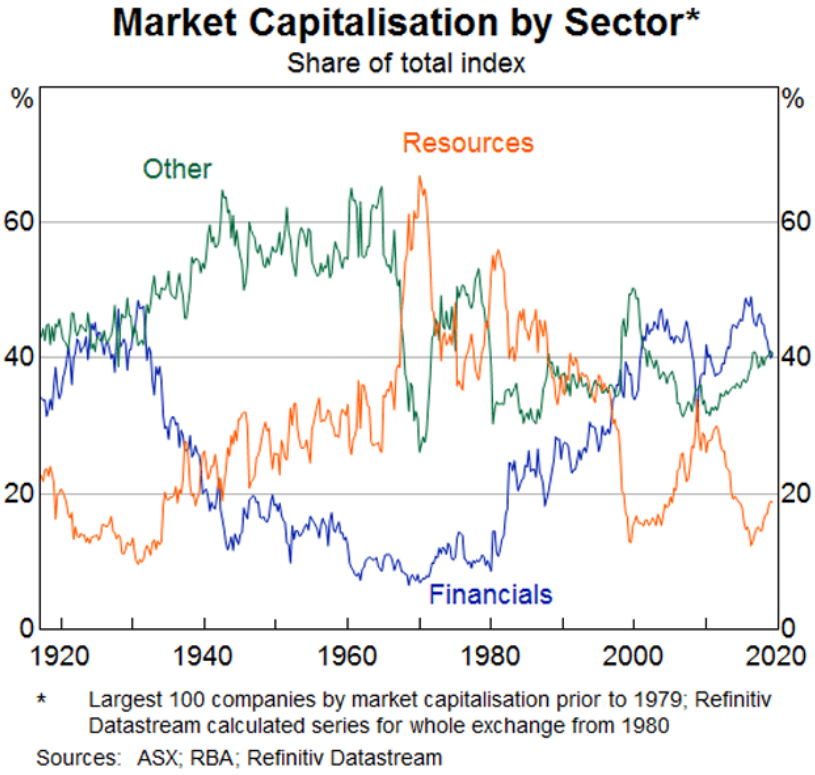
In this sub-section we explain that the composition of the Australian market itself has changed markedly over time. That is, to the extent that there are concerns about composition differences between the Australian market and other markets, those same concerns should apply to changes in the composition of the Australian market over time. This is particularly the case where betas for domestic comparators are estimated over different historical periods.

The AER estimates beta over long periods during which the structure of the Australian stock market index has changed very markedly – as shown in **Error! Reference source not found.** below.[71] Thus, the AER's existing practice is to make no adjustment in relation to different market composition. That is, in precisely the same way as the current composition of the Australian market may differ from the current composition of international markets, it also differs from the past composition of the Australian market.

[70] MSCI, *Correlations within and across global markets*, 13 January 2021, https://www.msci.com/research-and-insights/quick-take/correlations-within-and-across-global-markets.

[71] See also the discussion at *Eligible Experts Report*, December 2025, paragraphs 166-170.

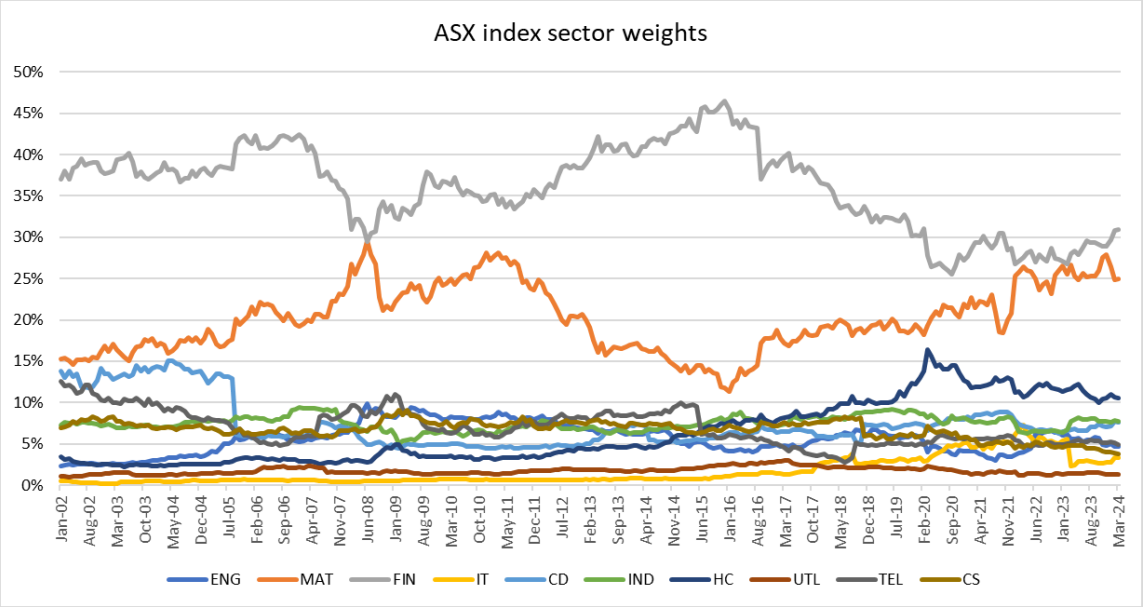
Figure 7: Change in ASX market composition



Source: RBA - https://www.rba.gov.au/publications/bulletin/2019/jun/pdf/the-australian-equity-market-over-the-past-century.pdf.

We also note that the composition of the Australian market has changed materially during the period over which it has estimated equity betas – as set out in **Error! Reference source not found.** below.

Figure 8: Weight of global industry classification sectors in ASX 200



Source: Bloomberg. Sectors are Energy, Materials, Finance, IT, Consumer Discretionary, Industrials, Health Care, Utilities, Telecommunications and Consumer Staples.

4.6 How might international comparators be incorporated into the estimation process?

Overview

As there is no longer a set of listed domestic comparators available, the AER has recognised the need to develop a revised approach[72] that is sufficiently reflective of contemporary market conditions.[73] ENA agrees with the AER that the most viable source of contemporary evidence is the international comparators that are commonly used in regulatory and commercial practice.

In the sections above, we have explained that we think there are sensible ways of addressing the *Discussion Paper's* challenges involved in the use of international comparators – and our conclusions on this are broadly in line with regulatory and commercial practice.

In the remainder of this section, we consider how the 'longest period' estimates might be used to form a reasonable range from which regulatory judgment would be used to select a beta to be adopted in the RORI. Our view is the application of regulatory judgment should be explained so that it is transparent and replicable.

We also think that it is important that any weight applied to shorter-term estimates is made explicit so that it can be applied consistently and symmetrically over time. As explained above,

[72] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

[73] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

short-term beta estimates tend to vary materially over time. Thus, applying material weight to short-term estimates (in a consistent and symmetric manner) would result in volatility in the allowed beta. For the avoidance of doubt, our preferred approach uses longer-term beta estimates. But if short-term estimates are to be given material weight, that should be explicit to ensure it is applied consistently and symmetrically over time.

We begin by noting that the *Discussion Paper* sets out two options for consideration. Option 1 essentially involves giving no weight to the contemporary international evidence and Option 2 applies at least some weight to that evidence.[74]

Some principles for combining the relevant evidence

We think the international evidence can be sensibly incorporated to inform the AER's estimate of beta – in the same way that others do this.

Specifically, we propose that the following principles should be considered when combining the relevant evidence:

- Stale evidence should receive progressively less weight as it retreats further into history;
- The domestic evidence should not be interpreted as supporting an estimate of 0.6 that is precise and reliable. **Error! Reference source not found.** above shows that the domestic data that supported the AER's selection of the 0.6 estimate varied widely. Indeed, only two of the nine estimates were within the range of 0.4 to 0.8. The wide range and small number of domestic estimates should be considered;
- The basis for selecting or rejecting international comparators should be explained and applied consistently and it should be replicable. Various sets of comparators should be considered in the absence of a process for determining a single agreed optimal set;
- Any tests or processes that might be used to exclude international comparators should also be applied to the domestic comparator set to determine the effect that the test or process would have had on that set; and
- The selection of a final point estimate should be explained, including the weights applied to the relevant pieces of evidence, in a way that is replicable.

In this regard, ENA broadly agrees with the position set out by Mr Kumareswaran in the *Eligible Experts Report*:

> *Given that the AER's existing estimate of beta was based on very limited empirical evidence, I would not recommend treating it as a reliable prior. Rather, I recommend using the international evidence to 'reset' the beta allowance, keeping an open mind about the possibility that the existing estimate may simply be wrong. From that point, the AER could adopt Professor Johnstone's suggestion of departing from the status quo estimate only if there is compelling evidence to do so.*
>
> *If the AER wishes to have regard to evidence on beta from domestic comparators as well as international comparators, I recommend that the AER pool together into a single sample the estimates from the domestic comparators and the international comparators. This would reflect the reality that most of the available evidence is*

[74] AER, August 2025, *Rate of return instrument: Review discussion paper*, pp.18-19.

> *international rather than Australian, while still allowing the estimates for the domestic comparators to have some influence on the overall estimate. This would also allow all stakeholders to understand transparently the weight that is applied by the AER to the domestic evidence vis-à-vis the international evidence.*[75]

We broadly agree with the approach proposed by Mr Kumareswaran in the *Eligible Experts Report*, whereby all of the relevant comparators are pooled into a single set. This process could include de-listed comparators, but in a way that less weight is applied as time passes since their de-listing.

The alternative: Have no regard to the contemporary international evidence

We have noted above that one approach is to try to find a sensible way of giving some real weight to the contemporary international evidence – in line with standard regulatory and commercial practice.

The alternative is to have no real regard to this evidence – such that it has no impact on the final beta estimate. This alternative (denoted 'Option 1' in the *Discussion Paper*) can be summarised as follows:

> *Continue to give primary weight to our domestic comparator set of nine Australian energy networks – At present, we consider these firms are still the best estimators of equity beta for the networks that we regulate. However, given that eight of the nine firms are de-listed, ongoing use of this option may require the application of regulatory judgement going forward, as a diminishing sample could mean that we may not have sufficient data to reliably estimate equity beta going forward.*[76]

In the 2022 RORI process, the AER maintained equity beta at 0.6, but recognised the need to develop a revised approach that is sufficiently reflective of contemporary market conditions for future RORI processes. ENA agrees with this imperative. We think the international evidence can be sensibly incorporated to inform the AER's estimate of beta – in the same way that others do this.

We cannot see how continuing to adopt an historical estimate as it sinks further and further into the past is a viable option. That is not a 'revised approach' and it is not at all 'reflective of contemporary market conditions.'

Moreover, it is not the case that the 0.6 figure is clearly and consistently supported by the available domestic evidence. The AER itself has previously adopted equity beta estimates of 0.8 and 0.7 in different rate of return review processes. And we have shown above that the beta estimates for only two of the nine domestic comparators are within the range of 0.4 to 0.8.

In this regard, the Eligible Experts were asked whether the 0.6 figure should have any special status. Mr Kumareswaran answered that:

> *I note that it is also incorrect to assert that 0.6 is the only equity beta point estimate we have based on evidence from domestic comparators. As explained at para 288 of the Eligible Experts' joint report, during the 2018 RORI review, both the AER and ERA*

---

[75] *Eligible Experts Report*, December 2025, paragraphs 284-285.

[76] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.18.

> *relied exclusively on domestic comparators, and considered exactly the same empirical evidence on the betas of those domestic firms. While the AER settled on a point estimate of 0.6, the ERA adopted an equity beta point estimate of 0.7 assuming a benchmark gearing ratio of 55%. That would be equivalent to an equity beta estimate of 0.79 if re-levered using a benchmark gearing ratio of 60%. In other words, another regulator that examined exactly the same evidence on domestic comparators as the AER concluded that the evidence supported a point estimate of 0.79, not 0.6.*
>
> *Moreover, the ERA maintained an equity beta estimate of 0.7 (assuming a benchmark gearing ratio of 55%) in its 2022 RORI. That is, the ERA concluded that the international evidence supported the allowance it had adopted by reference only to evidence from domestic comparators in 2018.* [77]

Our view is that it would be wrong to suggest that strong evidence supports an assessment that domestic networks have a beta of 0.6. The AER has shown that only two of the nine have a beta estimate within ±33% of that figure. And the ERA, examining the same evidence under the same regulatory regime, concluded that it supported a materially higher figure.

For these reasons, we do not consider the historical 0.6 figure to be sufficiently robust and compelling that it would be viable to simply maintain that figure in preference to having some regard to the contemporary international evidence.

Views from the Eligible Experts

In summary, the two options that are contemplated in the *Discussion Paper* are whether to follow regulatory and commercial practice in having real regard to the international evidence, or to adopt an estimate without having any real regard to that evidence.

Perhaps the clearest differentiation between these two approaches has been set out by the Eligible Experts. ENA posed the question:

> *Other comparable regulators, independent experts preparing reports in relation to networks regulated by the AER, and previous iterations of the AER have all adopted asset betas that are more consistent with the evidence from international comparators than with the AER's current allowance. What do the experts make of this evidence?*

Mr Kumareswaran concluded against maintaining the existing regulatory figure when the contemporary international evidence is inconsistent with that figure:

> *The AER should consider the possibility that the existing estimate of 0.6—rather than being a reliable estimate—is the artefact of significant statistical noise and sampling error, resulting from a shrinking sample of comparators. It is striking that the equity beta allowance has fallen (from 1.0 to 0.6) as the size of the domestic comparator sample has declined.*

By contrast, Associate Professor Partington has characterised the choice as being between empirical evidence and reflection:

> *A provision of endless apparatus, a bustle of infinite enquiry and research, or even the mere mechanical labour of copying, may be employed, to evade and shuffle off real labour, —the real labour of thinking." Sir Joshua Reynolds 1784. It is easier to collect*

---

[77] *Eligible Experts' Responses to Stakeholders' Questions*, December 2025, p.3.

data than to think carefully about what you are doing. Action often seems better than reflection.[78]

Our view is that best practice estimation of market-reflective regulatory rate of return parameters is based primarily on the careful and sensible analysis of data and evidence, rather than a process of interior reflection. ENA is unaware of any regulatory body tasked with a similar estimation task deriving critical industry-wide CAPM risk parameters through use of conceptual 'priors' in preference to relevant market data.

For the reasons set out above, our view is that international comparators provide the best available evidence that is reflective of contemporary market conditions and ENA considers that evidence can be used in the manner set out above, consistent with regulatory and commercial practice.

4.7 Illustration of how the relevant evidence can be combined

Overview

In this section, ENA demonstrates how the relevant evidence can be combined in a way that is consistent with the principles set out above.

We consider a range of comparator sets that include domestic and international comparators, different lengths of historical data and different return frequencies. We also consider a range of debt betas in the re-levering process.

This approach produces many sets of estimates, which generally support a range of 0.6 to 0.8, from which we select a mid-point of 0.7.

ENA then tests our range of estimates against other evidence and show that it is consistent with:

- The betas adopted by other regulators of energy network firms (including those charged with performing precisely the same task as the AER);
- The betas adopted in independent expert valuation reports for regulated energy network firms (including those opining on networks regulated by the AER);
- The evidence from international comparators set out in recent AER annual rate of return updates; and
- The *a priori* beta proposed by Associate Professor Partington in the Eligible Experts Report.

Combining the relevant data

For the purposes of this illustration, we have adopted the approach of considering the available domestic and international comparators collectively – in line with the approach set out in the Eligible Experts Report by Mr Kumareswaran – for the reasons that are set out above.

We have included all domestic firms that are currently listed and all that have de-listed within the last 10 years (that is, APA Group, AusNet Services, Spark Infrastructure and DUET Group) and a number of different sets of international comparators as follows:

- The set that the AER has traditionally used in its annual rate of return updates (**AER 1**);

[78] *Eligible Experts' Responses to Stakeholders' Questions*, December 2025, p.7.

- The filtered set that the AER has recently developed and made available (**AER 2**);
- The set adopted by the New Zealand Commerce Commission (**NZCC**);
- The set adopted by the ERA (**ERA**); and
- A combined set consisting of the aggregate of the above sets (**ALL**).

That is, every sample includes current and recently de-listed domestic comparators plus a different set of current international comparators.

In relation to statistical choices:

- We apply Ordinary Least Squares (OLS) regression using weekly and monthly returns;
- We consider the longest available period for each firm as well as 10-year periods; and
- We re-lever to 60% in all cases, using a range of debt betas; and
- We report the range, mean, median, mode and inter-quartile range for each case – similar to the presentation in the AER's annual rate of return updates.

Summary of estimates

In the remainder of this section, we set out a summary of estimates for the various comparator sets and statistical choices. An expanded set of results is set out in the attached Frontier Economics Report (**Attachment A**).

The tables and figures below set out a range of estimates that vary by (a) comparator set, (b) estimation period, (c) return frequency, and (d) debt beta. The first set adopts a debt beta of 0 and varies the other characteristics and the second adopts a debt beta of 0.05 while varying the other characteristics.

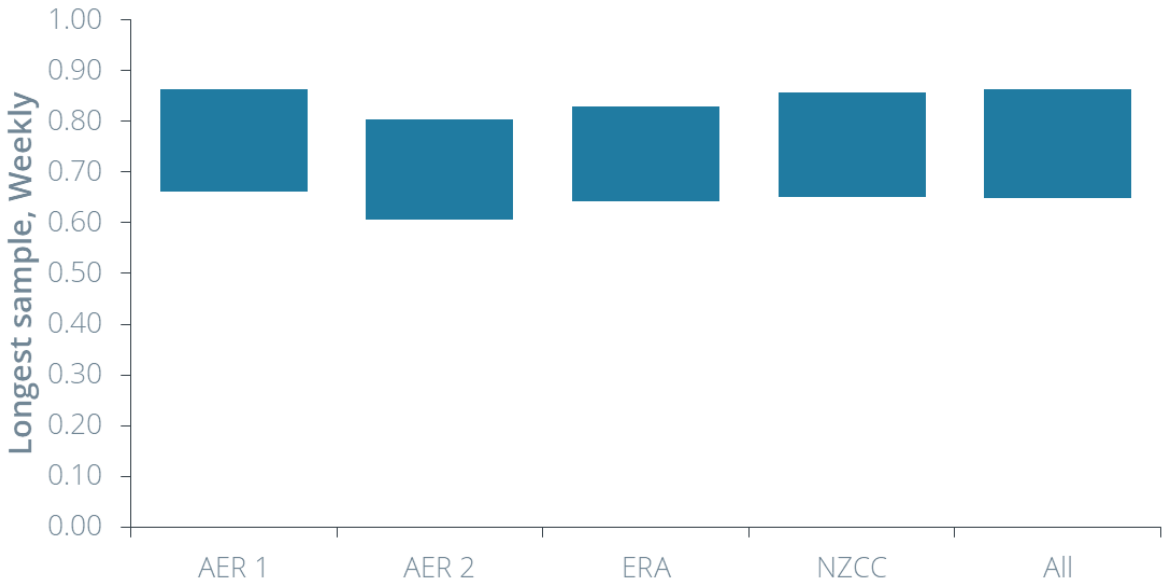
Error! Reference source not found. and **Error! Reference source not found.** below set out the interquartile range for various comparator sets, periods and frequencies, all re-levered to 60% using a debt beta of zero.

Table 6: Equity beta estimates – re-levered to 60% with debt beta of 0

	Number	Longest	Longest	10-years	10-years
		Weekly	Monthly	Weekly	Monthly
AER 1 + dom	60	0.66-0.86	0.66-0.82	0.59-0.96	0.53-0.96
AER 2 + dom	52	0.61-0.80	0.50-0.78	0.63-0.83	0.53-0.81
ERA + dom	62	0.64-0.83	0.54-0.80	0.65-0.96	0.57-0.91
NZCC + dom	58	0.65-0.86	0.66-0.83	0.66-0.95	0.59-0.93
ALL + dom	91	0.65-0.86	0.61-0.84	0.63-0.96	0.56-0.98

Source: Frontier Economics Report.

Figure 9: Equity beta estimates – weekly returns – longest available period – re-levered to 60% with debt beta of 0



Source: Frontier Economics Report.

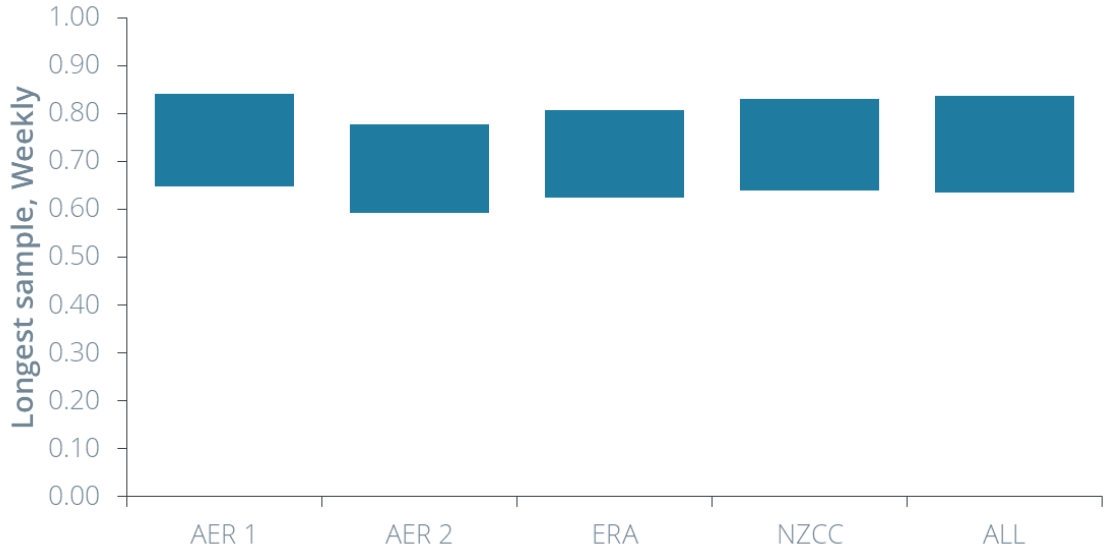
Error! Reference source not found. and **Error! Reference source not found.** below set out the interquartile range for various comparator sets, periods and frequencies, all re-levered to 60% using a debt beta of 0.05.

Table 7: Equity beta estimates – re-levered to 60% with debt beta of 0.05

	Number	Longest Weekly	Longest Monthly	10-years Weekly	10-years Monthly Monthly
AER 1 + dom	60	0.65-0.84	0.64-0.81	0.57-0.91	0.51-0.95
AER 2 + dom	52	0.59-0.78	0.49-0.75	0.62-0.80	0.51-0.77
ERA + dom	62	0.62-0.81	0.53-0.78	0.64-0.93	0.55-0.88
NZCC + dom	58	0.64-0.83	0.64-0.81	0.64-0.93	0.56-0.91
ALL + dom	91	0.63-0.84	0.59-0.82	0.61-0.94	0.54-0.95

Source: Frontier Economics Report.

Figure 10: Equity beta estimates – weekly returns – longest available period – re-levered to 60% with debt beta of 0.05



Source: Frontier Economics Report.

Interpretation of evidence

We note that every one of the ranges set out above wholly, or almost wholly, incorporate the range of 0.6 to 0.8. We consider this to be a conservative interpretation of the above evidence in that many more of the above ranges extend further above 0.8 than below 0.6.

We pay particular attention to the estimates using weekly data for the longest available period. There we note that none of the ranges extends below 0.6 and all but one extend above 0.8.

Consequently, we conclude that the evidence, taken as a whole, supports a range of at least 0.6 to 0.8 and that a simple mid-point estimate of 0.7 could be taken as being reflective of prevailing market conditions.

Comparison with other sources of relevant evidence

In addition to the above estimates from international comparators, we also consider the following sources of evidence:

- Betas adopted by other regulators of energy network firms;
- The most recent independent expert valuation reports that consider networks regulated by the AER;
- The international comparator estimates published in the AER's annual rate of return updates; and
- Associate Professor Partington's 'a priori' asset beta estimate of 0.4.

Estimates from comparable energy network regulators

Error! Reference source not found. below sets out the beta estimates adopted by a number of comparable regulators. We note that the re-levered equity beta estimates tend to be in the order of 0.8.

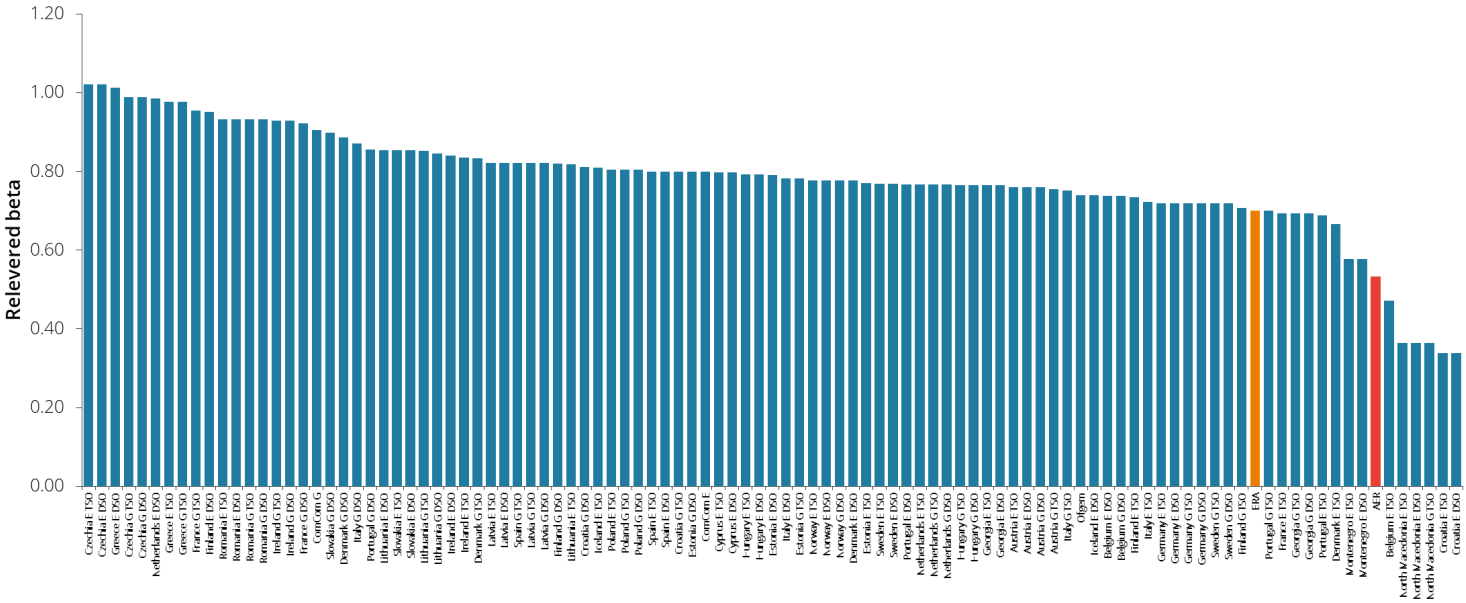
Table 8: Betas adopted by other regulators of gas and electricity transmission and distribution networks

Regulator	Asset beta	Re-levered equity beta (60% gearing zero debt beta)
FERC	0.34	0.84
NZCC	0.36	0.90
Ofgem (low)	0.30	0.75
Ofgem (high)	0.40	1.00
ERA	0.32	0.79

Source: AER International regulatory approaches to rate of return - Final working paper, December 2020,; NZCC, Cost of capital determination Transpower 2025-2030, September 2024;; Ofgem, RIIO-3 Sector Specific Methodology Decision – Finance Annex July 2024; ERA Explanatory statement for the 2022 final gas rate of return instrument, December 2022.

Similarly, Figure 11 below sets out equity beta estimates (re-levered to 60%) adopted by European regulators of energy network firms – published by the Council of European Energy Regulators. It shows that the vast majority of those energy network regulators adopt equity betas (re-levered to 60%) within the range of the empirical estimates set out above and consistent with the other regulatory estimates set out above.

Figure 11: Equity beta estimates – re-levered to 60% – from European regulators



Source: Council of European Energy Regulators.

The most recent estimates by independent experts for the firms that are regulated by the AER

The two most recent independent expert reports relating to energy network businesses are:

- The independent expert valuation report prepared by KPMG in relation to the SPARK Infrastructure transaction that completed in December 2021 with an implied enterprise value of $10.1 billion;[79] and
- The independent expert valuation report prepared by Grant Samuel in relation to the AusNet transaction that completed in February 2022 with an implied enterprise value of $10.1 billion.[80]

Those reports opined on the rate of return that investors would reasonably require from an investment in these firms. Both derived the required return on equity using the CAPM and both set out a range of betas accordingly.

The beta ranges adopted by the independent experts are summarised in **Error! Reference source not found.** below. Both independent experts have adopted betas that are broadly in line with the betas adopted by other comparable regulators above.

[79] Spark Infrastructure, Scheme Booklet, 19 October 2021, https://www.sparkinfrastructure.com/system/files_force/spark_infrastructure_scheme_booklet_19_oct_2021_0.pdf?download=1.

[80] AusNet, ASX Announcement, 16 December 2021, https://www.asx.com.au/asxpdf/20211216/pdf/454823qr55j0g3.pdf.

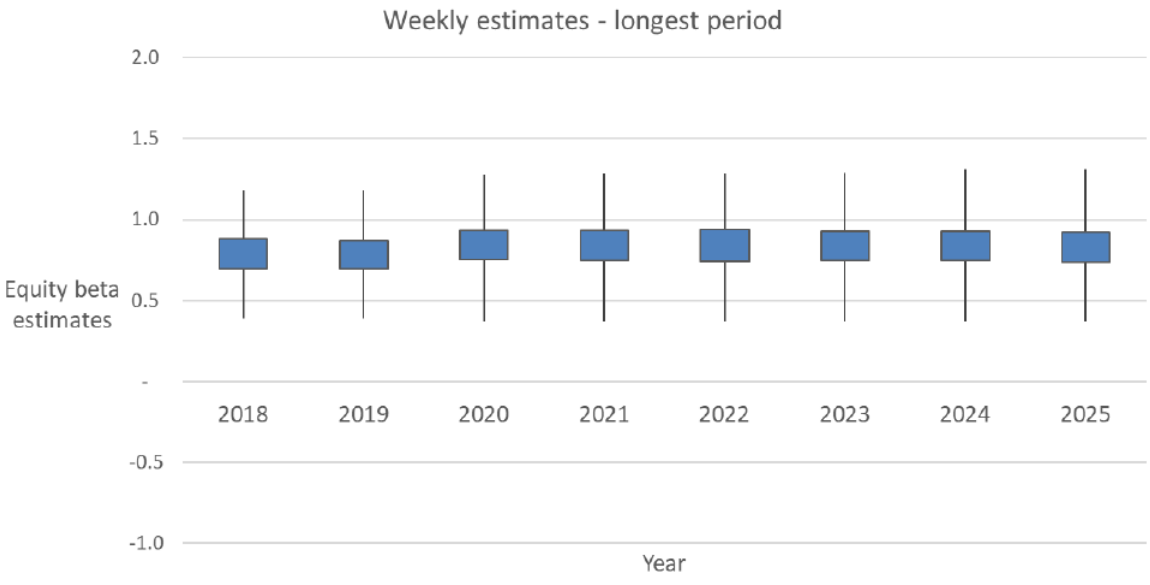
Table 9: Betas adopted in independent expert valuation reports for Australian electricity transmission and distribution networks

Independent expert report	Asset beta	Re-levered equity beta (60% gearing zero debt beta)
KPMG re SPARK (low)	0.35	0.88
KPMG re SPARK (high)	0.40	1.00
Grant Samuel re Ausnet (low)	0.30	0.75
Grant Samuel re Ausnet (high)	0.35	0.88

Beta estimates from international comparators published in AER annual updates

The AER publishes a set of estimates from international comparators in its annual rate of return updates. The most recent update shows that the interquartile range of international beta estimates has been essentially constant at 0.75 to 0.9 since 2020 – see **Error! Reference source not found.** below.

Figure 12: AER international equity beta estimates



Source: AER, Rate of Return Annual Update – November 2025, Figure 3, p.16.

Associate Professor Partington's a priori asset beta estimate of 0.4

ENA recommended above that beta should be estimated with reference to market data and evidence rather than via a process of *a priori* reasoning or reflection. Consequently, we propose

that no weight should be placed on Associate Professor Partington's asset beta of 0.4 that was obtained by reflection and introspection:

> *Given relatively low cyclicality and relatively low risk from operating leverage, NSPs are expected to have low asset betas. My priors on the asset beta of NSPs is a value of about 0.4. However, the low asset betas are subject to substantial leverage. Using the AER's relevering formula the levered equity beta is given by 0.4 × 1.6 = 0.64. Allowing for a debt beta of 0.2, the relevered equity beta is 0.4 + (0.4 – 0.2) × 0.6 = 0.52.* [81]

However, if weight is to be applied to the asset beta of 0.4, that figure should be re-levered correctly. Associate Professor Partington's re-levering calculations are incorrect and the correct re-levering calculations are as follows:[82]

$$\beta_e = \frac{\left(\beta_a - \beta_d \frac{D}{V}\right)}{\frac{E}{V}} = \frac{(0.4 - 0 \times 0.6)}{0.4} = 1.0$$

when the debt beta is 0 and:

$$\beta_e = \frac{\left(\beta_a - \beta_d \frac{D}{V}\right)}{\frac{E}{V}} = \frac{(0.4 - 0.2 \times 0.6)}{0.4} = 0.7$$

when the debt beta is 0.2.

That is, the range of equity beta estimates formed in this manner is 0.7 to 1.0.

4.8 Risk-free rate

ENA submits that the approach to the risk-free rate should be considered to be settled for the purposes of the 2026 RORI review.

The AER has thoroughly considered the term of the risk-free rate in three separate review processes, and this has resulted in the AER adopting a 10-year term in every rate of return decision it has made since its inception.

ENA would expect the opportunity to contribute further, in advance of the Draft Instrument, in the event that a departure from the above approach is contemplated.

---

[81] *Eligible Experts Report*, December 2025, paragraph 176.

[82] Brealey, R. A., S. C. Myers, G. Partington, G. and D. Robinson, 1999, *Principles of Corporate Finance** (Australian ed.), McGraw-Hill, p.314.

4.9 Market risk premium

Overview

ENA:

- Accepts that the AER's current approach to the MRP will be applied in the 2026 RORI; and
- Proposes that alternative approaches for estimating the MRP (particularly estimates of the MRP that can be paired with the prevailing risk-free rate in an internally consistent manner) be considered as part of a future work program between RORI processes.

ENA submits that the AER should advise stakeholders, in advance, as to whether data from calendar year 2026 will be included in the AER's historical excess returns estimate.

The AER's current approach to the MRP

In its 2018 and 2022 RORIs, the AER adopted a numerical figure for the MRP parameter, being:

- 6.1% in the 2018 RORI; and
- 6.2% in the 2022 RORI.

In both cases, the adopted MRP figure corresponded exactly to the arithmetic average of historical excess returns (**HER**) over the period from 1988, as illustrated in **Error! Reference source not found.** below. The AER reported arithmetic and geometric averages over various different time periods. In both cases, the adopted MRP corresponded exactly to the arithmetic average over the period since 1988.

Figure 13: Recent AER MRP decisions

2018 Rate of Return Guideline

Sampling period	Arithmetic average	Arithmetic return Standard Deviation	Arithmetic average (2013 guidelines)	Geometric average	Geometric average (2013 guidelines)
1883–2017	6.3	0.163	6.3	5.0	4.8
1937–2017	6.0	0.191	5.9	4.2	3.9
1958–2017	6.6	0.214	6.4	4.3	3.8
1980–2017	6.5	0.210	6.3	4.3	3.8
1988–2017	6.1	0.169	5.7	4.6	3.6

2022 Rate of Return Guideline

Sampling period	Arithmetic average (%)	Geometric average (%)	Weighted average 10 years (%)
1883 to 2022	6.3	5.0	6.3
1937 to 2022	6.1	4.4	5.9
1958 to 2022	6.6	4.4	6.3
1980 to 2022	6.6	4.6	6.1
1988 to 2022	6.2	4.9	5.9

Source: AER, December 2022, Rate of Return Guideline: Explanatory Statement, Table 7, p. 91; AER, February 2023, Rate of Return Instrument: Explanatory Statement, Table 7.3, p. 159.

In relation to the 2022 RORI, the AER explained its approach to the MRP as follows:

> *As set out above we consider a range of evidence in determining our MRP estimate. We give evidence from the HER the most weight in our estimation of the MRP as we acknowledge that there are difficulties in estimating a conditional MRP. We consider data from HER shows:*
>
> - *The range given by arithmetic averages for different sample periods is 6.1% to 6.6%. The most recent sample period produces an estimate of 6.2% and is most likely to reflect current prevailing conditions…*
>
> *We considered all the information available and arrived at the view that, on balance, the current unconditional MRP is likely to be towards the lower end of our HER range of 6.1% to 6.6%. Given this view, we consider there isn't persuasive evidence to move away from a point estimate of 6.2%, which coincides with the arithmetic average over the period from 1988 to 2022. This is consistent with the methodological approach used to set the MRP in 2018 and for the draft Instrument. We do not consider the evidence for a higher or lower value relative to 6.2% is sufficiently strong to warrant a change.*[83]

That is, the AER's approach to the MRP appears to involve two steps:

» Compute the arithmetic average of historical excess returns over the period from 1988 as a first stage default estimate; and

[83] AER, February 2023, Rate of Return Instrument: Explanatory Statement, pp. 165-166.

» Determine whether other relevant evidence warrants a departure from the default estimate.

In both of its 2018 and 2022 decisions, the AER made no departure from the default estimate.

The approach to be adopted in the 2026 RORI

ENA accepts that the AER has not proposed that the MRP be included among the key issues for consideration during the 2026 RORI process. Consequently, ENA takes it that the approach set out above, which was followed in the 2018 and 2022 RORI's will be applied in the 2026 RORI.

We note that the arithmetic mean from 1988 through to 2024, published in the AER's Annual Update is 6.4%.[84]

ENA would welcome the opportunity to contribute further, in advance of the Draft Instrument, in the event that a departure from the above approach is contemplated.

Pre-commitment to data period

The AER's usual process is to publish the RORI at the end of the relevant year, in accordance with the statutory timeline. Under this process, the AER uses data to the end of the most recent complete year to inform its estimate of the MRP. Under this approach, the AER would use data through to the end of 2021 to inform its estimate of MRP in the 2022 RORI.

On 14 November 2022, however, the AER announced that it was delaying the publication of its 2022 RORI until early in 2023.[85] This enabled the AER to include data for the 2022 year in its MRP estimate, in response to commentary in the 2022 Independent Panel review of the Draft Instrument around the issue of potential impacts of recent extraordinary monetary policy measures. The inclusion of that one additional year of data reduced the default (1988 arithmetic mean) estimate from 6.51% (i.e., if the usual approach of using data up to the end of the year before the RORI was due to be published has been followed) to 6.24%.

Of course, the excess return for 2022 was already largely known when the AER made the decision to delay publication of the RORI (46 of the 52 weeks that year had already been observed).

ENA submits that best regulatory practice would be for the regulator to identify whether or not the RORI year will be included in the HER estimate *before* observing any of the data for that year. This would maximise transparency and predictability for stakeholders, enhancing long-term regulatory confidence.

Potential future work on the MRP parameter

ENA understands and accepts that the MRP parameter is not a priority issue for the 2026 RORI. Consequently, any further consideration of that parameter will be beyond the current process.

In previous reviews, ENA has proposed that the true MRP likely varies over time – being higher during financial crises and recessions and lower during prolonged economic booms.

---

[84] *AER, Rate of Return Annual Update – November 2025*

[85] The Treasury - Letter to AER, 26 October 2022.

Accordingly, ENA has consistently proposed various methods for estimating the MRP that reflect the prevailing market conditions from time to time.

Under those methods, the total allowed return on equity tends to rise less than one-for-one when risk-free rates increase and fall less than one-for-one when risk-free rates fall. The result is a more stable allowed return on equity than under the AER's current approach – albeit one with the same mean over time.

ENA considers that there may be some utility in ongoing discussion about the merits of these methods – but accepts that this would occur after completion of the 2026 RORI process. In particular, it has been noted in previous review processes that the various different approaches for estimating the MRP tend to produce more similar estimates when risk-free rates are close to long-run mean levels, as they are now. Thus, the estimation of MRP is likely to be less pressing for the current review process, but we consider that there is some utility in further consideration after the current process has been completed.

5 Weighted trailing average approach to the allowed return on debt

5.1 Summary

ENA supports the adoption of a weighted trailing average approach to the allowed return on debt conditional on the adopted approach satisfying the broad principles set out below, which balance simplicity and practicality:

- The trailing average approach continues to apply as usual to existing debt;
- Additional debt is assumed to be raised at the then prevailing benchmark rate;
- The transition approach that the AER has adopted since introducing the trailing average approach in 2013 should be applied to the additional debt;
- The application of the prevailing rate to additional debt must relate to actual debt rather than forecast debt. We note that:
  - The roll-forward model already uses actual capital expenditure to update the RAB; and
  - We demonstrate below that the CESS module of the PTRM already embeds a true-up to ensure that the return on capital is ultimately applied to actual rather than forecast capital expenditure; and
- Where the notional debt for a network *decreases* from one regulatory year to the next, the amount of additional debt would be zero, in which case the outcome of the weighted trailing average approach would be the same as under the current uniform trailing average approach.

ENA submits that the weighted trailing average approach should be applied to all networks, via total debt in the PTRM, without the application of any threshold. This avoids the complexity of designing appropriate threshold levels that can be applied to all networks and avoids any 'edge' cases where a small change to the capital expenditure forecast might move the network above or below an (inevitably arbitrary) threshold. It also avoids cases where a network might be above the threshold in some years and below it in others.

The above weighted trailing approach is consistent with the illustrative examples prepared by the Queensland Treasury Corporation.

The *Discussion Paper* also includes an AER illustrative example which introduces a potential new transition mechanism that reflects the costs that would be incurred by a firm that issues 10 new tranches of debt of different maturities every year. The raising and refinancing of these tranches is tracked via an 800-row transition model.

Whilst both the QTC approach and the AER illustrative example reflect a modelling structure for the weighted trailing approach that does not necessary follow 'real world' financing practices, the ENA considers that the QTC approach:

- Preserves the existing transition approach the AER has already developed when transitioning from rate-on-the-day to a 10-year trailing average, which has been used and accepted in the regulatory setting since 2013;
- More broadly aligns with real world efficient financing practices on average; and

» Is significantly simpler to model and apply, facilitating uniform application across all networks.

In particular, the AER illustrative example set out in the *Discussion Paper* is complex, impractical and is inconsistent with the following commercial realities:

» It is not practically executable to issue 10 small tranches of debt every year, noting constraints in bond markets for minimum issuance sizes;

» It is impractical for a firm to issue more than 2-3 tranches of debt at a point in time with any additional tranches being misaligned with the timing of AER debt allowance observations, increasing risk of cashflow timing mismatch;

» Network Service Providers (NSP) generally target issuances at 10 years on average (with some issuances above or below the 10-year benchmark at typical market standard liquid tenors). A NSP does not typically issue less than 5-year debt in the bond market (creating issues around available and reliable observable benchmark cost references that can be applied) and is less likely to be attractive to the providers of NSP debt finance;

» The AER illustrative example relative to the QTC approach would involve additional costs including illiquidity premium, higher debt raising costs when fixed costs are duplicated by splitting an issuance into multiple smaller tranches and higher liquidity management costs;

» Tracking a more complex benchmark would require additional resources and greater reliance on derivatives to manage interest rate exposure resulting in:

- Additional transaction costs with banks;
- Additional staffing and administrative costs to implement, settle and manage a more complex debt and hedge portfolio; and
- Credit capacity with banks being tied up with derivatives used to track the benchmark, rather than being used to fund capital expenditute; and

» Multiple tranches of short-dated debt does not reflect efficient and prudent funding strategies of NSPs governed by treasury policies and procedures around prudent management of liquidity and refinancing risk.

5.2 Background and context

Since its 2013 Rate of Return Guideline, the AER has adopted a trailing average approach for the allowed return on debt. This approach reflects the costs that would be incurred by a benchmark efficient network that issued its debt in ten equal tranches of 10-year debt on a staggered maturity basis.

The AER has identified that its rationale for adopting the trailing average approach is that such an approach would best match the regulatory allowance to the cost of debt that would be incurred under a benchmark efficient debt management approach:

> *A trailing average was adopted because: it would reduce the difference between the return on debt[86] and the return on debt of a benchmark efficient entity;[87] it provided*

[86] That is, the allowed return on debt.

[87] That is, the cost that would be incurred by a benchmark efficient entity.

> *service providers with incentives to engage in efficient debt financing practices, which would support efficient investment; and it gave service providers a reasonable opportunity to recover at least their respective efficient debt financing costs.* [88]

The AER has also noted the support of the trailing average approach from consumer groups and networks alike over the period since its introduction in 2013.[89]

To date, the AER's implementation of the trailing average approach reflects the costs that would be incurred by a benchmark efficient network that issued its debt in ten equal tranches of 10-year debt on a staggered maturity basis, refinancing one of those tranches each year. However, the 2026 RORI will occur at a time when very significant amounts of new capital expenditure will be required to support the transition of Australia's energy grid. This has resulted in the AER considering whether the current equal weighting remains fit for purpose, or whether an adjustment to its trailing average approach might be required.

In particular, the AER has now identified a potential issue in circumstances where:

- A network is required to raise additional debt beyond the 10% of the debt portfolio that would roll over being refinanced each year; and
- The prevailing rate differs from the trailing average rate.

The AER has identified that:

> *Major transmission projects being delivered under the Australian Energy Market Operator's (AEMO) ISP are driving large, lumpy capital programs for several NSPs. These investments often require significant volumes of debt to be raised over short time periods, rather than following the simple trailing average assumption that around 10% of debt is financed each year at prevailing interest rates.*
>
> *When interest rates move materially over time, this mismatch in timing can result in over- or under-compensation. In these cases, the simple trailing average may no longer provide an efficient or accurate estimate of the return on debt for new investment.* [90]

ENA agrees that a simple trailing average allowed return on debt will not preserve the incentive for efficient investment in the circumstances identified by the AER above. Where rates have generally risen over time, the prevailing rate will exceed the trailing average. If additional debt (i.e., beyond the standard 10% rollover refinancing) is required, the tranche that rolls over and any additional debt will have to be raised at the prevailing rate. Setting the allowed return on any additional debt to the (lower) trailing average rate would create a disincentive to undertake that new investment.

In such a case, the incentive for efficient investment could be restored via the adoption of a weighted trailing average allowance that applies the prevailing rate to the tranche that rolls over and to additional debt that must (in practice) be raised at that prevailing rate.

---

[88] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.20.

[89] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.20.

[90] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.21.

5.3 Required features of a weighted trailing average approach

ENA submits that the following features should be adopted as part of any weighted trailing average approach:

» **All new debt is assumed to be raised at the prevailing benchmark rate**

In every regulatory year:

- The maturing tranche of debt is assumed to be refinanced at the prevailing benchmark rate – as is the case under the current trailing average approach; and
- Any additional debt (i.e., beyond the 'business as usual' refinancing of the expiring tranche) should also be assumed to be raised at the prevailing benchmark return on debt for that regulatory year.

Indeed, the rationale for the consideration of a weighted trailing average approach is to ensure that the regulatory framework preserves appropriate incentives for efficient investment by ensuring that the allowed return on debt is set in line with the cost of debt that would be incurred by a benchmark efficient network.

Since the 'additional debt' in any regulatory year would have to be raised at the prevailing rate in that year, the allowed return on debt should reflect that reality.

» **The transition approach that the AER has adopted since introducing the trailing average approach in 2013 should be applied to the additional debt**

When introducing the trailing average approach in 2013, the AER applied a transition mechanism whereby the benchmark firm was assumed to transition from having issued all of its debt at the prevailing rate to a 10-year trailing average over a 10-year period.

The basis of this transition is that each tranche of new debt is issued at the then prevailing rate, gradually reducing the weight applied to historical rates.

This transition mechanism has been supported by consumer groups and implemented by every network business since its first regulatory review after 2013.

The rationale for a transition mechanism in relation to the 'additional debt' is precisely the same as in the AER's 2013 Guideline. In both cases, a tranche of debt issued at the then prevailing rate is to be transitioned to a uniform trailing average over a 10-year period.

The AER has already developed a transition mechanism for the very task that is now required. That transition mechanism is familiar to stakeholders and (as we show below) it is very significantly simpler than alternative approaches.

The AER's existing transition mechanism underpins the approach proposed by QTC.

Consequently, ENA submits that the AER's existing transition mechanism should be maintained and used in the context of a weighted average allowed return on debt – there is no need and no benefit from the development of a new and materially more complex mechanism. Indeed, our proposed approach involves minimal changes to the existing framework.

» **The application of the prevailing rate to additional debt must relate to actual debt rather than forecast debt**

The primary objective of a weighted trailing average allowed return on debt is to ensure that the regulatory allowance matches the cost that would be incurred by a benchmark efficient network.

The efficient approach to raising debt that is required for new capital expenditure is to 'price' that debt when it is utilised. That is, the interest rate on debt is set (locked in) at the time the debt is actually required to fund the capital expenditure in question.

In the case where the allowed return on a tranche of debt is set to the benchmark rate at the time that tranche was forecasted to be required, and when it is actually required in a different regulatory year, there is a mis-match between the efficient cost of debt and the regulatory allowance.

Consequently, it is important that any weighted trailing average return on debt allowance must apply the benchmark rate to actual capital expenditure rather than forecast capital expenditure.[91]

We explain below that:

- The AER's roll-forward model already uses actual capital expenditure to update the RAB; and
- The 'financing benefit' component of the Capital Expenditure Sharing Scheme (**CESS**) module of the PTRM already embeds a true-up to ensure that the return on capital is ultimately applied to actual rather than forecast capital expenditure.

ENA submits that the weighted trailing average approach should be applied to all networks, via total debt in the PTRM, without the application of any threshold. This avoids the complexity of designing appropriate threshold levels that applies to all networks and any 'edge' cases where a small change to the capital expenditure forecast might move the network above or below an (inevitably arbitrary) threshold. It also avoids cases where a network might be above the threshold in some years and below it in others.

In the remainder of this section, we explain the rationale for each of the principles set out above. We also explain how our proposed approach is consistent with the commercial realities of how NSPs efficiently raise debt in financial markets.

5.4 The AER's existing transition approach should be adopted

We have identified above that, under a weighted trailing average approach:

» In addition to the maturing tranche that requires refinancing, the debt component of any additional capital expenditure in a regulatory year (i.e., beyond the standard 10% roll-over) is taken to be financed at the prevailing benchmark rate for that year; and

» A transition mechanism would apply to transition from the prevailing rate to a 10-year trailing average over a 10-year period; and

» The AER already has a transition mechanism for precisely that purpose, which has been applied in every AER determination since 2013.

In its August 2025 *Discussion Paper*, the AER floated the prospect of introducing a different transition mechanism and provided an illustrative example in an appendix to that paper together with an Excel spreadsheet showing how this new approach would work. The model shows that

[91] We note that it is the benchmark rate that is applied as part of the incentive-based regulatory framework.

the new approach requires a series of calculations to be performed over 800 rows of various formulas.

By contrast, the implementation of the AER's current transition approach requires only ten rows – one for each tranche of debt. This is illustrated in the submissions and illustrative models already provided by QTC.

ENA submits that the AER's current transition approach (as adopted by QTC) should be maintained because:

- The AER already has a transition mechanism for precisely the purpose of transitioning from a prevailing rate to a 10-year trailing average over a 10-year period;
- The existing transition method has been applied in every AER determination since 2013;
- The existing transition method more broadly aligns with real world efficient financing practices; and
- The existing transition method is straightforward, well-understood and accepted whereas the potential alternative is at best unwieldy and unnecessarily complicated.

Under the approach raised in the *Discussion Paper*, a network with (say) a 3-year capital expenditure program is assumed to issue 10 separate tranches of debt in Year 1, another 10 separate tranches of debt in Year 2, and another 10 separate tranches of debt in Year 3.

ENA submits that such an approach is not an appropriate regulatory benchmark. Not only is such an approach highly inefficient, it is also practically impossible. The commercial realities are that:

- It is impractical for a firm to issue more than 2-3 tranches of debt at a point in time, with any additional tranches being misaligned with the timing of AER debt allowance observations, increasing the risk of cashflow timing mismatch;
- It is not practical to issue multiple small tranches of debt, noting that bond markets have minimum benchmark size issuances and debt investors would not look favourably upon networks issuing multiple small sub-benchmark size issuances;
- networks generally issue longer-term bonds that meet the market 'sweet spot' for tenor such as 5, 7, 10 years as well as beyond 10 years such as 12 and 15 year tenors. The maturity dates are staggered to manage refinancing risk such that on average, this broadly aligns with the QTC and existing transition approach of assuming 10-year debt transitioning over time to 10-year trailing average. A NSP does not typically issue less than 5-year debt in the bond market (creating issues around available reliable and robust observable benchmark cost references that can be applied) and is less likely to be attractive to the providers of NSP debt finance. These points are further explored in the separate Competition Economists Group report (**Attachment B**)[92]; and
- Transaction costs increase when fixed costs are duplicated by splitting an issuance into multiple smaller tranches and issuing bonds in off tenors and smaller volumes can also increase the cost of debt with additional illiquidity premiums. Issuing multiple short-dated tenors also raises liquidity costs and is not reflective of prudent risk management practices.

[92] See CEG *Implementing a weighted trailing average cost of debt,* December 2025, [3] and Figure 1-1.

That is, even if a network were to try to replicate this multi-tranche approach, it would be unable to do so in real-world financial markets.

By way of analogy, the rate-on-the-day approach assumes that the benchmark firm would issue all of its debt in a single tranche at the beginning of a regulatory period, but the AER has accepted that it would not be efficient or practical for a network to do that.

ENA notes that the same logic should be applied to the transition in this case. The new approach that the AER has floated should be rejected on the basis that it is neither efficient nor practically possible for a firm to issue debt in that manner and would introduce a lot more complexity to the modelling and administration to the cost of debt allowance.

The CEG Report *Implementing a weighted trailing average cost of debt* (**Attachment B**) provides further discussion of this issue

5.5 The necessity of using actual rather than forecast capital expenditure

We have identified above that the efficient approach to raising debt that is required for new capital expenditure is to 'price' that debt when it is utilised. That is, the interest rate on debt is set (locked in) at the time the debt is actually required to fund the capital expenditure in question.

During the 2022 RORI process, networks identified the difficulty of accurately forecasting capital expenditure requirements years in advance, particularly for major ISP type projects. Projects can be significantly delayed for a range of reasons including landholder objections and the ability to secure the required labour and materials. In addition, project costs can turn out to be significantly higher than originally forecast.

Consequently, setting rates based on forecast capital expenditure can result in material mismatches in relation to:

- The rate that is adopted – because capital expenditure is actually spent and debt is actually raised in a different year than the forecast; and
- The weight that is adopted – because the quantum of capital expenditure actually spent and debt actually raised in a particular year is different from the forecast.

For example, during the 2022 RORI process, Transgrid identified that:

> *Most networks have predominantly incremental (BAU) CAPEX requirements, so a difference in weighting schemes may not be material for them. For the networks that do have substantial new CAPEX requirements, such as TransGrid, there is significant uncertainty about the timing of that expenditure – due to uncertainty about regulatory approvals, internal business case approvals, and acquisition of financing. Consequently, it is very difficult to accurately forecast the timing of CAPEX requirements over a 5-year period.*[93]

[93] Transgrid letter to AER, September 2020, p.6; available at https://www.aer.gov.au/system/files/TransGrid%20-%20Submission%20-%20Overall%20rate%20of%20return%2C%20Equity%20and%20Debt%20-%203%20September%202021.pdf.

ENA submits that it is essential that any weighted trailing average approach must reflect actual capital expenditure. An approach that adopts weights based on forecast capital expenditure is inconsistent with the objective of matching the regulatory allowance to the benchmark efficient cost and could exacerbate the problem that the weighted trailing average is designed to fix.

We demonstrate below that the required matching can be easily achieved, and is essentially already achieved, via the CESS module within the AER's current framework.

We also note that the roll-forward model already updates the RAB according to actual, rather than forecasted, capital expenditure. It is our view that the model is best placed to recalculate the WACC using the actual capital expenditure to weight the historical cost of debt and this is applied to the actual capital expenditure incurred (for the half-WACC adjustment) each year to reflect the true RAB.

5.6 The required application to actual capital expenditure is already performed in the AER's existing regulatory framework

We have noted above that the RAB roll-forward model already uses actual capital expenditure to update the RAB. Accordingly, it is proposed that the weighted trailing average would be updated at the start of every regulatory period to reflect actual weighting based on actual capital expenditure.

In addition, we demonstrate below that the CESS module of the PTRM already embeds a true-up to ensure that the return on capital is ultimately applied to actual rather than forecast capital expenditure. The only change required here is that the return on debt reflect the actual capital expenditure incurred by the network in each regulatory year (and its consequential impact on the overall weighted return on debt for the relevant year).

In particular, the AER's PTRM already includes a module for the calculation of the CESS, which performs the following tasks:

- The CESS module identifies the difference between actual and forecast capital expenditure for each year of the regulatory period and allows the regulated business to retain 30% of any capital expenditure underspend and applies a symmetric 30% penalty to any overspend.
- The CESS module also identifies any financing benefit or deficit arising from the difference between forecast and actual capital expenditure. For example, if actual capital expenditure turns out to be (say) $20 million less than forecast, the regulated firm will receive a return on $20 million of capital that it did not deploy. The CESS module computes the quantum of such a financing benefit (or a financing deficit in circumstances where the actual capital expenditure exceeds the forecast).
- The CESS module then applies an NPV-neutral adjustment to the required revenues over the subsequent regulatory period.

The economic effect of the above components of the PTRM is that the regulated firm is ultimately:

- Allowed to recover actual capital expenditure rather than forecast capital expenditure;
- Provided with the allowed return on actual capital expenditure; and
- Provided a (symmetric) incentive payment of value equal to 30% of the capital expenditure under- or over-spend in each regulatory year.

All of these payments are given effect via an NPV-neutral adjustment to the required revenues over the subsequent regulatory period.

It is important to recognise that the existing PTRM already incorporates a true-up between forecast and actual capital expenditure, such that the regulated firm recovers, and receives an allowed return on, actual capital expenditure.

ENA submits that the application of the prevailing cost of debt to actual capital expenditure, implemented via the CESS module of the PTRM, would be maintained under the weighted trailing average approach. The only adjustment to the calculations within the CESS module is that while currently the financing benefit is only looking at differences in capital expenditure, ignoring differences in WACC, it can be adjusted so that it reflects cost of capital differences in the context of the weighted trailing average.

We have provided a separate worked example Excel model (**Attachment C**) showing how this small modification to the CESS module would be applied. It requires the modification of the rows calculating the financing benefit in the CESS module – simply to reflect the effect of the actual capital expenditure on the weightings applied to the return on debt allowance in each regulatory year / capital expenditure spend year. In the worked example, this is accomplished by comparing the allowed return on capital (forecast weights) for the forecast capital expenditure to the actual cost of capital (actual weights) for the actual capital expenditure, while also reflecting the impact on the existing RAB (via the impact of actual capital expenditure on weightings for the cost of debt).

While we have proposed one approach to modifying the CESS to identify the impact of capital expenditure underspends/overspends via the weighted trailing average, we understand that there may be other methods by which the CESS is modified so that the impact is accounted for correctly.

It is our view that the RFM spreadsheet is best placed to recalculate the WACC using the actual capital expenditure to weight the historical cost of debt.

It is our view that this modification is necessary to correctly identify the financing benefit of capital expenditure underspends/overspends. If not, the CESS benefit/penalty will not be calculated correctly and so too will the sharing ratio not be that as decided by the AER, i.e. the incentives will not be set correctly in the long-term interest of consumers.

5.7 Incentive-based vs. cost-of-service regulation

The AER has identified a potential concern relating to the incorporation of a true-up mechanism within the context of a weighted-average allowed return on debt.

In particular, the AER identifies the importance of its incentive-based framework:

> *Incentive-based regulation is central to the AER's approach to regulating energy network businesses. It rewards regulated businesses for improving consumer outcomes by realising efficiency gains, reducing costs and improving service outcomes.* [94]

The AER then expresses the concern that:

[94] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.22.

The use of a true-up to effectively adjust the weighted trailing average return on debt to use actual capital expenditure could move the model even further towards cost-of-service regulation. [95]

ENA submits that the AER should have no real concern about a weighted trailing average approach moving its regulatory model away from an incentive-based framework towards a cost-of-service framework. This is because:

- The type of true-up that would be applied under the proposed weighted trailing average approach is already applied in the existing PTRM. The only change is that the return on debt allowance is adjusted for the actual capital expenditure incurred by the network in each regulatory year. Thus, there is no change to the AER's existing approach other than the application of a different rate of return to a component of the debt portfolio; and
- The allowed return on debt is based on independent third-party benchmarks, not a regulated firm's actual cost of debt or the average actual cost of debt across regulated firms. ENA considers the use of such independent third-party benchmarks to be an important component of incentive-based regulation.

5.8 The weighted trailing average approach should be applied to all networks

ENA submits that the weighted trailing average approach should be applied to all networks, via total debt in the PTRM, without the application of any threshold.

We recognise that the application of thresholds in the form of dollar values and/or percentage of RAB have been contemplated. However, ENA considers that the weighted trailing average approach should be applied equally to all networks without the application of any threshold because:

- Application is straightforward if the AER's current transition approach is maintained and applied to new debt beyond the standard 10% roll-over;
- The true-up to ensure the return on capital is ultimately applied to actual, rather than forecasted, capital expenditure is already performed in the CESS module of the PTRM for all networks; and
- The application of a threshold would be inevitably arbitrary. Although the benefits would be small for a network with a small amount of incremental debt, the costs are also small so long as the AER's current transition approach is applied.

ENA submits that the weighted trailing average approach should be applied to all networks, via total debt in the PTRM, without the application of any threshold.

If the AER agrees that the weighted trailing average approach should be applied to all networks (to avoid 'edge' type cases), there will inevitably be some cases where the amount of additional debt (beyond the 10% roll-over) is small. In such cases, it is even more impractical to divide a small amount of debt into 10 separate tranches each year.

[95] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.23.

Consequently, adopting the AER's current transition mechanism (as per the illustrative example from QTC) becomes even more important if the weighted trailing average is to apply to all networks.

5.9 Additional efficient costs of issuing debt

Adoption of the approach set out in the illustrative model provided with the AER *Discussion Paper* also has the potential to increase the efficient costs of network service providers seeking to adopt a benchmark efficient financing strategy.

These costs would take a number of forms, including:

- Increased transaction costs where fixed cost elements of debt issuance are duplicated across an increased number of smaller and shorter-dated tranches produced by the model – these include legal fees, registrar annual fees and agent fees, which is again duplicated with incursion of these costs upon earlier refinancing of the shorter-dated tenors. Multiple small sub benchmark size issuances would also increase costs subject to minimum thresholds, such as rating agency upfront rating fees;
- Higher interest costs or illiquidity premiums associated with issuing debts into illiquid debt tenors (i.e. those outside of traditional 5, 7, 10, 12 and 15 year tenors) or for multiple small sub benchmark size issuances;
- Additional costs arising from tracking a more complex benchmark would require, for example greater reliance on derivatives to manage interest rate exposure resulting in:
  - Additional transaction costs with banks;
  - Additional staffing and administrative costs to implement, settle and manage a more complex debt and hedge portfolio; and
  - Credit capacity with banks being tied up with derivatives used to track the benchmark, rather than being used to fund capital expenditure; and
- NSP treasury policies and procedures and prudent risk management practices to manage liquidity and refinancing risk would result in higher liquidity management costs under the AER illustrative example when compared to the existing transition approach under the QTC approach.

The CEG Report *Implementing a weighted trailing average cost of debt* (**Attachment B)** provides further discussion of this issue, and estimates of resulting illiquidity premia discussed above drawn from analysis of actual network debt data.

6 Third-party yield curve data

6.1 Summary

ENA agrees with the AER that the allowed return on debt should be estimated using independent third-party data sources. Such independent estimates are consistent with the AER's incentive-based form of regulation.

ENA supports the use of all relevant data and evidence as an important component of best practice regulation. To that end, ENA supports the AER's proposed re-inclusion of Reserve Bank of Australia (RBA) estimates and the application of equal weight to each of the three independent third-party estimates – consistent with the general practice of past RORIs.

However, ENA proposes that the RBA data should be incorporated via a straightforward extrapolation of the yield estimates published by the RBA. We explain below that we consider a straightforward extrapolation of the yield (without the need to independently obtain swap data from commercial sources or to use that data to derive spread risk premiums) is an approach that is simpler, more transparent and more accessible, and produces more accurate results than the approach proposed in the *Discussion Paper*.

ENA further proposes that, if the swap spread approach is to be used (which we do not recommend), those spreads must be tenor-adjusted (i.e. to match the tenor of the yields to which they are applied) to avoid embedding error in the estimates.

6.2 Background and context

In its August 2025 *Discussion Paper*, the AER identifies the benefits of using three independent third-party data sources as the basis for the allowed return on debt:

> *In the 2022 RORI, we estimated the return on debt using independent third-party yield curves constructed from data published by three providers: the RBA, Bloomberg and Refinitiv. This approach was supported by our EICSI analysis, which showed that all three sources performed well with no material outperformance once term differences were accounted for. Using multiple data providers helped reduce volatility and supported robust return on debt estimates.* [96]

The AER further identified that the RBA ceased publishing all of the data that was required to compute the RBA estimate using the approach set out in the 2022 RORI, in which case it was required to rely on the two remaining estimates. In particular, the 2022 RORI did not contemplate alternative calculation methods – only that a third-party estimate would be removed from the average calculation if it could not be computed in the manner set out in the RORI.

The AER explains that alternative sources of data (swap spreads) are available and proposes to use that other data to re-create an RBA-based estimate of the required return on debt in the manner set out in the 2022 RORI:

> *To enable this in the 2026 RORI, we propose amending the relevant clauses of the 2022 RORI. Specifically, we propose continuing to use the RBA's monthly corporate*

[96] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.35.

bond yield data and calculating swap-adjusted yields using swap rate data from either Bloomberg or Refinitiv, depending on availability. This approach would very closely approximate the RBA swap-adjusted yield curve used previously and support consistent, reliable return on debt estimates. [97]

6.3 The use of independent third-party estimates of the required return on debt

ENA agrees with the AER's longstanding approach of using independent third-party data sources as the basis for its allowed return on debt. The key benefit of such independent third-party estimates is that no network is able to influence the allowed return by changing the way in which it raises debt finance.

These independent estimates are consistent with the AER's incentive-based approach to regulation whereby each network is free to depart from the regulatory benchmark keeping the benefits and incurring the costs of any such departure. Importantly, any such departure does not affect the regulatory benchmark itself.

By contrast, setting the allowed return on debt on the basis of the observed cost of debt for a particular firm, or for the average regulated firm, would be a step away from incentive-based regulation towards cost-of-service regulation.

Moreover, in its 2022 RORI process, the AER concluded that the allowed return on debt computed using the independent third-party data sources almost exactly matched the observed return on debt computed using the AER's EICSI approach.

Thus, the third-party data sources had the twin benefits of:

- Matching almost perfectly the observed cost of debt actually incurred by regulated networks; and
- Remaining independent of the debt management practice of any regulated network, thus preserving the essential characteristics of incentive-based regulation.

For these reasons, ENA supports the AER's longstanding approach of using third-party data sources as the basis for its allowed return on debt.

6.4 Reintroduction of an RBA estimate as one of three independent third-party data sources

ENA agrees with the general approach of having regard to all relevant evidence, including in relation to the allowed return on debt.

The AER has previously stated that it considers all three of the independent third-party data sources to provide relevant estimates of the required return on debt for a benchmark efficient firm. Whereas the three data sources provide somewhat different estimates from time to time, none is consistently higher or lower than the other two. And, as discussed above, the simple

[97] AER, August 2025, *Rate of return instrument: Review discussion paper*, p.35.

average of all three produces an estimate that almost perfectly matches the observed cost of debt for network businesses.

Consequently, ENA supports the continued use of the three independent third-party data sources.

6.5 Computing the RBA estimate by simple extrapolation

Overview

ENA submits that the RBA data should be incorporated via a straightforward extrapolation of the yield estimates published by the RBA.

The RBA has always published, and continues to publish, the data that is required to perform a simple extrapolation of the yield, being:

- The actual terms of the 7-year and 10-year target groups; and
- The actual yields of the 7-year and 10-year target groups.

The extrapolation of (say) a 6.5-year yield and (say) a 9.0-year yield to a 10-year yield is a straightforward calculation. It is also transparent and the required data is easily accessible for all stakeholders.

Most importantly, however, the straightforward extrapolation is more correct and more accurate than the approach proposed in the *Discussion Paper*.

Error in the AER's proposed approach

To see why this is the case, consider the above example where the actual terms of the two RBA bond portfolios are 6.5 and 9.0 years, respectively. In this case, the AER's proposed approach is essentially as follows:

- Take the yield on 6.5-year bonds and subtract the 7-year swap yield to obtain what is interpreted as a 6.5-year swap risk premium;
- Take the yield on 9.0-year bonds and subtract the 10-year swap yield to obtain what is interpreted as a 9.0-year swap risk premium;
- Extrapolate the estimated 6.5-year and 9.0-year swap risk premiums to estimate a 10-year swap risk premium; and
- Add that estimate of the 10-year swap risk premium to the observed 10-year swap yield to obtain an estimate of the 10-year yield.

The problem with this approach is that the swap risk premiums are estimated with error. For example, in the first step above:

- The correct estimate of the 6.5-year swap risk premium would be obtained by deducting the 6.5-year swap yield; however
- The AER's proposed approach instead deducts the 7-year swap yield.

Because the 'timing gap' is 0.5 years in the first case and 1.0 years in the second case, there is also an error in the computation of the slope between the two.

Thus:

- Both swap yields are estimated with error; and

» The slope is also estimated with error.

These two errors will tend to compound to produce an aggregated error in the estimate of the 10-year yield.

Quantifying and removing the error

The error identified above can be (obviously) eliminated by:

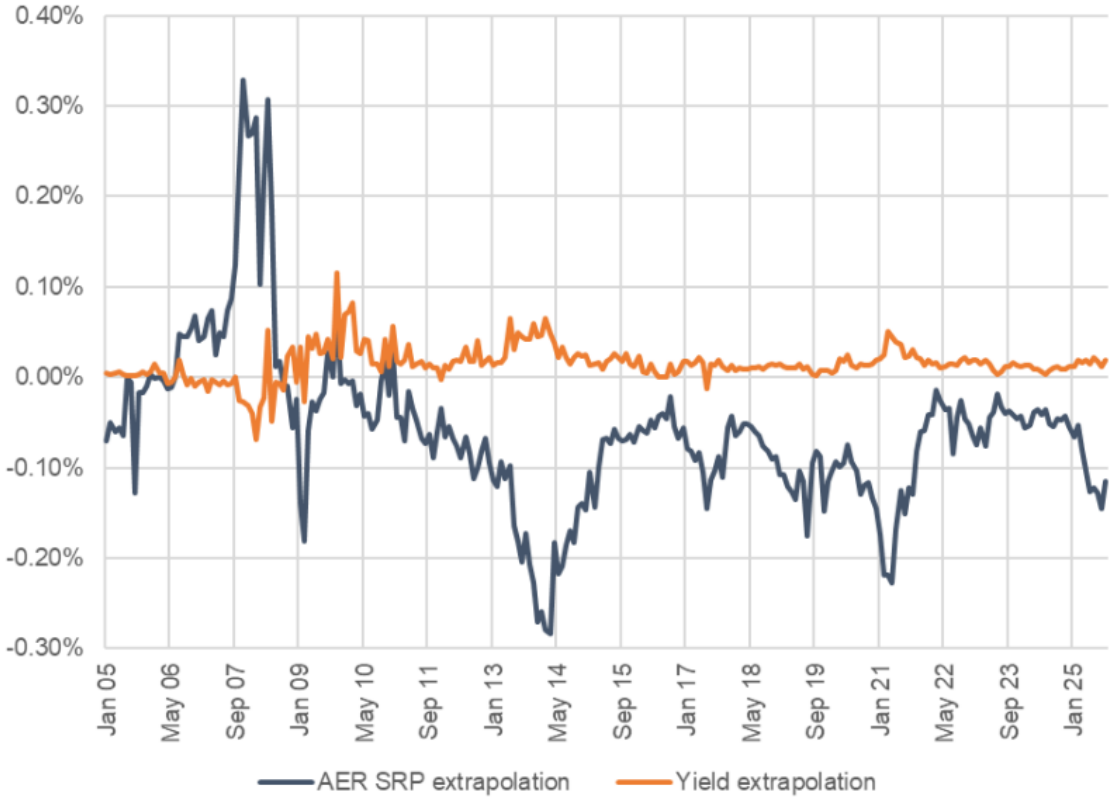
» Subtracting the 6.5-year swap yield from the 6.5-year bond yield; and

» Subtracting the 9.0-year swap yield from the 9.0-year bond yield,

and performing the extrapolation on those two more accurate and internally consistent estimates of swap risk premiums.

Analysis from QTC illustrates this point. **Error! Reference source not found.** below documents the extent of the error. The AER's proposed extrapolation approach has produced errors that vary considerably over time.

Figure 14: QTC estimates of error in different RBA extrapolation methods



Source: QTC, December 2025, Submission to the 2026 Rate of Return Instrument Review Discussion Paper, p. 12.

The QTC analysis in the figure above also demonstrates that the simple approach of extrapolating the RBA's yield estimates produces outcomes that are materially more accurate and materially less volatile.

ENA recommendation

ENA proposes that the RBA data should be incorporated via a straightforward extrapolation of the yield estimates published by the RBA. We consider a straightforward extrapolation of the yield (without the need to independently obtain swap data from commercial sources or to use that data to derive spreads to swap) is an approach that is simpler, more transparent and more accessible, and produces more accurate results than the approach proposed in the *Discussion Paper.*

ENA further proposes that, if the swap spread approach is to be used (which we do not recommend), those spreads must be tenor-adjusted (i.e., to match the tenor of the yields to which they are applied) to avoid embedding error in the estimates.

7 Response to consultation questions

7.1 Overall priority for assessment

Question 1

Are there other issues, beyond the weighted trailing average, equity beta and third-party yield curves stakeholders wish to raise? If yes, what are these and why do you consider they warrant consideration during the review?

ENA agrees with the proposed scope of the streamlined 2026 Instrument review, noting as set out in Section 2.1 we identify a range of additional issues which it would be appropriate to consider well prior to the next Instrument review.

7.2 Equity beta

Question 1

Do you agree with our preliminary options, as outlined in section 5.1.3? If not, why not? Are there any other potential options that you would like us to consider?

ENA agrees that the only viable option is to have regard to evidence from international comparators.

Question 2

How could we use the equity beta estimates of international energy firms to inform our decision on equity beta?

ENA explains in Section **Error! Reference source not found.** our view that the international and domestic comparators should be considered together.

We do not consider that all of the domestic evidence strongly supports a figure of 0.6 such that one would only deviate from that figure in there was compelling evidence to do so:

- That estimate is based on a very small sample of firms, most of which were de-listed before that estimate was made;
- Only two of the nine domestic comparators were within ±33% of 0.6 when that figure was adopted; and
- The AER's own estimate of beta changed very materially in both its 2013 and 2018 rate of return review processes – so the AER has not considered that the domestic beta has been stable over time.

Question 3

What other filters and/or adjustments should we make to international energy firms and their equity beta estimates to make them more comparable to the equity beta estimates of Australian regulated energy networks, as outlined in section 5.1.2.1?

We show in Sections **Error! Reference source not found.** that a number of different international comparator sets all produce broadly the same range of estimates. Consequently, we

recommend the consideration of a range of different comparator sets rather than the compilation of a single set.

Question 4

Do you have any suggestions on how best to address the leverage anomaly, as outlined in section 5.1.2.2?

We explain in Section **Error! Reference source not found.** and in **Attachment A** that:

- It is imperative to re-lever equity beta estimates to the AER's selected benchmark gearing to ensure that proper like-with-like comparisons can be made. ENA considers this to be an important aspect of standard practice. We do not consider this to be an anomaly;
- We recommend that the AER retain its existing benchmark gearing assumption, noting that this will avoid the very significant complications that would flow from any change to that parameter; and
- A debt beta of zero is commonly used in practice, but that some regulators adopt positive debt betas – predominantly in the range up to 0.1. We do not consider there to be sound evidence to support the use of debt beta above 0.1.

Question 5

Do you have any suggestions on how best to address the issue of different domestic indices between Australian and international firms, as outlined in section 5.1.2.3?

We explain in Section **Error! Reference source not found.** that there are significant differences in the composition of the Australian market over time, including the period over which AER has compiled its beta estimates.

We also show that the standard (indeed uniform) process in regulatory and commercial settings is to make no adjustment for any perceived differences in the composition of market indexes.

For these reasons, we recommend that no adjustments should be made in this regard.

Question 6

Other than the comparator set, do you have any comments on any other aspects of our approach to estimating equity beta?

No. ENA considers that the selection of the comparator set is the key issue that must be addressed during the 2026 RORI process.

7.3 Weighted trailing average approach to the allowed return on debt

Question 1

Introduction of a weighted trailing average approach:

(a) Do you in principle support the introduction of some form of weighted trailing average (qualified by your answers to the later questions in this section)? Please include reasons.

For the reasons set out in Section **Error! Reference source not found.** above, ENA supports the introduction of a weighted trailing average approach to the allowed return on debt, however, it needs to be implemented in a simple and practicable way.

We have explained above that a properly designed weighted trailing average would ensure that the allowed return on debt more broadly matches the costs that would be incurred by a benchmark efficient entity.

We have also explained above (and in the answers to subsequent questions below) that there are a number of key design features that are essential. Key among these are that:

- Any additional debt (i.e., beyond the standard 10% roll-over) that is assumed to be financed at the prevailing rate would then transition to a trailing average over 10 years using the AER's current transition mechanism; and
- The weights would ultimately depend on actual rather than forecast capital expenditure (where this feature can be implemented via the true-up component of the CESS module in the PTRM and adopting the actual weightings at the start of every regulatory period).

ENA is strongly opposed to the introduction of any weighted trailing average approach that does not incorporate both of the above features.

Question 2

Application of the weighted trailing average approach:

(a) Should it apply to all NSPs by default, or only when forecast capital expenditure exceeds a certain threshold? Please include reasons.

(b) If a threshold is preferred, what kind of threshold would work best (e.g. a percentage of RAB and/or a fixed dollar amount or some other measure/s), and what level would be appropriate for your suggested trigger/s? Please include reasons.

ENA proposes that the weighted trailing average approach should be applied to all networks, via total debt in the PTRM, without the application of any threshold. This avoids complexity of designing threshold levels that can apply to all networks and avoids any 'edge' cases where a small change to the capital expenditure forecast might move the network above or below an (inevitably arbitrary) threshold. It also avoids complex cases where a network might be above the threshold in some years and below it in others.

Question 3

How the true-up mechanism should work:

(a) Do you support using a true-up to reduce the risk from capital expenditure forecasts? If you do or do not, please explain why.

(b) What do you consider a preferred method of applying a true-up? Would it be through adjustments to the rate of return during the regulatory period (i.e. some form of rolling true-up), or

through an adjustment to the rate of return in the next regulatory period (potentially at the time of the RAB roll forward calculations)? Why?

(c) If a rolling return based true-up with a two-year lag were adopted, are there specific implementation risks or modelling issues we should consider? Why?

For the reasons set out in Section **Error! Reference source not found.** above, ENA considers that a true-up should be implemented via the CESS module within the PTRM and reflecting actual weightings at the start of every regulatory period. We have explained above that the CESS module already effectively embeds a true-up such that the allowed return on capital is applied to actual rather than forecasted capital expenditure.

The only change that would have to be made is to estimate the financing benefit (or deficit) using the weighted average rate using the actual capital expenditure rather than applying the forecast capital expenditure.

We have attached an illustrative model (**Attachment C**) to demonstrate how this approach would work, how it is consistent with the current CESS framework, and how it is straightforward to implement.

Question 4

Interaction with the CESS:

(a) Could financing benefits or losses be double-counted under both a true-up and the CESS? Why?

(b) If so, should the CESS be amended after the Rate of Return Instrument is made to ensure it operates as intended?

For the reasons set out in Section **Error! Reference source not found.** above, and as illustrated in the attached model (**Attachment C**), there is no potential for double counting and no need for any further amendment to the CESS. This is because there is no true-up calculation in addition to the CESS.

Rather, the required true-up is implemented as a component of the CESS module – as is currently the case.

The only change to the current approach is that the financing benefit on additional debt must be computed using the weights derived from the actual capital expenditure incurred – in accordance with the weighted trailing average approach.

Question 5

Reporting:

(a) Are there any concerns with changes that might be needed to Regulatory Information Notices, the Roll-Forward Model, or the RORI?

ENA does not foresee that any changes would be required to reporting processes.

As noted above, the only change that is required is the application of a different return on debt when applying the half-WACC return on capital expenditure in the Roll-Forward Model and computing the financing benefit that applies to capital expenditure movements and Asset Base within the CESS module of the PTRM. But the prevailing rate that would be applied for that purpose is a benchmark rate computed by the AER.

Question 6

Costs:

(a) Are there likely to be material incremental costs imposed on network businesses from applying a weighed trailing average to them (e.g. additional hedging or other financial transaction costs). If yes: what would these costs relate to (e.g. additional financial transactions of a given type); how large would you expect these to be; are these costs one-off or transitional; and what scheme design elements might reduce any incremental costs?

As discussed in Section 5.9 the adoption of the approach set out in the illustrative model provided with the AER *Discussion Paper* also has the potential to increase the efficient costs of network service provider seeking to adopt a benchmark efficient financing strategy.

These costs would take a number of forms, including:

- Increased transaction costs where fixed cost elements of debt issuance are duplicated across an increased number of smaller and shorter dated tranches produced by the model – these include legal fees, registrar annual fees and agent fees, which is again duplicated with the incursion of these costs upon earlier refinancing of the shorter-dated tenors. Multiple small sub benchmark size issuances would also increase costs subject to minimum thresholds, such as rating agency upfront rating fees;
- Higher interest costs or illiquidity premiums associated with issuing debts into illiquid debt tenors (i.e. those outside of traditional 5, 7, 10, 12 and 15 year tenors) or for multiple small sub benchmark size issuances;
- Additional costs arising from tracking a more complex benchmark would require, for example greater reliance on derivatives to manage interest rate exposure resulting in:
- Additional transaction costs with banks;
- Additional staffing and administrative costs to implement, settle and manage a more complex debt and hedge portfolio; and
- Credit capacity with banks being tied up with derivatives used to track the benchmark, rather than being used to fund capital expenditure; and
- NSP treasury policies and procedures and prudent risk management practices to manage liquidity and refinancing risk would result in higher liquidity management costs under the AER illustrative example when compared to the existing transition approach under the QTC approach.

The CEG Report *Implementing a weighted trailing average cost of debt* (**Attachment B**) provides further discussion of this issue.

Question 7

Transition:

(a) What transitional arrangements or lead times would be necessary to help NSPs prepare for a change to a weighted trailing average?

ENA does not consider that any lead time beyond the standard regulatory review process would be required.

This is because additional debt will have to be raised at the prevailing rate regardless of the AER's approach to setting the regulatory allowance. The reality is that real-world debt issued (or 'priced') at a particular point in time will incur the prevailing rate at that point in time. Thus, the question is whether the AER's regulatory allowance will match the rate that the network will inevitably incur. For example, if the AER decided to maintain a uniform trailing average, there is no sense in which a network, even with substantial notice, could go back and issue debt at historical rates in order to match the AER's allowance.

Question 8

Overall design:

(a) Does the proposed approach strike the right balance between incentive-based benchmark regulation and greater use of firm-specific cost information that may move the trailing average approach closer to cost-of-service regulation?

For the reasons set out in Section **Error! Reference source not found.** above, ENA does not consider that a weighted trailing average approach moves away from incentive-based regulation towards cost-of-service regulation at all. Rather, it ensures that the regulatory allowance best matches the costs that would be incurred by a benchmark efficient network.

We note that:

- The allowed return on debt is set on the basis of independent third-party data sources, not observed costs of regulated networks; and
- A true-up to ensure that the allowed return is applied to actual rather than forecast capital expenditure is already a feature of the existing PTRM via the roll forward model and the CESS module.

(b) Does the proposed approach strike the right balance between accuracy, simplicity and regulatory consistency? Why?

We have explained above that there are a number of key design features that are essential. Key among these are that:

- Any additional debt (i.e., beyond the standard 10% roll-over) that is assumed to be financed at the prevailing rate would then transition to a trailing average over 10 years using the AER's current transition mechanism; and
- The weights would ultimately depend on actual rather than forecast capital expenditure (where this feature can be implemented via the true-up component of the CESS module in the PTRM).

These features ensure that only minor changes to the current regulatory model are required *and* that the regulatory allowance best matches the costs that would be incurred by a benchmark efficient network.

ENA is strongly opposed to the introduction of any weighted trailing average approach that does not incorporate both of the above features.

(c) Would the use of a weighted trailing average add material regulatory burden and/or cost for NSPs to which it would apply? If yes, what are these likely to be?

As explained above, ENA supports the weighted trailing average approach, subject to the two key features that ensure that the additional regulatory burden does not outweigh the benefits of the proposed approach.

(d) Are there any other ideas or refinements we should consider? If yes, what are these?

ENA supports a weighted trailing average approach that incorporates the two key features identified above and we are strongly opposed to the introduction of any approach that does not incorporate both of the above features.

7.4 Third-party yield curve data

Question 1

Do you support the reintroduction of the use of RBA yield curve data combined with Bloomberg or Refinitiv swap data? If no, why not?

ENA agrees with the AER that the allowed return on debt should be estimated using independent third-party data sources. Such independent estimates are consistent with the AER's incentive-based form of regulation.

ENA supports the use of all relevant data and evidence as an important component of best practice regulation. To that end, ENA supports the AER's proposed re-inclusion of RBA estimates and the application of equal weight to each of the three independent third-party estimates – consistent with the general practice of past RORIs.

Question 2

Are there any concerns with the proposed method of calculating the return on debt in the absence of RBA spread to swap data (i.e. using swap rate data from another source)?

ENA is concerned that the method proposed in the *Discussion Paper* embeds an error in the extrapolation estimate of the 10-year yield – as explained in Section 6 of the submission.

ENA proposes that the RBA data should be incorporated via a straightforward extrapolation of the yield estimates published by the RBA. We consider a straightforward extrapolation of the yield (without the need to independently obtain swap data from commercial sources or to use that data to derive spreads to swap) is an approach that is simpler, more transparent and more accessible, and produces more accurate results than the approach proposed in the *Discussion Paper.*

ENA further proposes that, if the swap spread approach is to be used (which we do not recommend), those spreads must be tenor-adjusted (i.e., to match the tenor of the yields to which they are applied) to avoid embedding error in the estimates.

8 Considerations for Independent Panel

8.1 Context for the 2026 review

When considering the allowed return on return, relevant context for the Panel is:

- Networks will be required to undertake substantial new investment to support and enable the decarbonisation of the Australian economy; and
- The task of the regulator is to estimate an unbiased rate of return which is sufficient to enable efficient levels of private sector capital investment. The AER is seeking to estimate an unobservable 'efficient' price, noting that the regulatory estimate reached does not change the true value, and such a required return cannot itself be lowered or raised by a 'balancing' of different stakeholder views. The AER has previously stated that the long-term interests of consumers are best met by setting an allowed return that reflects the market cost of capital.

8.2 Scope of review and performance of the 2022 Instrument

The relevant context for the Panel around issues of the scope of review and the performance of the current Instrument is:

- Energy network businesses support a limited scope for the 2026 review, noting that a range of additional issues warrant further review well ahead of the scheduled 2030 review;
- There is contested and mixed evidence of the performance of the 2022 Instrument;
- Significant new transmission investments have reached investment decisions through supportive concessional financing interventions from the publicly funded Clean Energy Finance Corporation, and a range of jurisdictionally specific derogated regimes have been created to underwrite major new transmission investments required to connect new renewable generation zones;
- Increased government financing costs, moving from historic lows experienced under past Instruments, are likely to make the types of concessional finance support and other publicly sourced funding of network infrastructure that have occurred less available across the operation of the 2026 Instrument, placing a strong premium on well-calibrated investment incentives in the Instrument;
- Survey evidence from infrastructure investors indicates continuing caution around regulatory risk arising from past AER decisions, including those relating to rate of return settings;
- While substantial new capital investment is being proposed in recent network determinations, the proposed investments are required to deliver service, safety and reliability obligations, taking into account evolving consumer expectations. The AER has previously, correctly, indicated that it is invalid to draw implications from investment trends for rate of return issues, and has not consulted on any change in analytical approaches in this area; and
- While the regulatory regime provides a range of mechanisms to address uncertainty that have the capability to lower exposure to systematic risks, these have not materially changed since 2012, and will therefore be already reflected in market data on risk issues. The only material development in this regard is that recent AER draft determinations for gas networks appear to contemplate a conscious *ex ante* under-recovery of prudently incurred past

expenditure under the AER's forward forecasts. It is difficult to conclude, therefore, that regulatory risk has reduced compared to either the 2018 or 2022 Instruments.

8.3 Reaching a sustainable beta estimation methodology

Past Independent Panels have considered the need to develop alternative beta estimation approaches in detail. In this context, ENA considers the following points should be noted:

- The critical central task for the AER in the 2026 review is to develop a transparent, replicable methodology giving genuine substantive weight to market evidence drawn from international beta estimates, which can through time replace the increasingly 'stale' Australian evidence;
- The use of international evidence as either a conceptual 'upper bound' on historical Australia data, or constraining its use to that of a piece of evidence in accepting or rejecting the AER's past equity beta estimate of 0.6 would provide inadequate certainty and predictability for investors making sunk long-lived investments where returns are recovered across future decades. Similarly, a binary decision to accept or reject a past value, with no underlying development of a consistent methodology would fail the goals of stability, predictability and transparency, undermining the promotion of the long-term interests of consumers in efficient network investment signals;
- In July 2022 the Independent Panel appointed to the previous Instrument review indicated that:

  This observation suggests it is critical that the AER complete, as soon as possible, an analysis of alternative methodologies for estimating beta including, but not limited, to use of international comparators. The Panel recommends that the AER details the nature of the research it proposes to conduct or commission both on the use of international companies as proxies for Australian regulated NSPs and on other methodologies.[98]

  The Panel also expressed a view that further analysis on the issues of the use of international comparators should ideally be undertaken prior to the final determination;
- In its final Explanatory Statement in its 2022 decision the AER indicated its plans to undertake further work in this area, noting that "*Our existing approach may not be sustainable, because only one of the 9 firms in our comparator set is still listed*".[99] The AER identified the need "*to develop a revised approach in the future*"[100] that is "*sufficiently reflective of contemporary market conditions.*"[101] Unfortunately, this work has not been substantively progressed prior to the 2026 review commencement. In July 2024, to provide the AER with further considerations around the issues involved and potential methodologies, ENA provided an updated Competition Economist Group report on beta issues, outlining potential methodologies, issues to be resolved and interim estimates;
- There are a range of challenges associated with the use of international beta evidence, but equally there are a range of standard practical approaches routinely adopted by other

[98] Independent Panel Report, 2022 Rate of Return Instrument, July 2022, p.40

[99] AER, February 2023, *Rate of Return Instrument: Explanatory statement*, p.179, p.192

[100] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

[101] AER, February 2023, *Rate of return instrument: Explanatory statement*, p.179.

Australian and international regulators facing the same absence of domestic comparators. Commercial practice in asset valuation processes and market transactions, which underpin multi-billion dollar financing and capital allocation decisions in competitive markets also provides a guide around the materiality and resolution of these challenges; and

- This is reflected in the relatively consistent range of beta estimates emerging from possible different samples including international firms. The stability and uniformity of these long-term estimates highlights that 'a priori' or principles-based theoretical academic estimates of beta which do not reflect market data do not offer additional robust information for the estimation task.
- The AER's current equity beta estimate of 0.6 is significantly lower than estimates produced by a range of alternative international samples, as well as estimates used in regulatory and commercial practice (See Section 4.7).

8.4 Capital expenditure weighted trailing average cost of debt

Energy network businesses support the implementation of a weighted trailing cost of debt approach. In this context:

- Network businesses consider that consistency with past AER debt transition assumptions, and a practical capacity to implement and hedge against a revised debt benchmark are essential features of a workable weighted average trailing model; and
- The illustrative alternative model proposed by the QTC more closely achieves both of these features, and can be commercially implemented by network businesses and populated by robust and relevant market data by the AER. The original illustrative model set out by the AER does not meet these conditions, as no accessible corporate bond markets or robust yield estimates exist for the short duration tenures assumed in the model (e.g. 1-4 year tenor corporate bonds).

8.5 Reintroduction of third-party data sources for debt yield estimation

Network businesses support RBA data being incorporated in future debt yield estimates via a straightforward extrapolation of the yield estimates published by the RBA, noting that a simple extrapolation method as discussed in Section 6 of this submission corrects an error in the methodology proposed in the AER *Discussion Paper*.